

## Prevalence and Risks of Syphilis among Commercial Sex Workers in Georgetown, Guyana

R Kurup, AC Hercules

### ABSTRACT

**Objective:** To determine the knowledge attitude and practice (KAP) and prevalence of syphilis and to investigate the sexual health practices and constraints among commercial sex workers (CSWs) in Guyana.

**Methods:** The participants were randomly selected from CSWs participating in support group meetings held in Georgetown and Berbice. The survey was cross-sectional, and SPSS 20.0 was used to perform the data analysis.

**Results:** The majority (92.9%) of CSWs tested negative for syphilis, whereas two (2.9%) of the five (7.1%) reactive Venereal Disease Research Laboratory cases indicated prior history of syphilis infection. In the study, 54.3% of participants always used condoms, whereas 74.3% did not use drugs and only 2.9% consumed alcohol every day. The participants had a fair KAP towards syphilis but few misconceptions exist. Stigma and discrimination was identified as the major constraint faced by male sex workers, and 97.1% of CSWs indicated that they preferred giving up sex work.

**Conclusion:** Syphilis was not prevalent among the selected CSWs in Georgetown and Berbice. Prevention programmes should be continued through the support groups to maintain and increase safe sexual practices among female sex workers. Strategies should also be tailored to provide rehabilitation to the CSWs, especially for those willing to give up sex work.

**Keywords:** Commercial sex workers, Guyana, knowledge attitude and practice.

### INTRODUCTION

Sexually transmitted infections (STIs) are the major cause of acute infections worldwide. More than 1 million people acquire an STI every day (1). Sex workers, particularly female sex workers (FSWs), are assumed to be at increased risk of STIs (2). Multiple sexual partners, violence, no use of condoms and drug use pose a risk to the health of FSWs (3). In many countries, the prevalence of HIV and STIs is higher among FSWs than in other women (3–6).

In Guyana, syphilis was diagnosed among 410 persons in 1998, 315 in 1999 and 534 in 2000. A total of 223 pregnant women were also tested positive for Venereal Disease Research Laboratory (VDRL) in 1999 (7). Various strategies and resources have been implemented to control the incidence of HIV/AIDS in Guyana; however,

preventing STI transmission is considered a method of controlling HIV/AIDS. However, interventions focusing on other STIs remain largely uncoordinated and lacked technical, human and financial resources (8). In an attempt to address the problem, a National STI Strategic Plan for 2011–2020 was implemented in Guyana by the Ministry of Health with support from the Pan American Health Organization/World Health Organization (9). In Guyana, prostitution is illegal but widespread; pimping and brothel ownership are also illegal (10). Nevertheless, a published article stated ‘A police source explained that while prostitution is in fact illegal, the reason police does not pursue it is because it would be exceedingly difficult to process through the court’ (11). This article also stated that ‘prostitution seems to be becoming very commonplace, undoubtedly encouraged by the rising

From: School of Allied Health, College of Medical Sciences, University of Guyana, Guyana, Turkeyen Campus, Georgetown, Guyana.

Correspondence: Dr R Kurup, School of Allied Health, College of Medical Sciences, University of Guyana, Turkeyen Campus, Georgetown, Guyana. Email: rajini.kurup@uog.edu.gy

cost of living'. This research is, therefore, important since it seeks to determine the prevalence of syphilis in both male and female CSWs.

## SUBJECTS AND METHODS

A total of 70 CSWs were randomly selected from support group meetings conducted by Artistes in Direct Support and United Brick Layers in Georgetown and Berbice, respectively. The participants were informed of the purpose and nature of the study, after which written consent was obtained. Assurance was given that all information collected would remain strictly confidential, and the blood samples collected will only be tested for syphilis.

Blood samples were obtained via the vacutainer technique and were taken to Eureka Medical Laboratory, Georgetown, to be tested for syphilis. The VDRL test method was used to screen for syphilis. This is a relatively simple and effective method that utilizes rapid plasma reagin to detect antibodies produced in persons with syphilis. The samples tested were immediately discarded after analysis. Commission on the Status of Women was informed about their results, and those who had tested positive for syphilis were advised to urgently seek treatment at the National Care and Treatment Centre and New Amsterdam Hospital. In addition, routine follow-up was done with the social workers to ensure that the CSWs were receiving treatment.

### Ethical considerations

Ethical approval was granted by the Ministry of Health–Ethics Committee to conduct this research. In addition, the findings of this research were disseminated to Guyana HIV/AIDS Reduction and Prevention (GHARP II).

### Data analysis

The information obtained from the questionnaire was analysed to highlight the objectives and purpose of the research. Data analysis was done using SPSS, and the results from the VDRL test were used to determine the prevalence of syphilis.

## RESULTS

Of the 70 CSWs who participated in this study, 70% were females and 30% were males. The majority of the participants were single (61.4%), Christians (62.9%) and East Indian (41.4%). However, 2.9%, 58.6% and 5.7% of the participants were educated up to nursery, secondary and tertiary levels, respectively. A total of 30% of the participants had engaged in commercial

sex for 2 years or more, but the majority of participants (34.3%) had only engaged in sex work for less than 3 months (Table 1).

Table 1: Socio-demographic characteristics of the commercial sex workers

Background of respondents (N = 70)			
Characteristics	Prevalence (%)	Characteristics	Prevalence (%)
<b>Gender</b>		<b>Education</b>	
Male	21 (30%)	Nursery	2 (2.9)
Female	49 (70%)	Primary	23 (32.9)
		Secondary	41 (58.6)
<b>Age group</b>		Tertiary	4 (5.7)
< 20	10 (14.3)		
21–25	6 (8.6)	<b>Duration as a CSW</b>	
26–30	10 (14.3)	< 3 months	24 (34.3)
> 30	44 (62.9)	3 months–1 year	19 (27.1)
		1–2 years	6 (8.6)
<b>Marital status</b>		> 2 years	21 (30.0)
Single	43 (61.4)		
Divorced	1 (1.4)	<b>Average weekly earnings</b>	
Separate	3 (4.3)	\$15 000 or less	37 (52.9)
Married	4 (5.7)	\$16 000–\$20 000	16 (22.9)
Common law	19 (27.1)	\$21 000–\$25 000	4 (5.7)
		\$26 000 or more	13 (18.6)
<b>Religion</b>		<b>No. of children</b>	
Christian	44 (62.9)	None	11 (15.7)
Hindu	21 (30.0)	1	23 (32.9)
Muslim	2 (2.9)	2	14 (20.0)
Other	3 (4.3)	>2	22 (31.4)
<b>Ethnicity</b>		<b>Enjoy being a CSW</b>	
African	26 (37.1)	Yes	15 (21.4)
East Indian	29 (41.4)	No	55 (78.6)
Amerindian	3 (4.3)		
Portuguese	None	<b>Prefer giving up commercial sex</b>	
Chinese	None	Yes	68 (97.1)
Other	12 (17.1)	No	2 (2.9)

CSW = commercial sex workers.

Nevertheless, 52.9% of participants reported average weekly earnings of \$15 000 or less and 18.6% reported receiving \$26 000 or more. Of the 70 participants, only 15.7% neither had children nor shared their home with children, whilst 31.4% either had children or shared their home with two or more children. The majority (78.6%) of the participants did not enjoy being CSW and 97.1% of the participants preferred giving commercial sex work.

Table 2 shows that 35.7% of respondents were not aware of the causative agent for syphilis, but 70.0%



Table 4: Showing some of the attitudes and practices of the commercial sex workers

Variable	(n = 70) (%)	Variable	(n = 70) (%)
<b>Repeat or be tested for syphilis</b>		<b>Response if tested positive during this study</b>	
Results confidential	14 (20.0)	Conceal to a close person	0
If its beneficial	40 (57.1)	Avoid transmission	1 (1.4)
If the test is free	15 (21.4)	Actively seek treatment	69 (98.6)
Not sure	1 (1.4)	Spread the infection	0
		Do not know	0

## DISCUSSION

Of the 70 CSWs participating in this study, only 7.1% tested positive for syphilis, but 2.9% of the reactive cases admitted to being treated for syphilis more than 12 months previously. Therefore, this study revealed syphilis injection much lower than the reported studies in other parts of the world. The reason for the low prevalence could be because that the CSWs were recruited from an organization—Guyana Sex Work Coalition—which also educates them about the risks of sex work.

Other studies reported a high prevalence of syphilis included primarily MSM (12–14). There is also evidence that the increase use of condoms decreased the prevalence of syphilis from 21% to 2% (15). Similarly, an increase in the use of condoms has been directly associated with a decrease in ulcerative STDs and STD prevalence in countries like Kenya (Nairobi), Zaire (Kinshasa) and Thailand (16–18). Drug users are most likely to engage in high-risk sexual behaviours (19). Therefore, in addition to the frequent condom use, other factors such as low drugs use (21.4%) and limited alcohol consumption (2.9%) can also justify the low prevalence of syphilis found in this study. However, the prevalence of STIs in Guyana may be greatly underestimated, since most research only revealed statistics from the Genitourinary Medicine Clinic at the Georgetown Public Hospital. A 1997 study with female CSWs in Georgetown found that 64% reported a history of at least one STD, 25% had syphilis and 16% had other STDs (19). FSWs were attracted to most mining areas because of the concentration of men with relatively high incomes. High rate of syphilis infection among miners suggests that these miners were practising high-risk sexual behaviours (20). Joint United Nations Programme on HIV/AIDS study claims that there are almost 13 000 loggers in Guyana and they are a significant segment of the migrant worker population. With forests generally found in isolated areas, there can be a lack of regular access to both condoms and correct knowledge of how HIV is transmitted,

which increases vulnerability to infection. Sex workers themselves are disproportionately affected by the virus with an HIV prevalence of about 16%, compared with an adult HIV prevalence in Guyana of 1.2% (21).

Few studies have investigated knowledge of the STIs among CSWs. This study is therefore significant since it revealed that the majority (35.7%) of CSWs did not know whether syphilis was caused by a bacterium, virus or fungus and almost 92.9% of CSWs were not aware of congenital syphilis. Most participants in this study used condoms every time while having sex (94.3%). More seriously, 15.7% of CSWs believed nothing would happen if a syphilis infection is not treated, whereas 8.6% of CSWs believed that there was no treatment for syphilis. More interestingly, it was revealed that 97.1% CSWs preferred giving up commercial sex whereas 21.4% indicated that they enjoyed being CSWs.

This study therefore focuses on the importance of intervention programmes like condom promotion, awareness and risk factors and reduction of drug use. Similar programmes need to be implemented throughout the country to reduce the prevalence of syphilis and other STDs.

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