

# Condom Use and HIV Status: A Study of Sex-workers Engaged with the Jamaican AIDS Support for Life

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## ABSTRACT

**Objective:** The human immunodeficiency virus (HIV) prevention programmes such as Jamaica AIDS Support for Life (JASL) work to lower the rate of HIV among marginalized groups. Thus, the objective of this study was to evaluate condom use and HIV status in JASL's Sex-worker (SW) population with the intent to identify behavioural differences between this self-selected group and the general SW population in Jamaica. We hypothesized that JASL's SW population would demonstrate higher condom use and a lower prevalence of HIV, potentially attributable to their prevention and education endeavours.

**Methods:** This cross-sectional study (n = 459) uses 2011–2014 data from three cities: Kingston, Montego Bay and Ocho Rios. Data were obtained through voluntary counselling and testing (VCT) forms. Primary outcomes were HIV status and condom use. Frequencies and bivariate analyses were employed.

**Results:** Sex-worker HIV prevalence was 1.3%, as compared to the Jamaican SW rate of 4.6%. Most participants reported always using a condom with an outside partner, while only 22% reported always using a condom with their regular partner.

**Conclusion:** Emphasis on condom use within long-term relationships should be considered when planning HIV prevention programmes for SWs. This requires addressing gender roles within noncommercial relationships and more discussions surrounding sexual behaviour outside paid sex-work. Although, causality may not be inferred through cross-sectional data, the lower HIV prevalence in JASL's SWs is promising and highlights opportunities for further analysis, specifically around the impact of JASL's work.

**Keywords:** Condom use, HIV, Jamaica, sex-workers

# El uso de Condones y el VIH: Un Estudio de Trabajadores Sexuales Participantes en la Organización Jamaica Contra el Sida y por la Vida

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## RESUMEN

**Objetivo:** Los programas de prevención del VIH, como Jamaica contra el Sida y por la vida (JASL, siglas en inglés) (JASL) trabajan para reducir la tasa de VIH entre los grupos marginados. Así, el objetivo de este estudio fue evaluar el uso de preservativos y el estado del VIH en la población de trabajadoras y trabajadores sexuales (TS) de JASL con la intención de identificar las diferencias de comportamiento entre este grupo autoseleccionado y la población de TS en Jamaica. Partimos de la hipótesis de que la población TS de JASL demostraría un mayor uso del condón y una menor prevalencia de VIH, potencialmente atribuible a sus esfuerzos de prevención y educación.

**Métodos:** Este estudio transversal (n = 459) utiliza datos de 2011 – 2014 de tres ciudades: Kingston, Montego Bay, y Ocho Ríos. Los datos se obtuvieron a través de formularios de asesoramiento y pruebas voluntarias (APV). Los resultados primarios fueron el estado del VIH y el uso del condón. Se utilizaron frecuencias y análisis bivariados.

**Resultados:** La prevalencia del VIH entre los TC fue de 1.3%, en comparación con la tasa de 4.6% de los TC de Jamaica. La mayor parte de los participantes reportaron que siempre usaban condón con parejas externas, mientras que sólo el 22% reportó usar siempre condón con su pareja regular.

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**Conclusión:** *Debe considerarse el énfasis en el uso del condón en relaciones a largo a la hora de planificar programas de prevención del VIH para TS. Esto requiere abordar los roles de género dentro de las relaciones no comerciales y más discusiones en torno al comportamiento sexual fuera del trabajo sexual pagado. Aunque la causalidad no puede ser inferida a través de los datos del corte transversal, la prevalencia menor de VIH entre los TC de JASL es prometedora, y señala las oportunidades de un análisis posterior, específicamente en torno al impacto del trabajo de JASL.*

**Palabras claves:** Uso del condón, VIH, Jamaica, trabajadores sexuales

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## INTRODUCTION

The total estimated prevalence of HIV among adults in the Caribbean is 1%, the second highest in the world (1). Figueroa comments that the region shows characteristics of a “generalized and concentrated HIV epidemic”, with heterosexual transmission remaining the prominent mode of transmission, and a concentrated epidemic among men who have sex with men (MSM), sex-workers (SWs), crack cocaine users, persons with sexually transmitted infections (STIs) and prisoners (1–3). Jamaica’s prevalence of HIV is 1.7%, or about 28 000 people nationwide (1–3). Approximately 10% of new HIV-infections can be attributed to SWs, their clients, or partners of their clients (4). According to a report by UNAIDS and the Jamaica National HIV/STI Programmes, high levels of unemployment have contributed to a growing number of sex-workers nation-wide, about 15 000 across Jamaica (4–5), exacerbating the situation. Jamaican SWs currently have an HIV prevalence of 4.6%; this number has declined from 4.9% in 2009 (5).

### *Sex-workers and condom use*

Jamaica’s recent HIV Strategic Plan identifies the behavioural risks including high levels of transactional sex, commercial sex, multiple sex partners, early sexual debut and lack of condom use (3). Despite condoms being the most effective method of preventing the transmission of HIV (6, 7), SWs reported a decline in condom use with their most recent client from 97% in 2009 to 91%, in 2012 (5). Additionally, condom use is consistently lower among regular partners of SWs as compared to paying clients (8–14). Complex sexual networks of SWs and their clients facilitate easier and quicker transmission of HIV and other STIs, leading to these two groups being labelled as bridge populations (8, 9, 15–17).

### *Jamaica AIDS Support for Life*

To combat the HIV/AIDS epidemic, Jamaica AIDS Support for Life (JASL) was established in 1991 (18). Jamaica AIDS support for Life is a human rights non-governmental organization (NGO) which focusses on marginalized populations, including men who have sex with men (MSM) and SWs and is dedicated to the fight against HIV through the provision of education and interventions to these at-risk groups (18). Jamaica AIDS Support for Life consists of three chapters in Kingston, Ocho Rios and Montego Bay, which each provide

testing, treatment, prevention and advocacy programmes. Their primary prevention programmes involves targeted peer-led outreach interventions, workshops and STI treatment services. Jamaica AIDS Support for Life’s Peer Programmes train community members who have experience working within vulnerable groups, and provides these “foot soldiers” with the skills and knowledge in the promotion of safe sex and behaviour change techniques. There are eight peer educators at each JASL chapter who work with SWs, MSMs, or the hearing impaired (HI). During out-reach interventions for SWs, trained peer educators, along with staff, visit clubs, massage parlors, bars or popular street corners to distribute free condoms, share safe sex messages, and provide voluntary counselling and testing (VCT).

Voluntary counselling and testing consists of three stages: pre-test counselling in which the client’s risk for contracting HIV is assessed, and information about the testing process is shared; rapid testing via the Ora-Quick swabs or finger pricking by the determined test kit, and post-test counselling in which the results are disseminated and explained. If the SW is HIV-negative, a risk reduction plan is developed and appointments for follow-up visits are made. If the SW is HIV-positive he/she is referred to JASL’s treatment and support services. On average each chapter reaches between 15 and 30 SWs per month. In Kingston, once per quarter, a clinician attends an intervention to provide testing for other STIs. A unique feature of JASL’s work is that they reach both male and female SWs, while other agencies target only females.

Although the recent UNAIDS Global report reveals a decline in the use of condoms among Jamaican SWs (5), our intention is to offer an analysis of a sub-group of SWs, specifically those who benefit from JASL’s interventions. We hypothesize that SWs who are engaged in JASL’s programmes, will exhibit; higher rates of condom use (with regular partners and outside partners) and lower prevalence of HIV, as compared to the general Jamaican SW population.

## SUBJECTS AND METHODS

Utilized data was from 2011–2014; 459 SWs aged 16–53 years were included. Data were obtained through VCT forms at either JASL’s clinics located in Kingston, Montego Bay and Ocho Rios, or on targeted outreach interventions to clubs in these cities. Table 1 reports the characteristics of Jamaican SWs utilizing JASL services. In addition to demographic in-

formation, the variables studied include: HIV-positive status, condom use (with outside partner and regular partner), if an HIV test was conducted in the past six months, sexual abuse, agreeableness to condom use, influence of alcohol or drugs on sexual behaviour, knowledge of partner tested and if he/she had ever discussed HIV/STI prevention with current sex partner. Condom use with regular partner and outside partner was captured with three dummy variables that indicated how often a condom was used: always, sometimes, or never. Marital status was dichotomized into currently married or in a common law relationship, versus single or separated. Educational achievement was dichotomized into those with at least a high school education versus those without. Age was dichotomized into respondents 30 years and younger versus those older. Descriptive statistics were completed overall and bivariate analyses were run by HIV status using Fisher's exact test. All statistical analyses were performed using the statistical software SAS version 9.3. Approval for this study, using de-identified secondary data, was attained by the University of Alabama at Birmingham Institutional Review Board.

## RESULTS

The majority of included SWs were women (93%), and the average age was 28 (data not shown). Most respondents had at least a high school education (88%). The majority of the participants reported always using a condom with an outside partner, while only 22% reported always using a condom with their regular partner; however, almost all participants reported that they always agreed to use a condom when requested. The prevalence of HIV was 1.3%. About half of participants had been tested for HIV in the past six months or were aware if their current, regular partner had ever been tested for HIV. Most participants had previously discussed prevention with their current, regular partner. Nearly a quarter (23%) reported experiencing sexual abuse in the past, and only 11% reported that alcohol or drugs had ever influenced their sexual behaviour.

Bivariate analyses were run with the aforementioned variables to determine if correlations existed with HIV status (Table 2). Directionally, among respondents with HIV, more were unmarried and not in common-law relationships, female, minimally high school educated, younger, reported using condoms, HIV tested recently, not sexually abused in the past, and had discussed HIV prevention with their current, regular partner; however, none of the associations were statistically significant.

## DISCUSSION

We examined the characteristics of Jamaican SWs from the country's fourteen parishes and found an HIV prevalence of 1.3%, much lower than the nationally reported rate of 4.6% (5). We found no statistically significant associations between HIV status and personal characteristics, which begs the question as to if JASL's interventions ameliorate forces known to

Table 1: Characteristics of study sample (n = 459)

	n	%
Married or common law relationship		
yes	147	41.1
no	211	58.9
Gender		
female	428	93.3
male	31	6.8
High school education		
yes	305	88.7
no	39	11.3
Age		
≤ 30	320	70.3
> 30	135	29.7
Condom use with outside partner		
always	323	86.6
sometimes	36	9.7
never	14	3.8
Condom use with regular partner		
always	85	22.3
sometimes	186	48.8
never	110	28.9
Always agree to condom use		
Yes	407	96
No	17	4
Tested in the past six months		
yes	193	54.7
no	160	45.3
Sexually Abused		
yes	82	23.8
No	263	76.2
Knowledge of partner tested		
yes	150	56.2
no	117	43.8
Alcohol/drugs ever influenced sexual behaviour		
yes	47	11.6
no	357	88.4
Ever discussed prevention with current partner		
yes	280	84.1
no	53	15.9
HIV-positive		
yes	6	1.3
no	453	98.7

negatively affect the rate of HIV in SWs or if there is a selection bias in that certain SWs are more likely to access JASL's services.

Condom use with regular partner was close to significant at the 0.05 level, but this reflects an issue of sequencing of cross-sectional studies. SWs with HIV may be more likely to use condoms once they receive an HIV-positive diagnosis, but this gives little information about their sexual behaviour before their diagnosis. The most poignant results from this study portray a disturbing lack of condom use between SWs and their regular partners. Condom use with outside partners is high, however work needs to be done to address condom use with regular partners. Nearly a third of participants reported never using a condom with their regular partner, which appears to be a persistent challenge amongst SWs (11, 14, 19). The issue of condom use was qualitatively explored by

Table 2: Characteristics of study sample by HIV status

	HIV-positive Status		HIV-negative Status		p
	n	%	n	%	
Relationship					1.00
yes	2	40.0	145	41.1	
no	3	60.0	208	58.9	
Gender					0.30
female	5	83.3	423	93.4	
male	1	16.7	30	6.6	
High school education					1.00
yes	4	100.0	301	88.5	
no	0	0.0	39	11.5	
Age					0.20
≤ 30	6	100.0	314	69.9	
> 30	0	0.0	135	30.1	
Condom use with outside partner					1.00
always	3	100.0	320	86.5	
sometimes	0	0.0	36	9.7	
never	0	0.0	14	3.8	
Condom use with regular partner					0.06
always	3	75.0	82	21.8	
sometimes	1	25.0	185	49.1	
never	0	0.0	110	29.2	
Always agree to condom use					1.00
yes	6	100.0	401	95.9	
no	0	0.0	17	4.1	
Tested in the past six months					0.40
yes	4	80.0	189	54.3	
no	1	20.0	159	45.7	
Sexually abused					1.00
yes	1	25.0	81	23.8	
no	3	75.0	260	76.3	
Knowledge of partner tested					0.60
yes	3	75.0	147	55.9	
no	1	25.0	116	44.1	
Alcohol/drugs ever influenced sexual behaviour					0.30
yes	1	33.3	46	11.5	
no	2	66.7	355	88.5	
Ever discussed prevention with current partner					0.50
yes	3	75.0	277	84.2	
no	1	25.0	52	15.8	

Eldemire-Shearer and Bailey (19). A main factor contributing to low condom use among sex-workers and their main partners was the desire for “feel-good-sex” (19). From oral testimonies of Jamaican sex-workers, “I used to have clients who I think I would want them to be my boyfriend then and so . . . But the Ecstasy does that . . . It make you feel so sexy that sometime you don’t really want to have sex with condom”(20). From these accounts and previous reports, it appears that condom use with regular partners is a matter of closeness and trust (21), rather than an issue of condom availability (11, 14, 19). There-fore, interventions designed to increase the rate of condom use with regular partners of SWs may benefit from considering the psychology of relationships and intimacy.

### Limitations

Causality cannot be inferred between the associations of HIV status with our explanatory variables due to the cross-sectional design of the study. In addition, due to the transient nature of this population, and the criminalization of cer-

tain acts, there is some missing data, restricting our ability to employ logistic regression without extensive imputation.

### CONCLUSIONS

Our results and previous research (11, 19, 20) show that Jamaican SWs are aware of the importance of consistently using condoms with outside partners. However, there is a disconnect in understanding the importance of using condoms consistently with regular partners, as well. Special emphasis should be given to condom use with regular partners, understanding that the motivations around using condoms differ.

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