Prevalence of High-risk Sexual Behaviour in Jamaican Adults and Its Relationship to Sociodemographic and Religious Factors: Findings from the Jamaica Health and Lifestyle Survey 2007−2008

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ABSTRACT

Objective: *To estimate the prevalence of high-risk sexual behaviours among Jamaican adults and evaluate associations with sociodemographic and religious factors.*

Methods: *We performed a cross-sectional study, using a nationally representative sample of Jamaicans, 15−74 years old. Participants completed an interviewer-administered questionnaire including questions on sexual activity, sociodemographic factors and religious practice. Having two or more sexual partners in the past year, non-use of condoms among persons with multiple partners and a history of previous sexually transmitted infection (STI) were the high-risk characteristics considered in the analysis. We obtained crude and category specific prevalence estimates for high-risk behaviour and estimated odds ratios for association with sociodemographic and religious factors.*

Results: *Data from 2833 participants who reported on sexually activity were analysed. Approximately 25% (95% CI 22, 27) of Jamaican adults had two or more sexual partners in the past year, while 15% (95% CI 13, 17) had a past history of an STI. Approximately 6% (95% CI 5, 7) of persons with multiple partners did not use condoms during sexual intercourse. Overall, 32% (95% CI 30, 35) had any one of the three high-risk characteristics (male, 48%; female, 17%,* $p < 0.001$*). Being married, active religious practice and weekly attendance at religious meetings were associated with lower odds of high-risk sexual behaviour, while being in a visiting relationship was associated with higher odds of high-risk behaviour.*

Conclusion: *A third of Jamaicans reported sexual practices that increase their risk of HIV infection. High-risk sexual behaviour was more common among men. Being married and weekly attendance at religious services were associated with lower odds of high-risk behaviour.*

Keywords: Caribbean, high-risk behaviour/characteristics, HIV, Jamaica, religious practice, sexual practices, social factors

Prevalencia del Comportamiento Sexual de Alto Riesgo en los Adultos Jamaicanos y su Relación con Factores Sociodemográficos y Religiosos: Hallazgos de una Encuesta de 2007–2008 sobre Salud y Estilo de Vida en Jamaica

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RESUMEN

Objetivo: *Determinar la prevalencia de las conductas sexuales de alto riesgo entre los adultos jamaicanos y evaluar las asociaciones con factores sociodemográficos y religiosos.*

Métodos: *Se realizó un estudio transversal, usando una muestra nacionalmente representativa de jamaicanos, de 15 a 74 años de edad. Los participantes completaron una encuesta administrada por el entrevistador, la cual incluía preguntas sobre actividad sexual, factores sociodemográficos, y práctica religiosa. El haber tenido dos o más parejas sexuales en el último año, la ausencia del uso de*

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condones entre personas con parejas múltiples, y una historia previa de infecciones de transmisión sexual (ITS), fueron las características de alto riesgo consideradas en el análisis. Se obtuvieron estimaciones aproximadas y específicas por categorías en relación con las conductas de alto riesgo, así como estimaciones de los cocientes de probabilidades (odds ratios) con respecto a la asociación con los factores sociodemográficos y religiosos.

Resultados: *Se analizaron los datos de 2833 participantes que informaron estar sexualmente activos. Aproximadamente 25% (95% CI 22, 27) de los adultos jamaicanos habían tenido dos o más parejas sexuales el último año, mientras que 15% (95% CI 13, 17) habían tenido una historia de ITS. Aproximadamente 6% (95% CI 5, 7) de las personas con parejas múltiples no usaron condones durante el acto sexual. En general, 32% (95% CI 30, 35) tenían alguna de las tres características de alto riesgo (varones, 48%; hembras, 17%,* $p < 0.001$*). El estar casado, tener una práctica religiosa, y asistir semanalmente a reuniones religiosas, estuvieron asociados con menores probabilidades de comportamiento sexual de alto riesgo, mientras que las relaciones de visitas ocasionales estuvieron asociadas con mayores probabilidades de conducta de alto riesgo.*

Conclusión: *Un tercio de la muestra representativa de jamaicanos reportó prácticas sexuales que aumentaban el riesgo de infección por VIH. La conducta sexual de alto riesgo fue más común entre los hombres. El estar casado, y asistir semanalmente a reuniones religiosas, estuvieron asociados con menores probabilidades de comportamiento sexual de alto riesgo.*

Palabras claves: Caribeño, características/comportamiento de alto riesgo, VIH, Jamaica, práctica religiosa, prácticas sexuales, factores sociales

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INTRODUCTION

Human immunodeficiency virus (HIV) infection remains a global problem with approximately 33 million people living with HIV and 1.8 million deaths from AIDS in 2009 (1) . Globally, sexual transmission is the dominant mode of HIV spread and accounts for approximately 85% of the global HIV burden (2). The Caribbean has been more heavily affected by HIV than any region outside of Sub-Saharan Africa (3, 4).

Sexual behaviour is the major determinant of HIV transmission, with having multiple concurrent partners being associated with a significantly increased risk (2). Serial monogamy is also associated with increased risk but to a lesser extent, while the presence of sexually transmitted infections (STIs) is associated with higher risk and greater efficiency of transmission. Use of condoms during sexual intercourse significantly reduces risk (2). A number of studies have shown significant associations between high-risk sexual behaviour and sociodemographic and religious factors (5−12). Overall, these studies suggest that high-risk sexual behaviour was more common among the lower socio-economic groups and less common among persons with significant religious affiliations. As an important determinant of STIs, in particular HIV/AIDS, sexual behaviour contributes substantially to the burden of disease, thus making information on sexual behaviour essential in the design and assessment of public health interventions to improve sexual health (12).

In Jamaica, the prevalence of HIV infection is estimated at 1.6% with the majority of cases being transmitted *via* heterosexual contact (4). The main risk factors identified among reported cases include, multiple sex partners, history of STI, and sexual intercourse with commercial sex-workers (4, 13). Findings from the Jamaica Health and Lifestyle Survey 2000−2001 showed that 28% of men and 12% of women between the ages of 15−49 years reported a history of STI and 49% of men and 11% of women reported having multiple sexual partners (14). Among persons with multiple sex partners, 58% of men and 53% of women reported using a condom at last sexual intercourse (14). In the same study, it was found that a history of STI was significantly associated with lower socio-economic status and education level in men but not women (14). It should be noted that although this study did not report on sexual practices for persons 50 years old and over, Duncan and colleagues recently reported that 5% of HIV infection and 10% of AIDS cases in Jamaica are reported in persons fifty years old or older (4).

This study therefore aimed to provide updated estimates of the prevalence of high-risk sexual behaviours among Jamaican adults using data from the Jamaica Health and Lifestyle Survey 2007−2008, and to evaluate the association between high-risk sexual behaviour and sociodemographic and religious factors.

SUBJECTS AND METHODS

The Jamaica Health and Lifestyle Survey 2007–2008 (JHLS-II) was a cross-sectional study conducted using a nationally representative sample of 2848 Jamaicans, 15−74 years old. Details of the study methods have been previously published (15, 16).

Participants completed an interviewer-administered questionnaire including questions on sexual activity. The specific questions used for analysis of sexual practice were: (i) *Have you ever had sex?* (ii) *How many different persons have you had sexual intercourse with in the past year?* (iii) *Do you or your partner usually use a condom whenever you have sexual intercourse?* (iv) *Have you ever had a sexually transmitted infection?*

Persons who reported having two or more partners in the past year, non-use of condoms among persons with multiple partners and a previous history of sexually transmitted infection (STI) were classified as engaging in high-risk sexual activity and therefore at risk for HIV/AIDS transmission.

Data on sociodemographic variables were also obtained from the questionnaire. Variables included in this analysis were education, occupation, marital status, religion, whether participants were actively practising their religion and frequency of attendance at religious services.

Education was recorded as highest level of education attained and divided into four categories, namely "primary/junior high", "secondary", "post-secondary" and "unknown". The "unknown" category represents participants who did not report their educational attainment. Data were collected on participants usual occupation and coded using the Jamaica Standard Occupational Classification [JSOC] (17). Participants were subsequently grouped into the following categories: professionals and managers (JSOC groups 1 and 2), highly skilled (JSOC groups 3−5), skilled (JSOC groups 6−8), unskilled (JSOC group 9), unemployed, other (housewives, retired, students, armed forces) and unknown (participants who responded 'don't know' or those with missing data). Marital status was categorized into five groups: "not committed" for persons who reported that they were not in a current relationship, "visiting relationship" for persons in a committed relationship but not living together, "common-law marriage" for persons living together but not legally married, "married" for persons currently legally married, and "other/unknown" which included persons who reported their union status as widowed, divorced, separated or those who did not report their union status. For religion, participants were placed in three categories, "none", "Christian" and "other/unknown". Participants were further categorized according to whether they were actively practising their religion (yes or no) and on the frequency with which they attended religious services (never, less than once per week, once per week and more than once per week).

Data analysis was done using Stata 10.1 (StataCorp, College Station, Texas). Proportions of participants in each risk group were obtained within and across sociodemographic and religious practice categories. Differences in proportions were compared using the Chi-squared test. Estimates were weighted for complex survey design and age-sex distribution of the Jamaican population and are therefore representative of the Jamaican population 15−74 years old. Multivariable logistic regression, adjusted for survey design, was used to obtain odds ratios for high-risk sexual behaviour for the various sociodemographic and religious characteristics. Several of the variables showed age and sex interaction with high-risk sexual behaviour, we therefore present sex and age-group specific odds ratios for these variables.

RESULTS

Analysis was based on data from 2833 participants (883 men, 1950 women) who reported on sexually activity. Sample weights were used to adjust for the lower than expected proportion of men in the sample. Mean age was 37.4 (95% CI 37.3, 37.5) years. The proportion of persons with multiple sexual partners, a history of STIs and non-use of condom despite multiple sexual partners is shown in Table 1. Approximately 25% (95% CI 22, 27) of Jamaican adults reported having had two or more sexual partners in the past year, while 15% (95% CI 13, 17) had a past history of a STI. Approximately 6% (95% CI 5, 7) of persons with multiple partners do not use condoms during sexual intercourse. Overall, 32% (95% CI 30, 35) had any one of the three high-risk characteristics.

The sex distribution of high-risk sexual practices is also shown in Table 1. Overall, a higher proportion of men reported high-risk characteristics, with 41% of men reporting two or more partners in the past year compared to 9% of women ($p < 0.001$). The male:female ratio for practising any of the high-risk sexual behaviours examined was 48%:17%, $p < 0.001$. The Figure shows the distribution of any high-risk behaviour for men and women by age group. High-risk characteristics were more common among the younger age groups for both men and women ($p < 0.001$) but was not infrequent among the older participants, as among the 55−74-year olds, 31% of men and 5% of women were classified as engaging in high-risk sexual practices.

For comparison with previous sexual practice surveys, we also estimated the prevalence of previous STI and multiple sexual partners among persons 15−49 years old (which is the age group that is traditionally studied). Among men, 47% reported having two or more partners in the past year and 17% reported a history of previous STI. For women, the prevalence estimates were 10% for multiple partners and 12% for previous STI.

Table 2 shows the frequency of high-risk sexual behaviour within categories of social status and religious practice. Significant associations were found with all six of the variables tested, with the strongest associations being for marital status ($p < 0.001$), actively practising religion ($p < 0.01$) and frequency of service attendance ($p < 0.001$). For marital status, being married was associated with a lower frequency of high-risk sexual behaviour. Among men, 28% of the married participants reported high-risk sexual behaviour compared to 70% among those in visiting relationships and 49% among those with no committed relationship. Among women, the pattern was similar with 11% of married women

Table 1: Frequency of high-risk sexual characteristics for males, females and both sexes

Sexual characteristics	Male % (95% CI)	Female % (95% CI)	Both sexes % (95% CI)	*p*-value male:female difference
Two or more partners in past year	**41.1** (37.2 – 45.1)	**8.5** (6.9 – 10.3)	**24.5** (22.2 – 26.9)	***< 0.001***
No condom use despite having two or more partners	**9.2** (7.2 – 11.7)	**3.1** (2.3 – 4.1)	**6.1** (5.0 – 7.4)	***< 0.001***
History of STI*	**18.2** (15.4 – 21.3)	**11.1** (9.0 – 13.5)	**14.5** (12.8 – 16.5)	***< 0.001***
Any high-risk sexual activity	**47.5** (43.8 – 51.2)	**17.4** (15.0 – 20.1)	**32.2** (29.8 – 34.6)	***< 0.001***

* STI = sexually transmitted infection, n = 2833; for males n = 883, for females n = 1950.
Estimates are weighted for complex survey design and for the age-sex distribution of the sample.

Table 2: Frequency of high-risk sexual behaviour by categories of sociodemographic and religious factors for males, females and both sexes

Characteristics	n (%)	Male %	Female %	Both sexes %
Education$^{**, +}$				
Primary/junior high	1095 (31)	39.8	14.3	27.6
Secondary	1237 (50)	50.6	18.9	33.8
Post secondary	483 (19)	51.7	17.9	34.4
Unknown	18 (< 1)	87.6	27.7	59.0
Occupation$^{*, +++}$				
Professionals and managers	117 (4)	32.7	20.3	25.9
Highly skilled	1044 (36)	52.3	18.5	32.4
Skilled	533 (21)	50.6	17.6	45.2
Unskilled	352 (11)	54.5	22.2	33.4
Unemployed	25 (1)	100	24.6	28.3
Other	389 (12)	35.8	12.6	20.2
Unknown	373 (15)	34.5	13.0	22.0
Marital status$^{***, ###, +++}$				
Not committed	1087 (41)	49.0	16.6	33.0
Visiting relationship	373 (16)	70.4	28.4	51.0
Common-law marriage	487 (17)	41.9	21.0	29.5
Married	685 (21)	28.4	10.6	19.6
Other/unknown	201 (5)	49.3	5.5	24.0
Religion$^{*, ##, +++}$				
None	509 (23)	54.6	27.1	44.9
Christian	2290 (76)	44.2	15.6	28.1
Other/unknown	34 (2)	49.1	22.5	42.9
Actively practising religion$^{**, ##, +++}$				
No	1006 (51)	51.6	21.2	38.0
Yes	1306 (49)	34.5	11.7	21.4
Frequency of attending religious service in past month$^{***, ###, +++}$				
Never	385 (20)	58.0	25.5	45.0
Less than once per week	876 (45)	50.9	16.0	34.2
Once per week	719 (25)	24.3	8.8	14.5
More than once per week	259 (10)	19.9	22.4	21.4

$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$ for males
$^{*}p < 0.05$, $^{\#\#}p < 0.01$, $^{\#\#\#}p < 0.001$ for females
$^{+}p < 0.05$, $^{++}p < 0.01$, $^{+++}p < 0.001$ for both sexes
Estimates are weighted for complex survey design and for the age-sex distribution of the sample.

reporting high-risk sexual behaviour compared to 28% of those in visiting relationships, 21% among those in common-law unions and 17% among those not in a committed relationship. Regular attendance at religious services was also associated with lower frequency of high-risk sexual behaviour. Among men, 24% of those attending religious services once weekly reported high-risk sexual behaviour compared to 58% of those who never attend religious services, while among women 9% of once weekly attendees reported high-risk behaviour compared to 26% among those who never attend.

Multivariable logistic regression was used to obtain odds ratios for high-risk sexual behaviour for the various sociodemographic and religious characteristics. Evaluation of the effect of sex on high-risk behaviour by age group revealed that there was significant interaction ($p = 0.013$ for interaction term). We therefore estimated age group specific estimates, which showed that there was a four-fold increase in the odds of high-risk behaviour among men compared to women in the 15−34 and 35−54-year old age groups (OR 4.1 [95% CI 3.0, 5.6], 4.5 [95% CI 3.2, 6.3], respectively) and an eight-fold increase in the odds of high-risk behaviour for men compared to women in the 55−74-year age group (OR 8.1 [95% CI 4.9, 13.3]). There were also age group and sex interactions for education, marital status, religion and religious practice. For these variables, we present age and sex-specific odds ratios in Table 3A. Among women 15−34 years old, those with higher educational levels had lower odds of high-risk sexual behaviour, OR 0.56 and 0.50, respectively. There were no other significant associations

Table 3A: Age and sex-specific odds ratios for high-risk sexual activity by categories education, marital status and religious activity[1]

Characteristics	**Male**			**Female**		
	15−34 years	35−54 years	55−74 years	15−34 years	35−54 years	55−74 years
Education						
Primary/junior high	1.0	1.0	1.0	1.0	1.0	1.0
Secondary	0.98 (0.54 – 1.79)	1.22 (0.78 – 1.92)	2.03 (0.74 – 5.58)	**0.56 (0.34 – 0.92)**	1.0 (0.59 – 1.68)	2.47 (0.70 – 8.73)
Post secondary	1.29 (0.63 – 2.67)	0.80 (0.40 – 1.62)	1.10 (0.28 – 4.32)	**0.50 (0.26 – 0.96)**	1.15 (0.56 – 2.40)	1.72 (0.25 – 11.60)
Unknown	2.81 (0.25 – 32.09)	NE[2]	NE	3.91 (0.30 – 50.42)	NE	NE
Marital status						
Not committed	1.0	1.0	1.0	1.0	1.0	1.0
Visiting relationship	2.35 (1.24 – 4.47)	**2.15 (0.92 – 5.07)**	**5.69 (1.08 – 29.94)**	**1.81 (1.12 – 2.92)**	1.78 (0.97 – 3.25)	NE
Common-law marriage	0.93 (0.49-1.74)	0.58 (0.27-1.24)	0.37 (0.12-1.14)	1.25 (0.76-2.07)	1.28 (0.72-2.29)	1.84 (0.35-9.46)
Married	1.60 (0.45–5.71)	**0.26 (0.12–0.58)**	0.49 (0.23–1.06)	0.68 (0.35–1.34)	0.75 (0.37–1.52)	0.58 (0.17–2.02)
Other/unknown	4.72 (0.49–45.54)	1.98 (0.56–6.98)	**0.23 (0.08–0.72)**	4.01 (0.55–29.27)	0.51 (0.13–1.96)	0.37 (0.08–1.60)
Religion						
None	1.0	1.0	1.0	1.0	1.0	1.0
Christian	0.73 (0.42–1.27)	0.62 (0.35–1.08)	0.51 (0.20–1.28)	0.60 (0.35–1.02)	0.53 (0.26–1.09)	1.31 (0.15–11.36)
Other/unknown	0.64 (0.11–3.74)	1.34 (0.38–4.78)	0.27 (0.02–3.20)	1.16 (0.20–6.63)	NE (0.54–553.11)	17.34
Actively practising religion						
No	1.0	1.0	1.0	1.0	1.0	1.0
Yes	0.64 (0.25–1.65)	0.47 (0.18–1.31)	**0.20 (0.07–0.58)**	0.58 (0.32-1.06)	**0.54 (0.33–0.89)**	0.51 (0.18–1.40

1. Separate models were created for the association between high-risk behaviour and education, marital status, religion and actively practising religion. Estimates are weighted for complex survey design and for age-sex distribution of sample
2. NE = Not estimated – due to zero values in some cells.

between education and high-risk sexual behaviour. Among men in the 35−54 and 55−74-year age groups, participants who were married had lower odds for high-risk sexual behaviour compared to men who were not in a committed relationship (OR 0.26 [95% CI 0.12, 0.58] and OR 0.49 [95% CI 0.23, 1.06]). Among women in all age groups, being married was associated with lower odds of high-risk sexual behaviour but the associations were not statistically significant. Being in visiting relationships was associated with higher odds of high-risk sexual behaviour among both men and women.

Compared to persons who reported no religious affiliations, persons who were Christians had lower odds for high-risk sexual behaviour although the associations again did not achieve statistical significance. Similarly, those who reported actively practising their religion had lower odds of high-risk sexual behaviour with the associations achieving statistical significance in the 55−74-year age group for men and the 35−54-year age group for women.

As there was no significant age interaction for occupational categories and frequency of attendance at religious services, we present sex-specific age adjusted odds ratios; these are shown in Table 3B. Among men, persons in the highly skilled and skilled occupational categories had higher odds of high-risk sexual behaviour compared to those in the professionals' and managers' category (OR 2.23 [95% CI 1.04, 4.75] and 2.35 [95% CI 1.02, 5.48], respectively). Men in the unskilled category also had higher odds of high-risk sexual behaviour but the association was not statistically significant (OR 2.42 [95% CI 0.95, 6.17). There were no significant associations between high-risk sex and occupation among women. With regards to frequency of attendance at religious services, persons attending religious services once per week had lower odds of high-risk sexual behaviour compared to persons who never attended services for both men and women, OR 0.24 [95% CI 0.10, 0.58] and 0.34 [95% CI 0.20, 0.59], respectively.

Table 3B: Age adjusted, sex-specific odds ratios for high-risk sexual activity for occupational categories and frequency of attendance in religious services[1]

Characteristic	Male	Female
Occupational categories		
Professionals and managers	1.0	1.0
Highly skilled	**2.23 (1.04 – 4.75)**	0.84 (0.44 – 1.59)
Skilled	**2.35 (1.01 – 5.48)**	0.96 (0.46 – 2.01)
Unskilled	2.42 (0.95 – 6.17)	1.04 (0.47 – 2.29)
Unemployed	NE	1.09 (0.39 – 3.03)
Other	1.09 (0.39 – 2.38)	0.55 (0.24 – 1.26)
Unknown	1.04 (0.45 – 2.38)	0.53 (0.23 – 1.24)
Frequency of attending religious service in past month		
Never	1.0	1.0
Less than once per week	0.79 (0.39 – 1.61)	0.57 (0.31 – 1.05)
Once per week	**0.24 (0.10 – 0.58)**	**0.34 (0.20 – 0.59)**
More than once per week	**0.20 (0.05 – 0.71)**	1.04 (0.52 – 2.11)

1. Separate models were created for the association between high-risk behaviour and occupation category and frequency of attending religious services. Odds ratios are adjusted for age. Estimates are weighted for complex survey design and the age-sex distribution of the sample.
2. NE = Not estimated – due to zero values in this category.

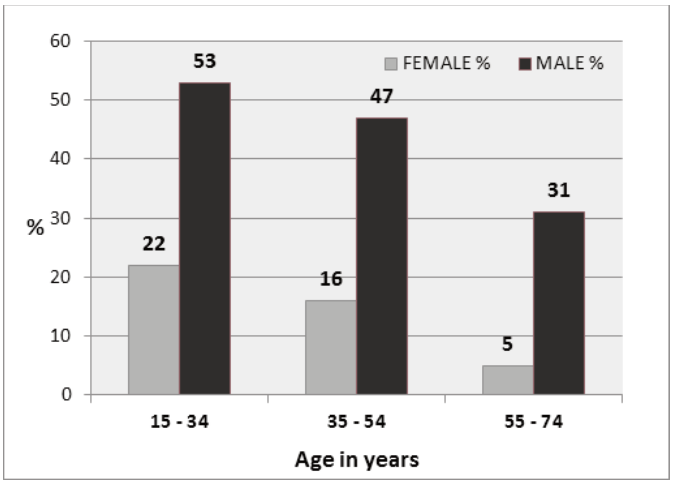

Figure: Sex-specific frequency (%) of high-risk sexual activity* by age group.

*Any high-risk sexual activity includes: two or more partners in the last year, history of sexually transmitted infection or non-use of condom despite having multiple sexual partners. Estimates are weighted for complex survey design and for the age-sex distribution of the sample.

DISCUSSION

We have shown that a third of Jamaicans report high-risk sexual behaviours and those high-risk sexual behaviours were more common among men and younger persons, but were not infrequent among older persons particularly among older men. We have also reported a number of age and sex-specific sociodemographic associations with high-risk sexual behaviours, in particular lower odds of high-risk sexual behaviour among young women with higher education, married men and women, persons who were actively practising their religion and those who attended religious services on a regular basis.

While the prevalence of high-risk behaviour in Jamaica remains high, the prevalence of previous STI appears to be lower than the estimates for the years 1993 and 2000 reported by Figueroa *et al* (14). In 2000, the prevalence of previous STI among men 15−49 years was 28% compared to 17% in this study. The prevalence of previous STI among women 15−49 years old was 12% in the two studies. The prevalence of multiple sexual partners was also similar in the two studies

(among men 49% in 2000 and 47% in this study and among women 11% in 2000 and 12% in this study).

Although a number of studies have evaluated high-risk sexual practices among persons at high-risk for HIV (18−21), only a few published studies have looked at the prevalence of high-risk sexual practices among persons in the general population. Additionally, most studies reporting high-risk sexual behaviours do not include persons over fifty years old (14, 22, 23). The international data are not easily comparable as the definitions of high-risk behaviour vary from study to study. In the United States of America (USA), approximately 10% of men and 8% of women reported at least one high-risk behaviour among persons 15−44 years old (22). In a population-based study from Mozambique, 21.9% of men and 6.5% of women engaged in casual sexual partnerships in the past year (23). These findings suggest that the prevalence of high-risk behaviour in Jamaica may be higher than that in the USA and Mozambique.

The findings of this study suggest that although Jamaica has made significant advances in the fight against HIV/AIDS (24), the relatively high prevalence of high-risk practices poses a threat to these gains and therefore efforts to educate the population and to identify factors which drive high-risk behaviour should be expanded. Additionally, the finding of fairly frequent high-risk practices among persons 55−74 years old is a cause for concern. Duncan and colleagues report that 5% of HIV infection and 10% of AIDS cases in Jamaica are reported in persons fifty years or older (4). This phenomenon of HIV/AIDS in older adults has been repeatedly reported in the literature (25−28) and suggests that efforts at HIV prevention and control must also be directed at older persons.

The associations between high-risk sexual behaviour and sociodemographic and religious factors found in this study are generally consistent with the current literature showing various associations between sexual behaviour and sociodemographic factors (5, 10, 12, 23, 29). In general, religious affiliation and a more stable union status reduced high-risk sexual behaviour. Occupational groups were important in men but not in women. Most high-risk practices were noted in the younger population. The finding of multiple age and sex interactions points to the complex nature of the sociodemographic and religious influences on sexual behaviour and suggest that targeted approaches may be needed in addressing these issues. The protective effect of marriage and religious practice suggest that a values-based approach to understanding sexual behaviour may produce further reductions in high-risk sexual behaviour and may be a useful addition to the traditional risk reduction strategies. We note the absence of a clear protective effect among women attending religious services more than one per week, but believe that this finding is counter-intuitive. This may be a chance finding as the association was not statistically significant and the lower confidence limit for the odds ratio suggesting a pos-sible risk reduction of up to 48%. Further studies are warranted to provide a better understanding of this phenomenon.

The findings of this study are broadly generalizable to the Jamaican population in light of the use of a nationally representative sample and the use of sample weights to further adjust estimates to the Jamaican population. The findings may also be applicable to other countries with a similar sociodemographic profile. The study adds to previous reports on high-risk sexual behaviour in the Jamaican population and expands the scope by inclusion of persons over 50 years old. We acknowledge, however, that the associations found between high-risk sexual practice and sociodemographic variables will need further exploration in larger datasets as the small numbers in some subgroups and lack of statistical significance in some instances prohibit the drawing of definitive conclusions with regards to these associations.

CONCLUSION

A third of Jamaicans report sexual behaviours that increase their risk of HIV infection. High-risk sexual behaviour is more common among men and younger persons. Sociodemographic factors, in particular being married and participating in religious practice, for the most part, appear to be protective against high-risk sexual behaviours. HIV/AIDS prevention programmes should include strategies to understand the drivers of high-risk behaviour and should also target older adults.

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