REDUCING ALCOHOL-RELATED HIV RISK IN KATUTURA, NAMIBIA

RESULTS FROM A MULTILEVEL INTERVENTION WITH BAR OWNERS, SERVERS, PATRONS, AND COMMUNITY MEMBERS

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Abstract
The AIDSTAR-One project is receiving funds by PEPFAR through U.S. Agency for International Development (USAID) to conduct a 2.5-year demonstration project in Namibia—a country with high HIV prevalence and heavy alcohol use. A growing body of epidemiological and social science research links alcohol consumption with the sexual behaviors that put people at risk for HIV and other sexually transmitted infections. Based on formative research, a multi-level intervention was designed and implemented to promote more risk averse bar environments and reduce alcohol-related harm in the community. The results of the monitoring and evaluation research are reported here.

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ACRONYMS

AIDSTAR-One	AIDS Support and Technical Assistance Resources, Sector I, Task Order 1
AIDS	Acquired Immunodeficiency Syndrome
AUDIT	Alcohol Use Disorder Identification Test
CAC	Community Action Committee
CDC	U.S. Centers for Disease Control and Prevention
CORD	Coalition on Responsible Drinking
DHS	Demographic and Health Surveys
HIV	Human Immunodeficiency Virus
ICRW	International Center for Research on Women
IDIs	In-Depth Interviews
FGDs	Focus Group Discussions
IPV	Intimate Partner Violence
MOHSS	Namibian Ministry of Health and Social Services
NGO	Non-Governmental Organization
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
SFH	Namibia Society for Family Health
TCE	Total Control of the Epidemic
TLS	Time Location Sampling
USAID	U.S. Agency for International Development

EXECUTIVE SUMMARY

A strong body of evidence shows that alcohol consumption is associated with the sexual behaviors that put people at risk for HIV and other sexually transmitted infections. The AIDSTAR-One project, with funding from the U.S. President's Emergency Plan for AIDS Relief, conducted a 3-year demonstration project in Namibia—a country with high HIV prevalence and heavy alcohol use. This project had two goals: reducing heavy drinking and reducing risky sexual behavior among bar patrons in a low-income neighborhood on the outskirts of Namibia's capital, Windhoek. This report describes how the intervention was implemented, monitored, and evaluated, and reports the final assessment results. It also offers key recommendations for future research and programming in this important area.

The demonstration project was undertaken in collaboration with a number of local partners, including the Namibian Ministry of Health and Social Services (MOHSS), the Society for Family Health (SFH), and Survey Warehouse. The project included two phases. Phase 1 focused on gathering and analyzing formative research data about the prevalence and socioeconomic context of alcohol consumption and HIV risk in the target community (results previously reported, see Gregowski, Garzon, and Fritz 2012). Phase 2 included intervention design, implementation, monitoring, and evaluation.

This report describes the results of Phase 2 and also offers key lessons learned and recommendations. The objectives of Phase 2 included:

1. Design and implement a 12-month, multilevel intervention program incorporating community- and bar-based approaches to reduce harmful alcohol use and risky sex associated with alcohol use;
2. Assess the feasibility and acceptability of implementing program activities with bar owners, patrons, community members, and leaders;
3. Measure the exposure of bar patrons to program activities;
4. Investigate early indications of program effect among bar patrons by analyzing trends over time between baseline and endline data and between groups "exposed" and "unexposed" to the program activities; and
5. Document key programmatic and methodological lessons learned from the implementation and evaluation process.

The intervention activities were designed by AIDSTAR-One and SFH, based on the formative research, and in consultation with community leaders, community members, and bar owners. The intervention program activities were coordinated by SFH. The final design of the pilot intervention included two main interlocking components: 1) mobilizing the community to address hazardous alcohol consumption and 2) creating risk-averse bar environments.

Methods for monitoring and evaluating the program included: event-level monitoring and attendance data for the community mobilization activities; 22 in-depth interviews and three focus group discussions with bar patrons, owners, staff, and other community members and leaders who

had participated in the program; and two rounds of quantitative survey data—prior to the intervention 500 bar patrons were recruited (from a sample of bars representative of the study area) and post-intervention 507 bar patrons were recruited from the 24 bars that had participated in the program.

Key findings from the evaluation include:

- **Binge drinking decreased** from 54 percent at baseline to 25 percent at endline. The decrease was similar among women and men ($p < .05$).
- **Patrons of bars with highest exposure to program activities consumed less alcohol per sitting** when compared to patrons of less-exposed bars: 4.1 standard drinks among the unexposed group, and 3.3 among the exposed ($p < .10$).
- **Women with highest exposure to program activities had lower rates of regular binge drinking** (2 percent compared to 18 percent; $p < .05$); among men, however, there was no statistically significant difference between the exposed and unexposed groups (36 percent and 34 percent, respectively).
- **Heavy-drinking bar patrons were more likely to be exposed to intervention activities and showed significantly *more favorable* outcomes with respect to sexual risk.** They were significantly ($p < .05$) more likely to have discussed condoms with a partner (87 percent compared to 72 percent); have obtained condoms (93 percent compared to 77percent); and refused to have sex without a condom (62 percent compared to 47 percent).
- **Results from partner-by-partner sexual behavior data are mixed and suggest that positive intentions toward safer sex may not yet have translated into safer sexual behaviors**, particularly with regard to having multiple sex partners and low rates of condom usage with regular partners. Reported condom use with casual sex partners is high across all subsamples.
- **Bar owners and staff found it feasible to implement changes to their bar environments and these shifts were noted by their customers**. Sixty-four percent of patrons report noticing educational materials about alcohol and HIV on display and 33 percent of the patrons noted shorter bar hours. Moreover, patrons from highly adherent bars were more likely to report favorable perceptions of safety and violence at the bar, suggesting that the program may have created more risk-averse environments.
- **Community mobilization activities were feasible and popular**. Community mobilizers conducted 77 events over the course of the project period, reaching over 750 community members, split almost equally between women and men.
- **Penetration and reach of the community mobilization events was effective**. Thirty-two percent of bar patrons indicated they had participated in one of the two most frequent community mobilization events (home visits and public meetings) and 56 percent reported they had heard of others participating in the mobilization activities.

The field of alcohol and HIV prevention programming is very much in its infancy. To date, the only scientifically proven programs in sub-Saharan Africa intervene at the level of the individual, with one-on-one or small group motivational counseling. Although encouraging, these programs have only been able to achieve short-term effects on individual drinking and HIV risk behavior. Programs

are urgently needed to address the community-level and bar-level dynamics that enable heavy drinking among individuals.

This project was able to demonstrate that it is feasible and acceptable to implement these strategies, and that bar owners and staff are willing partners capable of altering their bar environments and intervening when they identify high-risk drinking behaviors. Furthermore, both the survey and interview data indicate that community mobilization activities were taken up with enthusiasm, and achieved relatively high penetration in the community. Results from this small-scale and short-term program are promising, suggesting that community mobilization and delivery of prevention advice within the bar setting may motivate patrons to alter their attitudes and behaviors—both around the quantity of alcohol they consume as well as their intentions toward using and obtaining condoms. Although there is clearly much more work to be done and we did not observe consistent improvements in some key measures or average number of sex partners —such as condom use with regular sex partners—overall we are encouraged that several initial steps toward reducing alcohol-related HIV risk appear to have taken place, with the full support of community members and bar owners.

BACKGROUND

A strong body of evidence shows that alcohol consumption is associated with the sexual behaviors that put people at risk for HIV (Baliunas et al. 2010; Cain et al. 2012; Cook and Clark 2005; Fisher, Bang, and Kapiga 2007; Kalichman et al. 2007; Kiene et al. 2008; Zablotska et al. 2009). This scientific evidence justifies an urgent call to action. In countries where high HIV prevalence is accompanied by high rates of alcohol abuse, integrating alcohol harm-reduction within HIV prevention programs may reduce HIV transmission more quickly than conventional strategies alone.

Namibia is currently experiencing a severe, generalized HIV epidemic (UNAIDS 2010) and has high rates of harmful alcohol use (WHO 2011). Moreover, many parts of the country are characterized by high densities of drinking establishments. A recent study in southern Namibia found statistically significant associations between the density of drinking venues at the neighborhood level and HIV prevalence, particularly in areas with large numbers of unlicensed bars (Nichols, Nkalamo, and Whitcomb 2012). In light of this evidence, the country urgently needs HIV prevention programs that also promote safe and moderate use of alcohol.

From January 2010 to November 2012, AIDSTAR-One collaborated with the Namibia Ministry of Health (MOHSS) and the Namibia Society for Family Health (SFH) to design, implement, and evaluate a pilot demonstration project combining HIV and alcohol risk reduction strategies at the community and bar levels. The community chosen as the site for this project is a 4-square-kilometer neighborhood within a sprawling, low income and peri-urban area called Katutura, located on the outskirts of the city of Windhoek. Katutura is known nationally for its high concentration of informal, home-based bars (locally known as "shebeens"). Formative research conducted for this project revealed that home-based, unlicensed brewing and sale of alcohol were ubiquitous in large part because they were among the few sources of steady income for community members, many of whom had recently migrated to the city from rural areas. The study community contained 256 bars, predominantly unlicensed, within its small geographic area and there were no organizations or initiatives working to reduce alcohol abuse and promote safer drinking.

This demonstration project was part of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) Interagency Alcohol Initiative—a collaboration between the U.S. Centers for Disease Control and Prevention (CDC) and the U.S. Agency for International Development (USAID) offices in Namibia, the Namibian Ministry of Health and Social Services (MOHSS), the Namibia National Technical Advisory Committee on Prevention and its Alcohol-HIV Workgroup, and other nongovernmental stakeholders. The overall goal of the demonstration project was to develop and implement a multilevel intervention program to demonstrate how community- and environmental-level approaches can positively influence HIV risk behavior for individuals.

The demonstration project was undertaken in two phases (see timeline in Appendix A). Phase 1 focused on gathering and analyzing formative research data about the prevalence and socioeconomic context of alcohol consumption and HIV risk in the target community. Based on the formative research, Phase 2 focused on design and implementation of the program with monitoring and evaluation to document its successes and challenges. The activities and results of Phase 1 are described in the AIDSTAR-One report titled "Reducing Alcohol-related HIV Risk in Katutura,

Namibia: A multi-level intervention with bar owners, servers, patrons, and community members" (Gregowski, Garzon, and Fritz 2012).

In the current report, we describe the results of Phase 2, including how the intervention was implemented, monitored, and evaluated and the final assessment results. We also offer key recommendations for future research and programming in this important area.

OBJECTIVES

The overall objectives of Phase 2 of the demonstration program were to:

1. Design and implement a 12-month, multilevel intervention program incorporating community- and bar-based approaches to reduce harmful alcohol use and risky sex associated with alcohol use;
2. Assess the feasibility and acceptability of implementing program activities with bar owners, patrons, community members, and leaders;
3. Measure the exposure of bar patrons to program activities;
4. Investigate early indications of program effect among bar patrons by analyzing trends over time (between baseline and endline data) and between groups "exposed" and "unexposed" to the program activities; and
5. Document key programmatic and methodological lessons learned from the implementation and evaluation process.

INTERVENTION DESIGN AND IMPLEMENTATION

The intervention program activities were coordinated by staff of the Namibia Society for Family Health, including a part-time project director and full-time program coordinator. The intervention activities were designed by AIDSTAR-One and SFH and were based on formative research conducted during Phase 1 of the project. The intervention activities were also developed in consultation with community leaders, community members, and bar owners—a selection of whom participated in three program design workshops conducted in Katutura. Intervention manuals are included in Appendices 2 and 3. The final design of the pilot intervention included two main interlocking components: 1) mobilizing the community to address hazardous alcohol consumption; and 2) creating risk averse bar environments. We hypothesized that in tandem, these mobilization and bar-based activities could help reduce alcohol-related HIV risk among bar patrons in the project community by:

1. Reducing the quantity and frequency of alcohol use, especially the frequency of binge drinking;
2. Increasing knowledge about how HIV is transmitted and how alcohol may fuel HIV sexual risk;
3. Promoting sexual risk reduction behaviors such as avoiding sex while drunk, acquiring, discussing and using condoms, and limiting numbers of sex partners; and
4. Creating community and bar environments that encourage moderate alcohol use while discouraging violence and transactional sex.

COMPONENT 1: MOBILIZING THE COMMUNITY TO ADDRESS HAZARDOUS ALCOHOL CONSUMPTION

The purpose of the community mobilization component was to empower the community to reduce the heavy toll alcohol use has been taking on community health and well-being. Perhaps most importantly, the community mobilization component was designed to build a foundation for sustainable change that could outlive the project timeline. It included:

- Facilitating community members to critically examine the effect of alcohol consumption on the community's health and well-being;
- Building community members' capacity to advocate for their collective interests;
- Encouraging community members to strategize, develop, and carry out activities to address alcohol-related issues and other problems; and
- Assisting community members to make linkages with community leaders, nongovernmental organizations and other civil society groups to support the implementation of their plans.

The community mobilization component was facilitated through the formation of a "Community Action Committee" or CAC. This was a group of 15 concerned citizens and community leaders who met regularly to develop and execute plans to reduce the community-level harms caused by hazardous drinking. From its inception in October 2011, the CAC met at least monthly and its six-member executive committee met more often, as necessary.[1] To raise the credibility of the CAC among community members, SFH was careful to ensure inclusion of all levels of community leadership, from members of the local constituency councilor's office to leaders farther down the chain of command, including leaders from each of the nine administrative areas comprising the community. The local constituency councilor office played an instrumental role in supporting the establishment and good functioning of the CAC by offering conveniently located meeting space and ensuring radio announcements were made reminding people of the day, time, and place of the meetings.

In addition, the involvement of volunteer outreach workers was a crucial component of the community mobilization process. An initial group of four outreach volunteers, including one bar owner, was identified by SFH during the intervention design workshops and trained to circulate within the community to raise awareness about the formation of the CAC, its basic functions, and to invite participation. Additional outreach volunteers were later recruited by the CAC and were responsible for engaging in discussions with the public to raise awareness about the hazards of alcohol use and its link to various community-level harms including violence, ill health, economic problems for families, and HIV. The volunteers engaged in these discussions through door-to-door outreach and small group discussions in public venues. Outreach volunteers also went to bars to engage patrons in discussions and to help bar owners understand their responsibilities for reducing harm within their venues.

The exact content and form of the activities were left up to the CAC, but suggestions made by AIDSTAR-One and SFH included:

- Organizing community safety patrols that could help enforce bar closing hours;
- Advocating for bar owners to reduce advertisements for alcohol at their bars;
- Sponsoring edutainment activities in the community to raise awareness about alcohol, HIV, and alcohol-related HIV risk behaviors;
- Developing community recreation activities as alternatives to drinking; and
- Creating a neighborhood business association that could help community members develop alternative livelihoods to alcohol selling.

COMPONENT 2: CREATING RISK AVERSE BAR ENVIRONMENTS

Findings from the formative research data showed a clear need to reduce risks within the bar environment. Interviewees described bars as unsafe because patrons were vulnerable to hazardous drinking, risky sexual behavior, violence, and theft, with women especially vulnerable. Bar owners and employees did not see themselves as capable to address these risks. The demonstration

[1] The Executive Committee was elected by the CAC membership and included a chairperson, secretary, and treasurer as well as three people to serve as assistants to each of these individuals.

intervention was thus designed to improve bar staff's and owners' knowledge and skills in promoting safer levels of drinking and less sexual risk-taking among their clients. This included: 1) training bar owners and staff to serve alcohol more safely and to provide information to bar patrons on the hazards of excessive alcohol consumption and ways of reducing HIV risk, and 2) assisting bar owners to alter the physical attributes of their bars to make the space more conducive to moderate alcohol consumption and HIV risk reduction.

Recruitment: To recruit bar owners to participate in the pilot intervention, SFH and community outreach volunteers reached out to all bars that participated in the baseline survey of patrons. In addition, volunteers visited each of the community's eight administrative subsections to inform bar owners of the program and invite participation. Members of the CAC executive committee were also instrumental in informing bar owners who were members of their social networks to participate.

Training: Trainings of bar owners and staff took place in groups in order to provide a mechanism for bar owners to support each other, and to begin to recognize each other as colleagues rather than simply competitors. Together bar owners were encouraged to address common problems, including supporting each other's efforts to maintain specific hours of operation and seeking common solutions to crime. The trainings also brought bar owners into collaboration with the Community Action Committee so that the groups could share concerns and develop solutions. Some members of the CAC attended the trainings for bar owners and staff. In addition, all interested CAC members were provided with an abbreviated version of the bar owners' training program. Through this cross-training, community members and alcohol traders gained similar knowledge and skills, thus encouraging them to collaborate in creating safer bar environments and safer community environments. The training included six sessions delivered over a 2-week period. Two facilitators trained a group of 10 people during each session. The sessions were conducted using a participatory approach designed to build a sense of community. The session topics included information about:

1. The Liquor Act No. 6 of 1998 – Although the vast majority of bar owners in the study community do not have licenses, it is nevertheless important that they understand what is necessary to become licensed and the regulations placed on licensed sellers. Many unlicensed bar owners may not have access to this information and through the intervention period they were encouraged to become licensed.
2. Alcohol Use and Abuse in Namibia – During the formative research, many participants mentioned the community-level effects of alcohol abuse. This session provided bar owners with more information about this topic and assisted them in understanding their role as alcohol sellers in reducing the impact of alcohol. This session explored the relationship between alcohol and:
   - Crime
   - Domestic violence
   - Road accidents
   - Mental health
3. Alcohol Related Health Issues – Although bar owners sell alcohol, they may not understand how alcohol impacts the body. This session was designed to increase bar owners' knowledge about the health impacts of alcohol, including:

- Loss of coordination and judgment
- Damage to the liver, heart, or brain
- Loss of appetite and malnutrition
- Blackouts (loss of memory)
- Hangovers (nausea, headache)
- Increased vulnerability to violence

4. HIV/AIDS Related Issues – The purpose of this session was to improve bar owners' knowledge about HIV/AIDS and alcohol, and to help them practice talking about these issues with their patrons. In addition to the health risks presented above, bar owners learned about alcohol-related HIV risk behaviors including:
   - Multiple partners relationships
   - Incorrect or non-use of condoms
   - Sexual violence
5. Creating a Safer Bar Environment – The purpose of this session was to provide bar owners with the knowledge and skills to safely serve their patrons and create a safer bar environment. Some aspects that can make a bar risky include being poorly lit inside and out, having rooms available for transactional sex, having only alcohol beverages for sale, and staying open very late at night. This session was designed to help bar owners to understand how to make their bars safer for themselves, for their patrons, and for the community. Bar owners learned about the importance of:
   - Not serving intoxicated persons and offering food, water, and other beverages;
   - Eliminating sales to minors;
   - Providing a secure environment for their patrons;
   - Understanding how the body processes alcohol (including how quickly men and women become intoxicated and the maximum number of drinks to serve);
   - Developing strategies to ensure that condoms are always available (due to unavailability of female condoms in Namibia at the time of this project, only male condoms were distributed);
   - Assessing the products that they sell (e.g., adding the sale of nonalcoholic beverages and food in addition to alcohol);
   - Replacing or augmenting alcohol advertisements with information about hazardous alcohol consumption and HIV risk reduction; and
   - Observing opening and closing hours, as stipulated by the liquor act, or shortening hours by opening later and closing earlier.
6. How to Prepare a Business Plan and Bookkeeping – The purpose of this session was to encourage bar owners to think of their bars as legitimate businesses and thus run them with

respect for their patrons and the community. The formative research showed that bars are ubiquitous in the community because selling alcohol, although it does not produce great amounts of revenue, does provide a reliable income that is seen as the most lucrative business available to residents. Those selling alcohol often do so because they lack the skills, training, or capital to do anything else. This session gave bar owners the opportunity to reconsider what type of business they would really like to have, or what is required to improve their current business and covered the following topics:

- Developing the mission, values, objectives of a business
- SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis
- Developing a management plan
- Definition of terms: assets and liabilities, profit and losses
- General business expenses
- Sales revenue
- Restocking

Mentorship and Coaching: Ongoing mentorship and coaching was provided to bar owners after they completed the training. Each bar was visited three times by SFH staff to support bar owners to use the skills that they learned in the training sessions. Bar owners and staff were also encouraged to join and play an active part in the CAC.

METHODS FOR MONITORING AND EVALUATION

DATA COLLECTION

Multiple methods were used to monitor and evaluate the intervention program: qualitative data collected at endline; quantitative survey data collected at baseline and endline; and monitoring data collected throughout the implementation period. The research protocol was reviewed and approved by the Institutional Review Boards of the International Center for Research on Women (ICRW) and the Namibian MOHSS.[2]

QUANTITATIVE DATA

Overview

The baseline survey was conducted in May/June 2010. The endline survey was conducted in July/August 2012, at the conclusion of the intervention. The baseline and endline surveys were mostly identical, and included the following sections: background (socioeconomic characteristics and partnership status); alcohol (consumption habits, intentions, and attitudes regarding the effects of alcohol); detailed sexual history over the previous six months (including number of sex partners, type of sex partners, frequency of protected and unprotected sex, and frequency of sex while intoxicated); attitudes toward condom use and risk reduction behaviors (e.g., refusing sex without a condom); experience of transactional sex; experience of intimate partner violence (IPV) and interpersonal violence; HIV knowledge; and a section on perceptions of the bar environment where the participant was recruited.[3] In addition, the endline survey included measures of bar patrons' exposure to the intervention. The exposure questions were designed in consultation with SFH, and targeted the full range of intervention activities implemented under the demonstration project. The endline survey is included in Appendix D.

Sampling

Time location sampling (TLS) was used for both the baseline and the endline surveys, as this method is recommended when no complete census of the target population exists and large numbers of the target population can be reached at discrete sites. The method is based on random assignment of venues, days, and recruitment time periods, and has been found to be an effective strategy for obtaining a representative sample of the target population in numerous HIV-related studies around the world, including in bar environments in sub-Saharan Africa (Raymond et al. 2010; Fritz et al. 2011). At baseline, all bars located in the study community were enumerated (n=256) and slotted in random order into a monthly calendar of "recruitment events," which lasted from 10 a.m. to 5 p.m. Visits were timed such that 30 percent of visits occurred during off-peak

[2] The original research protocol was reviewed and approved by the ICRW's Institutional Review Board on April 26, 2010, and the Namibian MOHSS on May 26, 2010. A revised protocol was resubmitted for the endline data collection, and approved by ICRWs IRB and the MOHSS in June 2012.

[3] See the Formative Report (Gregowski, Garzon, and Fritz 2012) for details on the survey development.

periods and 70 percent occurred during peak periods.[4] Recruitment visits continued until the sample size of 500 patrons was reached. The baseline sample is thus representative of all patrons attending bars in the study community. The endline survey followed the same TLS procedures, however, in contrast to the baseline, it included only the 24 bars that participated in the intervention program. Endline respondents are representative of all patrons from these 24 bars.

Out of the 24 bars sampled at endline, only three had previously participated in the baseline survey. This is likely due to a range of factors—most notably that, in the interim between the baseline survey and the intervention start date (approximately 1 year), several of the bars had already closed down. The study community is characterized by frequent opening and closures of bars (and other small businesses), as people will often open a business to address a short-term economic need and then close once the crisis is over. Given that participation in the intervention program was purely voluntary, some bar owners simply opted not to participate. According to SFH, some bar owners expressed concern that the program could alienate customers, or that they lacked the time to participate in the training workshops.

Survey Participant Recruitment

During the specified survey recruitment period, each survey team traveled to their designated bar and requested permission from the bar owner to conduct the interviews. Once permission was granted, the survey team introduced the study and identified potential participants as specified by the selection criteria.[5] Patrons who met the selection criteria were invited to participate and, if voluntary informed consent was granted, the interviewer and participant then moved to a safe, private location near the bar for the interview.[6] Compensation was given to interviewees in the form of cellular airtime (10 Namibian dollars at baseline, and 20 at endline, approximately U.S.$1.33 and U.S.$2.29, respectively). The resulting sample is summarized in Table 1. The survey team kept daily records of participant eligibility and achieved a relatively high participation rate for both surveys.[7]

Table 1. Baseline and Endline Survey Samples

Time Period	Bars Sampled	Patrons Sampled		
		Total	Men	Women
Baseline	43: randomly selected from all (N = 256) bars in study area	500	301	199
Endline	24: all bars that participated in demonstration project	507	258	249

[4] "Peak periods" were those with the heaviest bar traffic and included Friday evenings, Saturdays, and Sundays. "Off-peak" periods were those with slow to moderate patronage and included Tuesdays to Thursdays. Peak and off-peak periods were established through direct observation of bars prior to the baseline survey.

[5] To be eligible to participate, the bar patron had to: be over 18 years of age, able to give informed consent (e.g., not intoxicated or mentally disabled), a resident of the target community, and a "regular" customer of the bars, defined as having visited the bar at least three times per month for the previous six months.

[6] The survey was administered either in Oshiwambo or Afrikaans, depending on the preference of the participant.

[7] Over the course of the endline fieldwork, 519 were eligible, and 507 agreed to participate, yielding a 98 percent participation rate. The participation rate at baseline was 88 percent (500 participants out of 570 eligible patrons).

QUALITATIVE DATA

Overview

From June to August 2012, SFH carried out qualitative data collection, including in-depth interviews (IDIs) and focus group discussions (FGDs). The aim of the qualitative research was to document the perspectives of various program stakeholders, including bar owners, bar staff, bar patrons, members of the CAC, community mobilization volunteers, and community leaders. The qualitative guides were developed by the AIDSTAR-One team, with input from SFH, and focused on the following themes:

- Frequency of community mobilization events and the key messages disseminated
- Range of bar-based activities conducted under the program, and resulting changes in serving practices and/or the overall bar environment
- Individual experiences participating in the program, including achievements and challenges
- Perceptions of any positive changes that have emerged from the program, as well as the perceived barriers to achieving greater results.

Sampling and Participant Recruitment

Participating bars were used as the venue for recruitment for the IDIs with bar owners, bar staff, and bar patrons. All CAC members and community mobilization volunteers were invited to participate in research, and FGDs with these groups were scheduled in advance. Selection of the community leaders for IDIs was based on level of awareness, interest, and collaboration with the project. The total sample is summarized in Table 2.[8]

Table 2. Qualitative Sample

Respondent Group	Method	Total # Participants	Men	Women
CAC members	FGD (1)	7	0	7
CAC executive committee	FGD (1)	2	0	2
Community mobilizer volunteers	FGD (1)	7	0	7
Community leaders	IDI	3	3	0
Participating bar owners	IDI	8	4	4
Participating bar staff	IDI	3	1	2
Bar patrons (at participating bars)	IDI	8	6	2

PROGRAM MONITORING

The project monitoring system was developed to provide SFH with a detailed account of community mobilization activities (including challenges and accomplishments) and to ensure quality control and support of the community mobilizers. Monitoring forms are included in Appendix E.

[8] All participants were over the age of 18 and residents of the project community. Informed consent was obtained before commencing the interview or FGD.

The event report form and attendance registers were completed by mobilizer volunteers, and submitted to SFH on a monthly basis.

DATA ANALYSIS

QUANTITATIVE DATA

We utilized several analytic techniques to measure patrons' exposure to the two intervention components and investigate early indications of program effect across the domains we hypothesized may be influenced by the project: alcohol use, sexual behaviors, HIV knowledge, and perceptions of the bar environment (see Appendix F for a summary of outcome measures associated with each domain). The analysis involved the following steps:

1. Summarizing the socioeconomic and demographic characteristics of the baseline and endline survey respondents using descriptive statistics, and conducting significance testing to determine the equivalency of the two samples;
2. Analyzing data on exposure to intervention activities to assess the intensity and reach of the intervention, and whether exposure was consistent across male and female patrons;
3. Comparing the two cross-sectional samples to analyze patterns in our key outcome measures over time (e.g., between baseline and endline); and
4. Conducting a post-intervention analysis to compare outcomes across endline participants with high and low exposure to the bar-based intervention. Exposure categories were determined through the analysis conducted under Step Two above, and were ultimately defined as follows:
   - High exposure – bar level: Patrons of the nine bars characterized as "highly adherent" to the intervention, evidenced by over 40 percent of patrons observing intervention activities in the bar and over 30 percent of patrons directly reached by the intervention
   - High exposure - individual level: Individuals reporting that they have experienced two or more interpersonal interventions by bar staff over the last six months.

Data cleaning was completed in collaboration with Survey Warehouse, and the analysis was conducted by the AIDSTAR-One team using statistical software (Stata 11: StataCorp. 2009. *Stata Statistical Software: Release 11*. College Station, TX: StataCorp LP).

QUALITATIVE DATA

With the consent of participants, interviews and focus groups were audio recorded and then simultaneously translated and transcribed into English by SFH (all participants agreed to the audio recordings). Subsequently, the AIDSTAR-One team manually coded the transcripts using a priori themes (based on the key research questions) as well as new concepts that emerged during the analysis process. Findings suggesting changes within the broader landscape of the study community were prioritized as a complement to the quantitative survey, which focused on measuring individual knowledge, attitudes, and behaviors. In addition, the analysis focused on the motivations and experiences of bar-level implementers (e.g., owners and staff) and the community mobilization volunteers in order to capture key insights from the implementation process and inform future programming.

MONITORING DATA

The monitoring data were collected and analyzed by SFH, and synthesized for the AIDSTAR-One team in the form of progress reports.

FINDINGS

PRE-POST TREND ANALYSIS

The trend analysis involved examining patterns over time to assess whether any positive shifts had occurred among surveyed bar patrons in outcomes hypothesized to be influenced by the program, and, if so, in what domains. Trends were examined across the total sample and stratified by sex; results are discussed below and data are presented in Appendices 7A and B. All results are statistically significant at the $p < .05$ level unless otherwise noted.[9] Note that the data are comprised of two cross-sectional samples (i.e., different respondents were interviewed at the two time points). Endline participants were recruited at the 24 bars that participated in the program, only three of which had also been part of the baseline survey. Although the lack of a control group prevents us from adjusting for possible selection bias, based on our knowledge of the study community and the results of socioeconomic and demographic equivalency tests (presented below), we are reasonably confident that the samples are comparable for the purpose of assessing general trends over time (study limitations are further discussed in the Limitations section of this report).

Overall, patterns of alcohol use continue to reflect high levels of alcohol consumption and alcohol dependency. There are some signs, however, that alcohol-related outcomes are more favorable at endline, as indicated by lower levels of binge drinking and fewer standard units of alcohol consumed on average. Results of the sexual risk attitudes and sexual behavior measures are fairly consistent, and demonstrate that risk factors —such as low condom usage with regular partners and high rates of intoxication when having sex with casual partners—occur frequently within the study community. Finally, we look at perceptions of the bar environment, and note that endline survey respondents are significantly more likely to report that transactional sex, violence, and intoxication occur infrequently as compared to the baseline sample.

SOCIOECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

As expected given that the community is relatively homogenous, the baseline and endline samples are remarkably similar on socioeconomic and demographic variables. Throughout the study period, the community remained an informal settlement characterized by poor infrastructure, few economic opportunities, inadequate government services, and limited presence of civil society organizations. Overall, fewer than 36 percent of respondents (both baseline and endline) reported having salaried employment, with no statistically significant difference between the samples. For women these proportions are even lower, around 27 percent.

Some trends observed between baseline and endline, however, offer signs that the economic environment may be improving. Mean levels of income received in the month prior to the survey increase sharply between baseline and endline (from U.S.$139 to U.S.$262), which is statistically significant, although men largely drive these gains as they continue to receive substantially more

[9] Throughout the analysis, t-tests were used to test for statistic differences in all binary or continuous variables, whereas chi square tests were used for categorical variables. Results in this report are considered to be statistically significant at the $p < .05$. For some sub-analyses limited by small sample sizes we also report on statistically significant findings at the $p < .10$ level, as noted in the text.

income than women.[10] Although the proportion of the sample with at least a primary education is relatively high and unchanged between the two surveys, higher levels of education beyond the secondary level are found across the endline sample, although it is important to note that absolute levels remain low (about 9 percent of men and 5 percent of women at endline have obtained education beyond the secondary level).

On average study participants are relatively young men and women (mean age between 30 and 32) who are unmarried but in a relationship, with larger proportions in partnerships at endline (from 66 percent to 72 percent). The proportion of sexually active respondents in the six months prior to the survey is high (from 85 percent to 86 percent) and relatively consistent across the subsamples.

PATTERNS OF ALCOHOL USE

The survey asked a range of questions to understand various patterns of alcohol use, including frequency and quantity of alcohol consumed, type of alcohol consumed, intentions around the use of alcohol, and motivations for drinking. Our analysis prioritized measures most directly linked to HIV risk and targeted by the intervention: level of alcohol dependency, rates of binge drinking; average quantities of alcohol consumed; and intentions around alcohol use. For a more comprehensive analysis of motivations for drinking and perceptions of alcohol in the study area (see Gregowski, Garzon and Fritz 2012).

The vast majority of both the baseline and endline sample are regular drinkers, with only a small percent of respondents indicating that they have not drunk alcohol in the past 12 months: 17 percent at baseline and 13 percent at endline. This finding is expected, given that survey respondents were recruited at local bars.[11] Although beer continues to be the most common type of alcohol consumed at both time points (nearly 90 percent and 84 percent at baseline and endline, respectively), it is interesting to note that, within the baseline sample, *homebrew*[12] is consumed more frequently at baseline (41 percent compared to only 22 percent at endline).

Despite the sustained prevalence of alcohol use across the samples, there are several promising indications that levels of alcohol dependency and binge drinking may have decreased over time (see Table 3; complete results shown in Appendix G). First there is a statistically significant decrease in the Alcohol Use Disorder Identification Test (AUDIT) score, an international alcohol dependency scale that has been adapted for use in various settings. The AUDIT score takes into account frequency, quantity, and signs of alcohol dependency (e.g., failing to do what is normally expected due to alcohol, experiencing memory lapses after drinking, being approached by a friend or relative about a potential drinking problem) in order to measure levels of hazardous drinking and alcohol dependency.[13] Mean scores range from a high of 11.6 (men at baseline) to a low of 7.9 (women at endline) out of a possible score of 40. It is noteworthy that all AUDIT scores (except for women at endline) are above the World Health Organization (WHO) threshold of 8, indicating "hazardous"

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[10] Note that the survey asked about income received from any source (e.g., from family, grants, etc.) rather than strictly earned income. As a point of comparison, average GDP per capita in Namibia was U.S.$7,500 in 2011, according to the CIA World Factbook (https://www.cia.gov/library/publications/the-world-factbook/geos/wa.html).

[11] Although relatively uncommon, non-drinkers also frequent bars in the area to watch television, meet with friends, or purchase food items (where available).

[12] Homebrewed alcohol in this region is typically made from yeast, sugar, and maize flour (LeBeau and Yoder 2009).

[13] For more information on the AUDIT tool, see Babor et al. 2001.

levels of alcohol consumption. Nonetheless, overall scores declined from an average of 10.8 at baseline to 9.0 at endline, and this pattern holds for the sex-disaggregated analysis as well.

Patterns also indicate a decrease in the prevalence of binge drinking over time. At baseline, 54 percent of respondents report regular binge drinking over the past year.[14] The percentage dropped dramatically to 25 percent at endline, with similarly impressive declines observed for men and women. Moreover, further analysis of the distribution of binge drinkers by bar suggests that a "bar level" culture of binge drinking—observed in the baseline sample—may be starting to change. In the baseline, survey data indicate six bars had a predominant pattern of binge drinking, with over 75 percent of patrons reporting doing so regularly. In the endline sample, however, not a single bar exhibited such a high concentration of binge drinkers. In fact, the trend was reversed: over 75 percent of patrons at 15 bars at endline (out of the 24 sampled) were not regular binge drinkers, and in five of these bars 100 percent of patrons surveyed were not regular binge drinkers.

Given that the two subsamples are not strictly comparable (as discussed above), we cannot decipher the extent to which this pattern reflects an influence of the intervention versus a selection bias whereby bars that opted to participate in the program were already less likely to be patronized by binge drinkers. However, the same pattern exists when restricting the analysis to the three bars included in both surveys (n = 87 patrons: 33 at baseline and 54 at endline). At baseline, patrons were relatively equally distributed between binge drinkers and non-binge drinkers; however, by endline, over 80 percent of patrons from the three matched bars were not regular binge drinkers. It is possible that a variety of factors contributed to these trends, including the program as well as external factors, such as the heightened police presence that occurred toward the latter part of the intervention period when the government began enforcing laws prohibiting the unlicensed sale of alcohol. Moreover, the increased consumption of bottled beer at endline may also have depressed rates of binge drinking, given that bottled beer is more expensive than homebrewed alcohol.

No significant difference was found in alcohol intentions—measured by agreement with the following two statements: "I intend to have less than five drinks every time I drink" and "I have complete control over drinking less than five." It is important to note, however, that intentions were already favorable at baseline (75 percent agreement with *intending* to drink less than 5 and 84 percent agreement with *having control* over drinking less than 5).

Table 3. Pre–Post Analysis of Alcohol Measures (total sample, men, and women)

Measures (percent unless specified)	Pre (Total) n = 500	Post (Total) n = 507	Pre (Men) n = 301	Post (Men) n = 258	Pre (Women) n = 199	Post (Women) n = 249
Did not drink (last 12 mo)	17%	13%*	16%	12%	19%	15%
Reports regular binge drinking (last 12 mo)	54%	25%**	66%	35%**	36%	14%**
Average standard units consumed when drinking	4.2	3.8	4.5	3.8**	3.7	3.9
Agree: intend to drink <5 each drinking occasion	75%	74%	72%	73%	81%	75%

[14] Binge drinking is defined as having six or more drinks on one occasion. For the study we define "regular" binge drinking as consuming six or more at least twice a month over the last year.

Agree: has complete control over drinking <5	86%	86%	86%	87%	86%	85%

One star (*) denotes significance at p < .10; two stars (**) denotes significance at the p < .05 level.

SEXUAL RISK INTENTIONS

The trend analysis did not reveal many significant differences (positive or otherwise) across the sexual risk measures. Attitudes toward condom use during casual sex reflect a high awareness of sexual risk and positive intentions to minimize these risks across baseline and endline: more than 90 percent of patrons from all subsamples agreed with the statement "I always intend to use a condom with a casual sex partner." Similarly, survey data regarding risk reduction behaviors—such as discussing condom use with a partner or obtaining condoms in the last six months—are relatively consistent over time, with the vast majority of respondents indicating adherence to these positive behaviors. It is interesting to note, however, that endline participants were over two times more likely to report obtaining condoms from the bar where they were recruited (50 percent compared to 23 percent).

Sexual Behaviors

The survey included a detailed sexual behavior section, which asked participants for partner-by-partner information, such as the frequency of sex with each partner,[15] condom use, and whether they were drunk the last time they had sex (sex partners were categorized as: spouse, boyfriend/girlfriend, or casual partner/one night stand).[16] The positive attitudes toward risk reduction described above are also supported by the partner-by-partner data, which indicate a high percentage of condom use with casual partners. Condoms were used for an average of 94 percent (baseline) and 92 percent (endline) of sexual episodes with casual partners/one night stands (see Appendix H). However, the data also reflect extremely low condom use with spouses, and trends suggest that protected sex with spouses has decreased substantially over time, from using a condom for 25 percent (on average) of sexual episodes with a spouse across the baseline sample, to only 7 percent across the endline sample. Frequency of protected sex with girlfriends and boyfriends is much higher but also decreased over time, especially for men. On average, men in the baseline sample report condom use for 73 percent of sex episodes with girlfriends; however, this drops to 58 percent at endline. Average number of sex partners is relatively consistent over time. Note, however, that men reported higher numbers of sex partners compared to women: 1.5 to 1.6 sex partners in the last six months (baseline and endline, respectively), compared to an average of 1.1 partners among women.

Results from the analysis of drunk at last sex are mixed. For casual partners or a one-night stand, we observe a *negative* shift, with a 49 percent rate of intoxication at last sex with this type of partner at baseline to 57 percent at endline (statistically significant at the p < .10 level). On the other hand, reported levels of being drunk at last sex with boyfriends and girlfriends shifts in a *positive* direction, from 28 percent to 19 percent at endline. Overall, the partner-by-partner data are aligned with results from other studies from the region, which find that although condom use is high with casual sex partners, these protective behaviors typically do not extend to regular sex partners. Coupled with

[15] Participants reporting over 400 episodes of sex with a single partner (over 6 months) were dropped for the frequency of sex analysis (n=11).

[16] While the survey included an option for commercial sex partners, only 8 participants (all men) mentioned sex workers when responding to the sexual behavior questions. Given the small sample size, we have not included these data in our analysis.

relatively high reported rates of being drunk at last sex across all partner types except spouses, the sexual history data underscore that HIV risk, and alcohol-related HIV risk in particular, remains a serious concern in the study area.

HIV Knowledge

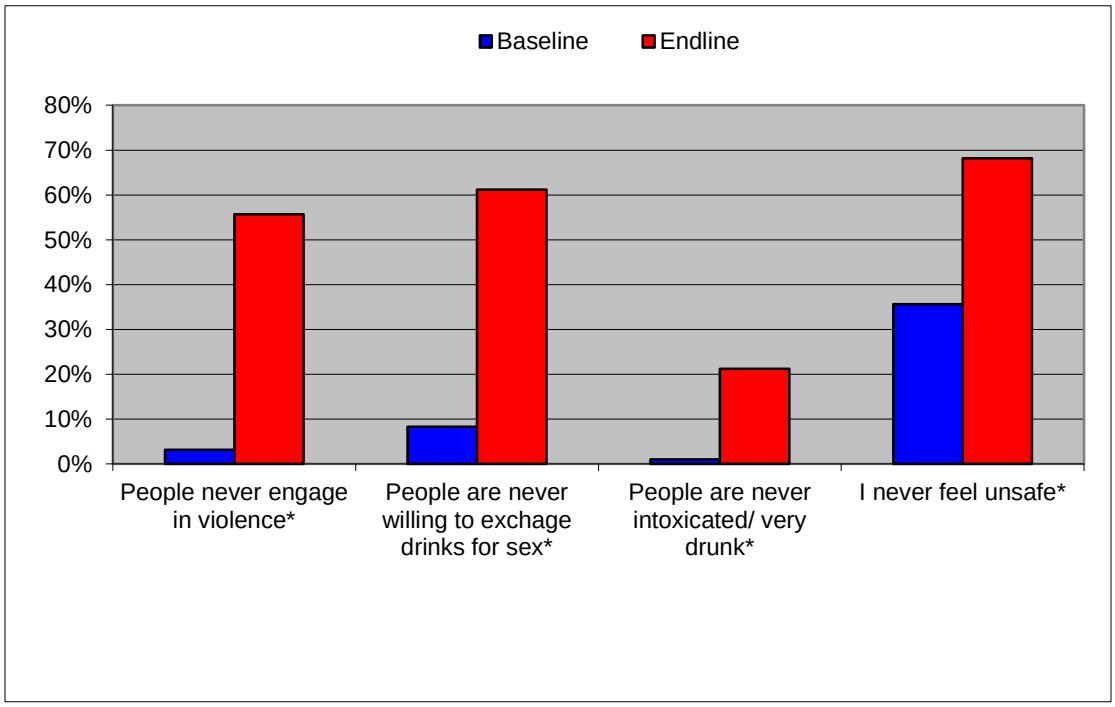
HIV knowledge was measured by a series of 11 HIV-related questions to which participants were asked to reply "yes," "no," or "don't know." These questions were used to create a single HIV-knowledge index, which calculates the total percentage of correct answers out of the questions for which answers were provided. Overall, results indicate fairly accurate perceptions and basic HIV knowledge, with a mean of about 76 percent in the knowledge index across both the baseline and endline sample. It is also encouraging that for the question narrowly focused on alcohol and HIV ("Can drinking alcohol lead to HIV risk behavior?") a higher proportion of endline participants correctly responded "yes" when compared to baseline—from 84 percent to 89 percent. Note, however, that when the questions were analyzed discretely in the previous report, several important exceptions were observed (see Gregowski, Garzon, and Fritz 2012).

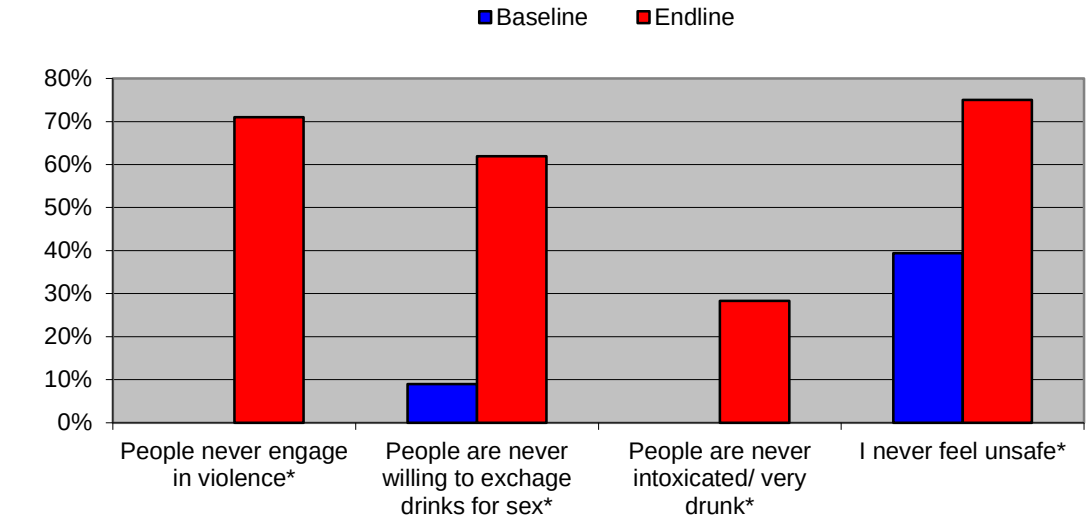
Perceptions of the Bar Environment

Survey respondents were asked a series of questions about how they perceived the bar environment where they were recruited, including questions about the frequency of transactional sex, violence, and intoxication; and perception of physical safety (available options were "never," "seldom/sometimes," "often," and "always"). Across these questions, results consistently demonstrate a marked shift toward more positive perceptions of the bar environment at endline, with substantially greater proportions of participants reporting that these high-risk behaviors "never" happen (see Figure 1A). For example, at baseline only 8.2 percent of participants stated that there are never people willing to exchange drinks for sex, whereas the proportion at endline was 61 percent. Similarly, respondents indicating that people never engage in violence at the bar where they were recruited increased from 3.2 percent to 56 percent.

Given the selection bias issue described earlier, caution is warranted when interpreting these trends. However, the possibility that these data reflect a real improvement in community perceptions of the bar environment is bolstered by the magnitude of the differences, as well as because the same patterns are observed when restricting the analysis to the three bars included in both samples (see Figure 1B, n = 87; 33 at baseline and 54 at endline).

Figure 1A and B. Perceptions of Bar Environment—Total Sample (*above*) & Patrons of Three Matched Bars (*below*)





* Denotes difference between men and women is statistically significant ($p < .05$ level).

Violence and Other Negative Effects of Alcohol

The findings brought to light through the formative research (Gregowski, Garzon, and Fritz 2012) indicate the extent to which alcohol is perceived as a major problem in the study community, connected to other serious social and public health issues. The current analysis echoes many of these

concerns. For example, survey data reflect the extent to which limited resources are directed toward alcohol instead of food and other household necessities, a trend that appears to have increased over time from an average of 14 percent of monthly income spent on alcohol at baseline to 16 percent at endline. This shift may be due, in part, to an increase in alcohol prices and the increased prevalence of drinking bottled beer among endline bars as compared with baseline bars.

Moreover, the high prevalence of violence and transactional sex indicate that several negative outcomes associated with both alcohol misuse and HIV risk—first observed at baseline—remain present in the study community. Over one-third of respondents across the samples indicated they had exchanged sex for money in their lifetimes (39 percent baseline and 37 percent endline). In addition, the data on experiencing violence (women) and perpetrating violence (men) reflect a continuing culture of violence: 38 percent (baseline) and 42 percent (endline) of women surveyed report experiencing physical or sexual violence. Over a quarter of men surveyed at baseline report perpetrating sexual or physical violence against an intimate partner, and these estimates increase at endline to over 35 percent. Our data does not explore intimate partner violence in depth, as the program did not explicitly address violence prevention.

PROGRAM EXPOSURE

The endline survey of bar patrons included a section on program exposure, enabling us to assess the overall intensity of the intervention and determine what project activities were implemented more and less frequently. Respondents were asked to indicate whether they had experienced any of the following over the past six months: *directly* experienced any of seven interpersonal interventions implemented by participating bars (see Box 1) or *observed others* in the bar receiving these interventions. In addition, respondents were asked if they had noticed any changes to the bar environment over the past year. For all bar-based activities, survey respondents were asked to respond based on their experiences at the bar where they were recruited. Finally, the survey included questions about participating in and hearing about community mobilization events, including public meetings, home visits, patrolling of bars, and watching informational videos in public. At the time of survey development, the team was not yet aware that videos and patrolling activities had not taken place, and these items were included in the survey despite never being implemented under the program. As a result, responses to these questions can serve as "false positives," and help to assess the validity of the exposure data.

Results indicate relatively high exposure to the program (see Figures 2 and 3) across the endline sample. The proportion of respondents who

Box 1: Bar Based Intervention Activities

Interpersonal Interventions by Bar Owners/Servers:

- Discussing the hazards of heavy drinking with customers
- Providing general information about HIV and its link to heavy alcohol use
- Advising customers on how to prevent HIV
- Recommending customers stop drinking before they reach intoxication
- Recommending customers eat before continuing to drink alcohol
- Recommending customers drink water before continuing to drink alcohol
- Refusing to sell more alcohol to an intoxicated customer.

Environmental Changes:

- Enforcing regular hours, thus reducing total hours of operation
- Selling food options and/or preparing food onsite
- Selling nonalcoholic beverages
- Ensuring condoms are available to customers
- Displaying posters on alcohol-related HIV risk in the bar
- Displaying educational materials in the bar.

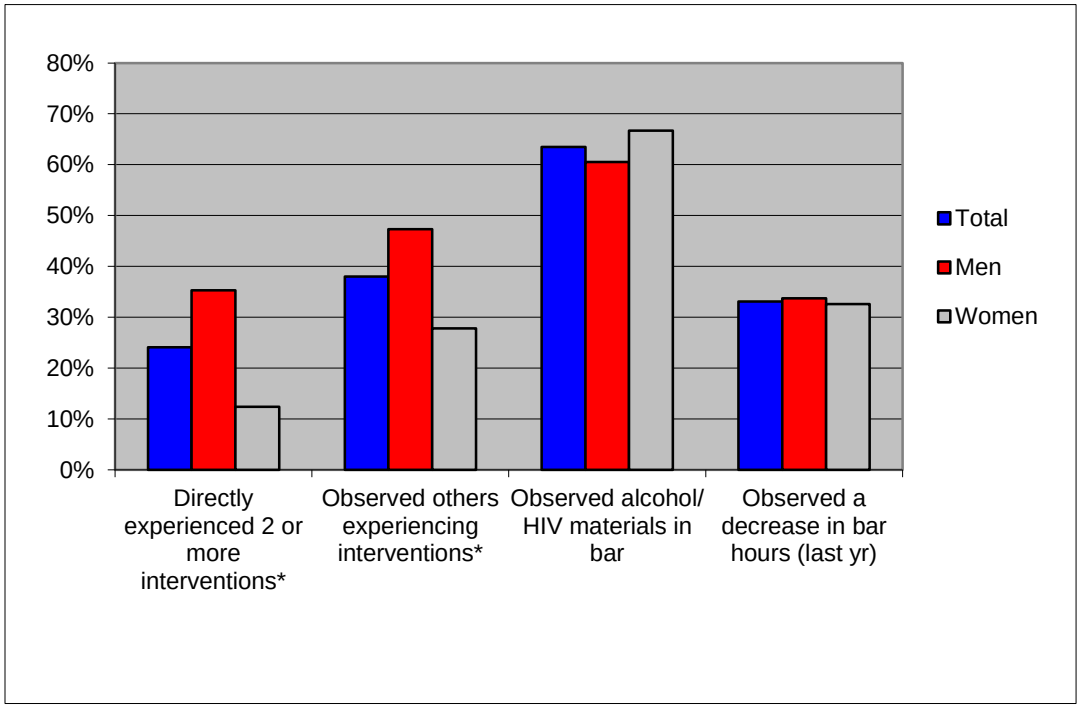
reported directly experiencing two or more of the interpersonal interventions over the last six months (24 percent) is higher than expected given that bar owners often expressed concern that talking to patrons about alcohol abuse may jeopardize their client base.[17] Among the seven interventions included in the survey, the most commonly reported action was suggesting that customers drink water prior to consuming more alcohol (30 percent of the endline sample report personally being given this recommendation by bar staff in the last six months). About a quarter of the sample indicate that bar staff spoke to them about the hazards of heavy drinking (25 percent), alcohol and HIV risk (26 percent), or HIV prevention more generally (26 percent). Recommending that customers stop drinking, or actively refusing to sell alcohol was the least common intervention activity, reported by 16 percent and 17 percent of patrons, respectively. It is also noteworthy that men were much more likely to report experiencing two or more interventions than women (35 percent compared to 12 percent). This is likely because these actions, such as refusing to sell alcohol or recommending that a customer drink water before continuing to drink, are often triggered by high-risk behavior, and men in the study area drink more heavily than women (as shown in the pre-post analysis).

Data also suggest that bar staff were able to implement several changes to their bar environment and that these shifts were noted by their customers. Sixty-four percent of patrons report noticing educational materials—such as posters about HIV and drinking—in the last six months. Moreover, exposure to a decrease in operating hours was also higher than expected: 33 percent of the patrons noted shorter hours. Although only 15 percent of patrons report an increase in condom availability at bars over the last year, trend data suggest a marked increase in actually *obtaining* condoms from bars. As noted above, at baseline, 23 percent of patrons indicate they had obtained condoms from the bar where they were recruited (within the six months prior to the survey); that proportion increased to nearly 50 percent at endline. Increases in the sale of food and non-alcoholic beverages over the last year were noted by only a small minority of patrons (13 percent and 14 percent, respectively).

Out of the 24 participating bars, 9 (37 percent) can be considered "highly adherent" to the program given that over 40 percent of their patrons report observing intervention activities and over 30 percent of their patrons report directly experiencing interpersonal interventions by bar staff. Survey data also indicate that many of these same bars were more likely to have made changes to the bar environment, such as reducing hours or increasing the availability of condoms, food, and nonalcoholic beverages over the last year, supporting the assessment that these nine establishments were highly adherent.

[17] As a point of comparison, a randomized-controlled trial of an 18-month HIV and alcohol risk reduction intervention in beer halls in Zimbabwe found rates of exposure to prevention activities ranging from 5 percent to 38 percent within the intervention group (Fritz et al. 2011).

Figure 2. Exposure to Bar-Based Intervention Component over the Last Six Months

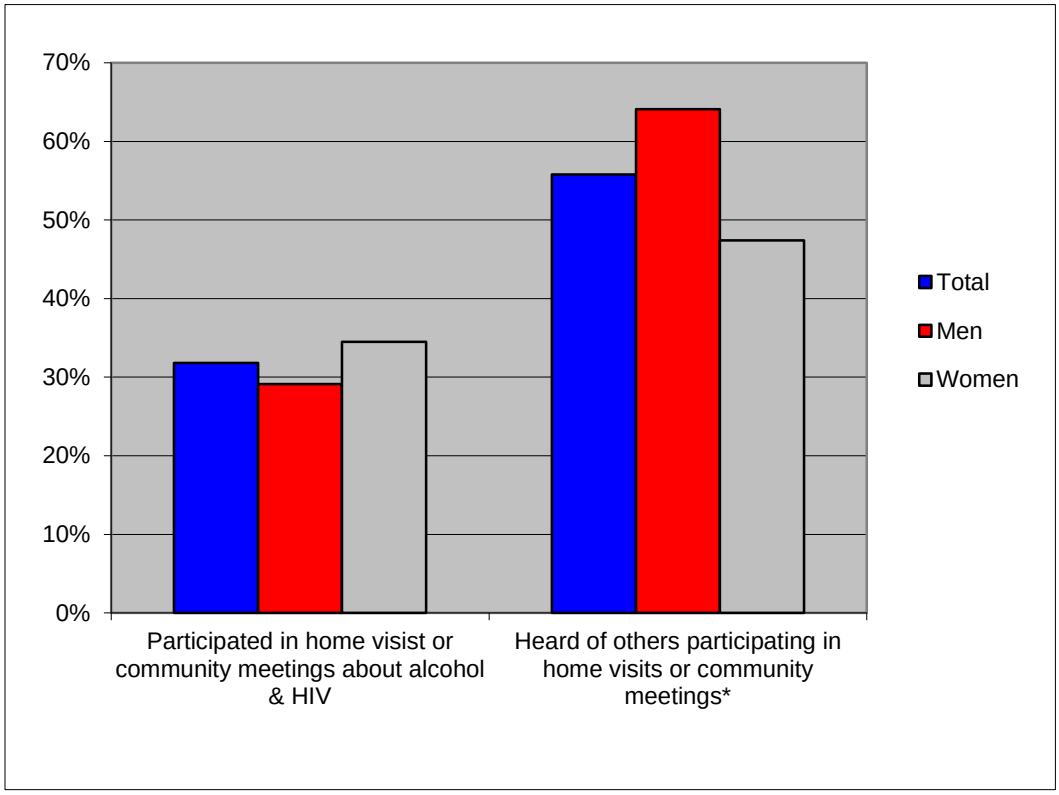


* Denotes difference between men and women is statistically significant (at the p < .05 level).

Because there were no other organizations or community groups in the study area working at the bar level to reduce alcohol abuse and promote safer drinking, we are confident that reported exposure to the bar-based component reflects the intensity of the demonstration project. It bears mention, however, that the exposure data are based on participant recall, and as such is dependent on the individual's observation and memory which could potentially be triggered by events that occurred independently of the demonstration project or at a different bar than the one where the respondent was recruited. However, the reliability of the data are supported by several factors. First, we do see consistent patterns across bars, with higher rates of exposure clustered among certain bars. Secondly, the exposure data also conform to observations made by the SFH team during monitoring visits. For example, SFH noted a high level of commitment among owners to display posters given to them during the training, and this is reflected in the survey data, as a high percentage of patrons reported seeing these materials.

Regarding community mobilization events, 32 percent of respondents indicated they *participated* in one of the two most frequent community mobilization events (home visits and public meetings), corroborating the high intensity of community mobilization recorded in the monitoring data (see Feasibility and Acceptability of Intervention Program Activities section of this report). Note that because the survey only took into account the experiences of bar patrons, we might expect that exposure among the general public is even higher than reflected in the survey data. Indeed, over half of bar patrons (56 percent) reported they had *heard of others* participating in the mobilization activities. There was no statistically significant difference between percentages of men and women participating in the community mobilization events, although men were significantly more likely to have heard of others participating in these events (64 percent compared to 47 percent for women), which perhaps reflects the greater social connectivity of men as compared to women.

Figure 3. Exposure to Community Mobilization Component



* Denotes difference between men and women is statistically significant (p < .05 level).

It is worth noting, however, that another NGO group, called Total Control of the Epidemic (TCE), works on HIV prevention in the study community, and their approach relies heavily on home visits. It is possible that exposure to the community mobilization component measured in the survey data may also have captured some of TCE's outreach efforts. Even so, our confidence in the data on exposure to community mobilization activities is bolstered by several factors. As expected, rates of indirectly observing or hearing about intervention activities are notably higher than the rates of direct exposure. There also was a relatively low level of "false positive" responses—that is to say, participants reporting seeing or participating in activities that we know never occurred. Only 4 percent of participants said they had participated in patrolling bars, and only 12 percent report attending a public video about HIV and heavy drinking. Although this 12 percent for watching a video is higher than expected, we suspect this question was confused with informational videos shown at the constituency councilor's office under a separate initiative.

ANALYSIS OF INTERVENTION EFFECT BY PROGRAM EXPOSURE

In order to have stronger insight into whether the promising patterns discussed in Part B are in any way attributable to the intervention activities, we conducted a post-intervention comparison of key outcomes among endline participants with high and low exposure to the program. In other words, we analyzed the endline data to explore whether higher exposure to the program was associated with more positive outcomes, thereby supporting the hypothesis that the bar-based intervention activities can exert a positive influence on our key measures. The exposure analysis involved the following steps:

1. *Determine whether patronizing a "highly adherent" bar was associated with more favorable outcomes as compared to patronizing a bar where implementation was less intensive.* As described in Part B, "Program Exposure," 9 of the 24 participating bars were categorized as highly adherent. For the bar-level exposure analysis, we used a multivariate framework to test whether patrons from these 9 bars (n=169) exhibit statistically different outcomes as compared to "unexposed" participants (n=338) while controlling for any unobservable bar-specific effects not associated with the intervention.
2. *Determine whether directly experiencing two or more interpersonal interventions by bar staff (in the last six months) was associated with more favorable outcomes as compared to patrons who experienced no individual-level exposure.* To address this question we applied the same multivariate framework as described above, testing whether individually exposed patrons (n=121) had statistically different outcomes when compared to the remaining participants (n=385).[18]

No discernible pattern was observed when examining associations between program exposure and HIV Knowledge and subsequently the discussion below focuses on key outcomes under alcohol use; sexual risk; sexual behaviors; and perceptions of the bar environment. Although small sample sizes limit our statistical power overall we find some promising indications, most notably regarding sexual risk intentions; for example, more intense exposure was significantly associated with positive behaviors such as discussing condom use, obtaining condoms and refusing to have sex without a condom. Unfortunately, however, when examining the sexual behavior data we found little evidence linking program exposure to safer sexual practices. Associations between intervention exposure and alcohol measures were less consistent, with the exception of standard alcohol units consumed, which were significantly lower for the exposed group (at the $p < 0.10$ level). Also encouraging is that sex-disaggregated findings suggest that women's exposure is associated with lower rates of binge drinking. Finally, results on perceptions of the bar environment indicate that patrons exposed to the intervention had more favorable perceptions of bar safety as compared to their unexposed counterparts. All results from the exposure analysis are presented in Appendix I and J.

Bar-level Exposure

Alcohol

On average, patrons from exposed bars reported consuming fewer standard alcohol units on a typical drinking occasion: 3.3 among the exposed group, and 4.1 among the unexposed (statistically significant at the $p < .10$ level). This difference is driven largely by female patrons (2.9 exposed, 4.2 unexposed, statistically significant at the $p < .10$ level). In addition, a higher proportion of exposed patrons agreed that they have complete control over drinking less then 5 drinks: 91 percent exposed, 84 percent unexposed). No significant differences were noted between rates of binge drinking or the AUDIT score when examining the sample as a whole. Sex disaggregated results, however, indicate that in addition to drinking fewer standard units, women who patronize highly adherent bars exhibited lower rates of binge drinking than their unexposed counterparts (2 percent compared to 18 percent). We have limited data to interpret this apparent differential effect on men and women; however, given that men's drinking is more socially and culturally accepted—whereas women's

[18] Simple linear regression models were used to test the relationships between exposure and our outcome measures. Separate regressions were run for each outcome (outcome measure was used for the dependent variable; exposure measure was used for the independent variable), and bar-level and individual-level exposure were modeled separately. P-values were estimated using adjusted standard errors to account for clustering at the bar.

drinking is often imbued with moral sanctions—it is possible that women's alcohol use behavior is more amenable to change over a short time period.

Sexual Risk

Analysis of the seven measures of sexual risk intentions and behaviors yielded few statistically significant differences, although all seven outcomes trend in a positive direction whereby higher proportions of the exposed group reported risk averse intentions and behaviors (see Appendix I, Table 1).[19] It is possible that small sample sizes constrain our ability to detect significant results, or that some of these patterns are explained by unobservable bar-level factors unconnected to the intervention activities, and subsequently observed differences are not significant when controlling for the individual bar.

Sexual Behaviors

Unfortunately, the sexual behavior data is also limited by small sample sizes, and results are mixed.[20] On one hand, the exposed group reports higher use of condoms at last sex with spouses (11 percent compared to 0 percent). As noted in the trend analysis above, condom use with regular partners is low in both baseline and endline samples, so the higher use of condoms with spouses among those most exposed to the program activities is noteworthy. On the other hand, however, reports of being drunk at last sex with a casual partner/one-night stand is *higher* among exposed groups (70 percent compared to 49 percent).

Perceptions of the Bar Environment

Even when controlling for other possible bar-level effects, a higher proportion of exposed patrons report that they never feel unsafe at the bar where they were recruited (77 percent compared to 64 percent). This result bolsters findings from the pre–post trend analysis, where the potential for selection bias attenuated our interpretation of the positive shifts observed between baseline and endline. The exposure analysis enables a more nuanced exploration across the participating bars—where selection bias is no longer a limiting factor. The fact that patrons frequenting bars that were more adherent to the intervention also had more positive perceptions of safety is encouraging and suggests that program activities—when effectively implemented—may have a desired effect on the overall bar environment. No significant results were found for the other measures in this domain (regarding the prevalence of violence, intoxication, and transactional sex).

Individual-level Exposure

Alcohol

Exposure to interpersonal interventions, such as a bar server suggesting that a patron stop drinking, or offering advice on how alcohol misuse can exacerbate HIV risk were designed to be triggered by high-risk behaviors, and subsequently we hypothesized that heavier drinkers were more likely to receive these intervention activities. A descriptive look at the alcohol analysis by individual exposure confirms this hypothesis, as patrons who experienced more exposure to the interpersonal

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[19] Significant findings at the $p < 0.10$ level include: exposed participants are more likely to have discussed condoms with a partner (84 percent compared to 72 percent) and to report that they "always" have control over condom use with a casual partner (96 percent compared to 90 percent among unexposed patrons).

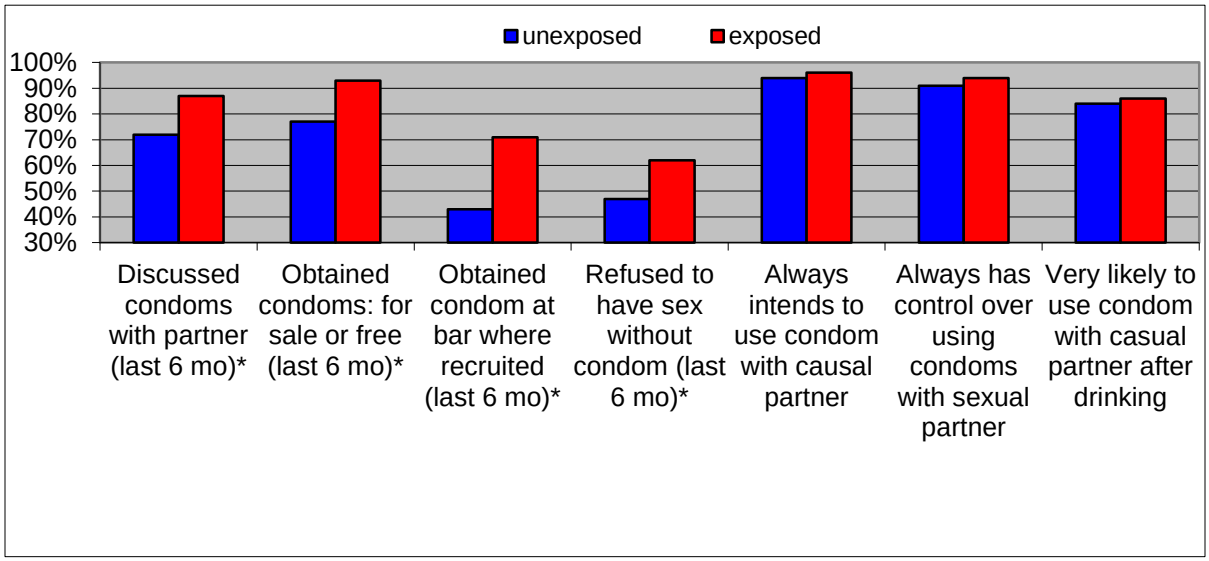
[20] Although we examined sex disaggregated results of the sexual behavior data, we did not include these estimates in our final analysis because of very small cell sizes for some of the sub-analyses, especially for less-common partner types such as spouses.

interventions appear to be drinking larger quantities and show stronger signs of alcohol dependency. For example, the exposed group shows higher rates of regular binge drinking (34 percent compared to 21 percent), and a lower proportion of non drinkers (5 percent compared to 16 percent) even after controlling for any unobserved bar-level effects. This result conforms to expectations that bar owners and staff are correctly targeting those patrons with greatest need.

Sexual Risk

Encouragingly, higher-risk patrons directly exposed to the intervention activities show significantly *more favorable* outcomes with respect to condom intentions and behaviors. In fact, out of the seven included measures, four revealed positive, statistically significant differences and all seven trend in a positive direction (see Figure 4). These data indicate strong, significant associations between experiencing two or more interpersonal interventions by bar staff and exhibiting risk averse behaviors such as discussing, intending to use, and obtaining condoms. Sex disaggregated results indicate that these findings are even more pronounced for male patrons. In fact, while the general patterns are relatively consistent for women patrons, the women-only analysis did not yield any statistically significant results (see Appendix I, Table 2).

Figure 4. Sexual Risk Measures by Individual Level Exposure



* Denotes difference between men and women is statistically significant ($p < .05$ level)

The finding that exposed patrons are more likely to have obtained condoms at the bar where they were recruited is particularly noteworthy, as it suggests that program activities may have worked as an effective motivator (and that condoms were accessible at participating bars). As indicated in the pre-post trend analysis, the proportion of endline respondents who obtained condoms from a bar more than doubled compared to baseline; the exposure analysis suggests that this trend towards obtaining condoms from bars may be especially pronounced among patrons directly exposed to the intervention.

Sexual Behaviors

Results are consistent with the bar-level exposure analysis, and suggest that the positive *intentions* to reduce risk may not yet have translated into safer sexual behaviors. Although no significant differences (positive or negative) were found between unexposed and exposed participants when examining condom usage with boyfriends, girlfriends, and casual partners/one-night stands, exposed

groups did have higher rates of condom usage with their spouses: 17 percent of sexual episodes are protected among the exposed group, compared to only 4 percent among unexposed respondents. It is important to note, however, that even among the exposed group the vast majority of participants do not use condoms when having sex with their spouses. Also concerning is the higher proportion of being drunk at last sex with girlfriends/boyfriends among the exposed group (30 percent compared to 14 percent). Finally the average number of sex partners was substantially higher among exposed participants: 1.8 compared to 1.2. While we cannot fully explore this finding with available data, it is possible that—as seen in the alcohol results—the pattern reflects intentional efforts by bar staff to target higher-risk customers, in this case patrons that staff identified as having multiple partnerships.

Perceptions of the Bar Environment

The analysis of perceptions of the bar environment by individual level exposure yields mixed results. Enhanced perceived safety is consistent with the bar-level exposure findings, further supporting our assertion that program activities may have positively influenced the bar environment; more patrons in the exposed group reported never feeling unsafe, (78 percent compared to 65 percent). On the other hand, however, a higher proportion of the *unexposed* group indicated that customers never exchange sex for alcohol (statistically significant for the men-only analysis, see Appendix I, Table 2). These inconsistent findings are not surprising, given that individual level exposure—often triggered by risky behavior in the first place—is unlikely to have a strong influence on bar-level outcomes.

FEASIBILITY AND ACCEPTABILITY OF INTERVENTION PROGRAM ACTIVITIES

Bar-Based Intervention

As described previously (see Intervention Design and Implementation section of this report), the bar-based intervention was initiated through workshops with participating bar owners to provide training on HIV and alcohol use, and to develop action plans to promote more risk-averse drinking environments. Action plans were organized around two primary sets of activities: environmental changes to the bar and interpersonal interventions with patrons. Thirty-five bar owners—all residents of the community—attended the original training workshops, representing all nine subsections of the study area. Of the 35 owners that participated in the training, 23 remained active through the close of the project. Bar owners who dropped out did so far several reasons. Some converted their bars into alternative businesses (e.g., small grocery shops), others closed down, and still others lacked the motivation and interest to continue.

The training sessions were held between November 2011 and February 2012. In their monitoring report, SFH noted that although bar owners were quick to understand the gravity of alcohol misuse in their community, overall they lacked the skills and knowledge to address the issue. In the qualitative interviews with participating bar owners, several identified new knowledge about the "dangers of alcohol" and the development of skills to recognize various stages of intoxication and "deal with customers" as among the most important lessons from the training. The following quotes are illustrative:

> *I learned a lot . . . I learned about alcohol, that it can make someone do bad things, and it makes a person unable to control themselves . . . [I learned] how to handle or help the customer when he or she is drunk, to avoid danger due to alcohol, for example about HIV and how someone may engage in unprotected sexual activity do to alcohol.* (IDI, male bar owner)

> *I feel good, because that training brought a change even to me. Before I also used to drink too much, but now because of the training I have changed. Now I can even tell or advise my customers, but it is all because of this training. If it was not because of the training, where would I get the information to tell my customers?* (IDI, male bar owner)

> *I feel good [after the training] . . . because I have information on how the customer should behave, and how to see that the person is drunk.* (IDI, female bar owner)

After the initial training workshops, SFH and the community mobilization volunteers conducted a series of follow-up visits with participating bar owners to support the implementation process. Based on the qualitative interviews and monitoring reports, one of the most common implementation challenges was speaking to customers about their drinking habits. For example, several owners mentioned the importance of not arguing with customers, and discussed how customers can resist advice and even become angry or offensive when approached about drinking. Perhaps in light of this challenge, participating owners expressed a sense of accomplishment in their newfound ability to educate customers. As one owner explained, "Before SFH came, the business owners were just selling and the customer was just buying, but after the training, [now] we talk to customers as people that can listen and recall what you have told them."

This shift toward greater engagement with customers is confirmed by interviews with patrons (as well as the survey data, see Program Exposure section of this report), who mentioned that you will be "chased away" if you start trouble, or refused alcohol if you are too drunk. In addition, several patrons comment that bars have begun enforcing regular closing hours, and acknowledge that this has increased safety in the community. For example, one female patron explains "those days before people received the training, people were only closing the bar with their time, but now they close early." Similarly a male customer, when asked why he considered the bar to be a safe place, responded "because it closes early, at 22:00. If the bars closes at 22:00 not many bad things happen that time, but if it closes at midnight, many bad things happen . . ."

The qualitative data also emphasized the extent to which bar owners and staff depend on bars to support their basic needs. When asked about police enforcement of laws prohibiting unlicensed sale of alcohol, one owner explained: "I feel that it's the rule for the country, but I think the government should look at it again, as most people are unemployed and having a bar is where they earn income to survive. Let me say, as personally it's where I earn income to help my children even my mother . . ." The scarcity of livelihood options in the area was one of the potential challenges to working alongside owners for this project, as alienating loyal customers (many of whom are heavy drinkers) poses a real risk for individuals dependent on bar income. Given this context, an important—and promising—finding is that the vast majority of participating bar owners acknowledge alcohol as a major challenge, connected to other social and health concerns. For example, in discussing the training workshop one male bar owners explained: "The topic I found most interesting was the discussion about the excessive use of alcohol, as this can reduce many bad things that happen in the nation . . . dropping down [alcohol] can reduce criminal activity and the spread of HIV infection." In addition, owners expressed a willingness to comply with intervention activities in order to promote safer drinking practices. The following quotes demonstrate the commitment made to program implementation, especially increasing the availability of food and condoms:

> *After the training, I have seen that it is important to provide food when selling alcohol, for [customers] to not get intoxicated easily by alcohol, or not to be overpowered by alcohol. After the training . . . I have to try all means to ensure food is available at my bar.* (IDI, male bar owner)

After the workshop, we took condoms from the Regional Councilor's office, and we placed them on the bar counter. When the customers come into the bar, before they start drinking, they take [the condoms]. We do this because if they start drinking, they may forget. (IDI, female bar owner)

Community Mobilization

Community mobilization activities were developed and overseen by the CAC and carried out by community mobilization volunteers. The CAC was comprised of 14 members (12 women and 2 men), many of whom had previously held local leadership positions in the community, thus helping to ensure public support and acceptance of the program. The CAC was responsible for coordinating activities (in collaboration with SFH), supporting the work of community mobilization volunteers, and helping to garner community momentum around the project. A CAC member described the role of the committee as follows: "Our job is to educate the community about alcohol-related HIV risks and other effects of alcohol, and to encourage those on ARV medication not to use alcohol . . . Alcohol is not wealth, [it] is dangerous. We are not saying people should not drink, but they should do it carefully. We are losing a lot through alcohol." (FGD, CAC members)

CAC members also helped identify and recruit the community mobilization volunteers, with consideration of geographic representation (i.e., ensuring volunteers were selected from all nine sub-sections of the study area). In February 2012, SFH conducted a 2-day training for 24 volunteers using the curriculum developed by AIDSTAR-One team and SFH (see Appendix C). In the initial phase of the community mobilization, volunteers focused on raising awareness about the project, and soliciting ideas from community members regarding what strategies would be most effective for curbing the negative impacts of alcohol use in their community. 15 volunteers remained active for the duration of the project. The main challenge to retention was sustaining motivation in spite of the limited time volunteers had available, and the lack of compensation. Like other community members, volunteers often experienced financial hardships and frequently transitioned between various employment opportunities.

During the second phase of community mobilization, volunteers shared information on the dangers of alcohol abuse and HIV risk through several different forums: conducting house visits (using a toolkit developed by the MOHSS); organizing community meetings; and visiting bars to share alcohol-specific information with patrons. According to the monitoring data, bar-based visits emerged as the most effective means of reaching community members, especially in participating bars where the staff was already informed (and supportive) of these efforts. Community mobilizers conducted 77 events (bar-based, public meetings, and house visits) over the course of the project period, reaching a total of over 750 community members, split almost equally between women and men.

As described in the Intervention Design and Implementation section, the main objectives of the mobilization component extended beyond awareness raising and education. Ultimately the work of the CAC and volunteers was designed to empower the community to take an active role in address hazardous alcohol consumption, which could be sustained beyond the demonstration project. Although it remains early for evaluating accomplishments in this area, qualitative evidence offers early signs that the community has begun to mobilize and gain confidence in its ability to promote change. The following quotes suggest the mobilization approach has begun to take hold, from the perspectives of a bar owner, bar patron, and community leader:

Now we are sharing ideas, such as if a person is excessive in using alcohol, even if he goes to the next bar he will not be given alcohol. This training is mainly mobilizing us to work together, so that we fight the excessive use of alcohol. (IDI, male bar owner)

I'm happy for this project, and its giving me and others courage on where to stand in terms of alcohol and sexual activities. They should focus on educating more about this . . . because people are careless when they drink, and they do bad things. If it wasn't for alcohol, things would be better. (IDI, male patron)

I think we have built up enough momentum in this country regarding alcohol. Everybody, even if it is a community member, if it's a parliamentarian, even if it's a councilor, even if it's a police officer, people are recognizing that alcohol is our number one problem, and the country's problem. (IDI, female leader)

LIMITATIONS

Several limitations impede our ability to draw conclusions about the influence of the intervention activities on individual-level behavior change. Ideally, the study design would have included a control group of bars located in a socioeconomically and behaviorally comparable community where there was no possibility of contamination by the intervention. Unfortunately, budgetary limitations precluded the possibility of including a control community since it would have required significant investment in pre-baseline research to establish comparability, as well as additional cost to conduct baseline and endline research in a second community. In the end, we settled on a modest pre–post evaluation design for this small pilot effort, but even that was not without limitations.

As explained previously, the baseline survey was conducted with a representative sample of bar patrons recruited from a random selection of all bars enumerated in the community at the time. For the endline survey, we only recruited patrons from the 24 bars that had participated in the intervention program. Although all baseline bars were encouraged to participate in the intervention, some had closed and others were simply not interested. Because the successful implementation of the program required bar owners to willingly and enthusiastically participate, in the end, 21 of the 24 intervention bars had not been included in the baseline survey. As a result, it is possible that, by virtue of the bar owner's willingness to participate in the program, patrons from these 21 bars were systematically different from their peers on measures of most importance to the intervention evaluation—namely, patterns of alcohol use and sexual risk behavior. This could have happened, for example, if the bar owner was already discouraging heavy drinking or doing things to attract a more risk-averse clientele. In this case, pre and post comparisons of bar patrons would be biased toward observing positive changes in behavior over time. Because the study community is relatively small (4 square kilometers), socially and economically homogenous, and bars do not differ dramatically in terms of size or layout, we have no reason to believe significant differences exist among patrons of bars. But lacking baseline data, we cannot say this with certainty.

In order to explore the possibility, we did examine whether patrons of the three bars that participated in both the intervention and the baseline survey differed significantly at baseline from their peers at bars that did not participate in the program. We found only one statistically significant difference across all our outcome measures: in the participating bars, patrons at baseline were slightly less likely to have spoken to a partner about condoms. The sample size, however, is small (n = 33) and subsequently the lack of statistically significant differences is not surprising. Overall, patterns do suggest that the three participating bars were frequented by a greater proportion of non-drinkers then the other baseline bars sampled, and that patrons who did drink may have consumed alcohol in smaller quantities. Given that these data do not enable us to reject the possible bias introduced through self-selection into the program, our key findings emphasize results that are consistent across both the pre–post and exposure analyses.

A second limitation of the project was the short timeframe for implementing the intervention. The intervention activities were conducted over 12 months; however, this included time for starting up the activities and building momentum. CAC members needed some weeks to organize their meetings, understand their roles, and decide on a plan of action. Community mobilizers and bar owners had to be recruited and trained. The flow of project activity also needed to accommodate nearly a month-long hiatus in activities during the Christmas holiday, during which time many

people leave Windhoek and spend several weeks to a month in their rural homes. In the end, the intervention activities were fully operational and running with some intensity for about 9 of the 12 months. This is a short period of time in which to expect a community- and bar-based intervention to change individual-level behaviors. It is encouraging, however, that even in this short timeframe we saw a significant amount of project activity and exposure to the intervention among bar patrons. With more time, the project may have achieved a very high level of saturation of bar patrons and community members.

A third limitation of the project was the challenging external environment with regard to national level policy on alcohol. In May and June 2012, close to the end of the intervention period, the government of Namibia began a nationwide crackdown on the unlicensed sale of alcohol. In June, police began to circulate in Katutura forcing small, unlicensed bars to close. Although these closures never reached the section of Katutura in which our project was taking place, the crackdown came close on the heels of the dissemination of our project's formative research report, which had been picked up by media in April 2012 and was widely reported by newspapers and television. Some members of the community believed that our report had been influential in convincing the government to pursue the bar crackdown. A period followed during which the SFH team was treated coldly by community members and the volunteer community mobilizers found it hard to talk to the public about the project. Participating bar owners also seemed to lose enthusiasm for the project and it was not clear whether all of them would continue to participate in the intervention, much less allow the survey team to recruit patrons for the endline survey.

This was a tense time for the project, and the SFH team—with support from the MOHSS—took quick action to rectify the problem. SFH organized an emergency meeting with the local constituency councilor, who was supportive of the program, and he called a community meeting to dispel the impression that the crackdown was in any part a result of the research we had conducted in Katutura. SFH, representatives of MOHSS, and the project's endline evaluation director all attended the meeting in order to rebuild confidence in the program. Over 200 community members attended the meeting, which successfully allayed fears. As a result of these efforts, the endline survey was able to proceed and the intervention was completed as planned. However, it is unclear what effects the crackdown may have had on levels of drinking or survey participants' responses to questions about their drinking. There may have been bias toward under-reporting alcohol use at endline, or the crackdown also could have caused disruptions in bar hours that made it necessary for patrons to alter their normal drinking behavior.

Finally, as is true for any study of behavior change that relies on self-reported behavior, social desirability bias could have resulted in under-reporting of alcohol use and sexual risk behavior and over-reporting of favorable bar environments. This may have been especially likely in the endline survey among those most exposed to the intervention.

DISCUSSION AND RECOMMENDATIONS

The field of alcohol and HIV prevention programming is very much in its infancy. To date, the only scientifically proven programs in sub-Saharan Africa intervene at the level of the individual, with one-on-one or small group motivational counseling (Kalichman, Cain, and Eaton 2011). Although encouraging, these programs have only been able to achieve short-term effects on individual drinking and HIV risk behavior. This should not be surprising. In Namibia, as elsewhere in Southern Africa, many individuals at highest risk for HIV live in crowded and impoverished neighborhoods characterized by extremely high density of bars.

As this project's formative research amply demonstrated, drinking is often a mechanism for coping with stress and relieving worries associated with poverty. Furthermore, going to the bar is among the few forms of entertainment available and alcohol-brewing and selling from one's home is the most easily accessible livelihood, among a very constrained set of choices. Within this community context, it is unreasonable to expect individual harm-reduction counseling to have the long-term and pervasive impacts necessary to influence the HIV epidemic or any other health outcome. This demonstration project was thus designed to a fill a large knowledge gap among HIV programmers regarding how community- and environmental-level strategies can be used to encourage more moderate drinking patterns and reduce alcohol-related HIV risk.

This project was able to demonstrate that it is feasible and acceptable to implement a multi-level program focused on reducing alcohol-related HIV risk. Bar owners and staff were willing partners, capable of altering their bar environments and intervening when they identified high-risk drinking behaviors. Furthermore, both the survey and interview data indicate that community mobilization activities were taken up with enthusiasm, and achieved relatively high penetration in the community. While further research is needed to substantiate the evaluation findings, preliminary results offer support for the project hypothesis that community mobilization and delivery of prevention advice within the bar setting may motivate patrons to alter their attitudes and behaviors, both around the quantity of alcohol they consume as well as their intentions toward using and obtaining condoms. Although there is clearly much more work to be done and we did not observe consistent improvements in some key measures—such as condom use with regular sex partners or average number of sex partners —overall we are encouraged that several initial steps toward reducing alcohol-related HIV risk appear to have taken place, with the full support of community leaders, members and bar owners. Key findings are summarized in Box 2.

Box 2. Key Evaluation Findings

- **Binge drinking decreased** from 54 percent at baseline to 25 percent at endline. The decrease was similar among women and men ($p < .05$).
- **Patrons of bars with highest exposure to program activities consumed less alcohol per sitting** when compared to patrons of less-exposed bars: 4.1 standard drinks among the unexposed group, and 3.3 among the exposed ($p < .10$).
- **Women with highest exposure to program activities had lower rates of regular binge drinking** (2 percent compared to 18 percent; $p < .05$); among men, however, there was no statistically significant difference between the exposed and unexposed groups (36 percent and 34 percent, respectively).
- **Heavy-drinking bar patrons were more likely to be exposed to intervention activities and showed significantly *more favorable* outcomes with respect to sexual risk.** They were significantly ($p < .05$) more likely to have discussed condoms with a partner (87% compared to 72%); have obtained condoms (93% compared to 77%); and refused to have sex without a condom (62% compared to 47%).
- **Results from partner-by-partner sexual behavior data are mixed and suggest that positive intentions toward safer sex may not yet have translated into safer sexual behaviors**, particularly with regard to having multiple sex partners and low rates of condom usage with regular partners. Reported condom use with casual sex partners is high across all subsamples.
- **Bar owners and staff found it feasible to implement changes to their bar environments and these shifts were noted by their customers**. Sixty-four percent of patrons report noticing educational materials about alcohol and HIV on display and 33 percent of the patrons noted shorter bar hours. Moreover, patrons from highly adherent bars were more likely to report favorable perceptions of safety and violence at the bar, suggesting that the program may have created more risk-averse environments.
- **Community mobilization activities were feasible and popular**. Community mobilizers conducted 77 events over the course of the project period, reaching over 750 community members, split almost equally between women and men.
- **Penetration and reach of the community mobilization events was effective**. Thirty-two percent of bar patrons indicated they had participated in one of the two most frequent community mobilization events (home visits and public meetings) and 56 percent reported they had heard of others participating in the mobilization activities.

In addition, we learned several important lessons about developing, implementing, and assessing the project. We discuss these here, followed by recommendations for future programming and research in this important area.

LESSONS LEARNED

Community members are interested in addressing alcohol misuse in their communities, despite a host of other pressing issues: To a large extent, the implementation process was facilitated by the enthusiasm among community gatekeepers and opinion leaders to tackle harmful drinking as a serious issue, fundamentally linked to community health and well-being. The CAC—comprised largely of community leaders—was highly effective in promoting the program and recruiting community mobilization volunteers as well as bar owners. In addition, collaboration with local authority figures (e.g., constituency councilor, MOHSS, etc.) also enhanced overall receptiveness to the intervention. These are promising signs that mobilization efforts may be sustained even after completion of the formal project.

We are also encouraged by the resonance of alcohol as major public health concern among community members, particularly given the host of social and economic issues facing the study community. This is a favorable indication of the feasibility of implementing this approach in similar communities elsewhere in the country or region. Our experience demonstrates that even when HIV is not necessarily the highest priority for community members, other entry points are available to

initiate the conversation. In the end, however, our intervention appears to have gained more traction on decreasing heavy drinking as compared to reducing sexual risk behavior. This may reflect community members' preference for discussing the dangers of alcohol use over talking about and changing sexual behavior.

Unlicensed bar owners can play a meaningful role in promoting safer drinking practices: The small-scale, informal bar owners recruited for the program were willing partners. We were pleasantly surprised that with the support and mentorship of SFH, many bar owners were adherent to the intervention activities, as reflected in the survey data. This intensity was not expected given how much skepticism bar owners expressed at baseline about practices that might offend or drive away their customers. We also found that bar staff were successful in targeting their interpersonal interventions toward customers with the highest risk drinking behaviors and that, among those patrons, there were significantly more positive intentions around using and obtaining condoms compared to those not exposed to interpersonal interventions. Moreover, patrons perceived improvements to safety and security at their bars, suggesting that program activities may be effective in promoting a more risk-averse bar-level environment.

Inviting and sustaining participation of bar owners—especially in transient communities—poses a significant challenge: The program strategy requires bar owners to be willing and enthusiastic partners over time. However, home-based and unlicensed sale of alcohol is, by its nature, an informal livelihood undertaken in unstable economic environments. Bars can be opened and shut down overnight, as owners need to do so. Enrolling a cadre of bar owners with the expectation that all will even be in existence throughout the program period is unrealistic. Rolling admission and constant training and re-training is necessary. We also need to better understand what characterizes bar owners who were willing to become involved and stay involved in the program through its completion. A significant proportion (12 out of 35) of bar owners who enrolled in the program did not complete it, either because the bar ceased to exist or the owner simply lost interest. Further documentation of how the program has assisted bar owners as small-scale entrepreneurs could be helpful in enticing more bar owners to become and stay involved over time.

Formative research is critical to ensure that intervention activities and key messages are contextually relevant: Extensive formative research into the social norms and economic conditions fueling heavy drinking in the target community was crucial in informing the design of the program. The formative research also provided an avenue for identifying and recruiting community popular opinion leaders to take an interest in the project and ultimately be part of the community mobilization efforts. Reporting the formative research results back to the community through program development workshops also allowed the community to validate the research findings and suggest strategies for mitigating the negative impacts of alcohol abuse. Formative research made it abundantly clear that bar owners had to be part of the community-level response, given the importance of alcohol-selling as an income-generating activity for families with few other opportunities.

Evaluating a multilevel intervention poses numerous methodological challenges: In neighborhoods such as Katutura, where there is a high degree of population-level transience, it can be difficult to find bars with the type of permanence that would allow for long-term participation in research. A significant loss-to-follow-up among participating bars would have to be built into any study design's expectation. It is also possible that a successful program could result in bar owners intentionally closing their bars and shifting to other livelihoods, thus removing them from the sample and potentially creating a bias due to attrition. Similarly, any patrons who stop drinking alcohol during the study period would no longer be represented in the endline sample (given they

would not be in the bars at the time of recruitment). In this case, the evaluation data would not be able to detect the extent to which the program contributed to this positive outcome, and may result in an underestimation of program effect.

Finally as we experienced in the demonstration project, the evaluation design was also limited by a reliance on individual-level measures of sexual risk among bar patrons to document program effectiveness. For a community-based approach such as the one adopted in this project, it is likely that positive shifts could also have been measured among community members who do not patronize bars, such as increased perceptions of alcohol as a high-priority issue within the community or improvements in other outcomes such as crime, domestic violence, or child welfare.

PROGRAMMATIC RECOMMENDATIONS

In light of the lessons discussed here, we recommend that future projects incorporate and build on the following components of the demonstration project:

- Include formative research. Both to ensure program materials are contextually relevant as well as to begin encouraging community involvement from the initial stages of the project.
- Create partnerships with unlicensed, informal bars and their owners. Given the ubiquitous sale of home-brewed alcohol, and how important it is for impoverished communities as a cornerstone of the economy, campaigns to simply shut down illegal drinking outlets will be unsustainable until other employment and small business opportunities become available. In the meantime, this program's results suggest that unlicensed bar owners can be willing and productive partners in the community-based response to harmful alcohol use. Given that unlicensed bars are both high-risk environments and willing partners, targeting these venues appears to be an expedient approach to addressing alcohol related HIV-risk.
- Encourage community involvement, especially during the initial project stages. Nest discussions of HIV within other alcohol-related issues that community members are most concerned about (e.g., crime prevention, economic development, child safety, etc.). Ensure, however, that the HIV thread is not lost in these discussions, despite community members' discomfort in discussing sexual behavior.
- Target binge drinking. Heavy episodic drinking, more popularly known as binge drinking, has been shown to uniquely contribute to alcohol-related harm. The WHO classifies harmful drinking not just by average units of alcohol consumed, but by the pattern of consumption over time. Research shows a linear relationship between number of drinks consumed in a row and alcohol-related problems. Because community members and bar owners alike have observed the social dysfunction that can erupt when individuals drink very heavily, binge drinking is a discrete behavior that can be isolated and intervened upon.
- Encourage bar owners and/or staff to engage in interpersonal communication with patrons around HIV and alcohol risk reduction. Results from this program show significant associations between positive sexual risk behaviors (e.g., discussing, obtaining, and refusing to have sex without condoms) and exposure to the interpersonal interventions by bar staff. The potential power of this approach is that bar staff are uniquely situated to provide individuals with risk-reduction information and advice at the very times and places where opportunity for risk is highest. Results from this project also show that bar owners/staff were very capable of targeting most-at-risk individuals for intervention.

RESEARCH-RELATED RECOMMENDATIONS

The current study also uncovered several salient areas for future research, including:

- Future research should examine the gender dynamics that underlie drinking habits, as well as some of the negative ramifications of men's heavy alcohol use for women (for example domestic violence or the diversion of scarce family resources for alcohol). The sex-disaggregated analysis of men and women's drinking habits in our study often yielded differential results, suggesting that gender-specific messaging may be advantageous for bar-based interventions. Moreover the potential gendered-effects of heavy alcohol use—such as the high prevalence of intimate partner violence noted in this research—pose serious concerns for public health and overall wellbeing, and are important areas for further research.
- Study designs must consider the numerous challenges inherent in conducting bar-based research in a transient environment. We recommend that the project team work to ensure that participating bars sustain their involvement in the project over time and that sampling procedures account for an inevitable loss-to-follow-up. Moreover, the addition of a control group is desirable to help overcome some of the issues around selection bias that limited the current study. Finally, in addition to using serial cross-sectional samples of bar patrons, researchers may consider including a nested cohort study of patrons followed over time to better explore the program's effect, including the extent to which individuals may cease to patronize bars.

There is a need for creativity and innovation to ensure that evaluation metrics are aligned with the community-focused approach. In addition, the reliance on bar-based recruitment excludes populations who may be exposed to alcohol-related harm outside of the bar setting—for example wives who face repercussions from their husband's alcohol misuse, or people who drink at home or in other venues. Particularly noteworthy is the relatively small proportion of married men and women in our sample, suggesting that bars may be inappropriate drinking venues for married individuals. Future studies should aim to investigate the effects of such programming beyond bar patrons by collecting data from a cross-section of community member.

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APPENDIX A

PROJECT TIMELINE

	Year 1 (2010)				Year 2 (2011)				Year 3 (2012)			
Formative Research	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Developed baseline survey and qualitative interview guides												
Submitted baseline research protocol and tools to ICRW and Namibian MOHSS ethics committees												
Conducted baseline survey												
Conducted baseline qualitative interviews												
Analysis of Formative Research	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Analyzed baseline survey results												
Analyzed baseline qualitative interview data												
Developed baseline report												
Baseline report released for public dissemination												
Program Design	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Held 3 separate program design workshops												
Developed Alcohol Traders Training and Mentoring Guide												
Developed Community Mobilization Manual												
Developed monitoring												

forms												
Program Implementation	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Trained the Community Action Committee												
Trained the community mobilizer volunteers												
Trained alcohol traders (participating bar owners)												
Implemented community mobilizer events												
Implemented bar-based activities												
Conducted ongoing project monitoring												
Endline Data Collection	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Submitted endline research protocol and tools to ICRW and Namibian MOHSS ethics committees												
Conducted endline survey												
Conducted endline qualitative interviews												
Final Analysis	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Analyzed endline survey results												
Analyzed endline qualitative interview data												
Developed endline report												

APPENDIX B

ALCOHOL TRADERS TRAINING AND MENTORING GUIDE

ALCOHOL TRADERS TRAINING AND MENTORING GUIDE

Summary:_____*This document is a guide for the Alcohol traders training & Mentoring to be conducted in November 2011 – March 2012.This manual is aimed to educate alcohol traders about the dangers of hazardous alcohol consumption and to facilitate the creation of safer bar environment. The manual covers topics about safer serving of alcohol, relationship between alcohol, health and HIV/AIDS risks.*

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Introduction Session: Team building, establishing rules, discussing expectations (approximately 2 hours)

This session is important to ensure a comfortable training environment. The long-term goal of this session is to begin the process of building social capital among bar owners so that they can support each other after the training: during the mentoring and later meetings, and once project activities are complete. Also, participants will have an opportunity to share their expectations for the training and mentoring, including why they chose to participate and what they hope to gain from the process.

Overview of Activities:

Activity	Time	Materials Needed
Introductions	30 minutes	
Group Rules Activity	20 minutes	Flipchart paper and markers
Project Overview	30 minutes	Slides (handouts or slides with projector)
Expectations	30 minutes	Flipchart paper, markers
Planning for next session	10 minutes	

Activity 1: Introductions

Time: 30 Minutes
Materials Needed:
- Flipchart Paper
- Marker

Activity Summary:
This activity allows people to introduce themselves and to share why they volunteered to participate in the training. This activity provides important information to the facilitator about the interests of the participants. It also provides information that will be helpful for later discussions about expectations.

Learning Objectives:
By the end of the activity, participants will:
- Know each other better
- Feel more comfortable working together

Procedure:
Facilitators ask participants to introduce themselves and provide their:
- name
- reasons for participation
- favorite food (or some other item to lighten the mood and help people get to know each other)

Activity 2: Group Rules Activity

Time: 20 Minutes
Materials Needed:
- Flipchart Paper
- Marker

Activity Summary:
This activity is intended to create a better learning environment in which people feel safe and comfortable. Part of feeling safe and comfortable is having an established set of ground rules that people respect and follow.

Learning Objectives:
By the end of the activity, participants will:
- Know the rules of the group.
- Understand the importance of respecting others within the group.

Procedure:
Facilitator explains to the group that they will be coming up with a list of ground rules to create a comfortable learning environment. Participants will then break into smaller groups (groups of 3 or 4) to create rules. After 10 minutes the entire group goes over these rules and together comes up with a final list of the ones that are key to having an effective experience and learning environment. The facilitator should help the participants consolidate the rules into similar concepts.

Once the rules have been established the facilitator should emphasize that everyone must respect and observe the rules, including the facilitator.

Facilitator's Tip:
When doing this activity it is important to allow the participants to come up with the rules themselves. However, if the group is unable to produce as many rules as necessary, here is a list of suggestions:
- Don't talk when other people are talking.
- Don't laugh at people's thoughts or attitudes.
- Arrive on time
- Turn off/silence mobile phones.

Activity 3: Project Overview

Time: 30 Minutes
Materials Needed:
- Slides – printout or using slide projector

Activity Summary:
This activity provides background information about the project as a whole so that the participants can understand the project goals, and how the training fits into the larger project activities. After this activity participant will understand the different people involved and begin to

consider how they will work together to address issues related to misuse of alcohol and HIV-related risks.

Learning Objectives:
By the end of the activity, participants will:

- Understand the goals of the project

Procedure:
Facilitator will go through the project goals and activities through a discussion with participants. As each point is explained, the facilitator should encourage discussion and questions.

Facilitator's Tip:
When doing this activity it is important for the facilitator to present the information in a discussion format. The slides should only be used to help the facilitator be sure to cover all of the relevant information, and should not be read. Also, it is important to consider the literacy level of the participants. The project should be explained in terms that are easily understood and participants should be encouraged to discuss and ask questions about how aspects of the project will work.

Session 1. Understanding alcohol use and abuse in Namibia (2 hours)

This session will start with a short pre-test to understand the level of knowledge about alcohol use in general, and specifically in Namibia. This information will help the facilitator cover any gaps in knowledge. Information about alcohol consumption will be discussed in this session. Participants will be asked to share their experiences as alcohol traders related to alcohol use and abuse. The activities will include story telling and alcohol use assessments. These activities will result in an understanding of the cultural importance of alcohol, the differences between alcohol use and alcohol misuse, and review briefly the problems associated with alcohol misuse that will be covered in later sessions. Participants will look at how alcohol impacts individuals, families, communities, the economy, security, and other aspects of life in Namibia. After completing this section, participants will understand the pervasiveness of alcohol abuse in Namibia and will begin to consider the important role that alcohol traders play in addressing alcohol abuse in their communities.

Overview of Activities:

Activity	Time	Materials Needed
1. Alcohol pre-test	40 minutes	Handout 1: Pre-test Optional: Handout 1a: T/F
2. Alcohol consumption – positive and negative aspects in Namibia	40 minutes	
3. Assessing alcohol use	40 minutes	Handout 2: Alcohol Use Statements

Activity 1: Alcohol Knowledge Pre-test

Time: 30 Minutes

Materials Needed:

- Flipchart Paper
- Marker
- Pre-test statements
- Alcohol standard units figure (with and without standard units marked)
- Fact sheets (for facilitator)

Activity Summary:
This activity is intended to provide a starting point about the participants understanding of alcohol use in general, and in Namibia. By assessing the participants knowledge and sharing responses, the group can come to understand together different aspects of alcohol consumption.

Learning Objectives:
By the end of the activity, participants will:

- Know more about alcohol consumption in general
- Learn about alcohol consumption in Namibia

Procedure:
Facilitator should provide participants with blank piece of paper and pens and then ask the participants to fold the paper in half along the long edge. If the participants agree, they should make an X on the left side of the paper. If they disagree they should make an X on the right side of the paper. Then, once the assessment is over, the participants should put their papers into a basket. The facilitator will then pass back the pieces of paper so that each person has one (not their own), and will go over each answer, keeping a tally of the different responses for each question. With each one there should be a discussion about the correct answer to ensure that everyone agrees, or understands the different concepts. Correct answer is in parentheses next to each statement.

Pre-test
1. 1 litre of Tombo has the same amount of alcohol as one dumpie (340 mL) of beer (False) Discussion: Look at standard units chart to determine units for different beverages. First share unmarked standard units card and have people guess. Then tell them how much each beverage is. Make sure participants understand that the use of standard units helps us understand how much alcohol is being consumed.
2. In general, alcohol affects women more than men, because women are smaller and weigh less than men. (True) Yes, alcohol affects women differently than men. Women become more impaired than men do after drinking the same amount of alcohol, even when differences in body weight are taken into account. This is because women's bodies have less water than men's bodies. Because alcohol mixes with body water, a given amount of alcohol becomes more highly concentrated in a woman's body than in a man's. In other words, it would be like dropping the same amount of alcohol into a much smaller pail of water. That is why the recommended drinking limit for women is lower than for men. In addition, chronic alcohol abuse takes a heavier physical toll on women than on men. Alcohol

dependence and related medical problems, such as brain, heart, and liver damage, progress more rapidly in women than in men.

3. Long term use of alcohol can cause permanent damage, or cirrhosis of the liver. (True)

Heavy drinkers have a greater risk of liver disease, heart disease, sleep disorders, depression, stroke, stomach sores/wounds, sexually transmitted infections from unsafe sex, and several types of cancer. They may have problems managing diabetes, high blood pressure, and other conditions.

4. A person's size and weight can affect their level of intoxication by making their blood alcohol content higher or lower. (True)

5. Alcohol can lead to high blood pressure which can lead to death. (True)

6. 25% of men and 21% of women in Namibia drink more than 2 tots (60grams) of *pure* alcohol at least once a week. (True)

7. Heavy drinking is having more than 4 drinks per day (False – it is having 2 or more drinks per day – see standard units picture).

8. When women drink while pregnant the baby can be hurt (True)

Drinking during pregnancy can cause brain damage and other serious problems in the baby. Because it is not yet known whether any amount of alcohol is safe for a developing baby, women who are pregnant or may become pregnant should not drink.

9. Harmful use of alcohol results in 2.5 million deaths worldwide each year (True)

10. Only alcoholics experience problems because of alcohol abuse (False)

No. Alcoholism is only one type of an alcohol problem. Alcohol abuse can be just as harmful. A person can abuse alcohol without actually being an alcoholic--that is, he or she may drink too much and too often but still not be dependent on alcohol. Some of the problems linked to alcohol abuse include not being able to meet work, school, or family responsibilities; drunk-driving arrests and car crashes; and drinking-related medical conditions. Under some circumstances, even social or moderate drinking is dangerous--for example, when driving, during pregnancy, or when taking certain medications.

How can you tell if someone has a problem?
Answering the following four questions can help you find out if your customers or someone you know has a drinking problem:

- Have you ever felt your customer/s or someone you know should cut down on your drinking?
- Have your customer/s or someone you know got annoyed when people are criticizing his/her drinking?
- Have you ever noticed your customer/s or someone you know who felt bad or guilty about his/her drinking?
- Have you noticed your customer/s or someone you know who ever had a drink first thing in the morning to steady his/her nerves or to get rid of a hangover?

One "yes" answer suggests a possible alcohol problem. More than one "yes" answer means it is highly likely that a problem exists. If you think that your customer/s or someone you know might have an alcohol problem, it is important to suggest he/she sees a doctor or other health care provider right away. They can help determine if a drinking problem exists and plan the best course of action.

Facilitator's Tip:
When going through this activity the facilitator should have fact sheets handy. These can be found in the Appendices.

Discussion Questions:

Workshop Activity: please come up with some during the workshop – what do you think are important topics that should be covered in this session? What is of particular importance in Kabila? Please look at the appendices to determine if additional information should be discussed – the pretest is only a guide for the discussion, other alcohol topics should be discussed as well.

Optional: An additional True/False test is included in the handouts.

Activity 2: Alcohol and Culture – positive and negative aspects of alcohol consumption

Time: 40 Minutes
Materials Needed:
-flipcharts and pens (optional)

Activity Summary:
During this activity participants will discuss alcohol use in Namibia - both positive and negative effects through history. By identifying the origins of different cultural aspects, participants will have a better understanding of history of alcohol consumption in Namibia and how it can be a positive and negative part of life in Namibia today. Use some of the answers for the pretest to spark discussions during this session.

Learning Objectives:
By the end of the activity, participants will:

- Discuss the relationship between alcohol and Namibian culture.
- Identify positive and negative aspects of Namibian alcohol consumption.

Procedure:
The activity will begin as the facilitator breaks participants into groups of three of four. Each group will discuss important aspects of Namibian culture. Let the participants in their groups list the local beverages/ alcoholic drinks that used to/are brewed since in the olden days in Namibia? Who consumed these beverages? What were/are the effects recorded about consuming these drinks? After the list is complete, groups will decide the five most important aspects. After each group has created their list, they will share their ideas with the larger group.

The facilitator will then ask participants to work in the same groups from before to come up with positive and negative aspects of Namibian culture related to the consumption of alcohol. After 10 minutes the small groups will again share with the larger group and discuss. Facilitator summarizes by asking in the larger group, what is the current situation in Namibia with regard to the effects of alcohol on our society.

Activity 3: Assessing alcohol use

Time: 60 Minutes
Materials Needed:

- Flipchart Paper
- Marker
- Alcohol use questions

Activity Summary:
This activity is intended to help alcohol traders begin thinking about how much their clients or patrons are drinking and how it may be affecting their lives. Also, all of the participants can themselves reflect on their own drinking behavior and determine its impact.

Learning Objectives:
By the end of the activity, participants will:

- Understand more about how to assess alcohol use
- Assess their own and their clients alcohol consumption
- Understand the roles of bar owners in combating alcohol misuse amongst their clients

Procedure:
Facilitator should read the following statements to the entire group, asking them to consider what would be the responses of their customer/s or someone they know to each statement.

Is/Are your customer/s or someone you know under 18 years of age?
Is/Are your customer/s or someone you know pregnant?
Does your customer/s or someone you know take medicine for HIV or TB?
Does your customer/s or someone you know need a drink in the morning to reduce hangovers or babalas?
Does your customer/s or someone you know crave alcohol when they are not drinking?
Does your customer/s or someone you know have shaking hands when they are not drinking?
Do your customer/s or someone you know have social, family, or work problems from drinking?

Once all of the statements have been read the facilitator will ask:

Facilitator: If you answered, "yes" to any of these questions, it means the person you were considering has a problem with alcohol.

<u>Discussion questions:</u>

1) Which question was interesting?
2) How else can we tell/assess that someone have an alcohol problem?
3) Can you think of more people you know who would answer yes to one or more of these statements? (Ask participants to share stories and discuss).
4) How could a bar owner help someone who answered, "yes" to some of these questions?

Facilitator can summarize the responses to the above questions by discussing the severity of alcohol misuse in Namibia.
Facilitator should read the following statements to the entire group, asking them to consider responses of their customer/s or someone they know to each statement.

Assessing danger signs of a possible drinking problem

Do your customer/s or someone you know get into physical fights when they drink?
Does your customer/s or someone you know hit their loved ones when they drink?
Have your customer/s or someone you know been in accidents or injured when they have been drinking?
Did your customer/s or someone you know miss work or school because they were drinking?
Did you observed that your customer/s or someone you know drink to escape your problems?
Are you, family members or friends of your customer/s or someone you know worried about your customer/s' or someone you knows' drinking?
Do your customer/s or someone you know need more alcohol to get drunk than they or he/she used to?
Do your customer/s or someone you know get annoyed when people tell them or him/her that he/she drink too much?
Have you noticed that your customer/s or someone you know feel guilty about drinking or spending money on alcohol?

→If the answer was yes to any of these questions, this person should consider cutting down or stopping drinking all together.

FOR DISCUSSION, FROM THE WHO GLOBAL STATUS REPORT ON ALCOHOL AND HEALTH 2011:

Death, disease and injury related to alcohol consumption are clearly linked to economic status, and this is true for individuals, countries and regions. Lower economic development and socioeconomic status generally mean greater health problems related to alcohol, at least among people who drink alcohol.

The impact of alcohol consumption reaches deep into society. Alcohol consumption causes harm far beyond the physical and psychological health of the drinker. It also causes harm to the well-being and health of others. Diseases and injuries, for instance, have social implications, including medical costs, which are borne by governments, negative effects on productivity in the workplace, and financial and psychological burdens on families. Examples of harm caused to others include injuries from violence caused by someone who has been drinking too much.

Social harm from drinking can be classified in terms of how they affect important roles and responsibilities of everyday life: work, family, friendship and public character. The ability of a parent or guardian to care for children is adversely affected by drinking too much. There may be serious adverse immediate and long-term effects for the children because of neglect or abuse by the drinker.

Session 2: Alcohol, health, and HIV/AIDS (2 hours)

During this session the facilitators will work with participants to improve their understanding of how alcohol affects the human body, with specific attention to the impact of alcohol abuse. This will include different health-related problems related to consistent misuse of alcohol. Activities in this session will improve participants understanding of the short- and long-term health risks associated with hazardous alcohol consumption. By understanding what alcohol does to the human body participants will better appreciate the necessity of being aware of alcohol consumption and drinking behavior. A major part of this session will review alcohol-related HIV risks. Role plays and small group work will be used to encourage in-depth discussions about these topics.

Activity	Time	Materials Needed
Alcohol content and intoxication	60minutes	Handouts 3a and 3b: Standard unit diagrams (see slides with and without units) Handout 4a: Stages of Handout 4b: Intoxication scenarios Handout 5: Printout handout of slides – alcohol and HIV
Alcohol and HIV	60 minutes	Handout 5: Printout handout of slides – alcohol and HIV continued

Activity 1: Alcohol content and intoxication

Time: 60 Minutes
Materials Needed:

- Flipchart and pens (optional)
- Intoxication scenarios
- Figure of standard units of alcohol (see MOHSS/CORD materials – "Basic Facts about Alcohol")

Activity Summary:
This activity will introduce participants to the health effects of alcohol consumption and intoxication levels. Participants will understand that alcohol affects people differently depending on their body type, if they eat their gender, and how quickly they drink.

Learning Objectives:
By the end of the activity, participants will:

- Calculate the alcohol content of different drinks.
- Understand the concept of different levels of intoxication.

Procedure:
The facilitator will begin the activity by asking participants what facts they know about alcohol consumption and the effects of alcohol as it enters the body (including what they remember from the previous session). Participants should also be asked to share information that they are not sure about including rumors or things that they have heard about alcohol consumption.

Optional: the facilitator can record what is said on the flipchart.

Blood alcohol concentration (# of drinks) for someone weighing 64 Kg or more)*	**Stage of intoxication**	**Changes in Feelings/Personality**	**Physical and Mental impairments**
0.01-0.06 (1-2 drinks)	Individual appears normal	Relaxation Sense of well-being Loss of inhibition Lowered alertness Joyous	Thought Judgement Coordination Concentration
0.06-0.10 (2- 3 drinks)	Euphoria (extreme happiness)	Blunted feelings Disinhibition Extroversion (very outgoing) Impaired sexual pleasure	Reflexes Reasoning Depth Perception (hard to determine how far away things are) Peripheral vision
0.11-0.20 (4- 7 drinks)	Excitement	over-expression Emotional swings Angry or sad Boisterous (very excited)	Mood changes Harder to make good decisions takes longer to react more difficulty seeing clumsy tired Slurred speech
0.21-0.29 (7 – 9 drinks)	Confusion	Confusion Stupor Lose understanding Impaired sensations	Confused Dizzy Very emotional Harder to see Don’t feel as much pain very clumsy slurred speech extreme tiredness
0.30-0.39 (9 – 11 drinks)	Stupor (dazed)	Stupor (dazed)	Difficulty moving, controlling movements Trouble responding to people, other stimuli can’t stand or walk Vomiting; incontinence sleep or stupor
0.40 or greater (11 plus drinks)	Coma/Death	Unconsciousness and death	Complete unconsciousness Little or no reflexes Subnormal body temperature(body

			temperature is low) Incontinence Difficulty breathing Possible death

The discussion should include the following topics. If they are not brought up by participants the facilitator should ask the following questions to fill in any missing information:

Body Weight and Body Type – what impact do these have on how intoxicated a person gets?
In general, the less you weigh the more you will be affected by alcohol. For two individuals with similar body compositions but different weights, the heavier individual will have a lower blood alcohol concentration after ingesting the same amount of alcohol.

How quickly a person drinks – how does this effect how intoxicated a person can get?
How much alcohol is in the blood depends on how much alcohol is consumed and how quickly the person's body breaks down the alcohol. Because the body breaks down alcohol at a fairly constant rate (it takes one hour for the liver to clean one drink from the blood and nothing will speed this up, the liver works at a fixed rate) drinking alcohol at a rate higher than the rate the body can break it down means the body has more alcohol in it, or a higher concentration

Food: What impact do people think food has on alcohol concentration in the body?
Eating food along with alcohol can slow down the absorption of alcohol into one's system. While alcohol will still be absorbed from the stomach it is a slower.

Blood Alcohol Content:
What do people think this means? Why is it important?

Blood alcohol content is the percentage of alcohol in the blood. It increases as people have more drinks. It is an important concept because it helps us understand how different amounts of alcohol can affect people's health and their level of intoxication.

Intoxication Stages:
Once people understand blood alcohol content ask them to talk about what happens as people have more alcohol in their blood. Discuss the different characteristics or symptoms and ask them identify when they think this stage occurs ranging from less drinks to more drinks. The stages are:

*Remember – if a person weighs less than 64 kg, or is a woman they will need fewer drinks to get to this blood alcohol concentration, if they are a man and weigh more than 64 kgs they could drink more to get to this blood alcohol concentration

For 15 minutes discuss the stages with the group. Have they seen people at these different stages? What did they do if/when they saw someone in one of the last 2 stages (before death)? Have they ever heard of anyone dying from alcohol consumption? What happened? Was there

anything that could have been done to help that person? How does food impact how drunk a person can get? What about their weight or gender? What about how quickly they consume the drinks?

Split the participants into groups of 3 or 4 so that each one has a scenario. This scenario will describe an individual who has been drinking alcohol. For 10 minutes in their groups participants discuss what they think would be the level of intoxication of each person in the scenario and why. There are not right or wrong answers – the point is just to get people to talk about how different situations effect how intoxicated a person is and how many factors we need to consider.

Participants should then share their thoughts about how intoxicated the person is in their scenario with the group. The facilitator can guide the discussion with the following discussion questions:

Why did you choose that level of intoxication? What would have changed the level of intoxication of the person (more food, more drinks/less drinks, more time, their gender, etc)?

To wrap up the session participants should consider sensible drinking guidelines. This will help them later when they are coming up with ideas about how to serve safely, and how to create action plans around creating risk averse bar environments. Possible guidelines may include:

- eating before and while drinking
- drinking water or another, non-alcoholic drink between drinks containing alcohol
- knowing the alcohol content of each drink
- giving ourselves a personal limit when we know we will be drinking, and sticking to it
- spreading drinks over several hours
- having days when we don't drink at all
- not mixing different kinds of drinks, because it is difficult to lose track of how much we have consumed (how much alcohol content was in all of the drinks)

Not binge drinking – (occasional bouts of heavy drinking – 6 or more drinks, drinking heavily on weekends and not on the week, or going on a 'bender' – drinking constantly over days/weeks at a time) don't drink and drive

Stages of Intoxication - Scenarios

Scenario: A 31-year-old man weighing 98kg went to a restaurant with his friends in the afternoon. He talked with his friends at the restaurant for two and a half hours, eating Pap and kapana. Throughout the afternoon he drank two bottles of beer before going home.

Scenario: A 22-year-old woman weighing 49kg went to a bar with her boyfriend. She had not eaten all day, but since she had a hard day at work, she wanted to relax. She talked to her boyfriend about her day for two hours while she drank two bottles of beer.

Scenario: A 24-year-old man weighing 58kg invited several friends to join him at the bar. Before meeting his friends he ate some nicnacs and crisps. His best friend arrived first and the

two of them drank a bottle of beer each. Twenty minutes later, he drank 1 litre of tombo. He then ate a fat cake. Then 1 hour later he drank another bottle of beer.

Scenario: A 19-year-old boy weighing 64kg bought a bottle of spirits with some friends. They didn't have enough money to buy anything else so they didn't eat. He had eaten lunch three hours earlier. He drank two tots per hour for three hours until the bottle was empty.

Activity 2: Alcohol and HIV

Time: 60 minutes
Materials Needed:
-flipcharts and pens (optional)

Learning Objectives:
By the end of the activity, participants will:

- discuss the relationship between alcohol and HIV
- discuss how bar owners can discuss this relationship with their patrons/customers

Procedure:
The activity should start with a discussion about HIV/AIDS. This is important to assess what information participants have about HIV transmission and how to reduce risk of HIV.

Split the participants into 3 groups and give each group a question:

1) How is HIV transmitted?
2) How is HIV not transmitted?
3) How can we reduce our risk of HIV/prevent HIV?

After 10 minutes of small group discussion ask the participants to come together and share what they have discussed. Make sure the information in the box below is covered in the discussion.

How is HIV transmitted?
There are three ways that HIV is passed from human to human. The most common way is through sex.

1. Sex: If a person is HIV positive, HIV can be passed from his/her infected blood, semen or vaginal fluids directly into another person's bloodstream through the lining (mucous membrane) of the vagina, penis or rectum. During sex it is normal that friction will cause tiny scratches (or micro-abrasions) in these linings, which permit HIV to enter the bloodstream.

2. Mother-to-child transmission (MTCT): HIV can be passed from an HIV-positive mother to a baby during pregnancy, delivery, and breastfeeding. However, not all babies born from HIV positive mothers will have HIV. About one-third become infected with HIV if the mother has not been treated with antiretroviral (ARV) drugs.

HIV to spread, HIV found in an infected person's blood, semen or vaginal fluids has to get inside the other person's blood supply through openings in the skin, like needle punctures, cuts

and wounds.

How is HIV *not* transmitted?

- HIV can live only inside a human body. It cannot survive outside the human body – it starts to die as soon as it is exposed to the air. If HIV is exposed to heat (for example, if an HIV positive person bleeds into a cooking pot) it will die.
- HIV cannot pass through the skin on the outside of your body unless there is an open cut. It is easier, however, for HIV to pass through the skin on genitalia during sex because the skin in this area is thin and permeable, allowing HIV to pass through. Infections in the genital area (e.g., sexually transmitted infections or STIs) provide an easy way for HIV to enter the bloodstream, so people with STIs are at higher risk of becoming infected with HIV than other people
- HIV cannot be transmitted through saliva, tears, vomit, feces or urine, although tiny amounts of HIV have been found in these fluids. HIV is not found in sweat.
- HIV cannot be transmitted through unbroken skin (skin not broken by cuts, wounds, sores, lesions, etc.).
- HIV cannot be transmitted through casual contact, including: touching someone with HIV; touching or using something an HIV positive person has used (e.g., clothing); sharing eating or drinking utensils; using the same toilet seats.
- Caring for people living with HIV is not risky if the person follows sensible precautions such as disposing of sharp needles safely and keeping cuts covered.
- HIV is not transmitted by mosquitoes or other blood-sucking insects. Most insects do not pass blood from one person to another when they bite humans. For example, the malaria parasite enters the bloodstream in mosquito saliva, not blood.

How can you prevent HIV infection?

- If you have sex with many partners or you are unsure of your partner's sexual relations, always use or insist on a condom during sex.
- Protect yourself from contaminated bodily fluids.
- Women who are pregnant or intending to get pregnant should access MTCT prevention services to prevent HIV transmission.

Once the group has discussed HIV transmission and how to prevent HIV the activity will begin with the facilitator helping the group to brainstorm what they think is the relationship between HIV and alcohol. They should discuss:

Alcohol-related HIV risk behaviors including:

- risky sex including: sex with new partners, transactional sex or sex with sex workers, sex without condoms, incorrect use of condoms, and multiple partners
- Violence against women or gender-based violence–Women with violent or controlling male partners are at increased risk of HIV infection. Some studies suggest that abusive men are more likely to have HIV and impose risky sexual practices on partners. Violence often occurs when people are drunk.

People living with HIV

- drinking alcohol can affect how well medicines for HIV/AIDS work (antiretroviral therapy – ART)
- people who are drinking too much can forget to take their medicines regular

Once they have come up with a complete list, break the participants up into groups of about 4 people and ask them to come up with scenarios/role plays in a bar where a bar owner could intervene or talk to a customer about alcohol and HIV for 20 minutes. Help the teams to discuss the situation that arise, examples include:

- a bar owners wants to talk about safer sex to a customer
- a bar owner/server wants to make sure a customer takes condoms before leaving the bar
- a bar owner/server wants to talk to a good friend and customer who drinks often and meets sexual partners at bars about risk reduction and HIV

During this session the facilitator needs to make sure that:

- No one is blamed for behavior – it is important only to recognize risks and how alcohol makes it more difficult for people to make healthy choices
- Stigmatizing language and attitudes are not used, and are discouraged and discussed if used by the participants – drinking alcohol is not immoral or wrong, rather we need to recognize the risks and address them openly so that we can all live healthier lives

After each group has performed their role play or presented their scenario spend a few minutes (up to 5, depending on the number of groups) discussing with participants the different role plays. Were they realistic? What changes to they suggest? What additional information to they think they need, if any, to talk with their customers about alcohol-related HIV risk behaviors?

Session 3: Safer Serving and the Liquor Act (2-3 hours)

Now that the participants have an improved understanding of alcohol use and abuse, how alcohol impacts the body, and alcohol-related HIV risks, the facilitators will lead them in activities about how to safely serve alcohol. Participants will first be asked to share what they have seen in bars that can contribute to unsafe alcohol consumption. Role plays and storytelling will be used to review these scenarios so that participants can develop ways that a bar owner could have instead safely served a customer. Small group work will encourage participants to consider the challenges of safer serving, and then how they can address each of these challenges.

In this session participants will also learn about the laws in Namibia concerning alcohol sales. While participants may own or be working in bars that are unlicensed, it is important that they consider what the law requires and why. Before reviewing the actual law, participants will come up with items that they think should be in the law. Once they have done this the facilitator will review with them both the real laws and the law they developed and discuss similarities and differences. At the end of the session participants will discuss how they can follow the law in their bars, this will include reviewing what they have already decided are safer serving practices and understanding how these practices support the concepts outlined in the law.

Activity	Time	Materials Needed
Safer Serving and safer bars	60 minutes	Tool 75 from Tools Together Now (except of directions is included below)
The Liquor Act	60 minutes	The Liquor Act

Activity 1: Safer serving and safer bars

Time: 60 minutes
Materials Needed:
-note cards, pens, flipchart

Activity Summary: During this activity the participants will consider what it means to serve alcohol safely and to create a safer bar environment. They will then determine what factors will help them and what factors will make this process difficult, and come up with suggestions as a larger group about how to address those difficulties.

Learning Objectives:
By the end of the activity, participants will:

- understand the importance of safer serving
- come up with safer serving strategies that they feel could be implemented in their bars

Procedure:
As a large group, come up with a list of what it means to serve safely and create safer bars for their customers. The list should include:

1) not serving minors
2) not selling to already intoxicated people
3) not selling on credit
4) offering things to eat and things to drink other than alcohol
5) noise reduction and respect for neighbors
6) promoting healthy behaviors by providing information and through posters and adverts
7) making sure the bar is well lit
8) not allowing children to hang around the bar
9) closing the bar on time (operating hours)

Once you have come up with a list, have the participants break up into 3 groups. Each group should take 3 items on the list and do the **force field analysis** activity in the “Tools together now” workbook. Directions are cut/pasted in the box below:

1) Explain the purpose of the activity. Explain the difference between ‘supporting’ factors (things that can help bring about the change listed from happening) and ‘resisting’ factors (things that may prevent that change from happening).
2) Draw the force field as a vertical wavy line on the flip chart paper. Label the space on the left 'supporting factors'. Label the space on the right 'resisting factors' (see example on Tool 75).
3) Discuss the supporting factors and resisting factors. For example, bar owners who are trying not to sell on credit may identify a supporting factor as always getting paid upfront.

A resisting factor to this may be that “people do not have the money to pay for alcohol sometimes”.

4) Draw or write each supporting and resisting factor on a separate card.
5) Take one card at a time. Discuss the strength of the factor on the card.
6) Place each card on the force field. Draw a line from the centre of the force field to each factor. The length of the line shows the strength or weakness of each factor. The longer the line, the stronger the factor. The shorter the line, the weaker the factor.
7) When the activity is complete, discuss what the force field shows. For example, how can the group build on the supporting factors? What can the group do to overcome the resisting factors?

Activity 2: The Liquor Act

Time: 60 minutes
Materials Needed:
Flipchart and pens

Activity Summary: The participants will consider what they think should be included in the liquor act, and then review the actual act to understand what is included. While the participating bar owners may not be able to get licensed during the project period, it is important that they understand the act and to their best to adhere to the items it includes.

Learning Objectives:
By the end of the activity, participants will:

- Understand the liquor act
- Consider how they, as bar owners, can follow the rules of the act including how they can support each other

Procedure:
Divide into groups of 3-4 and ask participants to list possible law that should govern the operation of the bars,(10-15min) Present and discuss in a large group the listed laws. (10-15min). Compare the suggest laws to the current liquor act and discuss the importance of adhering to this laws. .(30min

Session 4: Action planning (approximately 2 hours)

Activities: See Tools Together Now Tool 69 and 73

Activity Summary: During this activity the participants will be introduced to planning methodology which will aid them in developing their action plans. This activity is intended to facilitate planning amongst participants. At the end of the activity participants will have a plan of action on what they will implement after the workshop.

Learning Objectives:
By the end of the activity, participants will:

- Under the importance of an action plan
- Draw up their own action plans

Procedure:
Divide into groups of 3 – 5 participants base on the section where they came from and ask them list the type of activities they would do after the training. Second have participant list the resources they would need to implemented their activities and who would be key implementers. Ask participant to then write down on the action plan template the activities they intend to implement with timelines and responsible people.

END OF MANUAL

Handout 1: Alcohol Knowledge Pre-test

1. 1 litre of Tombo has the same amount of alcohol as one dumpie (340 mL) of beer (False)

Discussion: Look at standard units chart to determine units for different beverages. First share unmarked standard units card and have people guess. Then tell them how much each beverage is. Make sure participants understand that the use of standard units helps us understand how much alcohol is being consumed.

2. In general, alcohol affects women more than men, because women are smaller and weigh less than men. (True)

Yes, alcohol affects women differently than men. Women become more impaired than men do after drinking the same amount of alcohol, even when differences in body weight are taken into account. This is because women's bodies have less water than men's bodies. Because alcohol mixes with body water, a given amount of alcohol becomes more highly concentrated in a woman's body than in a man's. In other words, it would be like dropping the same amount of alcohol into a much smaller pail of water. That is why the recommended drinking limit for women is lower than for men.

In addition, chronic alcohol abuse takes a heavier physical toll on women than on men. Alcohol dependence and related medical problems, such as brain, heart, and liver damage, progress more rapidly in women than in men.

3. Long term use of alcohol can cause permanent damage, or cirrhosis of the liver. (True)

Heavy drinkers have a greater risk of liver disease, heart disease, sleep disorders, depression, stroke, stomach sores/wounds, sexually transmitted infections from unsafe sex, and several types of cancer. They may have problems managing diabetes, high blood pressure, and other conditions.

4. A person’s size and weight can affect their level of intoxication by making their blood alcohol content higher or lower. (True)

5. Alcohol can lead to high blood pressure which can lead to death. (True)

6. 25% of men and 21% of women in Namibia drink more than 2 tots (60grams) of *pure* alcohol at least once a week. (True)

7. Heavy drinking is having more than 4 drinks per day (False – it is having 2 or more drinks per day – see standard units picture).
8. When women drink while pregnant the baby can be hurt (True)

Drinking during pregnancy can cause brain damage and other serious problems in the baby. Because it is not yet known whether any amount of alcohol is safe for a developing baby, women who are pregnant or may become pregnant should not drink.

9. Harmful use of alcohol results in 2.5 million deaths worldwide each year (True)

10. Only alcoholics experience problems because of alcohol abuse (False)

Answer Key (Handout 1A):

1. TRUE There is a limit to how much alcohol the human body can tolerate. When you drink too much, your blood alcohol level can rise to a point where it actually becomes poisonous.

2. FALSE The liver can break down alcohol at a rate of about .5 oz. per hour, which is about half the alcohol in an average drink. Once alcohol is in you bloodstream, nothing can speed this rate. Not caffeine. Not food. Not water. You might be full, but you won't be any less drunk.

3. FALSE Alcohol is not digested like other foods or beverages. It passes directly into the bloodstream through the tissue that lines the stomach and small intestine.

4. FALSE Sleeping does not increase the rate at which your body can process the alcohol in your system. It will still be metabolized at .5 oz. per hour, even while you snooze. So you can wake up and still be drunk.

5. FALSE When you have an empty stomach, alcohol is absorbed into the bloodstream through the small intestine within about five minutes. As soon as it's in the bloodstream, it takes about 90 seconds for it to be carried to all of the body's organs, including the brain. So you don't have to be drunk for your whole body to be feeling alcohol's effects.

6. TRUE Alcohol, like other drugs, has withdrawal symptoms. The common hangover has symptoms like headache, nausea, dehydration, and the shakes similar to the symptoms of withdrawal from narcotics, like heroin, and depressants, like tranquilizers.

7. FALSE Your motor coordination can be affected for as many as ten hours after you finished your last drink. So before you get in the car to drive home the morning after a party, think twice about your ability to drive safely.

8. TRUE If you drink so much that you pass out, it's because the alcohol has caused your brain to start shutting down, resulting in your loss of consciousness. The amount of alcohol it takes to make you pass out is dangerously close to the amount of alcohol it takes to kill you.

9. FALSE Consumption of alcohol may loosen up your sexual inhibitions, but excessive drinking can cause impotence in men and decreased vaginal or clitoral sensation in women.

10. FALSE When you drink too much, that's the same thing as overdosing on alcohol. Alcohol is a depressant drug that slows the central nervous system, decreasing your heart and breathing rates and lowering your blood pressure. A dangerously high blood alcohol level can cause your heartbeat and breathing to stop altogether, which means you can die from drinking too much.

11. TRUE Children of alcoholics are three to four times more likely to become alcoholics themselves. So if you've got a family history of heavy alcohol use, you are at a greater risk of developing alcohol problems.

END

APPENDIX C

COMMUNITY MOBILIZATION MANUAL

AIDSTAR-One HIV Prevention Demonstration Project:
Reducing Alcohol-related HIV Risk in Katutura, Namibia

Community Mobilization Manual

I. Introduction

Purpose of this manual

The purpose of this manual is to describe the plan for conducting community mobilization activities for the AIDSTAR-One HIV Prevention Demonstration Project: *Reducing Alcohol-related HIV Risk in Katutura, Namibia*. Community Mobilization is one of two strategies of the intervention. The other strategy of the intervention is to create a risk averse bar environment. The strategies are complementary and overlap, as bar owners are also community members. Therefore, this manual should be used together with the manual for working with bar owners to create risk-averse environments.

How to use this manual

This manual provides the basic information necessary to begin the process of community mobilization, including what it means to mobilize community members as well as information about HIV/AIDS and alcohol. However, this manual does not provide exact activities that should be implemented as part of the community mobilization component. Instead, mobilizers need to be able to facilitate community discussions and help the community come up with action plans for addressing issues that are realistic and sustainable. It is also the responsibility of the mobilizers to track the activities so that community members and the research team can understand why they were successful (or not).

II. Introduction to the Community Mobilization Component

A. What is community mobilization?

Community mobilization is not simply about doing lots of things with lots of people. Implementing a community mobilization approach requires careful organization and a unique understanding of our role. Community members are at the forefront of the work, leading and maintaining the momentum of the activities. We move out of our comfort zone as "project implementers" and instead do the following:

- Stimulate critical thinking rather than tell people what to think.
- Facilitate change rather than dictate change.
- Foster dialogue rather than promote messages.
- Persuade rather than preach.

To succeed we must break down concepts of "us" and "them." We must stop thinking in terms of 'targets' and 'beneficiaries' and instead see ourselves as part of the community we are mobilizing.

Community mobilization tries to make sure that the people most affected by an issue, such as HIV/AIDS and hazardous alcohol consumption, can play an active and influential role in shaping an effective response to it. It means that community members take responsibility for addressing issues themselves, with the support of others (including us) where necessary.

Ultimately, any community mobilization process aims to empower communities to take effective action to address issues in ways that they had not managed to achieve before. Communities have different characteristics and needs, and the way they mobilize has to suit these. That is why there is no single model for how to do community mobilization. For communities to coordinate an effective response to issues they are facing they need to have:

- Frequent and useful exchange of ideas and issues with each other, and
- Regular contact with other individuals and organizations who may be able to offer them new knowledge and skills related to these issues.

The ultimate goal of the community mobilization component of this project is to ensure sustainability and build social capital in the community so that they can mobilize around issues that matter to them.

B. Why community mobilization?

This project aims to change the environment where people make decisions about how much and how often they drink with the ultimate goal of reducing harmful and hazardous alcohol consumption, and related HIV risk behaviors.

During the formative research we talked with community members, bar owners and with bar patrons. From what they shared with us we know that:

- Community members feel that hazardous drinking is related to other problems in the community, including HIV and violence;
- There are few, if any, organizations working in the community;
- Community members feel disconnected and overlooked, and are unable or have few opportunities to communicate their needs to anyone with power;
- There is little to no police presence in Kabila;
- Most bar owners do not have licenses, and;
- Most bars are open late, can be noisy and dangerous.

Community mobilization is often the cornerstone to any HIV/AIDS program. From the information we have gathered, it is clear that this program is no different. In fact, because of the problems faced by residents of Kabila, community mobilization is especially important. The alcohol selling going on in Kabila is unchecked by the usual regulatory forces, and this situation is unlikely to change in the near future. Furthermore, as Kabila expands, addressing hazardous alcohol consumption will become increasingly important. Our research also revealed that shebeens are among the easiest, and most profitable businesses (when compared to other businesses in Kabila). To curb the continued growth of unregulated alcohol consumption, the community must be involved.

IMPORTANT NOTE: Throughout the community mobilization process the team of staff and volunteers need to be careful NOT to stigmatize or demonize alcohol sellers. Running a good business, including selling alcohol, is an important part of the economy and provides income for many people who may otherwise be unemployed. The community mobilization process needs to create a positive and supportive environment where all community members feel represented and responsible for making positive change.

To mobilize a community around any issue or problem, such as the HIV epidemic, is to raise the community's consciousness about that issue through education, support the community to think about how the issue affects them, and to nurture the will and commitment of community members develop constructive responses.

C. Goals and objectives of Community Mobilization

The overall goal of the community mobilization component is to build a foundation for sustainable change towards less hazardous alcohol consumption and reduction of related HIV risk behaviors.

As part of this overall goal, the specific aims of the community mobilization component are to:

Build community members' capacity to advocate for their collective interests so that the project can begin to address the context in which hazardous drinking occurs in Kabila
Encourage community members to mobilize themselves for action;
Provide eligible community members with information and linkages with inpatient or outpatient treatment programs for alcohol dependency, and to HIV prevention and treatment.

D. Who are the community mobilizers and what do they do?

As mentioned above, the purpose of the community mobilization component is to facilitate and not to lead the community's response. What this means in practical terms is providing support in terms or organizing activities, arranging meetings with key stakeholders (for example, councilors or other government officials) so that the community can have an active and influential role in shaping the activities that take place. For this to be successful community mobilizers need to be:

- Knowledgeable about hazardous alcohol consumption and HIV
- Good listeners and facilitators
- Realistic about the activities possible, so that they can provide useful feedback and/or suggestions to community members
- Organized in order to help plan activities, follow-up when necessary, arrange meetings, and coordinate with project team;
- Credible and reliable so that community members trust them and know that they have their best interests in mind.

In addition to the work in the community, community mobilizers also need to work with the project team to collect information about the kinds of activities, the numbers of participants, and the successes and challenges that are faced.

E. Community Action Forum

Part of the community mobilization component will be to facilitate the creation and maintenance of a community action forum. This purpose of this forum is to encourage community members to mobilize themselves for action needs to be a primary focus for the success of this program. Community members participating in the forum will receive the same training as bar owners.

The exact content and form of the activities would be defined by the community, but could include organizing:

- Community enforcement of common bar closing hours;
- Community safety patrols;
- Community recreation activities as alternatives to drinking, or;
- A neighborhood business association that could help community members develop alternative cooperative business activities.

The community forum will help the intervention team and community members work with local government, civil society organizations, and other stakeholders, discussing issues and developing solutions.

II. Community mobilization around reducing hazardous alcohol consumption and related HIV-risk behaviors

As community mobilizers, we need to find ways to get people motivated around issues in the community, and to help them feel empowered to make change. One way of doing this is to conduct research in the community with community members to get people interested. As part of this project we have already conducted research, including a survey with bar patrons, and discussions with community members, bar owners and bar patrons about alcohol, HIV and other problems in their community. Please review this report before conducting any community mobilization activities. With this information workshops were conducted with community members to talk about the information and get their feedback about what we learned.

The community mobilization component will build off these workshops. Please see the workshop reports to find out more information before working in the community.

Suggested follow-up steps for the workshops are outlined below.

Step 1: Identifying and involving different stakeholders and getting organized:
To start, we need to first introduce ourselves to the community and to discuss the community mobilization process. It will also require Identifying community leaders/stakeholders and understanding the community leadership structure.

Step 2: Learning more about the community and the problems different people face, and identifying possible solutions
The information collected from the formative research is useful not only for the us, as programmers and researchers, but is also useful for the community. Given that much information about the community was collected in the formative research, sharing this information and receiving feedback and generating discussion is the next step for community mobilization. The main focus of this step is to identify possible solutions.

Step 3: Planning - prioritizing problems and deciding how to solve them
As community mobilizers we need to support the community in deciding how to address the different problems and issues identified. With community members we will review the current situation by **analyzing** the findings from the research. We then **prioritize** the most urgent problems and needs. We choose **strategies** to address these issues depending on their **feasibility, impact and sustainability**. Planning together also involves deciding how these strategies will be put into action. We need to agree the practical details of who will do what and when. We also need to decide how we will monitor progress towards our shared vision of the future.

For each of the strategies:
What will they do?
How will they do it?
Who will do it?
When will they do it?
What are the expected outcomes (how will progress be measured)?
Action plan?

Example activities:

- Raising Awareness about alcohol, HIV, and alcohol-related HIV risk behaviors
- Managing crime and aggression
- Community patrols – purpose, length of commitment, membership (who to include)
- Community volunteers – goals, length of commitment, responsibilities, how selected
- Holding events – purpose, type, who is involved, who is target audience (youth, general awareness raising), who will participate
- Providing community members with referrals to treatment
- Reducing advertisements for alcohol from the community.
- Lobbying bar owners for early closing
- Developing a shebeen owner code of conduct – (addresses closing hours, serving minors)
- Responding to the link beween crime and liquor outlets – sellers against crime
- Reducing/eliminating sales of alcohol on credit
- Making shebeens safer
- Providing alternatives to drinking: music and entertainment – alternative activities to drinking
- Addressing issues of youth and drinking

Step 4: Doing what we planned
Our activity plans are the guiding framework for our community mobilization process. They help us to stay focused on the purpose of each activity. Carefully made plans will tell us who will do what, where they will do it and when they will do it.

Preparation means getting ready to do an activity. We need to make sure that all of the resources and people are in place to carry out the activity. For example, our plans may involve organizing a community patrol. Preparation for this activity will include identifying people to participate in the patrol, arranging for t-shirts or badges for patrol members to be easily identified, meeting regularly to schedule and organize patrols, arranging logistics, including a safety plan, and addressing challenges.

Each activity should include follow-up. Follow-up means building on the results of each activity. For example, follow-up activities for the community patrols will likely to include providing ongoing support to newly trained volunteers, addressing challenges or problems together, and scheduling future patrols.

Coordinating our activities with other stakeholders
Good coordination by the community mobilization team improves the effectiveness of our activities and helps to use resources efficiently. Coordination between stakeholders also encourages networking, collaboration and the sharing of skills and experiences. We can encourage coordination between stakeholders by:

- Establishing good communication channels between stakeholders (these can include regular meetings, one-to-one communication, posters, written reports, etc.). Stakeholders need to know who they should communicate with, about what and why
- Planning activities together and combining resources to implement together where appropriate
- Discussing progress, challenges and achievements together in order to learn from our experiences and adapt plans as necessary
- Establishing effective mechanisms for a particular activity to enable coordination. These often involve committees formed by representatives of different stakeholders.

Step 5: Solving problems in carrying out activities
Plans are only a guiding framework and may need to be adapted when the work is carried out. Acting together will bring challenges and problems that we need to solve together. The activities may be harder to carry out than we expected. There may be obstacles that we did not foresee when we were planning. Conditions may change or the activity may not produce the results that we expected. Identifying and responding to problems quickly will help us find solutions and prevent small problems growing into big ones.

Sharing experiences can often help solve problems. Community members and other stakeholders carrying out activities are likely to benefit from regular opportunities to discuss issues with people who face similar challenges.

Community mobilization often involves shifts in the balances of power between stakeholders. This can be unpopular with some stakeholders as they may feel they are losing authority or status. Measuring what empowers and disempowers people can help avoid this. Others may feel that they have been unfairly excluded from the benefits of the activities. The involvement of stakeholders in the community mobilization process from the beginning may help reduce sabotage by providing constructive channels for stakeholders to participate. Similarly, a participatory approach will promote transparency, which will help avoid misunderstandings about potential benefits of the activities.

Step 6: Staying motivated and managing our expectations
After assessing and planning together, we are likely to make an enthusiastic start with high expectations. It may take some time before we begin to see results. Genuine ownership of the mobilization process is essential for the motivation of community members. As community action starts to show results, this will help motivate people to continue their efforts. However,

it can be hard to maintain enthusiasm in the early days when our efforts are not rewarded quickly.

Step 7: Monitoring and adapting our plans

Monitoring and evaluating helps us to assess the progress we are making towards our aims and objectives. It enables us to answer important questions, such as:

- How well are we doing?
- How far are we from meeting the aims and objectives we have set ourselves?
- Are we doing the right things?

Monitoring is a routine process. We use it to adjust and improve our plans and activities on a frequent basis.

We will collect information about what we have done and about the results we have achieved. Using information to assess what activities we have done and to adjust plans and activities For example, have we done everything we planned to do? If not, why not? Have we done things we did not plan? Why? We also review if we are doing the right thing. For example, we might have expected our activities to improve safety in the community through our community patrols, but our monitoring tells us that there has been no change. We need to understand what is occurring during the patrols (how many people are attending? When do the patrols take place?) to understand how to improve them, or if they are the right strategy for improving safety.

III. Alcohol and HIV

During community mobilization activities, information about hazardous alcohol consumption, HIV, and alcohol-related HIV risk behaviors should be shared. In some cases, this could be the purpose of the meeting. If this is the case, the meeting should not be a didactic presentation but should be a discussion with activities so that community members have an opportunity to share what they know, and facilitators (community mobilizers) can fill in any gaps in information, ask questions, correct misperceptions, and provide information about linkages to care and treatment for both alcohol and HIV.

A. Alcohol

Alcohol is a drug that changes how the body works. It can be found in homebrews (including home-made beer and liquor), beer, spirits, and wine. It can be consumed safely, or in hazardous amounts. How it is consumed depends on where we are, who we are with, and the environment around us.

Different types of alcohol have different strengths:

- Traditional beer contains about 3% alcohol and is made of a fermented mixture of maize meal, sorghum, sprouted mealies, and water. Fermentation in the sun increases the alcohol content.
- Commercial beer contains between 3-5% and is made of fermented mixture of grains and malt in water with hops to give it flavor. The fermentation is what makes the alcohol.
- Cider or alcohol fruit drinks contain about 6% alcohol and are made from fermented mixture of fruit and water.
- Wine is made by fermentation of grapes or other fruit and can range from 9-14% alcohol. Some wine is unlabeled so it's hard to tell how strong it is.
- Homebrewed Beer (for example, tombo and ombike) has about 10% alcohol and is made at home from sorghum malt or powdered beer, sugar and other ingredients.
- Other homemade alcohol (made at home or at shebeens) often has high alcohol content and is made from a mixture of different things, sometimes battery acid and are very poisonous.
- Liquor, like Amarula, has an alcohol content of between 17-30%.
- Fortified wine (port wine and sherry) has an alcohol content of between 18-21% and contains a mixture of wine and spirits.
- Spirits, including whisky, gin, brandy, rum, cane spirit, vodka, contain 43% alcohol and are made by distilling a fermented mix of grain, fruit or molasses.

Facts about alcohol:

- Alcohol can poison the human body if taken in large amounts
- In small amounts it can give people a feeling of well-being
- A moderate amount doesn't harm most people
- Regular heavy drinking will cause health problems over time.
- Any heavy drinking/binge drinking can lead to problems like violence and unsafe sex.

Standard Units of Alcohol

Since different alcoholic drinks contain different amounts of alcohol it is hard to compare drinks because one bottle of beer is not equal to the same amount of wine. Instead, we can talk about standard units. A standard unit is actually 12g of alcohol, but it's easier to understand in the illustration below. Next to each drink is the number of standard units of alcohol it contains.

How alcohol effects the body

Before talking about hazardous drinking, we should review that it is possible to drink moderately and that there are positive reasons why people drink alcohol, including to relax, to show hospitality, for cultural reasons and to be social. In moderation, none of these are problematic.

When a person drinks different things happen inside their body:

- Alcohol goes into the bloodstream through the stomach and the gut

Alcohol affects different people in different ways. The same amount of alcohol does not impact each person the same way:
Gender: It takes less alcohol for women to get drunk because women's bodies have less water and more fat than men's bodies.
Food: Alcohol affects us more if we drink on an empty stomach. It's important to eat before drinking alcohol.
Alcohol content: As we know from the illustration of standard units above, different alcohol drinks have different amounts of alcohol in them.
Tolerance: When people drink a lot, they become tolerant to alcohol. This also means that they need to drink more to get drunk.

- Alcohol travels quickly around the body in the blood
- Alcohol affects the brain within 5 minutes of drinking
- Alcohol slows down all parts of the brain
- Alcohol makes you less sensitive to pain, affects the part of the brain that helps us balance, and increases heat loss from the body
- It takes one hour to clear one drink from your blood stream.

Binge Drinking

Binge drinking depends on each person's idea of their own capacity to drink, but generally it means occasional bouts of heavy drinking. People who drink heavily, but only on weekends sometimes think that they do not have a drinking problem, that only people who drink everyday have a drinking problem. However, binge drinking is dangerous and risky. One of the reasons will be discussed more later – the relationship between binge drinking and unprotected sex, and HIV – but other reasons include car accidents when people drive drunk, and becoming more violent and aggressive. Also, large amounts of alcohol can lead to major health problems and even death.

Long-term drinking

Heavy drinking over a long-term period can result in permanent damage to the brain, nervous system, digestive system, heart and liver. Long-term heavy drinking can also increase the chance of getting some cancers. People who drinking heavily for a long period often do not eat well and get sick easier because they have lower immunity to infections and illnesses.

Fetal Alcohol Syndrome

When a woman drinks heavily while she is pregnant it's possible that the fetus can be affected. The baby can be born with Fetal Alcohol Syndrome (FAS). Doctors still have questions about the effects on the fetus. However, the fetus is harmed more when a pregnant woman drinks early in the pregnancy and the harm depends on the amount of alcohol consumed.

Alcohol abuse and dependency

Alcohol abuse is a pattern of drinking that results in harm to one's health, relationships, or ability to work. Signs of alcohol abuse include the following:

- Failure to fulfill major responsibilities at work, school, or home.
- Drinking in dangerous situations, such as drinking while driving or operating machinery.
- Legal problems related to alcohol, such as being arrested for drinking while driving or for physically hurting someone while drunk.
- Continued drinking despite ongoing relationship problems that are caused or worsened by drinking.

Guidelines for sensible alcohol drinking:

- Eat before and while drinking
- Drink a glass of water between alcoholic drinks
- Know how much alcohol your drink contains
- Limit how much you drink
- Spread your drinks out over several hours
- Don't drink and drive
- Have days where you don't drink at all.

- Long-term alcohol abuse can turn into alcohol dependence.

Dependency on alcohol, also known as alcohol addiction and alcoholism, is a chronic disease. The signs and symptoms of alcohol dependence include:

- A strong craving for alcohol.
- Continued use despite repeated physical, psychological, or interpersonal problems.
- The inability to stop drinking.

Alcohol and the environment

Our environment have a strong influence on how much we drink, who we drink with, and how we behave when drinking. Some environments make it easier for risky, heavy drinking to occur. It's possible to make it easier to drink safely in these situations, by:

- Reducing the availability of alcohol by making changes to the types of places alcohol can be served, and by changing how alcohol is served;
- Making alcohol more expensive, and;
- Having and enforcing drinking age restrictions.

B. HIV/AIDS

What is HIV?

HIV stands for **H**uman **I**mmunodeficiency **V**irus:

- **Human:** HIV affects only human beings, and its mode of transmission is person-to-person.
- **Immunodeficiency:** HIV creates a deficiency within the body's immune system and weakens it, thereby making the body more vulnerable to disease and infection.
- **Virus:** HIV is a virus, classified within a family of viruses known as "retroviruses."

How does HIV work inside the human body?

HIV attacks the body's immune system. The immune system is the body's defense against sickness and disease, and includes CD4 cells that fight against germs entering the body. When a person contracts HIV, the virus invades the CD4 cells and damages them to the extent that these cells can no longer perform their function of protecting the body and keeping it healthy. Germs then take advantage of the weakened immune system and attack the body.

How does HIV harm the body?

When HIV invades a host CD4 cell, it uses the machinery of the cell to make copies of itself. These copies (new viruses) leave the host cell to infect more cells. Each infected cell becomes damaged and eventually dies, thereby weakening the immune system. HIV can exist and flourish alongside antibodies produced to fight against it by the host cell, so the body continues to weaken.

This weakening of the immune system occurs over a period of time.

People do not acquire HIV and die immediately. Most people who have been recently infected with HIV do not display or notice any symptoms. Some people may suffer flu-like symptoms for a few weeks shortly after being infected, but there are no other signs of early HIV infection. The infected person feels healthy for a while, but over time the immune system becomes weak and unable to resist germs and disease. (However, the virus remains in the body and can be passed to other people.) At this stage the person is "HIV-positive" but has not developed Acquired Immunodeficiency Syndrome or AIDS.

Eventually, the weakened body becomes so vulnerable to infection that it is attacked by diseases such as tuberculosis (TB), pneumonia, cancer and meningitis – what are called "opportunistic infections" or OIs. When the body is too weak to fight these diseases, the person is said to have AIDS: a collection of diseases that attack a person after HIV has made the body weak. When the body is severely weakened, the person can die from one or more of these opportunistic infections.

HIV invades the body like termites invading a house. To begin with, there is no warning and no visible damage. The virus hides inside white blood cells (CD4 cells) and multiplies – just like termites hide inside and eat the timber which holds the house together. Nobody realizes that the structure of the house is being slowly and invisibly weakened. One day a strong wind comes along and knocks the house down.

What is AIDS?

AIDS stands for **A**cquired **I**mmuno**d**eficiency **S**yndrome:

- **Acquired:** not born with; something that a person gets from another person
- **Immuno-:** relating to the body's immune system, which is the part of the body which fights off germs
- **Deficiency:** the immune system is not working properly to fight off disease/infection
- **Syndrome:** a set of illnesses that attack the body when its immune system is weak

AIDS is the advanced stage of HIV infection at which the body's immune system has become extremely weak. HIV slowly destroys the power of the body to fight infection and disease. The person becomes seriously sick and vulnerable to a group of diseases or "opportunistic infections," and falls ill frequently from one or more of these infections. This is called the "syndrome," and can eventually lead to death. The symptoms of AIDS include swollen glands, weight loss, frequent fever, diarrhea, cough and skin problems.

What is the difference between HIV and AIDS?

- HIV is the virus that causes AIDS. It develops slowly in the body over a period of time and, as it develops, destroys the body's capacity to fight infection and disease.
- AIDS is the advanced stage of HIV infection when HIV has destroyed the CD4 cells which protect the body's immune system. The body is then susceptible to infections, including TB, pneumonia, cancer, meningitis and other illnesses.

A person infected with HIV can remain healthy for many years with no physical signs or symptoms of infection. A person with the virus but no symptoms is HIV positive. Most people living with HIV do not even know that they have the virus.

Once a person living with HIV begins to get sick and develop opportunistic infections, she/he is said to have AIDS. "AIDS" is a clinical definition given to people living with HIV who have a CD4 count of below 200, or have contracted one of a number of infections including TB, rare cancers, and eye, skin and nervous system conditions. (A CD4 count is a test to count the number of CD4 cells, the infection-fighting blood cells which are attacked and killed by the HIV virus. As these cells are destroyed, the body's immunity is lowered and it becomes susceptible to a variety of opportunistic infections.)

Where does HIV come from?

Nobody knows where HIV came from, exactly how it works, or how to eliminate it from a person. When AIDS first appeared in a country, people mistakenly blamed the spread of the disease on groups such as poor people, sex workers, men who have sex with men, migrant workers, and similarly-marginalized social groups who were more vulnerable to HIV infection because of poverty and lack of access to services or information. People who did not belong to the accused groups mistakenly thought that only those groups were vulnerable to HIV infection and that "it can't happen to me." Misinformation and confusion about where AIDS comes from, how it works and whom it affects make many people deny that it even exists.

How is HIV transmitted?

There are three ways that HIV is passed from human to human. The most common way is through sex.

1. Sex: If a person is HIV positive, HIV can be passed from his/her infected blood, semen or vaginal fluids directly into another person's bloodstream through the lining (mucous membrane) of the vagina, penis or rectum. During sex it is normal that friction will cause tiny scratches (or micro-abrasions) in these linings, which permit HIV to enter the bloodstream.

2. Mother-to-child transmission (MTCT): HIV can be passed from an HIV-positive mother to a baby during pregnancy, delivery, and breastfeeding. However, not all babies born from HIV-positive mothers will have HIV. About one-third become infected with HIV if the mother has not been treated with antiretroviral (ARV) drugs. **(See more information about MTCT below).**

3. Blood transfusions and unsterilized equipment: HIV can be transmitted by HIV-infected blood transfusions, contaminated injecting equipment (syringes/needles), and razors. People who inject drugs are at risk of contracting and spreading HIV through sharing needles. Care should be taken with needles used for injections and with razors: every needle or razor should be sterilized. In the case of repeated use, the needle or razor should be re-sterilized before it is used by another person. Open wounds should be kept covered at all times, on every person, whether the person is living with HIV or a caregiver.

For HIV to spread, HIV found in an infected person's blood, semen or vaginal fluids has to get inside the other person's blood supply through openings in the skin, like needle punctures, cuts and wounds.

How is HIV *not* transmitted?

- HIV can live only inside a human body. It cannot survive outside the human body – it starts to die as soon as it is exposed to the air. If HIV is exposed to heat (for example, if an HIV-positive person bleeds into a cooking pot) it will die.
- HIV cannot pass through the skin on the outside of your body unless there is an open cut. It is easier, however, for HIV to pass through the skin on genitalia during sex because the skin in this area is thin and permeable, allowing HIV to pass through. Infections in the genital area (e.g., sexually transmitted infections or STIs) provide an easy way for HIV to enter the bloodstream, so people with STIs are at higher risk of becoming infected with HIV than other people.
- HIV cannot be transmitted through saliva, tears, vomit, feces or urine, although tiny amounts of HIV have been found in these fluids. HIV is not found in sweat.
- HIV cannot be transmitted through unbroken skin (skin not broken by cuts, wounds, sores, lesions, etc.).
- HIV cannot be transmitted through casual contact, including: touching someone with HIV; touching or using something an HIV-positive person has used (e.g., clothing); sharing eating or drinking utensils; using the same toilet seats.
- Caring for people living with HIV is not risky if the person follows sensible precautions such as disposing of sharp needles safely and keeping cuts covered.
- HIV is not transmitted by mosquitoes or other blood-sucking insects. Most insects do not pass blood from one person to another when they bite humans. For example, the malaria parasite enters the bloodstream in mosquito saliva, not blood.

How can you prevent HIV infection and spread?

- If you have sex with many partners or you are unsure of your partner's sexual relations, always use or insist on a condom during sex.
- Protect yourself from contaminated bodily fluids.
- Use disposable syringes obtained from a reliable source. Never reuse syringes.
- Women who are pregnant or intending to get pregnant should access MTCT prevention services to prevent HIV transmission. **(See more information about MTCT below).**
- Blood transfusion: insist on having blood that has been tested for HIV from a licensed blood bank. It is safer when a known person donates blood for you but not foolproof, so all transfused blood should be pre-tested for HIV.

THE HIV TRANSMISSION EQUATION

→ **Human host with HIV:** a human being has to carry the virus in order to infect another person

\+ **Body fluid that carries large amount of HIV:** blood, semen, vaginal fluid, or breast milk

+ **Opening into the bloodstream:** such as needle holes or cuts/tears in the anus, vagina, or penis

+ **Activity that can move these fluids between people:** unprotected sex (anal, oral or vaginal), sharing infected needles, breastfeeding, or blood transfusion with infected blood

= **Possibility of Infection**

QQR – Quality, Quantity, Route of Transmission

For HIV transmission to take place, the quality of the virus must be strong, a large quantity must be present, and there must be a route of transmission into the bloodstream. All of these things must be present for someone to get infected with HIV.

Quality: For transmission to take place, the quality of the virus must be strong.

- HIV cannot survive outside the body. It starts to die the moment it is exposed to the air.
- HIV is not an airborne virus. This is why there is no risk of transmission in sitting close to or sharing the same room with someone living with HIV.
- HIV does not live on the surface of the skin; it lives inside the body. There is no risk from shaking hands or hugging someone. The only place the virus can survive outside the body is in a vacuum (like inside a syringe) where it is not exposed to air.
- HIV will die if it is exposed to heat, e.g., if someone bleeds into a cooking pot.

Quantity: For transmission to take place, there must be enough quantity of the virus.

- HIV is found in large quantities in blood, semen, vaginal fluids, and breast milk.
- HIV is not found in sweat or tears.
- HIV can be found in very small amounts in saliva, vomit, feces, and urine, but the quantity of HIV is not enough for there to be any risk of transmission.
- Cleaning or bathing a patient is quite safe, provided that if the caregiver has any wounds, these are covered.
- Kissing, even deep kissing, poses no risks.

Route of Transmission: For HIV transmission to take place, the virus must get inside your bloodstream.

- Our body is a closed system, and HIV cannot pass through unbroken skin.
- HIV can pass through the skin on the genitals – penis, vagina, or anus – during sex because the skin there is much thinner and has small openings through which HIV can pass.
- The vagina has a large surface area of mucous membranes which can get cut during sex, allowing HIV to get into the body and bloodstream of the woman.
- The rectum has a large surface area and the skin in the rectum is very susceptible to tears during anal sex, especially if the inserting partner is not using lubricant. This is why it is very important to use water-based lubricant during anal sex.

- The skin on the penis is stronger than the skin in the vagina; it is less prone to cuts so it is less vulnerable to penetration by HIV. However, HIV contained in blood and rectal fluids can pass through the urethra of the penis or under the foreskin of someone who is uncircumcised. Men who are uncircumcised are more likely to become infected with HIV if exposed during unprotected anal sex than men who are circumcised.
- When we inject drugs, the infected blood can go directly into the bloodstream.

Following common sense and observing good everyday hygiene means that many occurrences people worry about would not really happen in everyday life. We would not put ourselves in these positions because of standard concern about hygiene. For example, you would not share a toothbrush if it were covered in blood; you would wash if you cut yourself; and you would wear gloves or cover your hands when cleaning up someone's diarrhea.

Using QQR you can see why there is no risk of HIV transmission by:
Kissing. Hugging. Sitting beside or sharing rooms with people living with HIV. Mosquito bites. Sharing cups, glasses, plates, bowls, and chopsticks. Sharing sheets, towels, or clothes. Giving blood. Sharing toilets. Using the same washing water. Sneezing or coughing.

These three conditions – quantity, quality and route of transmission (QQR) – explain why HIV cannot be transmitted by activities such as:

- Touching the skin or sweat of a person living with HIV
- Changing the clothes of or serving food to a person living with HIV
- Taking the blood pressure of a person living with HIV
- Shaking hands with someone living with HIV
- Hugging someone with HIV
- Kissing someone with HIV when your mouths are clean and clear of cuts or sores

Factors which increase the risk of HIV transmission through sex:

- Viral load of the HIV-positive person: Higher viral load increases the risk of HIV transmission. The highest viral loads occur at the initial stage of HIV infection (before an individual even tests positive for HIV) and in the final stages (full-blown AIDS).
- Having multiple partners: If you have sex with multiple people regularly and do not use condoms with all partners, HIV can pass quickly to other members of your sexual network. Remember, a viral load (quantity) is highest immediately after infection. So, if you got infected last week and have unprotected sex with someone else today, you are more likely to pass on the virus.
- Presence of cuts or wounds: Wounds or cuts on either sexual partner's body increase the risk of HIV entering the bloodstream during sexual activity.
- Presence of other sexually transmitted infections (STIs): STIs cause sores or broken skin, making it easier for infected blood to get through the skin into the bloodstream.
- Having sex during a woman's menstrual period: The presence of blood increases the vulnerability to and risk of HIV transmission.

- Using Vaseline, lotion or oil as a lubricant for condoms: Not using a water-based or silicone-based lubricant can cause condoms to break.

Mother-to-Child Transmission (MTCT)

When HIV passes from an HIV positive mother to her baby, it is called "mother-to-child transmission" or MTCT.

Babies may contract HIV while they are in the mother's womb. The blood circulatory system of the fetus is separate from the mother's system. The fetus floats in a bag of liquid, and is attached to the mother's uterus by the placenta, which acts as a barrier between the mother's blood and the fetus's blood. The mother's blood carries nutrients to feed the fetus after passing through the placenta. The placenta is meant to filter out entities that can harm the fetus, like infections, but sometimes fails. At such times, HIV can pass from an HIV-positive mother into the fetus.

Babies may contract HIV through direct contact with blood and fluids during birth. Most HIV transmission occurs during labor and delivery. When the baby travels through the mother's birth canal, the baby's skin can get damaged and HIV can be transmitted when the baby comes into contact with the HIV-positive mother's blood. If the mother experiences bleeding during delivery due to cuts, or from medical and other instruments used to facilitate the delivery, the baby's chances of contracting HIV increase.

Babies may become infected with HIV when the mother is breastfeeding. The chances of the baby contracting HIV are high when the HIV-positive mother has a high level of the virus ("high viral load") in her blood at the time of breastfeeding. If the mother has cracked nipples, painful swelling of the breasts through mastitis (an infection of the breast tissue that causes pain, swelling and redness), or if the baby has thrush (fungal disease) or sores in the mouth, the risk of transmission increases.

Roughly one-third of HIV-positive mothers pass the virus to their babies. The more HIV is present in the mother's blood, breast milk and other fluids, the higher the chance of transmitting HIV to the baby. The amount of HIV present varies, depending on the stage of the illness. Soon after a person is infected with HIV, a high viral load is present in the blood and bodily fluids because fewer antibodies are present to fight the virus. Later, if the person gets sick with illnesses caused by HIV, the viral load increases. When the person becomes very ill (has AIDS), the virus is very high and can be passed on easily. Therefore, if a woman becomes infected with HIV while she is pregnant or breastfeeding, then the chances of that baby contracting the virus increase. If a woman gets pregnant or breastfeeds when she is showing signs of AIDS, then the chances of the baby contracting HIV are high.

Antiretroviral (ARV) treatment is available for expectant mothers during pregnancy and delivery and may be prescribed to the newborn infant as a precaution. With treatment, the chance of MTCT is reduced from 30 percent to 10 percent.

All expectant mothers should be tested for HIV, so that if they are living with HIV, they can receive a treatment regimen that is right for them during pregnancy, delivery and post-delivery. It is just as important to prevent HIV infection in the expectant mother during pregnancy and later, when she is breastfeeding.

Exclusive substitute feeding – that means never giving the baby breast milk – significantly reduces HIV transmission. However, for many women, exclusive substitute feeding may not be feasible or sustainable in their community due to unclean drinking water and/or unaffordable alternative feeding options. If formula is prepared without clean drinking water, the newborn may become infected by other significant diseases. Therefore, if clean drinking water is not available or if exclusive substitute feeding is not sustainable, exclusive breastfeeding is advised.

To minimize HIV transmission, women who cannot exclusively substitute feed their babies are advised to engage in exclusive breastfeeding. Breast milk provides the baby with the best nutrition and protection from infection. Mothers who choose to breastfeed should engage in exclusive breastfeeding for the first four to six months – this means giving the baby breast milk only, with no other food or drink, not even water. If the baby takes anything else besides breast milk, e.g., cow's milk or other foods, these foods can damage the lining of the baby's alimentary canal (e.g., stomach and intestines). If the mother is HIV-positive, the virus can infect the baby through the damaged lining. Babies who receive mixed feeds (e.g., mixing formula and breast milk, or feeding with breast milk and also with other fluids or solids) are more likely to become HIV-infected than those who receive exclusive breastfeeding or exclusive substitute feeds. It is therefore advisable to wean the infant abruptly after six months of exclusive breastfeeding. Mothers should change to exclusive substitute feeding without mixing feeds.

In addition to exclusive breastfeeding for the first four to six months, newborn infants may receive extended ARV prophylaxis to prevent HIV transmission.

The most important step to reduce MTCT is to prevent HIV infection to begin with. Men can have a role in this too. Men can help prevent MTCT by being tested themselves for HIV, and if HIV positive, by taking steps to prevent HIV transmission to their partners (e.g., by using condoms), and by supporting their partners to be tested for HIV. It is important to prevent infection in the expectant mother during pregnancy and later, when she is breastfeeding. For the health safety of everyone in the family, and particularly the expectant mother, men should minimize risks that will lead to infection with STIs, including HIV. They can avoid infections by staying faithful to their partners and not having sex with other partners. If they are not able to abstain from sex with other partners, they should use condoms with all sexual partners, i.e., their counterparts in casual sex and their long-term partners/wives.

Men should support their partners to be tested for HIV before planning a pregnancy. Men with expectant partners living with HIV can help prevent MTCT by encouraging their partners to seek and adhere to treatment for preventing MTCT during pregnancy, childbirth and breastfeeding.

TB and HIV

If a person is infected with TB, it does not mean she/he has HIV or AIDS. However, if a person is living with HIV, vulnerability to contracting TB is increased because the body's immune

(defence) system is weakened by HIV. An HIV-positive person can take a course of treatment that will prevent becoming infected by TB. In many places, this preventive treatment is freely available. If a person is living with HIV and becomes infected with TB, the TB can be cured with treatment.

Antiretroviral (ARV) Therapy

Antiretroviral (ARV) therapy is a combination of medication – usually two or more medicines – that is taken by an HIV-positive person to slow down the spread of HIV in the body. ARV drugs help improve the immune system, and this helps the body protect itself against AIDS-related diseases. ARV drugs reduce the level of the virus in the body or the "viral load," and prevent the destruction of CD4 cells (thereby increasing the CD4 count). If ARV drugs are taken properly, they can help a person lead a healthy, productive and long life.

ARV therapy is not a cure for HIV or AIDS. The medicines will reduce the amount of virus in the body and make people feel healthier, but HIV is still in the blood. Therefore, once people start to use ARV therapy, they should continue with it for the rest of their lives. ARV therapy is a lifelong commitment: If people stop taking treatment, HIV will continue to grow in their bodies and they will become sick again.

People taking ARV therapy need to take their medicine at the right time and in the right way every day. If they stop, or forget to take their medicines, HIV will become stronger and may become resistant to the medication which, consequently, will no longer work.

ARV therapy is given to people who are HIV-positive but do not yet have AIDS, and to people who have AIDS. However, not every HIV-positive person needs ARV therapy. Only those people whose immune systems have been seriously weakened by HIV need ARV therapy.

Once a person discovers that she/he is HIV-positive, the following tests will be provided by health staff:

- CD4 Count Test: This blood test measures the amount of white blood (CD4) cells. The CD4 Count Test establishes a person's need for ARV therapy (when the CD4 count is low).
- Viral Load Test: This blood test measures the amount (viral load) of HIV in the blood. The Viral Load Test evaluates the efficacy of the medicine and determines the extent to which the immune system is becoming stronger.

ARV therapy is usually started during the final phase of HIV infection when the CD4 count is less than 250. Treatment is begun before the patient becomes too sick from OIs. If treatment is started too late, the patient will be too sick for the immune system to be helped to fight off OIs.

When people start ARV therapy, their bodies may react to the medicine. These side effects may include: stomach pain, nausea and vomiting, diarrhea, skin rash, excessive tiredness, headaches, tingling feeling in fingers and toes, and sleep disturbance. People should not stop

taking the medicine when they have these side effects, but they should report them to the health staff.

Advantages of ARV therapy:

- People living with HIV remain healthy longer, and are able to lead a normal life and contribute to family income.
- Being productive and healthy reduces the occurrence of depression.
- ARV reduces the viral load and, consequently, the risk of infecting others.

Possible Disadvantages of ARV therapy:

- Cost: The cost is high, but some government hospitals are providing ARV drugs free of charge with support from the Government and donors.
- Side effects: These can occur, but most side effects disappear after a few months.
- Adherence: ARV drugs need to be taken in a timely manner for the rest of the HIV-positive person's life.
- Drug resistance: ARV drugs must be taken correctly or the virus can mutate and become resistant to a particular drug, thereby rendering ARV therapy useless.

Non-Adherence and Drug Resistance

- The correct doses of ARV drugs should be taken on a regular and ongoing basis for the rest of the HIV-positive person's life.
- Some patients want to stop taking ARVs after six to twelve months, which is when they may start to feel better. This is dangerous to the patient's continued well-being and should be discouraged.

If patients stop treatment, even for a short period, this could result in:

- Rapid decline in health, increase in OIs, and faster progression of HIV infection
- Drug resistance: ARV drugs initially prescribed will no longer be effective. This reduces the number of treatment options from this point on.
- When HIV becomes resistant to one drug, it may become resistant to other drugs in the same group.
- Anyone infected by the person who has drug-resistant HIV will not be able to use those ARVs to which the virus is resistant, because drug resistance is passed on with the virus.

People taking ARV therapy should try to live healthy and positive lives to help the ARV therapy fight the HIV in their bodies. Things they can do include:

- Eating good food and drinking plenty of liquids to strengthen their bodies and keep up body weight. People living with HIV lose weight as a result of OIs or lose nutrients because of diarrhea or vomiting.
- Being physically active: People living with HIV will be healthier if they keep themselves busy.
- Getting enough sleep and rest to allow their bodies to recover.

- Keeping their bodies and homes clean will help reduce the number and prevalence of germs causing disease.
- Practicing safe sex (using a condom): People living with HIV and on ARV drugs are still HIV-positive and can pass HIV to others. By practicing safe sex they can also protect themselves from getting re-infected and increasing the amount of virus in the body.
- Living with hope and getting emotional support from family and friends: This helps people living with HIV feel loved, accepted and better about themselves, thus giving them the strength and confidence to live healthy, productive and long lives.

HIV Testing and Voluntary Counseling and Testing (VCT)

An HIV test determines if a person is infected with HIV. The test involves taking a sample of blood from a person and analyzing the sample in a laboratory. HIV tests look for the presence of HIV antibodies in the person's bloodstream, rather than the virus itself. Antibodies are produced by the immune system to fight off HIV infection. If the test shows that HIV antibodies are present, the person is infected with HIV, which is called being "HIV-positive." If there are no antibodies, the person is not infected with HIV, which is called being "HIV-negative."

When a person is infected with HIV, it takes three months for the body to show detectable levels of antibodies in a test. This length of time is called the "window period." During this period, the test will not show the antibodies and the results will show the person to be HIV-negative – even though she/he may have HIV. This is why a second test is needed three months after the first test.

If people are worried that they have HIV, the test can put their minds at rest. Knowing their status will help them plan for their future and future of their family. People who test positive can take steps (e.g., good diet) to look after their health, get early medical attention for any health problems, and delay the onset of AIDS. They can inform and protect their partners from getting HIV. People who test negative can change their sexual lifestyle so that they can avoid contracting HIV in the future.

Voluntary Counseling and Testing (VCT) is a system of testing people for HIV and providing counseling about the full implications of being tested. VCT includes pre-test counseling, HIV testing, and post-test counseling,

VCT is more than testing blood and giving people counseling. It is a point of entry to other HIV and AIDS services, including anti-retroviral treatment, prevention of mother-to-child transmission (MTCT), prevention and treatment of opportunistic infections, and psycho-social support.

VCT is:

- Voluntary: the individual decides to take the test and no one can force him/her to get tested
- Right to Counseling: the individual who decides to take the test has the right to be counseled by a trained counselor
- Informed Consent: the individual knows what is involved before making the decision to be tested, and cannot be tested without his/her knowledge
- Confidential: personal information disclosed to the trained counselor

VCT provides information and benefits for those who test positive as well as those who test negative. VCT helps people deal with worries about their status, increases their perception of their vulnerability to HIV, promotes behavior change, facilitates early referral for care and support, and helps to reduce stigma in the community.

Women who test positive will be counseled on options available to prevent mother-to-child transmission (MTCT) of HIV.

C. Alcohol and HIV/AIDS

When people drink they become less inhibited and less able to make good decisions about their sexual behavior. Research has shown that people who report being intoxicated in sexual situations report less condom use and more concurrent sex partners than those who are not intoxicated. Also, several studies in Sub-Saharan Africa have shown that when people who use alcohol have higher prevalence of HIV than non-drinkers in multiple studies in sub-Saharan Africa. Alcohol use is also very high in Africa, about 43%. This means that the two problems - high alcohol use and high HIV prevalence (greater than 15%) are occurring in Africa. Therefore it is important to address these epidemics together.

Alcohol use is also a problem for people who are on ARV therapy. It's the most common behavioral risk factor for ARV non-adherence. Alcohol can also reduce how well ARV therapy works and can increase their toxicity (i.e. increase the problems or side effects that they have on our bodies).

IV. Next steps

The information covered in this manual is only the first step in understanding what it means to mobilize the community around the problems it faces, including alcohol and HIV. As we move this process together with the community it is useful in considering the steps to behavior change that an individual goes through and consider how these apply to an entire community. This community mobilization steps outlined in this manual do just by starting with identifying the problem, moving to identifying solutions, and then creating action plans for those solutions. However, as with individual change, it is possible that we have to return to earlier steps as we work through the process and find that some plans are unrealistic or not effective. The job of community mobilizers is to help community members through this process.

APPENDIX D

ENDLINE SURVEY

AIDSTAR-One
REDUCING ALCOHOL-RELATED HIV RISK IN KATUTURA, NAMIBIA:
A MULTI-LEVEL INTERVENTION WITH BAR OWNERS, SELLERS, AND PATRONS
END LINE FOR FEMALE PATRONS
SURVEY FOR AUGUST 2012 INTERVIEWS

Q1 Case Number	Q2.1 Street Name	Q2.2 Code

Q3 Interviewer Code	Q4.1 Bar Name	Q4.2 Code

Q5 Date of visit				
D	D	M	M	YEAR
				2012

Q6 Kabila Subsection (number 1 – 9)

Q7.1 Time Started			
H	H	M	M

Q8.1 Date of review by field manager					Q8.2 Field Manager Initials
D	D	M	M	YEAR	
				2012	

SECTION 1: RESPONDANT CHARACTERISTICS

I would like to ask you some background questions about yourself. I will then ask you about the community where you live, which drinking spots you go to, and how often you attend them.

1.1 How old were you on your last birthday?

	Years old

1.2 What is the highest level of schooling that you have completed?

None	0
Some Primary	1
Completed Primary	2
Some Secondary	3
Completed Secondary	4
Vocational Training	5
Tertiary Diploma/Degree	6
Other, please specify:	

1.3 Are you a student/ currently studying?

No	0
Yes, Part-time	1
Yes, Full-time	2

How do you earn money? *[NOTE TO INTERVIEWER: MULTIPLE RESPONSES OK]*

Do not earn any money	0
Employed full time, earning a salary. *Please specify type of job:*	1
Employed part time or casual worker, earning a salary. *Please specify type of job:*	2
Self-employed. *Please specify type of job:*	3
Other sources of income (***PROBE:*** family, pension, disability, child maintenance, etc). *Please specify:*	

1.4 About how much money did you received last month? (*in July 2012*). Please think about all your different sources of income.

N$	

1.4.1 About how much money did you spend on alcohol last month, including buying for others? (*in July 2012*)

N$	

1.5 What is your current relationship status?

Single / Never married	0
In a relationship (Not living with partner)	1
In a relationship (Living with partner)	2
Married	3
Separated / Divorced	4
Widowed	5
Other, please specify:	

1.6 ASK ONLY if married or living with a partner: During the last 6 months *(since February 2012),* how many months did you live with your husband/partner? *(PROBE: For example do you travel or does partner travel?)*

_____ **Months**	**Maximum 6 Months**

1.7 ASK ALL: Which location do you live in? *[NOTE: IF ANSWER IS "HAVANA" ASK IF KABILA OR NOT]*

1.8 During the last 12 months *(since August 2011)*, how many months have you spent in your location?

_____ **Months**	**Maximum 12 Months**

SECTION 2: ALCOHOL CONSUMPTION

I would now like to ask you some questions about your use of alcohol **in the past 12 months (*since August 2011*)**. ***[INTERVIEWER: USE STANDARD UNITS CARD.]***

2.1 In the past 12 months, how often did you drink alcohol?

Never **(If never, please skip to Q2.14)**	0
Once a month or less (end of month only)	1
2 to 4 times a month (weekends)	2
2 to 3 times a week	3

4 or more times a week	4

2.2 What type of alcohol do you drink most often?

Homebrewed alcohol	1
Beer (bottled)	2
Wine (bottled)	3
Spirits (bottled)	4
Coolers (bottled)	5

2.3 ***[INTERVIEWER: ASK QUESTION ONLY IF SPIRITS SELECTED ABOVE AND SHOW ON STANDARD UNITS CARD]*** **How many tots do you have an a typical day when you are drinking?**

Number of tots (enter)	**(Please skip to question 2.6)**

2.4 What size container do you usually use when drinking?

340 ml Dumpie	1
500 ml Jug	2
750 ml Quart	3
1 Litre Jug	4
2 Litre (Don't Worry)	5
Glass or cup	6
Refuse to answer	98
Other (*Please specify size of container)*	

2.5 How many of these *containers* do you usually have on a typical day when you are drinking?

One (1)	1
Two (2)	2
Three (3)	3
Four (4)	4
Five (5)	5
Six (6)	6
Seven (7)	7
Eight (8)	8
Nine (9)	9
Ten (10)	10
Refuse to answer	98

2.6 Do you usually share these drinks with anyone?

No **(If no, please skip to Q2.8)**	0
Yes	1
Don't Know	97
Refuse to answer	98

2.7 How many people do you usually share these drinks with?

Zero (0)	0
One (1)	1
Two (2)	2
Three (3)	3
Four (4)	4
Five (5)	5
Six (6)	6
Don't Know	97
Refuse to answer	98

2.8 During the <u>past 12 months</u>, how often did you have 6 or more drinks on one occasion by yourself? [*THINK ABOUT WHAT THE PERSON USUALLY DRINKS!! USE STANDARD UNITS OF ALCOHOL CARD]*

Never	0
Once a month or less (end of month only)	1

2 to 4 times a month (weekends)	2
2 to 3 times a week	3
4 or more times a week	4

2.9 During the past 12 months, how often have you been unable to stop drinking after starting? Would you say never, less than monthly, about monthly, weekly, or almost daily?(***PROBE:*** For example, in a single day or night, you start drinking and it is difficult to stop)

Never	0
Less than monthly (every few months)	1
Monthly	2
Weekly	3
Daily or almost daily	4

2.10 During the past 12 months, how often have you failed to do what is normally expected of you as a direct result of drinking? Would you say never, less than monthly, about monthly, weekly, or almost daily?(***PROBE:*** For example, you forgot to go work, you forgot to keep an appointment because of drinking)

Never	0
Less than monthly	1
Monthly	2
Weekly	3
Daily or almost daily	4

2.11 During the past 12 months, how often did you need a drink when you woke up after a night of drinking or from having a hangover/*babalaas*? Would you say never, less than monthly, about monthly, weekly, or almost daily?

Never	0
Less than monthly	1
Monthly	2
Weekly	3
Daily or almost daily	4

2.12 During the past 12 months, how often did you wake up feeling guilty after a night of drinking? Would you say never, less than monthly, about monthly, weekly, or almost daily?(***PROBE:*** For example, you feel guilty because you spent too much money on alcohol or you said something you did not mean to say when you were drinking)

Never	0
Less than monthly	1
Monthly	2
Weekly	3
Daily or almost daily	4

2.13 During the past 12 months, how often did you forget what happened the night before because you had been drinking? Would you say never, less than monthly, about monthly, weekly, or almost daily?(***PROBE:*** For example, you forgot how you got home, you forgot talking to someone when you were drinking)

Never	0
Less than monthly	1
Monthly	2
Weekly	3
Daily or almost daily	4

2.14 Have you or someone else ever been injured as a result of your drinking? (ever in your life) When did that happen? (***PROBE:*** For example: falling down, car crash, fighting)

No, never	0
Yes, but not in the past 12 months	2
Yes, during the past 12 months	4

2.15 Has a relative or friend or a doctor or health worker ever been concerned about your drinking or suggested you stop drinking (ever in your life)? When did that happen?

No, never	0
Yes, but not in the past 12 months	2
Yes, during the past 12 months	4

2.16 Do YOU ever think that you might have a drinking problem?

No **(If no, please skip to Section 3)**	0
Maybe	1

Yes	2

2.17 Have you ever sought treatment or gotten help for your drinking problem?

No	0
Yes	1

SECTION 3: ALCOHOL – EXPECTANCY

The following statements are about the effects of alcohol. I will read each statement. If "Agree" with the statement then you think the statement is true, or true some or most of the time. If you "Disagree" with the statement you believe the statement is false, or mostly false.

	Agree	Disagree
3.1 You feel powerful when you drink, as if you can really influence others to do what you want	1	0
3.2 Drinking gives you more confidence in yourself	1	0
3.3 When you feel high from drinking, everything seems to feel better	1	0
3.4 Drinking helps you not to feel bored	1	0
3.5 Drinking makes the future seem brighter	1	0
3.6 You drink when you are feeling angry	1	0
3.7 After a few drinks, you feel brave and more capable of fighting	1	0
3.8 Drinking can make you more satisfied with yourself	1	0
3.9 Alcohol helps you sleep better	1	0
3.10 You are a better lover after a few drinks	1	0
3.11 Alcohol makes you feel better physically	1	0
3.12 Alcohol makes you worry less	1	0

SECTION 4: ALCOHOL – INTENTIONS

Now I would like to ask you about your thoughts on limiting your drinking to less than **five** standard drinks whenever you drink alcohol. *[THINK ABOUT WHAT THE PERSON DRINKS....SHOW STANDARD UNITS OF ALCOHOL CARD]*

[Show thumbs card and explain responses]	**Agree strongly**	**Agree slightly**	**Disagree slightly**	**Disagree strongly**	**Not Applicable**
4.1 You intend to have less than (five drinks) every time you drink alcohol.	2	1	-1	-2	99

4.2 Most people who are important to you think that you should have less than (five drinks) every time you drink alcohol.	2	1	-1	-2	99
4.3 You have complete control over whether you have less than (five drinks) every time you drink alcohol.	2	1	-1	-2	99

SECTION 5a: SEXUAL PARTNERS

"I would now like to ask you some questions about sexual partners you have had during the last six months (*since Feb 2012*) and the activities you engage in with them. Some people have many partners and others have none at all. Please feel free to speak freely about your partners. All the information you provide will be kept strictly private and we won't record any real names."

	Number of people you had sex with in the last 6 months [*INTERVIEWER: COMPLETE THIS BOX AFTER LISTING INITIALS BELOW, AND CONFIRM TOTAL IS CORRECT*]
	If no sex in the last 6 months, skip to Section 6.

Let's start by listing all the partners you have had sex with in the past 6 months, using only their initials. (***PROBE***: *Anyone else*?)

Partner Initials (First & Last)	**Did you have sex with this partner in *July 2012*? (tick if yes)**	**Did you have sex with this partner in *June 2012*? (tick if yes)**	**Did you have sex with this partner in *May 2012*? (tick if yes)**	**Did you have sex with this partner in *April 2012*? (tick if yes)**	**Did you have sex with this partner in *March 2012*? (tick if yes)**	**Did you have sex with this partner in *February 2012*? (tick if yes)**
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Question 5b: Characteristics of Partners

"Now I would like to ask you more questions about the partners you have mentioned above. [***INTERVIEWER: COPY INITIALS FROM PAGE 6 ONTO TABLE BELOW***]

Partner Initials (First & Last) **(Same order as above)**	**The very first time you met this partner, was it at a drinking place?** **(Yes = 1 / No = 0)**	**How old is this partner?** **(Years)**	**What type of partner is this?** **(Codes below)**	**How many times have you had sex with this partner in the past 6 months?** **(Number of times)**	**How many times have you used a condom with this partner in the past 6 months?** **(Number of times)**	**Did you use a condom the last time you had sex with this partner?** **(Yes = 1 / No = 0)**	**How many times were you drunk when you had sex with this partner over the past 6 months?** **(Number of times)**	**Were you drunk the last time you had sex with this partner?** **(Yes = 1 / No = 0)**
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Codes for Partners

1 = Husband 2 = Boyfriend 3 = Casual Partner 4 = Once off/One night stand 5 = Commercial (e.g. sex worker)

SECTION 6: CONDOM USE

Now I would like to ask you some questions about your thoughts on using a condom whenever you have sex with a partner **other than** your spouse or steady/permanent partner. ***[INTERVIEWER: CONFIRM THAT TYPE OF PARTNER IS UNDERSTOOD.]***

[INTERVIEWER, PLEASE READ OUT RESPONSE OPTIONS]	**Agree strongly**	**Agree slightly**	**Disagree slightly**	**Disagree strongly**	**Not Applicable** (I do not have such a partner)
6.1 You intend to use a condom whenever you have sex with anyone who is not your husband/boyfriend.	2	1	-1	-2	99 Skip to Section 7
6.2 You have complete control over whether you use a condom whenever you have sex with anyone who is not your husband/boyfriend	2	1	-1	-2	
	I always use condoms	**Very likely**	**Somewhat likely**	**Not Likely**	
6.3 How likely is it that you use a condom when you have sex with anyone who is not your husband/boyfriend after one of you has been drinking alcohol?	2	1	-1	-2	

SECTION 7: TRANSACTIONAL SEX

Now I would like to get a little more information about your relationships. For these questions please think about **ANY** sexual partners you have *ever* had in your life.

Have you ever had sex with any of your partners for any of the following reasons:	**Yes**	**No**	**Don't Know**	**Refuse to Answer**
7.1 He provided you with food, clothes, cell phone or transportation	1	0	97	98
7.2 He paid your school fees or residence fees	1	0	97	98
7.3 He provided you with somewhere to stay	1	0	97	98
7.4 He gave you cosmetics or money for beauty products	1	0	97	98
7.5 He gave things for your children or family	1	0	97	98
7.6 He gave you money	1	0	97	98

7.7 He provided you with alcohol	1	0	97	98
7.8 He provided you anything else that you could not afford by yourself	1	0	97	98

SECTION 8: RISK REDUCTION BEHAVIOURS

This section is about the behaviours that you may have carried out to reduce your risk of contracting HIV and/or other sexually transmitted infections.

Please tell me if you have or have not engaged in each of the behaviours indicated **in the last six months**. ***[INTERVIEWER: THE ONLY ACCEPTABLE ANSWERS FOR THIS QUESTION ARE YES AND NO.]***

In the last 6 months...	**Yes**	**No**
8.1 Have you refused to have sex without a condom?	1	0
8.2 Have you bought condoms in a shop?	1	0
8.3 Have you obtained free condoms (from anywhere)?	1	0
8.4 Have you discussed condoms with a partner?	1	0

SECTION 9: RELATIONSHIPS AND VIOLENCE

When two people marry or live together, they usually share both good and bad moments. I would now like to ask you some questions about your experiences in your relationships.

Have you ever been:	(A) Have you ever been...?		(B) Has this happened in the last 12 months?		(C) In the last 12 months would you say that this has happened once, a few times, or many times?			(D) Thinking about the times this has happened in the last 12 months, how often has this happened when you had been drinking alcohol? ***[NOTE: IF ONLY HAPPENED ONCE, MARK EITHER ALWAYS OR NEVER]***			
	No	**Yes**	**No**	**Yes**	**One**	**Few**	**Many**	**Never**	**Seldom**	**Often**	**Always or 1x**
9.1 Threatened to be hurt by your partner?	0	1 ⇒	0	1 ⇒	1	2	3	0	1	2	3
9.2 Slapped by a partner or had something thrown at you that could hurt you?	0	1 ⇒	0	1 ⇒	1	2	3	0	1	2	3
9.3 Pushed or shoved by a partner?	0	1 ⇒	0	1 ⇒	1	2	3	0	1	2	3
9.4 Hit by a partner with his fist or with something else that could hurt you?	0	1 ⇒	0	1 ⇒	1	2	3	0	1	2	3
9.5 Kicked, dragged or beat up by a partner?	0	1 ⇒	0	1 ⇒	1	2	3	0	1	2	3

9.6 Physically forced to have sexual intercourse by a partner?	0	1 ⇒	0	1 ⇒	1	2	3	0	1	2	3

SECTION 10: BARS AND FRIENDSHIPS

I would now like to ask you some questions **about this drinking place [INSERT SHEBEEN NAME]**, where I found you.

[INTERVIEWER: READ ALL OPTIONS TO ANSWERS BELOW]

10.1 For how long would you say you have been coming to this bar [BAR NAME]?

Less then 1 month	0
Less then 6 months	1
Less then 1 year	2
More then one year	3
Don't Know	97

10.2 About how often would you say that you come to this bar [BAR NAME] in one month?

About 1 time per month	0
About 2 times per month	1
About 1 time per week	2
More then 1 time per week	3
Don't Know	97

10.2.1 Would you want to meet a new sexual partner here, at this bar [BAR NAME]?

Yes	1
No	0
Refuse	98

10.3 How often are there people who would be willing to exchange money for sex at this bar [BAR NAME]??

Never	0
Seldom/Sometimes	1
Often	2
Always	3
Don't Know	97

10.4 How often are there people who would be willing to exchange drinks for sex at this bar [BAR NAME]??

Never	0
Seldom/Sometimes	1
Often	2
Always	3
Don't Know	97

10.5 How often are there people who engage in violence at this bar [BAR NAME]??

Never	0
Seldom/Sometimes	1
Often	2
Always	3
Don't Know	97

10.6 How often are there people who are intoxicated (very drunk) at this bar [BAR NAME]??

Never	0
Seldom/Sometimes	1
Often	2
Always	3
Don't Know	97

10.7 How often do you feel unsafe at this bar [BAR NAME]?

Never	0
Seldom/Sometimes	1
Often	2
Always	3

Don't Know	97

10.8 Who are you with at the bar [BAR NAME] where I found you? (*PROBE:* Anybody else?) *[NOTE: MULTIPLE RESPONSES OK]*

Alone	1
Friend(s)	2
Colleague(s)	3
Boyfriend/girlfriend	4
Steady partner	5
Spouse	6
Other, *please specify:*	

SECTION 11: KNOWLEDGE ABOUT HIV/AIDS

I would like to ask you some questions related to HIV/AIDS.

		Yes	No	Don't Know
11.1	Can a healthy-looking person have HIV?	1	0	97
11.2	Can condoms contain HIV before they are used?	1	0	97
11.3	Can sexually transmitted infections (STIs) make it easier to get HIV?	1	0	97
11.4	Can drinking alcohol lead to HIV risk behaviour?	1	0	97
11.5	Is there a cure for HIV?	1	0	97
11.6	Can withdrawal of the penis before ejaculation during sex prevent a man from getting HIV?	1	0	97
11.7	Can using condoms when you have sex reduce the chance of getting HIV?	1	0	97
11.8	If a person knows he is HIV positive, does he tend to become sick faster than if he doesn't know?	1	0	97
11.9	Are free condoms reliable?	1	0	97
11.10	Are sold condoms reliable?	1	0	97
11.11	Is using two condoms (doubling) better than using one?	1	0	97

SECTION 12: EXPOSURE TO INTERVENTION

I would like to ask some questions about experiences you may have had, or things you may have noticed **at this drinking place [BAR NAME],** where I found you.

Question		(A) Question…?		(B) Has this happened in the last 6 months?		(C) In the last 6 months has happened once, a few times, or many times?		
		No	**Yes**	**No**	**Yes**	**Once**	**Few**	**Many**
12.1	Has any bar staff ever spoken to YOU about the hazards of heavy drinking?	0	1 ⇒	0	1 ⇒	1	2	3
12.2	Have you ever seen any bar staff telling another customer about the hazards of heavy drinking?	0	1 ⇒	0	1 ⇒	1	2	3
12.3	Have you ever noticed any information or a poster that explains the hazards of heavy drinking?	0	1 ⇒	0	1			

12.4 Has any bar staff ever spoken to YOU about how drinking alcohol may lead to HIV infection?	0	1 ⇒	0	1 ⇒	1	2	3
12.5 Have you ever seen any bar staff telling another customer about how drinking alcohol may lead to HIV infection?	0	1 ⇒	0	1 ⇒	1	2	3
12.6 Has any bar staff ever spoken to YOU about how to prevent HIV infection?	0	1 ⇒	0	1 ⇒	1	2	3
12.7 Have you ever seen any bar staff speaking to another customer about how to prevent HIV infection?	0	1 ⇒	0	1	1	2	3
12.8 Have YOU ever noticed any information or a poster that talks about how alcohol use may lead to HIV infection?	0	1 ⇒	0	1			
Question	(A) Question…?		(B) Has this happened in the last 6 months?		(C) In the last 6 months has happened once, a few times, or many times?		
	No	**Yes**	**No**	**Yes**	**Once**	**Few**	**Many**
12.9 Has any bar staff ever suggested that YOU stop drinking on a particular occasion?	0	1 ⇒	0	1 ⇒	1	2	3
12.10 Have you ever seen any bar staff suggesting to another customer that they should stop drinking?	0	1 ⇒	0	1 ⇒	1	2	3
12.11 Has any bar staff refused to sell YOU alcohol because you were already intoxicated?	0	1 ⇒	0	1 ⇒	1	2	3
12.12 Have you ever seen any bar staff refusing to sell alcohol to another customer because they were already intoxicated?	0	1 ⇒	0	1 ⇒	1	2	3
12.13 Has any bar staff ever suggested that YOU switch to a non-alcoholic beverage because you were intoxicated?	0	1 ⇒	0	1 ⇒	1	2	3
12.14 Have you ever seen any bar staff suggesting to another customer that they switch to a non-alcoholic beverage because they were already intoxicated?	0	1 ⇒	0	1 ⇒	1	2	3
12.15 Has any bar staff ever suggested that YOU eat some food or drink some water before you continue to drink?	0	1 ⇒	0	1 ⇒	1	2	3
12.16 Have you ever seen any bar staff suggesting to another customer that they eat some food or drink some water before continuing to drink?	0	1 ⇒	0	1 ⇒	1	2	3

Now I would like to ask about items that are available **at this drinking place BAR NAME**, where I found you.

QUESTION	(A) Question…?		(B) How consistently would you say they are available: always, most of the time, or sometimes but not always?			(C) Have you seen any change in availability over the past year?			(D) When did you first notice this change?
	No	**Yes**	**Always**	**Mostly**	**Some-times**	**No**	**Yes: Increase**	**Yes: Decrease**	**(Codes – Time period)**

12.17 Are condoms available for sale or for free?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	0	1 ⇒	2 ⇒	
12.18 Are non-alcoholic drinks available for purchase?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	0	1 ⇒	2 ⇒	
12.19 Are food options available for purchase?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	0	1 ⇒	2 ⇒	⇒

Codes for Time Period

1= less then 1 month ago | 2 = about 1-3 months ago | 3= about 4-6 months ago | 4= more than 6 months ago | 5= more than 1 year ago | 97=Don't Know

QUESTION	(A) Question...?		(B) Has this happened in the last 6 months?		(C) In the last 6 months has this has happened once, a few times, or many times?		
	No	**Yes**	**No**	**Yes**	**Once**	**Few**	**Many**
12.20 Have YOU ever purchased or taken a condom for free at the bar where I met you?	0	1 ⇒	0	1 ⇒	1	2	3
12.21 Have you ever noticed another customer purchasing or taking a condom for free?	0	1 ⇒	0	1 ⇒	1	2	3

I would now like to ask you a few questions about the hours of operation **at this drinking place BAR NAME**, where I found you.

QUESTION	(A) Question…?			(B) Have you seen any change in bar hours over the past year?			(C) When did you first notice this change?
	Don't Know	**Time: Open (Record)**	**Time: Close (Record)**	**No**	**Yes: Shorter Hrs**	**Yes: Longer Hrs**	**(Codes – Time Period)**
12.22 At what time does the bar open and close on weekdays?	97	⇒	⇒	0	1 ⇒	2 ⇒	
12.23 At what time does the bar open and close on weekends?	97	⇒	⇒	0	1 ⇒	2 ⇒	

Codes for Time Period

1= less then 1 month ago | 2 = about 1-3 months ago | 3= about 4-6 months ago | 4= more than 6 months ago | 5= more than 1 year ago | 97=Don't Know

Lastly I would like to ask about any recent activities you may have participated in or noticed **in Kabila** that focus on the hazards of heavy drinking or the risks of HIV infection.

Question	(A) Question?		(B) About how frequently has this taken place: once, a few times, or many times?			(C) Who was responsible for this event?
	No	**Yes**	**Once**	**Few**	**Many**	**(Codes - Facilitator)**
12.24 Have YOU ever participated in a community meeting about hazards of heavy drinking or risks of HIV?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	⇒
12.25 Have you ever heard of others in your community participating in this kind of meeting?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	

12.26	Have YOU ever participated in patrolling or policing of bars?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	⇒
12.27	Have you ever heard of others in your community participating in patrolling or policing of bars?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	
12.28	Have YOU ever watched a video in public about the hazards of heavy drinking or risks of HIV?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	⇒
12.29	Have you ever seen or heard of others in your community watching these kinds of videos in public?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	
12.30	Has anyone ever visited YOU at your home to talk about the hazards of heavy drinking or risks of HIV?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	⇒
12.31	Have you ever heard of others in your community receiving visits like this?	0	1 ⇒	1 ⇒	2 ⇒	3 ⇒	

Codes for Facilitator

1= Councillor's office 2 = SFH / SHF (Society for 3= CAF (Community Action Forum) 4= Twenty house section leader 5= Community mobilizer 6=Other 97=Don't Know

QUESTION	(A) Question?		(B) Please describe the type of event?	(C) About how frequently has this happened: once, a few times, or many times?			(D) Who was responsible for this event?
	No	**Yes**	**(Record)**	**Once**	**Few**	**Many**	**(Codes - Facilitator)**
12.32 Can you think of any other community activity YOU have been involved with about the hazards of heavy drinking or risks of HIV?	0	1 ⇒		1	2	3	
12.33 Have you heard of any other activities taking place in your community about the hazards of heavy drinking or risks of HIV?	0	1 ⇒		1	2	3	

Codes for Facilitator

1= Councillor's office | 2 = SFH / SHF (Society for Family Health) | 3= CAF (Community Action Forum) committee member | 4= Twenty house section leader | 5= Community mobilizer | 6=Other | 97=Don't Know

WE HAVE NOW REACHED THE END OF OUR INTERVIEW

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

13.1 Time Ended			
H	**H**	**M**	**M**

CONFIDENTIALITY PLEDGE TO BE SIGNED BY INTERVIEWER:

I certify that this interview has been completed in full; with the respondent and according to the instructions I received from the trainers; and that the information I received will be kept strictly confidential.

SIGNED:

_____

(INTERVIEWER'S SIGNATURE)

_____

(DATE)

COMMENTS:

APPENDIX E

MONITORING FORMS

SFH / ICRW Kabila project: Activity attendance sheets: Type of event: _____ Date: _____

Venue: _____ Section: _____Attendance verified by: _____

No.	Name	ID Number	Tel. contact #	Sex		Signature
				Male	Female	
1.						
2.						
3.						
4.						
5.						
6.						
7.						

8.						
9.						
10.						
11.						
12.						
13.						
14.						

Activity / Event / Outreach Form

AIDSTAR-One HIV Prevention Demonstration Project: Reducing Alcohol-related HIV Risk in Kabila, Windhoek, Namibia. 2011
Kabila pilot project

Date of the event	dd/mm/yyyy		Type of Community event. Indicate where the event took place **(Mark with a ☑)**	
Region (of event)			1. At a bar	
Constituency (of event)			2. At a house	
Name of Section			3. In the open market place	
Time/Hours	From:_____To:_____ _		4. Large community meeting (more than 25 people)	
Where/Venue			5. Other: (Specify)_____	
			Topics covered	
Contact Details **Contact** Person at venue of event			1. HIV basic education (prevention: ABC approach)	
Position e.g. bar attendant/ bar attendant/ house owner			2. ARV and alcohol	
			3. Alcohol and CORRECT condom use	
Contacts of any other person(s) involved	1.		4. Safer serving	
	2.		5. Alcohol and crime	
			6. Alcohol and sexual behavior (MCP, Transactional sex)	

Number and category of people reached			IEC distribution	
	Male	Female	Number of condoms distributed: _____	
Bar owners			Number of posters distributed: _____	
General community			Number of leaflets distributed: _____	
Total				

Comment on things that went well in this event √ _____

Comment on things that did not go well in this event X

Write any comments from the community members who participated in the event.

Report completed by:		Report reviewed by:	
Signature:		Signature:	

APPENDIX F

KEY OUTCOMES

Domain	Key Measures
Alcohol use	AUDIT score of alcohol dependency
	Did not drink alcohol in last 12 months
	Reports regular binge drinking during last 12 months[21]
	Average standard alcohol units consumed on a typical drinking occasion
	Intention to drink less than 5 drinks at one time
	Perceived control over drinking less than 5 drinks at one time
Sexual risk intentions	Discussed condoms with partner (last 6 mo)
	Obtained condoms: for sale or free (last 6 mo)
	Obtained condom at bar where recruited (last 6 mo)
	Refused to have sex without condom (last 6 mo)
	Always intends to use condom with causal partner
	Always has control over condom use with casual partner
	Very likely to use condom with casual partner after drinking
Sexual Behaviors (by type of sex partner)[22]	Average number of different sex partners in the last 6 moths
	Number of sex episodes with each partner (last 6 mo)
	Number of sex episodes with condom out of total sex episodes
	Used condom at last sex
	Drunk at last sex
HIV knowledge	Basic knowledge about HIV risk and transmission
	Correctly identifies that drinking alcohol can increase HIV risk
Perceptions of bar environment	Perceived prevalence of transactional sex (in exchange for drinks) at bar
	Perceived prevalence of violence at bar
	Perceived rates of intoxication at bar
	Perceived personal safety at bar

[21] Binge drinking is defined as having six or more drinks on one occasion. For the study we define "regular" binge drinking as consuming six or more at least twice a month over the last year.

[22] Partner types examined separately include: spouse; girlfriend/boyfriend; and casual partner/one-night stand. While the survey also asked about sexual behaviors with commercial sex partners/clients, the sample size was too small to include in the analyses (n=8).

APPENDIX G

RESULTS OF THE PRE-POST TREND ANALYSIS

Measures (percent unless specified)						
Socioeconomic & Demographic Characteristics	**Pre (Total) (n=500)**	**Post (Total) (n=507)**	**Pre (Men) (n=301)**	**Post (Men) (n=258)**	**Pre (Women) (n=199)**	**Post (Women) (n=249)**
Average months in current location (last yr)						
Salaried employment	10.6	10.4	10.6	10.0**	10.6	10.9*
Average income in the last mo ($N/$US)†	36%	35%	42%	42%	27%	27%
Primary education or higher	$1436 / $139	$2264 / $262**	$1799 / $237	$3094 / $354**	$887/ $117	$1404/ $162**
Post-secondary education	71%	71%	72%	73%	70%	68%
Age (mean)	2%	7%**	2%	9%**	1%	5%**
In a relationship	30.9	31.8	31.7	32.9	29.7	30.7
Married	66%	71.7%**	61%	71%**	74%	73%
Sexually active (last 6 mo)	14%	16%	15%	15%	11%	17%*
Patterns of Alcohol Use	85%	86%	84%	84%	87%	89%
AUDIT Score (possible score 0 - 40)						
Did not drink (last 12 mo)	10.8	9.0**	11.6	10.1**	9.4	7.9**
Reports regular binge drinking (last 12 mo)	17%	13%*	16%	12%	19%	15%
Average standard units consumed when drinking	54%	25%**	66%	35%**	36%	14%**
Intends to drink <5 each drinking occasion	4.2	3.8	4.5	3.8**	3.7	3.9
Reports having complete control over drinking <5	75%	74%	72%	73%	81%	75%
Sexual Risk Attitudes & Behaviors	86%	86%	86%	87%	86%	85%
Discussed condoms with partner (last 6 mo)						
Obtained condoms: for sale or free (last 6 mo)	76%	76%	77%	83%*	75%	68%
Obtained condom at bar where recruited (last 6 mo)	83%	81%	90%	88%	72%	75%
Refused to have sex without condom (last 6 mo)	23%	50%**	31%	56%**	11%	43%**

Always intends to use condom with causal partner	55%	50%	58%	61%	51%	40%**
Always has control over condom use with casual partner	96%	95%	97%	98%	96%	90%
Very likely to use condom with casual partner after drinking	94%	92%	95%	96%	93%	87%
HIV Knowledge	85%	85%	91%	89%	72%	79%
Correct responses (out of 11 HIV questions)						
Correctly responded: alcohol can lead to HIV risk	76%	76%	76%	77%	75%	75%
Perceptions of Bar Environment (at bar where recruited)‡	84%	89%**	80%	83%	91%	95%
Reports people are "never" willing to exchange drinks for sex						
Reports people "never" engage in violence at the bar	8%	61%**	4%	60%**	16%	63%**
Reports people "never" are very intoxicated at the bar	3%	56%**	2%	61%**	5%	51%**
Reports "never" feeling unsafe at the bar	1%	21%**	0%	22%**	2%	21%**
***p<.0.05 *p<0.10*	36%	68%**	38%	75%**	33%	61%**
†Baseline income is recorded in 2010 values and endline is in 2012 values ‡ Sample size varies based on response rate						

APPENDIX H

RESULTS OF THE PRE-POST TREND ANALYSIS: PARTNER-BY-PARTNER DATA

Sexual Behaviors by Type of Sex Partner‡	Pre (Total)	Post (Total)	Pre (Men)	Post (Men)	Pre (Women)	Post (Women)
Spouses	(n=69)	(n=79)	(n=46)	(n=36)	(n=23)	(n=43)
* Mean (range) episodes of sex over past 6 mo	49.47 (0-200)	32.58** (0-200)	48.12 (0-200)	43.16 (0-200)	52.00 (5-200)	24.95** (2-70)
* Percent of sexual episodes using condom	25%	7%**	31%	7%**	13%	7%
* Condom at last sex	7%	4%	9%	3%	4%	5%
* Drunk at last sex	12%	6%	15%	8%	4%	5%
Boyfriends/girlfriends	(n=379)	(n=408)	(n=227)	(n=234)	(n=152)	(n=174)
* Mean (range) episodes of sex over past 6 mo	31.33 (0-400)	31.01**(1-400)	31.02 (1-300)	38.56 (1-400)	31.81 (0-400)	21.16**(1-200)
* Percent of sexual episodes using condom	65%	55%**	73%	58%**	52%	51%**
* Condom at last sex	57%	53%	64%	54%**	46%	52%
* Drunk at last sex	28%	19%**	36%	26%**	15%	9%*
Casual partner/one night stands	(n=212)	(n=193)	(n=176)	(n=140)	(n=36)	(n=53)
* Mean (range) episodes of sex over past 6 mo	11.87 (1-100)	12.71 (1-100)	13.18 (1-100)	14.96 (1-100)	5.46 (1-22)	6.77 (1-35)
* Percent of sexual episodes using condom	94%	92%	92%	90%	103%	96%
* Condom at last sex	90%	87%	89%	89%	92%	81%
* Drunk at last sex	49%	57% *	51%	51%	37%	72% **
All partners	(n=500)	(n=507)	(n=301)	(n=258)	(n=199)	(n=249)
*Mean number of sex partners (last 6 mo)	1.33	1.35	1.51	1.61	1.06	1.08

Note: Unit of analysis is type of sex partner (not survey respondent); **p<.0.05 *p<0.10

‡ Although the survey also asked about sexual behaviors with commercial sex partners/clients, the sample size was too small to include in this analysis (n=8)

APPENDIX I

RESULTS OF THE PROGRAM EXPOSURE ANALYSIS

Table 1: Exposure Measured at Bar Level (Total Sample; Men Only; Women Only)						
Measures (percent unless specified)	**Unexposed: Total (n=338)**	**Exposed: Total (n=169)**	**Unexposed: Men (n-148)**	**Exposed: Men (n=110)**	**Unexposed: Wom (n=190)**	**Exposed: Wom (n=59)**
Patterns of Alcohol Use						
AUDIT Score (possible score 0 - 40)	8.70	9.61	9.45	10.83	8.08	7.56
Did not drink (last 12 mo)	16%	9%*	14%	10%	17%	8%*
Reports regular binge drinking (last 12 mo)	25%	24%	34%	36%	18%	2%**
Average standard units consumed when drinking	4.08	3.27*	3.97	3.49	4.17	2.86*
Intends to drink <5 each drinking occasion	74%	73%	74%	71%	73%	78%
Reports having complete control over drinking <5	84%	91%**	84%	91%	83%	91%**
Sexual Risk Attitudes & Behaviors						
Discussed condoms with partner (last 6 mo)	72%	84%*	81%	86%	65%	80%*
Obtained condoms: for sale or free (last 6 mo)	79%	86%	88%	87%	72%	83%*
Obtained condom at bar where recruited (last 6 mo)	47%	55%	55%	61%	43%	46%
Refused to have sex without condom (last 6 mo)	49%	52%	63%	59%	40%	41%
Always intends to use condom with causal partner	94%	96%	99%	97%	88%	94%
Always has control over condom use with casual partner	90%	96%*	95%	96%	83%	94%*
Very likely to use condom with casual partner after drinking	84%	86%	91%	85%	76%	89%*
HIV Knowledge						

Correct responses (out of 11 HIV questions)	77%	75%	78%	77%	76%	71%
Correctly responded: alcohol can lead to HIV risk	89%	89%	83%	83%	94%	98%
Perceptions of Bar Environment (at bar where recruited)‡						
Reports people are "never" willing to exchange drinks for sex	62%	60%	61%	58%	63%	63%
Reports people "never" engage in violence at the bar	52%	62%	59%	63%	47%	62%*
Reports people "never" are very intoxicated at the bar	21%	20%	21%	23%	22%	16%
Reports "never" feeling unsafe at the bar	64%	77**	71%	81%*	58%	70%

Note: P-values adjusted to control for bar level effects: **p<.0.05 *p<0.10 ‡ Sample size varies based on response rate

TABLE 2: Exposure Measured at Individual Level (Total Sample; Men Only; Women Only)

Measures (percent unless specified)	**Unexposed: Total (n=385)**	**Exposed: Total (122)**	**Unexposed: Men (n=167)**	**Exposed: Men (n=91)**	**Unexposed: Wom (n=218)**	**Exposed: Wom (n=31)**
Patterns of Alcohol Use						
AUDIT Score (possible score 0 - 40)	8.71	9.91	9.48	11.0*	8.12	6.85
Did not drink (last 12 mo)	16%	5%**	16%	6%**	17%	3%**
Reports regular binge drinking (last 12 mo)	21%	34%*	30%	43%	15%	10%
Average standard units consumed when drinking	3.8	3.8	3.7	4.0	4.0	3.2
Intends to drink <5 each drinking occasion	75%	69%	74%	70%	76%	67%
Reports having complete control over drinking <5	85%	88%	87%	88%	85%	87%
Sexual Risk Attitudes & Behavior						
Discussed condoms with partner (last 6 mo)	72%	87%**	77%	95%**	68%	68%
Obtained condoms: for sale or free (last 6 mo)	77%	93%**	81%	99%**	75%	77%
Obtained condom at bar where recruited (last 6 mo)	43%	71%**	45%	76%**	42%	55%
Refused to have sex without condom (last 6 mo)	47%	62%**	57%	70%**	39%	42%
Always intends to use condom with causal partner	94%	96%	99%	97%	90%	90%
Always has control over using condoms	91%	94%	96%	95%	86%	90%

with sexual partner						
Very likely to use condom with casual partner after drinking	84%	86%	91%	85%	77%	90%
HIV Knowledge						
Correct responses (out of 11 HIV questions)	76%	76%	78%	77%	75%	75%
Correctly responded: alcohol can lead to HIV risk	91%	84%**	86%	79%	95%	97%
Perceptions of Bar Environment (at bar where recruited)‡						
Reports people are "never" willing to exchange drinks for sex	64%	53%	65%	51%*	63%	59%
Reports people "never" engage in violence at the bar	56%	55%	64%	56%	50%	55%
Reports people "never" are very intoxicated at the bar	22%	19%	21%	22%	22%	10%**
Reports "never" feeling unsafe at the bar	65%	78%**	72%	81%	60%	68%

Note: P-values adjusted to control for bar level effects: **p<.0.05 *p<0.10 ‡ Sample size varies based on response rate

APPENDIX J

RESULTS OF PROGRAM EXPOSURE ANALYSIS: PARTNER-BY-PARTNER DATA

Sexual Behaviors by Level of Exposure†	Bar-Level Exposure		Individual-Level Exposure	
Type of Sex Partner‡	**Unexposed (Total)**	**Exposed (Total)**	**Unexposed (Total)**	**Exposed (Total)**
Spouses	(n=52)	(n=27)	(n=60)	(n=19)
* Mean (range) episodes of sex over past 6 mo	30.88 (2-150)	35.92 (0-200)	25.11 (0-100)	57.65** (4-200)
* Percent of sexual episodes using condom	5%	11%	4%	17%**
* Condom at last sex	0%	11%**	2%	11%
* Drunk at last sex	8%	4%	5%	11%
Boyfriends/girlfriends	(n=266)	(n=142)	(n=290)	(n=118)
* Mean (range) episodes of sex over past 6 mo	30.97 (1-400)	31.08 (1-400)	26.56 (1-300)	42.19 (1-400)**
* Percent of sexual episodes using condom	55%	56%	56%	53%
* Condom at last sex	55%	49%	53%	52%
* Drunk at last sex	19%	19%	14%	30%**
Casual partner/one night stands	(n=120)	(n=73)	(n=113)	(n=80)
* Mean (range) episodes of sex over past 6 mo	9.95 (1-100)	17.25* (1-100)	11.28 (1-100)	14.73 (1-90)
* Percent of sexual episodes using condom	95%	86%	96%	86%
* Condom at last sex	88%	85%	89%	84%
* Drunk at last sex	49%	70%*	56%	59%
All partners	(n=338)	(n=169)	(n=385)	(n=122)
*Mean number of sex partners (last 6 mo)	1.30	1.46	1.21	1.80**

Note: P-values adjusted to control for bar level effects: **p<.0.05 *p<0.10 ; unit of analysis is type of sex partner (not survey respondent)

† Sex disagregated results not shown due to small sample size

‡ Although the survey also asked about sexual behaviors with commercial sex partners/clients, the sample size was too small to include in this analysis (n=8)

For more information, please visit aidstar-one.com.

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