IMPLEMENTATION OF MOBILE COUNSELING AND TESTING IN ETHIOPIA:

PRELIMINARY LESSONS FROM THE OROMIYA REGION

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
DOTS	Direct Observed Therapy, Short Course
EDHS	Ethiopian Demographic and Health Survey
FCSW	Female Commercial Sex Worker
HAPCO	HIV/AIDS Prevention and Control Office
HIV	Human Immune-deficiency Virus
IEC	Information, Education and Communication
MARP	Most At-Risk Population
MCT	Mobile Counseling and Testing
MOH	Ministry of Health
PSP-E	Private Sector Program-Ethiopia
Q&A	Question and Answer
STI	Sexually Transmitted Infection
TB	Tuberculosis
UNAIDS	Joint United Nations Program on HIV and AIDS
USAID	United States Agency for International Development

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EXECUTIVE SUMMARY

Recent studies indicate that the populations most at risk for contracting HIV in Ethiopia are: commercial sex workers, their clients and the clients' partners; girls ages 15–24 reporting sexual activity with more than one partner; separated/divorced individuals; pregnant women; men ages 25–50 engaging in cross-generational sex; highly mobile workers; workers in a position of authority; young men having multiple sexual partners; uniformed service members; and men who have sex with men.

The federal government of Ethiopia in collaboration with development partners has begun implementing a series of voluntary mobile counseling and testing services (MCT) that aim to address the aforementioned most at-risk populations (MARPs). The Private Sector Program-Ethiopia (PSP-E), funded by the United States Agency for International Development and led by Abt Associates Inc., conducted the first round of MCT services in six towns in Oromiya region: Dukem, Modjo, Bishoftu, Adama, Batu, and Shashemene. In each town, the project provided five consecutive days of MCT services. The overarching goal of the activity was to serve as many MARPs as possible and get 100% of HIV-positive clients referred to health care professionals for further care and support. Although efforts were made to meet the needs of the entire population, a large proportion did not receive services due to the high demand by clients and the limited availability of counseling in terms of scheduled hours for MCT and the volume of clients to whom each counselor could provide quality service during those hours.

This report presents findings from data that were collected from voluntary client intake forms given to participants during this first round of services. The findings are summarized below.

Social mobilization and awareness-raising activities were conducted in each town prior to the arrival of the MCT teams in an effort to inform MARPs of the upcoming service provision dates. Major activities included posters, banners, pamphlets and flyers, road-side shows, community conversations, and megaphone announcements from cars. The mobilization activities were performed in collaboration with key stakeholders including town health offices, kebele and town administrations, municipalities, police, and local associations. Interestingly, when participants were asked about how they had become aware of the MCT services, the awareness activities most frequently mentioned were posters (32.8%, n=5640), followed by pamphlets, flyers, and banners (22.6%). Among young clients, road-side shows was the most frequent response. Peer referral also played a key role in informing individuals about available services.

Only one-fifth (22.9%; n=5640) of respondents who sought out MCT were female. Lack of female-targeted mobilization activities prior to service provision as well as the fear of stigma associated with participation could account for low levels of female participation. The vast majority of participants were young: one-third of clients were 20–24 years old (35.2%) and nearly a quarter (23.8%) were ages 15–19. Nearly two-thirds of clients (63.8%, n=5565) had never been married; 24.6% were married at the time of survey completion.

When asked about their primary reason for seeking MCT services, more than half of respondents claimed a "need to plan for the future" (53.6%). That is, individuals want to plan for activities such as getting married, getting a new job, or finding a partner. It is surprising to see that 29.3% indicated that they sought services because they felt especially at risk of contracting the virus and wanted to be tested.

Intake forms also asked clients about their previous HIV status. Of the clients who responded to this question, more than one-fourth had been tested before. HIV-positive status among those previously tested was higher among females (1.3%) than males (0.4%). Additionally, positivity among the previously tested was higher among employed clients (0.7%) than unemployed ones (0.3%). However, reliability of

the information is questionable, because inquiring about HIV-status is a sensitive issue. For example, clients might fear being denied service if they admit to prior knowledge of their HIV-positive status. Others felt their status might have changed after seeking spiritual counsel and using spiritual implements such as Holy Water, or seeking care and support services from various organizations. Five percent of all tested participants were HIV positive. The rate was highest in Modjo (7.3%) and Adama (7.0%) and lowest in Batu (3.3%). It is difficult to compare this positivity rate against the national point prevalence with the region because clients were a mix of town residents, transients, and residents of surrounding towns and rural areas. However, the figure is more than twice the 2005 point prevalence of Ethiopia (2.1%).

The positivity rate among females (8.2%) was twice as high as among males (4.1%). This 2:1 ratio is identical to the national ratio (2:1) and similar to ratios in other countries (Senegal=2:3, Guinea=2:1), as reported in the Ethiopia Demographic and Health Survey 2005 (Ethiopia Central Statistical Agency 2005).

'Separated' clients were almost three times more likely than married individuals to be HIV positive. They were also more likely to engage in sex in exchange for money/gift/favor and/or while intoxicated and were least likely to use a condom during sex. As such, these clients were identified as a population most at risk of contracting the virus.

Questioning was also done as a non-clinical preliminary screening for tuberculosis (TB). Only 1.4% of all respondents were coughing at the time of the MCT event. The percentage was highest in Dukem (4.7%) and lowest in Batu (0.5%). Coughing was higher among male clients (1.5%) than among females (1.2%), and among married (1.7%) than never married (1.2%). Among clients who reported coughing, the average length of time was 5.6 weeks. Only 1.0% of clients indicated that they had been exposed to TB in the three months prior to MCT. Clients suspected of having TB were referred for diagnosis and counseling.

Five key conclusions can be deduced from this report. First, targeting MCT services at MARPS is critical given the difference in infection rates between the sexes. Data clearly show a higher positivity rate among women than males. Second, it is encouraging to see that clients sought MCT in order to "plan for the future." Other clients wanted to get tested because they are involved in risky behavior that exposes them to HIV. These findings clearly call for a strong referral system and appropriate counseling on positive living.

Third, condom use among the study population is very low. For example, only one-third of clients had used a condom during their last sexual encounter. Fourth, unemployed clients and those who are either separated or divorced are more likely to engage in sex for money, gifts, or a favor. Fifth, sexual encounters while intoxicated are prevalent among males, the unemployed, and individuals who are either divorced or separated.

Finally, most of the clients accessing MCT services got their information, education and communication (IEC) messages mainly through posters, followed by pamphlets, flyers, and banners. It would be important to understand why these were the most effective channels through which to reach MARPs.

Following are the recommendations that emerge from the above findings and conclusions:

- Counseling clients about intoxication should be considered for all clients, given the number of individuals having unprotected sex while intoxicated.
- Mobile teams should use innovative approaches to conduct IEC campaigns prior to the MCT event. These should include utilizing local associations and clubs and organizing discussions with groups of MARPs on how best to reach the intended audience.
- Referral networks should be established in the region so that HIV-positive clients can receive care

and support services. The project should organize a series of discussions and consultations with the Regional Health Bureau, Ministry of Health, and HIV/AIDS Prevention and Control Office to create a referral system and a mechanism to track referrals.

- Mobile teams and town health offices should review the delays that took place in providing sample tests outcome and feedback so that appropriate planning of these activities can be done for future MCT.
- To better understand the underlying issues regarding unprotected sex, sex for money, and retesting, the team should complement quantitative data with qualitative studies, e.g. focus group discussions.

The insight that this report provides has implications that future program planning should consider. Targeting of MCT to the different MARP groups is critical to program scale-up in other towns and/or high-risk corridors.

1. INTRODUCTION

HIV/AIDS presents serious demographic, social, economic, and developmental challenges on a global scale (Joint United Nations Program for HIV/AIDS [UNAIDS] 2007, UNAIDS 2003). While current surveillance estimates of prevalence rates in Ethiopia are encouraging, HIV/AIDS poses a huge challenge in each of the aforementioned respects. The 2005 Ethiopian Demographic and Health Survey (EDHS) estimates that the prevalence of HIV in Ethiopia is 1.4% (adults age 15–49) with an urban prevalence of 6.0% and rural prevalence of 0.7% (Ethiopia Central Statistical Agency 2005).

The federal government of Ethiopia in collaboration with development partners has begun implementing a series of voluntary mobile counseling and testing services (MCT) that aim to address most at-risk populations (MARPs). One partner is the Private Sector Program-Ethiopia (PSP-E), funded by the United States Agency for International Development and led by Abt Associates Inc., which continues to support long-term efforts to facilitate in-country public-private partnerships in health care provision by focusing on two interrelated themes: i) engaging large private companies in efforts to improve access to HIV and tuberculosis (TB) services for employees, dependents, and surrounding communities; and ii) initiating a policy process to extend the provision of TB/Direct Observed Therapy, Short Course (DOTS) services with the Ministry of Health through a private-public mix (PPM)/DOTS model.

Cognizant of the multi-dimensional problem that this pandemic continues to pose, PSP-E has also initiated MCT services. The first phase of MCT, held in the Oromiya region over six weeks in July–August 2007, was completed with the immediate goal of meeting growing demand for HIV/AIDS prevention, care, and support services. The overall aim of the activity is to address the specific needs of the region's MARPs through a combination of integrated social mobilization activities and actual testing and counseling services.

This initial MCT was conducted in six urban areas in the Oromiya region: Dukem, Modjo, Bishoftu, Adama, Batu, and Shashemene. Overall HIV/AIDS prevalence in the region has a point estimate of 1.5%, with estimated urban and rural infection rates of 7.1% and 0.6% respectively. While it is not possible to ascertain the HIV/AIDS prevalence rates of each town, all are urban centers known to be severely affected by the pandemic. As such, they are optimal areas in which to reach MARPs.

1.1 MOBILE COUNSELING AND TESTING

MCT is a modality of voluntary counseling and testing that seeks to integrate HIV and AIDS prevention, care, and support services while targeting most at-risk segments of the population. These include female commercial sex workers (FCSW), their clients and the clients' partners; girls ages 15–24 reporting sexual activity with more than one partner; separated/divorced individuals; pregnant women; men ages 25–50 engaging in cross-generational sex; highly mobile workers; workers in a position of authority; young men having multiple sexual partners; uniformed service members; and men who have sex with men.

Ultimately, the program aims to establish referral linkages with private and public institutions to provide additional post-testing care and support. Pending client consent, those who are identified as HIV positive will be referred to other care and support services or for further diagnosis and treatment.

The first round of MCT services was completed by mobile teams comprising five counselors, one lab technician, one receptionist, and two guards. In each town, two to three mobile teams spent five days providing services in portable tents in sites selected based on criteria developed with town health

offices, kebele administrations, municipalities, and police. A second round of MCT will be conducted in each town after a review meeting is held to assess overall program performance and to craft future strategies.

1.2 GEOGRAPHIC LOCATIONS

As noted above, the first round of MCT took place over six weeks in July-August 2007 in six towns of Oromiya region: Dukem, Modjo, Bishoftu, Adama, Batu, and Shashemene. These towns are located along the roads from Addis Ababa to Djibouti and Addis Ababa to Moyale. The roads are among the busiest roads in the country.

They also are centers for factories, many of which have 3,000–5,000 employees. Most factory laborers reside in areas of the towns that are densely populated and contain establishments frequented by FCSW. According to the service mapping conducted prior to the MCT, most FCSW clients are day laborers and men who work in low-paying jobs, large demographic groups in the selected towns. Many businessmen travel through the towns and visit FCSW as well.

Because of these circumstances, these towns have high concentrations of MARPs and thus were appropriate locations for the first phase of MCT services.

1.3 CONTENT

This report begins by outlining the technical approach that was used to collect data from MCT clients. The second section presents key findings from the client data collected and the remaining section outlines the conclusions and recommendations that emerge from the findings.

2. TECHNICAL APPROACH

The technical approach to MCT calls for joint planning with the regional health bureau on key preparations and targets, cold chain management, waste disposal management, and external quality issues.

Before MCT begins, social mobilization is conducted in each town for five consecutive days. It deploys different information, education and communication (IEC) methods, including: presentations of road-side shows (dramas, question and answer sessions [Q&A] with prizes, and music), community conversations (with a coffee ceremony), and distribution of flyers, hanging banners, and car announcements. The overarching goal is to mobilize the public to utilize the MCT service and to inform clients where to go for services in major referral areas such as pre-antiretroviral therapy (ART), ART, TB, ongoing counseling, and other care and support services.

Upon completion of the social mobilization efforts, two to three mobile teams comprising five counselors, one lab technician, one receptionist, and two guards worked in each town during the MCT period, which lasted five consecutive days. Counselors on the mobile teams were expected to counsel and test 15 clients per day; more were served when working hours were extended yet quality of services was not compromised.

Client intake forms and other records were used to collect and record clients' sociodemographic and MCT-related information. These forms were collected at the end of each day and transported to the PSP-E office for data entry. Entry was done by two experienced data entry clerks who had been oriented on data entry forms and templates.

Analysis and cross-tabulation of the data was completed using version 12 of the Statistical Packages for Social Sciences (SPSS). The data analysis is mainly quantitative-descriptive in nature. Means, percentages, and cross-tabulations for univariate and bivariate analysis were used to discuss MCT questions from the forms collected at the MCT sites.

Although all clients were asked to participate in the data collection effort, their participation was voluntary. For this reason, some variables were left blank.

3. KEY FINDINGS

The section provides findings from the quantitative analysis of the first round of MCT services in Oromiya region. It presents data pertaining to sociodemographic characteristics like age, sex, marital status, education, employment, and occupation. It then discusses the social mobilization and IEC activities that were conducted preceding the actual counseling and testing. There are also sections detailing and analyzing responses to questions regarding sexuality, condom use, reason for coming to the test, family planning history of women, TB history of clients, and current HIV status of clients.

3.1 SOCIODEMOGRAPHIC CHARACTERISTICS OF CLIENTS

A total of 5,640 clients participated in the six weeks of MCT. All of the clients who attended pre-test counseling sessions were also tested for HIV and received their test results. Table 1 gives the number of clients with recorded sociodemographic information in the client intake/registry forms.

As Table 1 indicates, only one-fifth (22.9%) of the total number of clients tested for HIV were female. Several factors might account for low levels of female participation. One is lack of female-targeted mobilization activities prior to initiation of the actual counseling and testing and therefore females' lack of awareness that testing was taking place, or inconvenient timing of the MCT activities. Fear of stigma might also limit female involvement.

TABLE 1: DISTRIBUTION OF CLIENTS BY GENDER AND TOWNS

Sex	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Male	83.8	72.7	73.5	82.3	73.3	80.1	77.1
Female	16.2	27.3	26.5	17.7	26.7	19.9	22.9
n	390	766	1136	1152	1141	1055	5640

Clients were also disaggregated by age. As Table 2 shows, a high proportion of the MCT clients were young adults and adolescents. Nearly 76.5% of clients were between the ages of 15 and 29: more than one-third (35.2%) were concentrated in the 20–24 age group, almost one-quarter (23.8%) were age 15–19, and 17.5% were age 25–29. The remaining 30% were evenly distributed among the older age ranges.

TABLE 2: DISTRIBUTION OF CLIENTS BY AGE AND TOWN

Age	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
< 15	0.0	0.1	0.0	0.0	0.3	0.1	0.1
15 - 19	23.6	24.9	27.6	22.4	22.0	22.3	23.8
20 - 24	37.7	29.5	30.3	34.9	40.2	38.6	35.2
25 - 29	19.0	15.5	17.4	19.2	17.4	16.8	17.5
30 - 34	8.2	11.2	8.6	8.4	8.2	8.4	8.8
35 - 39	5.9	7.2	5.6	5.7	4.4	5.8	5.6
40 - 44	1.5	4.6	3.1	3.0	2.8	3.0	3.1
45 - 49	2.3	2.5	2.6	3.0	2.5	2.9	2.7
>=50	1.8	4.4	4.9	3.4	2.3	2.1	3.3
n	390	766	1133	1152	1141	1055	5637

Analysis of data by educational level indicated that more than half of the clients (57.9%, n=5583) had attended secondary school. About one-fifth (21.2%) had attended primary school, and 9.0% studied at the tertiary level (beyond grade 12). Not surprising, 9.1% of clients indicated that they were illiterate.

TABLE 3: DISTRIBUTION OF CLIENTS BY EDUCATION LEVEL AND TOWN

Education	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Illiterate	13.9	15.9	8.7	6.5	7.6	7.0	9.1
Able to Read	2.1	3.6	1.6	2.5	2.7	1.8	2.3
Primary	25.5	23.7	15.0	22.2	20.3	24.0	21.2
Secondary	49.2	50.5	62.3	54.4	63.4	59.9	57.9
Tertiary	9.3	5.7	11.2	13.7	5.9	7.0	9.0
Other	0.0	0.7	1.2	0.6	0.2	0.2	0.5
n	388	760	1124	1147	1123	1041	5583

As Table 4 indicates, nearly two-thirds of clients (63.8%, n=5565 clients with recorded marital status) were never married. One-quarter of them (24.6%) identified themselves as married. The remaining individuals were divorced, separated, widowed, or living together. From the Chi-square analysis of sociodemographic characteristics of clients, marital status is highly associated with age ($p < 0.01$ Pearson). The analysis further indicated that marriage or cohabiting at young ages is not common.

TABLE 4: DISTRIBUTION OF CLIENTS BY MARITAL STATUS AND TOWN

Marital Status	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Married	26.0	22.0	23.0	19.2	31.7	26.2	24.6
Never married	55.3	61.5	66.8	69.1	57.0	66.8	63.8
Separated	4.4	7.1	2.1	4.2	2.1	1.3	3.2
Divorced	4.2	5.6	3.6	2.7	5.0	2.7	3.8
Widowed	1.0	3.1	2.3	1.7	1.9	2.1	2.1
Living together	2.1	0.8	2.2	3.1	2.3	0.9	2.0
n	385	751	1123	1144	1113	1049	5565

In looking at clients' occupation, Table 5 shows that about forty five percent of the clients were unemployed. Data from this sample also shows variation in employment among towns. For example, Dukem had the highest number of unemployed (67%) followed by Modjo (48.9%) and Bishoftu (46.6%). A detailed presentation of employment by occupation is shown in Annex 1.

TABLE 5: DISTRIBUTION OF CLIENTS BY EMPLOYMENT STATUS, AND TOWN

	TOWN						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Employment Status							
Unemployed	67.0	48.9	46.6	41.2	39.5	39.3	44.9
Employed	33.0	51.1	53.4	58.8	60.5	60.7	55.1
n	267	456	549	634	446	704	3056

3.2 SOCIAL MOBILIZATION

Social mobilization is a core element of MCT. Five-day IEC and mobilization sessions were undertaken in each town prior to the actual counseling and testing. The social mobilization activities included: road-side shows (drama, role plays, puppetry, and Q&A with prizes), distribution of brochures and flyers, hanging banners in key areas, community conversation sessions for selected community representatives, and car announcements to inform MARPs about the upcoming MCT services. The mobilization activities were performed in collaboration with town health offices, kebele and town administrations, the municipality, police, and local associations.

Table 6 presents the types of IEC/mobilization activities that informed clients about the availability of MCT. About one-third of clients (32.8%, n=5640) participated in the services after having observed posters that were displayed throughout the towns prior to service delivery. Nearly one-quarter (22.6%) learned of the MCT activity through pamphlets, flyers, and banners. Road-side shows were highly effective in attracting younger demographics. 'Other clients' also played key roles in informing individuals about the availability of services.

TABLE 6: TYPE OF IEC ACTIVITIES ATTRACTING CLIENTS BY TOWN

Mobilization/IEC Activity*	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Posters	31.5	26.9	32.4	30.0	42.0	30.9	32.8
Pamphlets, banners	28.2	35.9	26.3	26.2	14.7	11.4	22.6
Other clients	18.5	14.5	22.8	18.1	21.3	24.0	20.3
Road-side show	44.4	26.9	15.8	21.9	4.8	16.1	18.4
Outreach/car announcement	18.5	10.4	14.4	19.7	0.6	0.9	9.9
Friend/ family	2.6	12.1	6.4	7.4	8.9	8.1	7.9
Community conversation	1.5	1.7	3.9	4.2	9.0	10.9	5.8
Mobile video unit	0.3	0.8	2.9	6.1	4.5	0.1	2.9
n	390	766	1136	1152	1141	1055	5640

When social mobilization was disaggregated by gender, there were no major differences in the source of information between male and female (see annex 2.) Table 7 breaks down the effectiveness of the types of IEC/mobilization activities by sex. All social mobilization activities were targeted toward both sexes; that is, none was tailored to appeal specifically to female or male clients. As Table 7 shows, both men and women said 'posters' were most important source of MCT information from both sexes. 'Other clients' was the second most important source of information for females, pamphlets, flyers, and banners was second for males.

TABLE 7: LEVEL OF IEC EFFECTIVENESS BY SEX, ACTIVITY, AND TOWN

Males							
IEC/Mobilization Activity	**TOWNS**						
	Dukem	**Modjo**	**Bishoftu**	**Adama**	**Batu**	**Shashe-mene**	**TOTAL**
Posters	31.2	26.9	33.2	29.1	42.3	31.6	32.8
Pamphlets, banners	27.2	35.5	26.9	26.1	17.2	13.7	23.4
Other clients	19.6	15.3	21.7	17.8	18.7	23.1	19.5
Outreach/Car announcement	19.9	9.7	14.5	18.8	0.6	0.9	9.9
Road-side show	24.8	16.7	1.7	2.5	3.6	14.8	8.4
Friend/ family	1.5	11.3	5.9	7.4	9.1	7.2	7.5
Community conversation	1.2	2.0	3.5	4.5	7.4	10.1	5.4
Mobile video unit	0.3	0.9	2.8	6.5	4.4	0.1	3.0
n	*327*	*557*	*835*	*948*	*836*	*845*	*4348*
Females							
Posters	31.7	26.8	30.2	34.3	41.0	28.1	32.6
Other clients	12.7	12.4	25.9	19.1	28.5	27.6	22.9
Pamphlets, banners	33.3	36.8	24.6	27.0	7.9	1.9	19.7
Outreach/Car announcement	9.5	12.4	14.3	24.0	0.7	1.0	9.9
Friend/ family	7.9	14.4	8.0	7.4	8.2	11.4	9.5
Road-side show	31.7	15.8	0.7	0.5	5.9	16.7	8.4
Community conversation	3.2	1.0	5.0	2.5	13.4	14.3	7.4
Mobile video unit	0.0	0.5	3.3	3.9	4.6	0.0	2.6
n	63	209	301	204	305	210	1292

3.3 RISKS ASSOCIATED WITH HIV

The client intake form also asked clients why they participated in the MCT event and it addressed issues of sexuality, condom usage, client's previously known HIV-status, and each client's history of sexually transmitted infections (STIs), family planning use, and TB. While interviewers encouraged clients to respond to all questions, client participation was voluntary, that is, they could refuse to respond. As such, the denominators for each cross-tabulation and analysis results of each variable vary widely.

3.3.1 REASONS FOR ATTENDING MCT

Table 8 shows clients' main reason for seeking out MCT services. More than half of surveyed clients identified their primary reason as the "need to plan for the future" (53.6%). Another 29.3% sought out the services because they felt they were at risk of contracting HIV. These two reasons for participating in services were uniformly distributed, with little variance, across all towns.

TABLE 8: PARTICIPANT RATIONALE FOR ATTENDING MCT BY TOWN

Most important reason for coming to the MCT	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Plan future	69.0	57.3	62.6	53.9	51.2	38.0	53.6
Client had risk	19.9	26.5	19.0	31.8	35.8	36.3	29.3
Check status	0.3	5.6	5.9	4.4	4.3	4.8	4.6
Get counseling	0.8	2.2	0.9	0.4	0.0	11.1	2.7
Partner had risk	1.0	3.1	2.9	2.8	2.1	2.0	2.4
Blood/fluid exposure	0.5	1.0	2.0	2.2	1.5	2.9	1.9
Not trust partner	0.5	0.4	1.6	0.9	1.7	2.2	1.3
2nd/window test	1.3	0.8	2.5	0.9	1.2	0.9	1.3
Premarital sex	3.1	1.2	0.4	0.4	0.7	0.6	0.8
Ill / symptoms	0.8	0.4	0.4	0.6	0.2	0.5	0.4
Occupational exposure	0.8	0.4	0.4	0.5	0.4	0.1	0.4
Confirm positive result	0.3	0.4	0.4	0.4	0.0	0.1	0.3
n	390	766	1136	1152	1141	1055	5640

3.3.2 SEXUAL BEHAVIOR

The intake form also addressed client sexuality. Clients were asked such questions as whether or not they had ever had sex, ever had sex while intoxicated, and/or ever had sex in exchange for money/gift/favor.

When asked if they had ever had sex, nearly half of unmarried clients (47.8%) responded that they had had sex. As Table 9 indicates, males claimed to engage in pre-marital sex more than females.

TABLE 9: PERCENTAGE OF SEXUALLY ACTIVE, UNMARRIED CLIENTS BY SEX

	TOWNS						
	Dukem	**Modjo**	**Bishoftu**	**Adama**	**Batu**	**Shashemene**	**TOTAL**
All	44.1(213)	58.9(462)	40.8(750)	44.4(791)	43.1(634)	57.5(701)	47.8(3551)
Sex							
Male	45.4(185)	62.5(376)	43.4(585)	46.0(683)	46.3(503)	60.3(605)	50.6(2937)
Female	35.7(28)	43.0(86)	31.5(165)	34.3(108)	30.5(131)	39.6(96)	34.9(614)

Note: Numbers in parenthesis are different n's

Clients were asked if they had ever had sex while intoxicated. As Table 10 shows, only 8.6% of respondents indicated that they had had sex while intoxicated; the percentage was highest in Shashemene (11.3%) and lowest in Batu (4.5%). The majority of respondents answering that they had had sex while intoxicated were male (not shown in table). Marital status and employment status are significantly associated with this variable ($p < 0.01$) – this risk factor is more prevalent among separated clients (15.1%) and divorced clients (11.7%) than among married or never married ones, and among unemployed clients (11.3%) than employed ones. This indicates a high probability of unsafe sex among the separated, divorced, and unemployed groups, which eventually exposes them to HIV.

TABLE 10: PERCENTAGE OF CLIENTS WHO ADMITTED TO HAVING SEX WHILE INTOXICATED BY TOWN, MARITAL STATUS, AND EMPLOYMENT

	TOWNS						
	Dukem	**Modjo**	**Bishoftu**	**Adama**	**Batu**	**Shashemene**	**TOTAL**
All	9.2(390)	10.3(766)	6.5(1136)	10.9(1152)	4.5(1141)	11.3(1055)	8.6(5640)
Employment							
Employed	7.3(179)	5.4(223)	6.6(256)	6.5(261)	3.4(176)	7.6(277)	6.3(1372)
Unemployed	8.0(88)	12.0(233)	7.8(293)	10.2(373)	8.1(270)	16.9(427)	11.3(1684)
Marital Status							
Married	10.0(100)	7.3(165)	5.4(258)	10.0(220)	3.7(353)	12.0(275)	7.6(1371)
Never married	9.9(213)	9.5(462)	6.9(750)	10.5(791)	4.7(634)	11.6(701)	8.8(3551)
Separated	11.8(17)	26.4(53)	4.2(24)	16.7(48)	4.3(23)	7.1(14)	15.1(179)
Divorced	12.5(16)	14.3(42)	7.5(40)	29.0(31)	7.1(56)	3.6(28)	11.7(213)

Note: Numbers in parenthesis are different n's

Clients also were asked if they had ever had sex in exchange for money/gift/favor. As shown in Table 11, 4% of clients admitted they had had sex in exchange for money/gift/favor. There is no significant relationship between the client's sex and the study variable ($p<0.05$).

Unemployed clients are more vulnerable to sex in exchange for money, gift, or favor than employed ones. In terms of marital status, clients who are separated and divorced are more likely to have sex in exchange for money/gift/favor than currently married or never married ones. These are the same demographic groups that engage in sexual activity while intoxicated, another indication that they engage in more at-risk behaviors than other portions of the population.

TABLE 11: PERCENTAGE OF CLIENTS WHO ADMITTED TO HAVING SEX IN EXCHANGE FOR MONEY/GIFT/FAVOR BY TOWN, MARITAL STATUS, AND EMPLOYMENT

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashemene	TOTAL
All	1.8(390)	5.9(766)	4.8(1136)	4.5(1152)	3.5(1141)	2.8(1055)	4.0(5640)
Employment							
Employed	2.8(179)	4.5(223)	4.3(256)	1.9(261)	6.3(176)	1.1(277)	3.3(1372)
Unemployed	-	12.9(233)	10.9(293)	8.8(373)	5.2(270)	3.0(427)	7.2(1684)
Marital Status							
Married	-	1.8(165)	5.4(258)	2.3(220)	2.5(353)	1.1(275)	2.5(1371)
Never married	0.9(213)	7.1(462)	4.1(750)	4.3(791)	3.3(634)	3.0(701)	4.0(3551)
Separated	5.9(17)	13.2(53)	8.3(24)	12.5(48)	8.7(23)	7.1(14)	10.6(179)
Divorced	25.0(16)	2.4(42)	7.5(40)	16.1(31)	10.7(56)	17.9(28)	11.3(213)

Note: Numbers in parenthesis are different n's

3.3.3 USE OF CONDOM

Clients were asked if they had "used a condom the last time they had sex," and/or "used condoms in the last three months." The clients' gender, employment, marital status, and education are significantly associated with the study variables (Pearson Chi-Square).

Table 12 presents the percentage of sexually active clients who had used a condom during their last sexual encounter. About one-third of the clients (30.9%) indicated that they had used a condom during the last time they had sex. This figure was evenly represented across all towns.

With regard to gender, 32.8% of males answered this question in the affirmative, nearly double the percentage of females who responded with affirmatively.

Results show no significant variation in condom usage by employment level. Roughly one quarter of the never married, divorced, and separated clients said that they used a condom the last time they had sex.

TABLE 12: PERCENTAGE OF SEXUALLY ACTIVE CLIENTS WHO REPORTED USING A CONDOM DURING LAST SEXUAL EXPERIENCE BY SEX, EMPLOYMENT STATUS, MARITAL STATUS, AND TOWN

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashemene	TOTAL
All	29.0(231)	35.9(529)	27.3(542)	35.6(534)	24.1(503)	32.0(682)	30.9(3021)
Sex							
Male	27.6(196)	38.9(409)	31.0(419)	35.2(469)	25.3(415)	34.9(573)	32.8(2481)
Female	32.5(40)	21.1(147)	12.1(149)	26.3(95)	15.4(104)	14.5(124)	18.4(659)
Employment							
Employed	21.2(179)	26.9(223)	12.9(256)	26.8(261)	18.2(176)	20.9(277)	21.2(1372)
Unemployed	22.7(88)	25.8(233)	22.2(293)	19.3(373)	15.2(270)	27.6(427)	22.3(1684)
Marital Status							
Married	14.0(100)	10.3(165)	7.4(258)	7.3(220)	5.9(353)	6.2(275)	7.6(1371)
Never married	23.5(213)	29.4(462)	21.9(750)	27.4(791)	19.2(634)	28.2(701)	25.0(3551)

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Separated	29.4(17)	39.6(53)	16.7(24)	16.7(48)	17.4(23)	21.4(14)	25.1(179)
Divorced	18.8(16)	23.8(42)	17.5(40)	32.3(31)	19.6(56)	17.9(28)	21.6(213)
Living together	37.5(4)	66.7(23)	44.0(26)	45.7(19)	26.9(21)	44.4(22)	41.3(115)

Note: Numbers in parenthesis are different n's

Table 13 presents clients' use of condoms in the three months preceding the MCT event by marital status and sex. Regarding marital status, married clients were less likely to have used condoms during sexual contact than never married ones – only 3.6% of married clients used a condom whenever they had sexual contact, whereas 11.7% of never married, sexually active clients did and another 5.6% of never married clients sometimes did. However, the vast majority of individuals in each group fail to use a condom during sexual intercourse. This places them at a greater risk of contracting HIV and, as such, is an issue that should be addressed during counseling and testing sessions.

Regarding use of condoms by sex, it is surprising to note that the majority of male and female clients who ever had sexual contact had never used a condom in the three months prior to the MCT event.

TABLE 13: PERCENTAGE OF SEXUALLY ACTIVE CLIENTS WHO REPORTED USING A CONDOM IN THE 3 MONTHS PRIOR TO MCT BY MARITAL STATUS, SEX, AND TOWN

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Married	n=100	n=165	n=258	n=220	n=353	n=275	n=1371
Never	89.0	86.7	78.7	83.2	81.9	85.5	83.3
Always	2.0	7.9	4.7	3.2	2.3	2.5	3.6
Sometimes	5.0	0.6	4.3	5.0	3.7	1.5	3.3
Never Married	n=213	n=462	n=750	n=791	n=634	n=701	n=3551
Never	44.1	33.1	34.8	37.4	50.6	37.4	39.1
Always	8.9	14.9	11.5	12.6	7.9	13.0	11.7
Sometimes	9.4	5.6	5.1	7.0	4.4	4.6	5.6
Male	n=196	n=409	n=419	n=469	n=415	n=573	n=2481
Never	65.8	45.5	50.8	49.7	66.3	55.5	54.6
Always	9.7	20.0	13.6	14.7	10.4	15.2	14.4
Sometimes	11.2	6.4	7.9	9.4	5.5	4.5	7.0
Female	n=40	n=147	n=149	n=95	n=104	n=124	n=659
Never	72.5	63.9	71.8	58.9	73.1	66.1	67.4
Always	15.0	13.6	8.7	8.4	5.8	10.5	10.0
Sometimes	7.5	3.4	3.4	11.6	6.7	0.0	4.7

3.3.4 COMMERCIAL SEX WORK

During the counseling sessions, female clients were asked whether or not they were commercial sex workers. Given the sensitivity of the issue, and the voluntary nature of the responding to the intake form questions, a significant number of responses were not provided for analysis. Available data indicate that, among those who responded, 4.0% (n=40) were FCSWs.

3.3.5 PREVIOUS HIV STATUS OF CLIENTS

Table 14 shows clients' history of HIV status. Among those who responded to this question, more than one-fourth (29.3%) had been tested at a previous time. Given the sensitivity of the question and the fear of stigma, it was anticipated that clients might hide their status. Moreover, the timing of past testing was not specified correctly and consistently and, therefore, underreporting is probable.

Among the participating respondents, the positivity of those previously tested was higher among females (1.3%) than among males (0.4%). Similarly, positivity of those tested was also higher among employed (0.7%) clients than unemployed (0.3%). There is no significant difference in positivity based on marital status.

Counselors also noted that some of the HIV-positive clients felt their status might have changed after seeking spiritual counsel and using spiritual implements such as the Holy Water, or seeking care and support services from various organizations.

TABLE 14: PERCENTAGE OF CLIENTS WHO MENTIONED THEIR PREVIOUS HIV STATUS BY SEX, MARITAL STATUS, EMPLOYMENT STATUS, AND TOWN

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
All (tested for HIV, irrespective of status)	38.8(151)	32.8(250)	30.4(343)	32.3(369)	24.3(264)	24.2(253)	29.3(1630)
Male	n=326	n=555	n=830	n=940	n=789	n=836	n=4276
No	62.9	67.4	69.8	68.0	75.4	76.0	70.8
Yes, HIV +	0.3	0.9	0.2	0.5	0.6	0.1	0.4
Yes, HIV -	36.8	31.2	29.8	31.0	23.8	23.8	28.5
Female	n=63	n=208	n=299	n=202	n=297	n=209	n=1278
No	52.4	66.3	68.6	65.3	76.1	75.1	69.7
Yes, HIV +	3.2	1.0	1.3	2.5	0.7	0.5	1.3
Yes, HIV -	44.4	30.3	30.1	31.7	23.2	23.9	28.5
Married	n=100	n=164	n=255	n=217	n=332	n=273	n=1341
No	51.0	61.6	60.8	60.8	74.7	74.7	66.4
Yes, HIV +	0.0	0.6	0.4	0.9	0.3	0.0	0.4
Yes, HIV -	49.0	35.4	38.8	38.2	25.0	25.3	32.9
Never married	n=213	n=460	n=748	n=786	n=608	n=696	n=3511
No	69.5	68.9	73.4	70.6	78.1	76.1	73.3
Yes, HIV +	0.9	0.4	0.1	0.5	0.7	0.1	0.4
Yes, HIV -	29.6	30.2	26.3	28.1	21.1	23.4	25.9
Unemployed	n=179	n=223	n=255	n=260	n=176	n=277	n=1370
No	64.2	67.3	71.0	73.5	83.5	73.6	72.1
Yes, HIV +	1.1	0.0	0.4	0.0	0.6	0.0	0.3
Yes, HIV -	34.6	32.7	28.6	26.2	15.9	26.0	27.4
Employed	n=86	n=233	n=292	n=368	n=268	n=422	n=1669
No	53.5	66.5	68.8	68.2	69.8	71.3	68.4
Yes, HIV +	1.2	1.3	0.0	0.8	0.7	0.5	0.7
Yes, HIV -	45.3	30.0	31.2	30.4	29.5	28.0	30.5

3.3.6 CLIENTS' HISTORY OF STIS

Information regarding STIs is a critical indicator of sexual practices and shows a cofactor to HIV infection. Given the fear of stigma and discrimination, asking a client about STIs is another very sensitive issue. As such, reliability of information is questionable. Table 15 presents client's self-reported STI information against some demographic variables.

A total of 7.9% of all clients indicated that they had some form of STI; rates were highest among clients in Modjo (11.1%) and lowest in Batu (6.2%). When disaggregated by gender, the data showed that males are more likely to contract STIs than their female counterparts. While STI presence is highly associated with male clients, there is no statistical significance linking STIs to females (Pearson Chi-Square, $p < 0.01$). As Table 15 shows, nearly one-tenth of male clients (9.2%) admitted that they had ever contracted an STI. This rate is four times higher than EDHS 2005 estimates. While the prevalence rate among women is significantly less (3.7%), it is almost twice that of the EDHS 2005 figures.

There is a strong relationship between marital status and STI infection as well. Pearson's association and correlation test indicate a strong relationship between STI infection and clientele identified as either married or never married ($p < 0.01$). The rate of infection among married clients was much higher (15.2%) than among clients who had never been married (4.0%). The statistical analysis could not provide a significant rationale for the high proportion of married individuals with STIs.

STI infection was also higher among employed clients (10.3%) than unemployed ones (6.3%).

TABLE 15: RESPONDENT RATE OF STI BY SEX, MARITAL STATUS, EMPLOYMENT STATUS, AND TOWN

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
All (STI +ve)	8.9(34)	11.1(82)	7.4(82)	8.5(96)	6.2(69)	7.1(74)	7.9(437)
Male	n=321	n=537	n=813	n=925	n=814	n=840	n=4250
No	86.3	78.2	78.4	81.2	81.6	79.4	80.4
Yes	10.6	13.2	8.7	9.4	7.5	7.9	9.2
Don't know	0.3	0.2	0.0	0.2	0.2	0.0	0.1
N/A	2.8	8.4	12.9	9.2	10.7	12.7	10.3
Female*	n=62	n=204	n=293	n=200	n=296	n=207	n=1262
No	96.8	84.8	83.6	83.5	89.5	82.1	85.6
Yes	0.0	5.4	3.8	4.5	2.7	3.9	3.7
Don't know	0.0	0.5	0.3	0.0	0.0	0.0	0.2
N/A	3.2	9.3	12.3	12.0	7.8	14.0	10.5
Married	n=99	n=157	n=252	n=214	n=343	n=273	n=1338
No	84.8	84.1	83.3	82.2	86.6	82.8	84.1
Yes	15.2	15.3	16.3	17.8	13.4	14.3	15.2
Don't know	0.0	0.6	0.4	0.0	0.0	2.9	0.7
Never married	n=208	n=447	n=734	n=775	n=620	n=696	n=3480
No	89.9	79.0	78.6	80.8	79.8	78.4	80.0
Yes	4.8	6.5	2.9	5.0	2.4	3.7	4.0
Don't know	0.5	0.4	0.0	0.3	0.3	0.0	0.2
N/A	4.8	14.1	18.5	13.9	17.4	17.8	15.8
Unemployed	n=176	n=221	n=253	n=256	n=175	n=274	n=1355
No	88.6	83.3	73.5	84.4	85.1	73.7	80.7
Yes	8.0	8.6	7.1	5.9	4.0	4.4	6.3

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashemene	TOTAL
Don't know	3.4	8.1	19.4	9.8	10.9	21.9	13.1
Employed	n=85	n=226	n=288	n=363	n=266	n=425	n=1653
No	84.7	81.0	89.2	81.5	79.7	76.2	81.3
Yes	10.6	9.7	5.9	11.3	11.3	12.2	10.3
Don't know	1.2	0.9	0.0	0.0	0.0	0.0	0.2
N/A	3.5	8.4	4.9	7.2	9.0	11.5	8.2

* Not significant at Pearson's Chi-Square ($p < 0.05$)

3.3.7 USE OF FAMILY PLANNING SERVICES

Female clients were asked if they were pregnant and/or were utilizing family planning methods. As Table 16 shows, 2.5% of the female clients were pregnant at the time of the actual testing. The highest proportion of pregnant women (5.7%) was observed in Shashemen, the lowest in Dukem (0%).

TABLE 16: PREGNANCY STATUS OF FEMALE RESPONDENTS BY TOWN

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashemene	TOTAL
Is client pregnant?	n=60	n=179	n=276	n=177	n=282	n=209	n=1183
No	80.0	81.6	78.6	79.1	90.1	78.9	82.0
Yes	0.0	1.1	0.4	3.4	3.2	5.7	2.5
Don't know	1.7	0.0	0.4	1.1	0.0	0.5	0.4
N/A	18.3	17.3	20.7	16.4	6.7	14.8	15.0

As Table 17 indicates, 21.2% of clients indicated contraceptive use. This is more than twice the national average of 9.7%. Self-reported use of family planning was highest among clients in the age group 30-34 years (37.0%). The second highest was in the 25-29 age group (29.6%). Use of contraceptives was lower in younger clients than older ones.

Regarding gender, use of contraceptives was higher among female clients (27.1%) than their male counterparts and was more than double the estimated national average. Nearly half of the married clients (49.7%) reported using contraceptives in contrast with never married ones (11.4%).

TABLE 17: PERCENTAGE OF CLIENTS USING CONTRACEPTIVES BY SEX, MARITAL STATUS, AGE, AND TOWN

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashemene	TOTAL
All	19.2(344)	18.9(581)	22.4(937)	22.6(1010)	21.2(871)	20.8(1046)	21.2(4789)
Sex							
Male	16.7(282)	13.7(402)	20.9(665)	21.0(835)	20.6(616)	19.4(840)	19.4(3640)
Female	30.6(62)	30.7(179)	26.1(272)	30.3(175)	22.7(255)	26.7(206)	27.1(1149)
Marital Status							
Married	51.0(96)	54.2(131)	54.0(215)	56.9(202)	41.3(269)	46.9(271)	49.7(1184)
Never married	5.1(177)	7.4(339)	13.5(616)	13.1(686)	10.9(494)	11.9(696)	11.4(3008)

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Age							
15 - 19	5.2(77)	8.1(135)	6.7(270)	13.7(226)	13.9(187)	10.3(234)	10.1(1129)
20 - 24	21.1(128)	15.9(170)	19.8(273)	19.9(357)	22.1(349)	14.9(403)	18.8(1680)
25 - 29	23.5(68)	25.5(94)	38.7(163)	29.7(195)	26.3(167)	28.7(174)	29.6(861)
30 - 34	41.4(29)	38.8(67)	40.7(81)	36.0(86)	26.4(72)	40.4(89)	37.0(424)

Note: Numbers in parenthesis are different n's

3.4 SCREENING FOR TB

The client intake form also discussed issues pertaining to preliminary screening for TB, including questions related to coughing, length of coughing spells, and possibility of TB contact in the past three months. The findings, shown in Table 18, indicate that only 1.4% of all clients were coughing at the time of the MCT. Prevalence of coughing was highest in Dukem (4.7%) and lowest in Batu (0.5%).

Among those clients who mentioned they were coughing, the average time of coughing was 5.6 weeks. The minimum recorded period was one week while the maximum was 48 weeks (one year). Given that the average period of coughing exceeds five weeks, there is some indication that clients should receive referral services for further TB screening.

TABLE 18: PERCENTAGE OF CLIENTS COUGHING AT TIME OF TESTING BY SEX, MARITAL STATUS, TIME, AND TOWN

	TOWNS						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
All	4.7(384)	2.1(752)	1.3(1125)	1.1(1148)	0.5(1043)	1.1(1033)	1.4(5485)
Sex							
Male	4.7(322)	2.7(547)	1.1(827)	1.3(945)	0.7(755)	0.8(828)	1.5(4224)
Female	4.8(62)	0.5(205)	2.0(298)	0.5(203)	0.0	2.0(205)	1.2(1261)
Marital Status							
Married	7.0(100)	1.9(161)	1.6(256)	0.9(219)	0.6(321)	1.9(268)	1.7(1325)
Never married	4.3(210)	1.5(455)	1.3(744)	1.0(790)	0.3(600)	0.7(687)	1.2(3486)
Average time of coughing (weeks)	6.1	4.9	6.2	6.1	5.0	5.3	5.6
Minimum time of coughing (weeks)	1	1	1	2	3	1	1
Maximum time of coughing (weeks)	48	12	48	24	8	20	48

Note: Numbers in parenthesis have different n's

Clients were then asked whether they had had TB contact in the three months prior to the MCT event. Once again, given the sensitivity of the question, underreporting was anticipated.

As seen in Table 19, only 1.0% of the clients claimed exposure to TB in the three months prior to the MCT. This figure was too low to draw any general conclusions pertaining to the population as a whole. As such, the information presented in Table 19 is referential and meant to provide preliminary insight into rate of TB contact in the past three months.

TABLE 19: PERCENTAGE OF CLIENTS SCREENED FOR TB CONTACT IN THE PAST 3 MONTHS BY SEX, AGE, MARITAL STATUS, EMPLOYMENT STATUS, EDUCATION LEVEL, AND TOWN

Demographic Characteristics	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
All	2.9(382)	1.8(734)	0.5(1124)	1.1(1143)	0.8(976)	0.5(1028)	1.0(5387)
Sex							
Male	3.1(321)	1.3(532)	0.5(827)	1.2(941)	0.8(722)	0.4(824)	1.0(4167)
Age							
25–29	8.3(72)	2.6(114)	0.0	0.9(219)	1.7(179)	0.0	1.5(951)
Marital Status							
Never married	3.3(211)	1.3(450)	0.5(742)	0.8(785)	0.7(564)	0.4(681)	0.9(3433)
Employed							
Employed	4.7(86)	1.8(224)	0.3(291)	1.9(367)	0.8(265)	0.5(424)	1.2(1657)
Education							
Primary school	1.0(98)	2.3(171)	0.6(167)	2.0(255)	1.6(193)	0.0	1.2(1127)

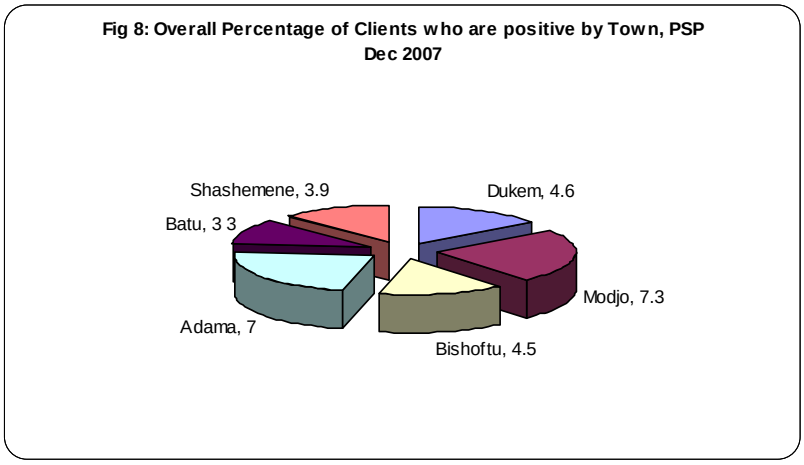
Note: Numbers in parenthesis are different n's

3.5 HIV STATUS OF CLIENTS

Ascertaining client HIV status is a crucial part of the assessment because it determines appropriate future referrals. The overarching goal of PSP-E is to test as many MARPs as possible in an effort to get all HIV-positive individuals referred to appropriate care and support services. This is particularly important for pre-ART, ART, and/or TB diagnosis and treatment services.

The following analysis provides clients' current HIV status and compares it against other sociodemographic and health-related characteristics (Table 20).

Total client HIV positivity rates were calculated at 5.0%. The rate of positivity was highest in Modjo (7.3%) and Adama (7.0%) and lowest in Batu (3.3%). Given that clients of the MCT included residents of the specific towns as well as transients, it is difficult to compare this positivity rate against the national point prevalence. However, the calculated prevalence rate is higher than that of the 2005 point prevalence of Ethiopia (2.1% in the EDHS 2005).



The positivity among females (8.2%) was twice that of their male counterparts. This 2:1 female-to-male infection ratio is the same as the national ratio (2:1) and similar to those of other countries (Senegal=2.3, Guinea=2.1) as reported in the EDHS, 2005 (Central Statistical Agency Ethiopia 2005). Studies and national documents (EDHS 2005, sentinel surveillance, AIDS Report 2005) indicate that women are more vulnerable to the virus due to biological and socioeconomic factors.

HIV positivity among separated individuals (15.2%) was twice that of married clients (7.5%). These clients also represented the group who experienced the highest rate of sexual activity in exchange for money/gift/favor and while intoxicated. They were also least likely to use a condom during sex and, as such, are among the most exposed populations to HIV.

Most individuals who were HIV positive had primary education (7.6%), followed by clients who had a secondary education (3.3%). A positivity rate of 5.8% was observed among unemployed clients.

Though data were collected on each variable, there was no statistical correlation between HIV status and age and other unexplained characteristics of employment and education.

TABLE 20: PERCENTAGE OF HIV-POSITIVE (+VE) CLIENTS BY SEX, MARITAL STATUS, EMPLOYMENT STATUS, EDUCATION, AND TOWN

Demographic Characteristics*	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashemene	TOTAL
All	4.6(390)	7.3(766)	4.5(1136)	7.0(1152)	3.3(1141)	3.9(1055)	5.0(5640)
Sex							
Male	4.0(327)	5.6(557)	4.2(835)	5.6(948)	2.4(836)	3.2(845)	4.1(4348)
Female	7.9(63)	12.0(209)	5.3(301)	13.2(204)	5.9(305)	6.7(210)	8.1(1292)
Marital Status							
Married	6.0(100)	11.5(165)	5.8(258)	13.7(219)	5.1(353)	5.5(275)	7.5(1370)
Separated	23.5(17)	17.0(53)	4.2(24)	27.7(47)	0.0	0.0	15.2(178)
Employed							
Unemployed	4.5(178)	9.0(223)	2.7(256)	8.9(259)	4.5(1760	4.7(277)	5.8(1369)
Education							
Primary school	4.0(99)	10.0(180)	10.1(169)	11.4(255)	4.0(227)	5.2(250)	7.6(1180)
Secondary school	4.2(191)	3.6(384)	2.6(700)	5.6(622)	2.1(712)	2.7(624)	3.3(3233)

Note: Numbers in parenthesis are different n's
* Significant characteristics at $p < 0.05$

As Table 21 shows, clients' current HIV status was analyzed against their reason for coming to the MCT event. Almost all of the clients who said that they had come to check their status were found positive while 92.9% of those who had come to confirm positive results were positive again. This might indicate that earlier unsatisfactory or inadequate counseling failed to convince clients of their test results. Only 3.5% of clients who came to the MCT event in order to "plan for the future" were found positive. Eight percent of the clients who claimed a lack of trust in their partners received positive results.

TABLE 21: REASON FOR PARTICIPATION BY TOWN

Demographic Characteristics	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashemene	TOTAL
Reason here today							
Not trust partner	-	66.7(3)	-	20.0(100)	5.3(19)	4.3(23)	8.0(75)
Confirm +ve result	-	100.0(3)	100.0(5)	100.0(4)	-	100.0(1)	92.9(14)
Plan for the future	3.0(267)	4.8(439)	2.4(702)	6.8(615)	1.7(579)	2.0(399)	3.5(3001)
Check status	100.0(1)	93.0(43)	92.4(66)	100.0(50)	100.0(49)	100.0(50)	96.9(259)

Note: Numbers in parenthesis are different n's

As Table 22 indicates, only 5.6% of individuals who were being tested for the first time were found to be HIV positive. Another 2.5% of clients who had been previously tested and found to be HIV negative were now HIV positive. Reliability of information could serve as a possible caution; previous test results were solely based on clients self-report and, as such, are subject to falsification. For example, a client might falsely report that he had been identified as HIV positive and wants to be retested but fears being rejected by the MCT service providers.

The findings shown in Table 22 raise several concerns for MCT. For example, of all the clients tested, only 62.9% of individuals who reported that they were currently HIV positive actually had a positive test result. The remaining 37.1% were part of the expert-patients (PLWHA) who served as mystery clients, one of the quality checks of the MCT services. These people are expected to attend pre-test counseling only and not to repeat the test. The post-test counseling session is monitored through direct observation of other counselors with prior consent from the client and through client exit interviews.

TABLE 22: PERCENTAGE OF HIV-POSITIVE CLIENTS WITH PREVIOUS HIV TEST

Demographic Characteristics*	Towns						
	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Previous HIV test							
Not tested	3.8(237)	8.6(512)	5.1(784)	7.4(769)	4.0(820)	4.4(792)	5.6(3914)
Yes, HIV +ve	33.3(3)	71.4(7)	83.3(6)	80.0(10)	14.3(7)	100.0(2)	62.9(35)
Yes, HIV -ve	5.4(148)	3.0(236)	1.8(337)	4.0(353)	0.8(257)	1.2(249)	2.5(1580)

4. CONCLUSIONS AND RECOMMENDATIONS

This report provides preliminary evidence on the type of clients accessing MCT in Oromiya region, in towns along some of Ethiopia's most-traveled corridors. Furthermore, it offers insight into their socioeconomic status, sexual history, HIV status, risk factors, and condom use. This information should help program managers to understand client profiles and target MCT services.

Although the analysis presents quantitative information, several key findings have implications for future consideration.

Five key conclusions can be drawn from the findings. First, targeting MCT services to MARPS is critical given the difference in infection rates between the sexes. Data clearly show a higher positivity rate among women than men. Second, it is encouraging to see that clients sought MCT in order to "plan for the future." Others clients wanted to get tested because they were involved in risky behavior that had exposed them to HIV. These findings clearly call for a strong referral system and appropriate counseling on a more positive living.

Third, condom use among the study population is very low. For example, only one-third of clients used a condom during their last sexual encounter. Fourth, unemployed clients and those who were separated or divorced are likely to engage in sex for money, gifts, or a favor. Fifth, sexual encounters while intoxicated are prevalent among males, the unemployed, and divorced or separated individuals.

Finally, most of the clients accessing MCT services learned about the event through posters, followed by pamphlets/flyers and banners. It would be important to understand why these were the most effective channels.

The following recommendations emerge from the above findings and conclusions:

- Counseling clients about intoxication should be considered for all clients, given the number of individuals having unprotected sex while intoxicated.
- Mobile teams should use innovative approaches to conduct IEC campaigns prior to the MCT event. These should include utilizing local associations and clubs and organizing discussions with groups of MARPs on how best to reach the intended audience.
- Referral networks should be established in the region so that HIV-positive clients can receive care and support services. The project should organize a series of discussions and consultations with the Regional Health Bureau, Ministry of Health, and HIV/AIDS Prevention and Control Office to create a referral system and a mechanism to track referrals.
- Mobile teams and town health offices should review the delays that took place in providing sample tests outcome and feedback so that appropriate planning of these activities can be done for future MCT.
- To better understand the underlying issues regarding unprotected sex, sex for money, and retesting, the team should complement quantitative data with qualitative studies, e.g. focus group discussions.

ANNEX 1: PERCENTAGE OF CLIENTS BY THEIR OCCUPATION STATUS AND TOWN

	Dukem	Modjo	Bishoftu	Adama	Batu	Shashe-mene	TOTAL
Unemployed	n=178	n=220	n=239	n=239	n=175	n=264	n=1315
Legislators., Sr. Officials, Managers	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Professional	0.6	0.0	0.4	0.4	0.6	0.0	0.3
Technician	1.7	0.0	0.4	0.0	0.6	0.0	0.4
Clerks	0.6	0.0	0.0	0.0	0.0	0.0	0.1
Service, Shop, Market, Sales	9.6	5.5	4.6	7.5	6.3	2.3	5.7
Skilled Ag. & Fishery workers	0.6	0.5	1.3	2.5	0.6	0.0	0.9
Crafts & trades	2.2	1.8	0.8	0.4	0.6	0.0	0.9
Plant / Factory	0.0	0.0	0.4	0.0	1.1	0.0	0.2
Unskilled laborers	36.0	44.1	15.5	25.1	3.4	8.3	21.7
Student	38.2	28.6	52.7	48.5	50.3	64.8	48.1
Housewife	2.8	10.5	10.5	3.8	6.3	10.2	7.6
Armed Forces/Police	1.1	0.5	0.0	0.0	0.0	1.1	0.5
Others*	6.7	8.6	13.0	11.7	30.3	13.3	13.5
Employed	n=85	n=230	n=290	n=369	n=253	n=421	n=1648
Legislators., Sr. Officials, Managers	1.2	0.9	0.3	0.0	0.4	0.5	0.4
Professional	31.8	7.4	9.3	6.8	5.9	4.0	7.8
Technician	8.2	5.7	7.9	3.3	2.4	2.4	4.3
Clerks	2.4	2.2	1.0	0.5	0.0	0.2	0.8
Service, Shop, Market, Sales	2.4	8.7	2.8	3.3	4.3	15.4	7.2
Skilled Ag. & Fishery workers	0.0	3.0	2.1	1.9	3.6	2.9	2.5
Crafts & trades	3.5	0.4	1.4	0.5	0.0	1.7	1.0
Plant / Factory	2.4	0.9	5.9	2.4	2.4	0.7	2.4
Unskilled laborers	17.6	45.2	25.9	34.7	54.2	29.0	35.3
Student	2.4	12.6	16.6	15.2	6.3	5.5	10.6
Housewife	0.0	2.2	2.1	3.0	2.0	2.1	2.2
Armed Forces/Police	2.4	4.3	3.8	1.1	2.4	5.2	3.3
Others*	25.9	6.5	21.0	27.4	16.2	30.4	22.3

ANNEX 2: LEVEL OF IEC ACCESS BY GENDER, ACTIVITY AND TOWN

Males							
IEC/Mobilization Activity	**TOWNS**						
	Dukem	**Modjo**	**Bishoftu**	**Adama**	**Batu**	**Shashe-mene**	**TOTAL**
Posters	31.2	26.9	33.2	29.1	42.3	31.6	32.8
Pamphlets, banners	27.2	35.5	26.9	26.1	17.2	13.7	23.4
Other clients	19.6	15.3	21.7	17.8	18.7	23.1	19.5
Outreach/Car announcement	19.9	9.7	14.5	18.8	0.6	0.9	9.9
Road-side show	24.8	16.7	1.7	2.5	3.6	14.8	8.4
Friend/ family	1.5	11.3	5.9	7.4	9.1	7.2	7.5
Community conversation	1.2	2.0	3.5	4.5	7.4	10.1	5.4
Mobile video unit	0.3	0.9	2.8	6.5	4.4	0.1	3.0
n	*327*	*557*	*835*	*948*	*836*	*845*	*4348*
Females							
IEC/Mobilization Activity	**TOWNS**						
	Dukem	**Modjo**	**Bishoftu**	**Adama**	**Batu**	**Shasheme ne**	**TOTAL**
Posters	31.7	26.8	30.2	34.3	41.0	28.1	32.6
Other clients	12.7	12.4	25.9	19.1	28.5	27.6	22.9
Pamphlets, banners	33.3	36.8	24.6	27.0	7.9	1.9	19.7
Outreach/Car announcement	9.5	12.4	14.3	24.0	0.7	1.0	9.9
Friend/ family	7.9	14.4	8.0	7.4	8.2	11.4	9.5
Road-side show	31.7	15.8	0.7	0.5	5.9	16.7	8.4
Community conversation	3.2	1.0	5.0	2.5	13.4	14.3	7.4
Mobile video unit	0.0	0.5	3.3	3.9	4.6	0.0	2.6
n	*63*	*209*	*301*	*204*	*305*	*210*	1292

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