COMMUNITY-BASED HIV/STI MOBILE VAN: A COMPARISON OF HIGH-RISK USERS WITH THOSE TESTING IN TRADITIONAL VOLUNTARY COUNSELING AND TESTING CLINICS, GUATEMALA

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Background

Mobile van (MV) for HIV and other sexually transmitted infections (STIs) screening is effective in reaching at-risk populations. In June 2006, a voluntary counseling testing (VCT) service offering HIV and syphilis rapid tests was implemented through a community-based MV in Escuintla province, Guatemala. We aimed to compare behavior characteristics and HIV and syphilis prevalence between subjects tested at the MV versus those tested at the traditional VCT (TVCT) service offered at 3 STI clinics.

Table 1. Comparison of sociodemographic characteristics and reason for testing between 1.336 mobile van users and 1.538 traditional clinic users by type of population (general population, men that have sex with men and female sex workers) in the province of Escuintla, Guatemala.

Sociodemographic Characteristics	General population			Men that have sex with men [a]			Female sex workers [b]		
	Mobile van clinic (%) N=513	Traditional Clinic (%) N=1.233	OR (95% CI) [c]	Mobile van clinic (%) N=385	Traditional Clinic (%) N=144	OR (95% CI)	Mobile van clinic (%) N=438	Traditional Clinic (%) N=161	OR (95% CI)
Age (median [IQR])	29.6 [23.4-38.4]	28.3 [22.2-36.5]	0.007 [d]	23.8 [20.0-29.7]	22.4 [19.7-30.0]	0.236 [d]	28.5 [22.4-34.3]	28.8 [23.6-35.3]	0.366 [d]
Sex									
Male	37.8	45.1	1	94.0	96.5	1	-	-	NA
Female	62.2	54.9	1.35* (1.09-1.67)	-	-	-	100	100	
Transexual	0	0	-	6.0	3.5	1.77 (0.66-4.74)	-	-	
Country of origin other than Guatemala	1.0	2.0	0.48 (0.18-1.25)	2.1	4.9	0.42 (0.15-1.17)	23.5	23.6	1.00 (0.65-1.52)
Ethnic group indigenous	5.3	3.9	1.37 (0.85-2.22)	2.9	4.2	0.68 (0.25-1.86)	4.1	5.6	0.72 (0.32-1.65)
Reasons for testing									
Perceive themselves at risk for HIV	1.0	1.9	0.52 (0.20-1.37)	4.2	4.2	1.00 (0.38-2.60)	0.7	0.6	1.18 (0.11-10.61)
To know their health status	98.3	93.5	3.89* (1.94-7.80)	96.9	96.5	1.12 (0.39-3.23)	88.7	85.7	1.29 (0.76-2.20)
Partner asked them to take the test	0.6	3.0	0.19* (0.06-0.62)	1.6	2.1	0.74 (0.18-3.02)	0	0	-
Report symptoms	0	0.7	-	0	0.7	-	0	0	-
Had prior HIV test	32.4	31.6	1.04 (0.83-1.29)	21.0	42.4	0.36 (0.24-0.55)	73.5	72.7	1.04 (0.70-1.57)

a: Men who autoreported themselves as men who have sex with men or who reported having sex with penetration with a same sex partner; b: Women who reported having sex in exchange of money; c: Odds Ratio (95% Confidence interval) unless otherwise indicated; d: p-value regarded as significant if <0.05 using Wilcoxon ranksum test; * p-value <0.05.

Table 2. Comparison of HIV/syphilis prevalence and risk behaviors between 1.336 mobile van users and 1.538 traditional clinic users by type of population (general population, men that have sex with men and female sex workers) in the province of Escuintla, Guatemala.

Prevalence and risk behaviors	General population			Men that have sex with men [a]			Female sex workers [b]		
	Mobile van clinic (%) N=513	Traditional Clinic (%) N=1.233	OR (95% CI) [c]	Mobile van clinic (%) N=385	Traditional Clinic (%) N=144	OR (95% CI)	Mobile van clinic (%) N=438	Traditional Clinic (%) N=161	OR (95% CI)
Test results									
HIV prevalence	1.2	7.4	0.15* (0.06-0.34)	0.8	8.4	0.09* (0.02-0.31)	4.1	6.3	0.61 (0.27-1.35)
Syphilis prevalence	0.8	0.6	1.32 (0.38-4.53)	0	1.5	-	5.2	1.7	3.09 (0.71-13.40)
HIV-related risk behaviors									
Sex with injection drug user, last 12 months	0.2	0.1	1.96 (0.12-31.44)	3.9	2.4	1.63 (0.43-6.15)	4.6	2.7	1.71 (0.56-5.22)
Sex with bisexual partner, last 12 months	0.5	0.6	0.77 (0.15-4.00)	52.6	33.9	2.16* (1.40-3.34)	8.5	3.4	2.66* (1.01-6.99)
Sex with a sex worker, last 12 months	11.2	16.6	0.63* (0.45-0.89)	12.7	19.4	0.61 (0.34-1.09)	NA	NA	
Sex with multiple partners, last 12 months	5.4	12.3	0.41* (0.26-0.65)	38.9	39.5	0.97 (0.63-1.50)	47.1	32.7	1.83* (1.23-2.72)
Condom use at last sexual intercourse	18.9	17.4	1.11 (0.82-1.49)	47.3	38.1	1.46 (0.93-2.27)	77.7	67.6	1.67* (1.10-2.55)

a: Men who autoreported themselves as men who have sex with men or who reported having sex with penetration with a same sex partner; b: Women who reported having sex in exchange of money; c: Odds Ratio (95% Confidence interval) unless otherwise indicated; * p-value <0.05.

Methods

Over 28 months, female sex workers (FSWs), men who have sex with men (MSM), and general population (GP) were tested and interviewed on their sociodemographic and risk behavior in both settings. The 3 STI clinics are located within the community health care centers (HCC) of 3 municipalities of Escuintla province. The community-based MV targets hard-to-reach population in the province, recruiting subjects in areas of high STI morbidity and commercial sex work, such as bars/clubs, street meeting points, commercial sex businesses and MSM hair salons. In both settings, staff included a nurse practicioner who performed the HIV and syphilis testing and a trained health educator who counseled and interviewed the subjects. HIV ans syphilis testing was done using the Determine HIV-1/2 rapid test (Abbott Laboratories, Tokyo, Japan) and the Determine Syphilis rapid test (Abbott Laboratories, Tokyo, Japan), respectively. The results were ready in 15 minutes. Educational material on HIV/STI and condoms were available in the MV and the 3 STIs. The Wilcoxon rank-sum test was used to compare medians of continuous variables with non-normal distribution. Proportions were compared using univariable logistic regression and odds ratios with the 95% confidence interval (OR, 95% CI) were presented.

Results

We tested 2.874 subjects (46% in the MV). The socio-demographic characteristics of subjects are described in Table 1. MSM seen at the MV clinic were significantly less likely to report having a prior HIV test than MSM seen at the TVCT (21% vs. 41%, OR=0.36 [0.24-0.55]). The MV screened 73% of the SWs and 73% of the MSM, and detected 19% of HIV and 69% of syphilis cases (table 2). For both the GP and MSM, the HIV prevalence was significantly higher (p<0.001) at the STI clinics than at the MV (7% vs. 1%, 8% vs. 1%, respectively). MSM tested at the MV were more likely to report having sex with a bisexual partner (OR=2.16 [95%CI: 1.40-3.34]) while FSWs tested in the MV were more likely to report having had sex with bisexual partner (OR=2.66 [95%CI: 1.01-6.99]), and multiple partners (OR=1.83 [1.23-2.72]), as well as more likely to have used a condom at their last sexual intercourse (OR=1.67 [95%CI: 1.10-2.55]).

Conclusions

The higher prevalence of HIV and syphilis at the STI clinics suggests that the traditional VCT successfully identified high-risk subjects and, in particular, the unexpectedly high HIV prevalence among the GP suggests some lack of disclosure of risk behavior. Nevertheless, innovative approaches such as MV contributed to increasing access to other hard-to-reach groups such as MSM or FSWs.