

Epidemiology of HIV and STIs among Female Sex Workers in Panama

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Background/Objective

- Background
 - Data on prevalence of HIV and HIV related infections and its driving forces in Panama are limited
 - HIV epidemic is believed to be concentrated in high risk groups including female sex workers (FSWs)
 - Regulated commercial sex work is legal
 - Registered sex workers are routinely screened for sexually transmitted infections (STIs)
- Objective
 - To determine seroprevalence of HIV and STIs (HSV-2, syphilis, HBV and HCV) among FSWs in Panama City, Panama
 - To determine behavioral and demographic risk factors associated with HIV infection and selected STIs

Methods

- Recruitment method

FSWs were recruited between October –December 2009 using time –location sampling from bars, night clubs, streets, brothels and Ministry of Health STI clinics

- Two visits

- a screening visit with rapid HIV testing, administration of demographic and risk factor survey, pre-test counseling, blood draw for HIV and STI testing
- a follow-up visit three weeks later to provide test results and post test counseling

- Study eligibility criteria

- Women age ≥ 18 years
- Self identified as FSW
- Provided informed consent

- Laboratory methods

HIV: MEIA 4th generation (AxSYM Abbott), Western Blot (Biorad)

HCV: MEIA (AxSYM Abbott), RIBA (Chiron)

HBV: MEIA HBsAg, anti-HBc (AxSYM Abbott)

Syphilis: RPR, TPHA (ASI)

HSV-2: Herpes 2 IgG ELISA (Focus Select)

Results: Socio-Demographic Characteristics

Characteristic	N=183
Median (IQR) Age, years	28 (23-35)
Median Income (IQR), dollars	500 (300-900)
Nationality, n (%)	
Panamanian	108 (59%)
Colombian	71 (39%)
Other	4 (2%)
Race/Ethnicity, n (%)	
Caucasian	32 (17%)
Hispanic	56 (31%)
Afro-American	37 (20%)
Indigenous	6 (3%)
Mestizo	49 (27%)
Other	3 (2%)
Marital Status, n (%)	
Single	119 (65%)
Married	25 (14%)
Living with Someone	27 (15%)
Other	12 (6%)
Reported Workplaces, n (%)	
Streets	65 (36%)
Bars	38 (21%)
Night Clubs	26 (14%)
Other/Unknown	54 (29%)

Results: Summary of Behaviors

Risk Behaviors	N=183
Median (IQR) Age at 1st Sex, years	16 (14-17)
Median (IQR) No. of Partners in the Last 6 Months	175 (10-149)
Vaginal Sex with Current Regular Partners, n (%)	94 (51%)
Reported Condom Use during Vaginal Sex with Current Regular Partner, n (%)	
Never	56/94 (60%)
Sometimes	16/94 (17%)
Almost Always	7/94 (7%)
Always	13/94 (14%)
Unknown	2/94 (2%)
Anal Sex with Current Regular Partner, n (%)	34 (19%)
Reported Condom Use during Anal Sex with Current Regular Partner, n (%)	
Never	19/34 (56%)
Sometimes	3/34 (9%)
Almost Always	1/34 (3%)
Always	9/34 (26%)
Unknown	2/94 (2%)
Sex with Male Sex Workers, n (%)	10 (5%)
Vaginal Sex with Clients, n (%)	161 (88%)
Reported Condom Use during Vaginal Sex with Clients, n (%)	
Never	3/161 (2%)
Sometimes	3/161 (2%)
Almost Always	8/161 (5%)
Always	144/161 (89%)
Unknown	3/161 (2%)

Summary of Risk Behaviors (Cont.)

Risk Behaviors	N=183
Anal Sex with Clients, n (%)	29 (16%)
Reported Condom Use during Anal Sex with Clients, n (%)	
Almost Always	3/29 (10%)
Always	26/29 (90%)
Injection Drug Use, n (%)	2 (1%)
Frequency of Alcohol Use, n (%)	
Do Not Drink	49 (27%)
One time per week	60 (33%)
Several times per week	47 (26%)
Everyday	26 (14%)
Unknown	1 (<1%)
Non-injection Drug Use, n (%)	57 (31%)

Results: Laboratory Testing (N=183)

Pathogen	Screening Test # reactive (%)	Confirmatory Test # reactive (%)	Final Interpretation # reactive (%)
HIV	2 (1%)	2 (1%)	2 (1%)
HBV			
HBsAg	1 (0.5%)	TNP ²	1 (0.5%)
Anti-HBc	26 ¹ (14.2%)	TNP	26 (14.2%)
HCV	3 (2%)	IND ³	0 (0%)
<i>T. pallidum</i>	14 (8%)	9 (5%)	9 (5%)
HSV-2	141 (77%)	TNP	141 (77%)

¹ One individual tested reactive to both HBsAg and anti-HBc;

² Test Not Performed; ³ Indeterminate

Screening tests: HIV- ELISA; HBV-HBsAg, Anti-HBc; HCV- Anti-HCV;

Syphilis – RPR; HSV-2 - Herpes 2 IgG ELISA

Confirmatory tests: HIV- Western Blot; HCV- RIBA; Syphilis – TPHA

Conclusion

- Prevalence of HIV infection among FSWs in Panama City was relatively low.
- Risk behavior analysis suggests moderate risk profile of FSWs in Panama City. FSWs practice relatively high condom use with clients but low with regular partners. Injection drug use was infrequent but alcohol and non-injection drug use were common.
- Thus, these and other observed risk factors, including high number of partners and sex with male sex workers, may increase risk of HIV and other STIs among FSWs and their clients in Panama.

Conclusion (cont.)

- Prevalence of active Hepatitis B, a vaccine preventable disease, was low. However, observed high positivity for Hepatitis B core antibody requires further study of its clinical/ public health significance and to determine the need for vaccination.
- High prevalence of genital ulcerative diseases (syphilis and HSV-2) suggests increased risk for HIV acquisition and transmission. Strategies to develop optimal methods to identify and treat these infections in this population are needed.

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