



FINAL REPORT

**NATIONAL COUNCIL
ON SUBSTANCE ABUSE
(NCSA) SURVEY OF
DRUG USE AND RISKY
SEXUAL BEHAVIOUR
IN TERTIARY
INSTITUTIONS IN
BARBADOS**

11/20/2007

ACKNOWLEDGMENTS

Special thanks are also extended to the National HIV AIDS Commission for funding this project. A special acknowledgement goes to the Ministry of Education for giving permission to conduct research in the schools. Also, thank you to the Principals, Teachers and Students of all participating institutions for your accommodation and participation in this survey.

Special recognition is also expressed to the Research planning committee for this project including Ms. Nicole Drakes, National HIV/AIDS Commission; Dr. Jonathan Lashley, Sir Arthur Lewis Institute of Social and Economic Research (SALISES); Dr. Philip Nanton, UWIHARP; Ms. Jacqueline Gollop, The Lodge School; Ms. Valerie Collymore, Ministry of Home Affairs; Ms. Harriette Yearwood, Director Student Services UWI; Mr. Richard Carter, Director Ministry of Youth Affairs; Mrs. Reina Singh, Barbados Community College (BCC); Mrs. Tessa Chaderton-Shaw, Manager, National Council on Substance Abuse(NCSA); Ms. Paulavette Atkinson, Programme Officer, NCSA and Mr. Jonathan Yearwood, Research and Information Officer, NCSA and Chairman of the Research planning committee.

Sincere thanks to the field staff, Sharon-Gay Gooding, Darisa Legall, Donna Carter, Kristal Griffith, Ondeane Todd, Theomar Holder, Dawn Lowe and Shawn Husbands.

Special thanks to Dr. Jonathan Lashley, of the Sir Arthur Lewis Institute of Social and Economic Research (SALISES) University of the West Indies (UWI) for the sampling selection and the writing of this report and Research Assistant Ms. Ruchelle Roach who edited the report.

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Background

The HIV/AIDS epidemic in the Caribbean is associated with high-risk sexual behaviours such as early initiation of sexual activity, multiple sexual partners, risky sexual practices and drug abuse (Adelekan, 2003). Youth may become particularly vulnerable to HIV infection through impaired judgement and risky sexual behaviours that could follow moments of clouded consciousness associated with drug and alcohol abuse (Adelekan, 2003).

As part of its drug prevention mandate, the National Council on Substance Abuse in Barbados (NCSA) undertakes research studies on an on-going basis among primary and secondary school students to determine the extent of alcohol and drug use. However, no studies on drug use or risky sexual behaviour have been conducted among tertiary level students on the island. The absence of this research presents a gap in knowledge among stakeholders and policymakers.

In seeking to redress this imbalance, the NCSA (in collaboration with the National HIV/AIDS Commission) sought to examine the link between drug use and risky sexual behaviour among students in tertiary level institutions in Barbados. This initiative followed on from similar studies of students in primary and secondary schools, and it forms the first phase of a three (3) phase project to fill the knowledge gap regarding the relationship between drug use and risky sexual behaviour among students following their exit from formal secondary education. The other two phases of the project will seek to cover those persons who proceed into employment following secondary education and those persons that are unemployed.

The following report presents the results of a survey among tertiary level students enrolled in formal education institutions in the country. Following an outline of the sampling methodology adopted, the main results are presented in three sections covering frequencies for the entire sample; frequencies disaggregated by type of institution (Open Campus versus Closed Campus¹) followed by the presentation of significant differences to emerge from the analysis due to the sex of the respondent. The report concludes with preliminary policy recommendations.

¹ Open Campuses are considered those that allow the free movement of students in and out of the campus as with the University of the West Indies, the Barbados Community College, the Samuel Jackman Prescod Polytechnic, Erdiston Teacher's Training College, and BIMAP. The Sixth Form Schools are considered Closed Campuses as these movements are restricted. It is theoretically considered that these distinctions may have an influence on drug use and sexual behavior.

Population and Sample Frames

In order to achieve an accurate representation of the relationship between drug use and risky sexual behaviour among tertiary students in Barbados, all the formal tertiary level institutions were selected for inclusion in the initial phase of the research. This included nine (9) institutions which are highlighted below.

In the sample there were four (4) main tertiary institutions that are funded by the Government, including:

1. Erdiston Teacher's Training College
2. The Samuel Jackman Prescod Polytechnic
3. The Barbados Community College
4. The University of the West Indies, Cave Hill Campus

Also included was the Barbados Institute of Management and Productivity (BIMAP) which receives some Government funds; however, it is also revenue generating, and provides training and access to training in overseas tertiary educational institutions. In addition to these institutions, there are four (4) secondary schools that have sixth forms, considered tertiary in this instance, including:

1. Harrison College
2. The Lodge School
3. Queen's College
4. Combermere School

These nine (9) institutions formed the population from which the samples were drawn in the first instance.

In terms of the population of persons in tertiary education in Barbados, the following outlines the main information available. As regards Barbadian citizens, the Barbados Census of Housing and Population (2000) provides the following information:

- There were 6,893 persons in part-time education over the age of 15 in 2000
- There were 2,080 persons in secondary education over the age of 16 in 2000
- There were 1,434 persons in University Education over the age of 16 in 2000
- There were 2,491 persons in Other Tertiary Institutions over the age of 16 in 2000
- This suggests a total of 12,898 Barbadian citizens in tertiary education in Barbados in 2000.

In addition to this data, preliminary investigation shows that there were 4,245 full-time equivalent students (of a variety of nationalities) enrolled at the University of the West Indies, Cave Hill Campus in 2004/2005, a 13.2% increase over the previous year. If this growth trend forms a basis for estimating the current population of tertiary students based on results of the 2000 Census of Housing and Population, the present figure may be well in excess of the figure above since foreign students are to be included in the survey.

Following the collation of this basic information, specific institutional data was collected, which yielded the following results.

Tertiary Students Population and Sample Size Selection

Institution	Total	Total Males	Total Females	Interim Target Percentage	Interim Target Sample Size	Required Sample Size (males)**	Required Sample Size (females)**	Final Target Sample Size
Queens	186	67	119	1.6	16	30	54	84
Harrison	200	104	96	1.7	17	30	30	60
Combermere	143	73	70	1.2	12	30	30	60
Lodge	168	68	100	1.4	14	30	46	76
SJPP*	2611	1018	1593	22.5	225	110	110	220
BCC	3865	1462	2403	33.3	333	128	208	336
UWI*	4245	1655	2590	36.5	365	136	214	350
BIMAP	na	na	na	na	Na	na	na	na
Erdiston*	200	122	78	1.7	17	30	30	60
TOTALS	11618			100	1000			1246

*Based on estimate of 61% females informed from Census of Housing and Population (2000).

**In order to facilitate statistical analysis above the level of basic descriptive statistics, a minimal sample size of 30 is required.

As evidenced from the table above, no data was available for BIMAP. However, following correspondence with the institution, access to students was declined and BIMAP was subsequently removed from the sample frame. In addition, Queen's College also declined to participate, resulting in a target sample size of 1,162.

For the actual selection of participants, students were selected at random in a variety of ways. For the sixth form schools, participants were selected by the drawing of lots during registration, while for the other institutions, specific classrooms were selected at random and interviews were conducted at selected times of day to ensure an even spread across departments and faculties.

In total, 942 usable responses were received, representing an 81% success rate once the population for Queen's College is removed from the sample frame. The table below outlines the responses and target levels for the various institutions.

Tertiary Students Target Sample Sizes and Responses

Institution	Target Responses	Number of Responses
Harrison College	60	*
Combermere School	60	*
The Lodge School	76	*
Sixth Form Schools	196	122
SJPP	220	206
BCC	336	213
UWI	350	349
Erdiston	60	36
Other (Missing Values)	-	16
TOTAL	1162	942

*Sixth Form Schools were not required to indicate actual school.

As the table shows, the greatest difference between target and actual responses was from the Barbados Community College, while the University of the West Indies achieved the lowest difference. As the results show, the level of the responses is substantial enough to facilitate higher level statistical analysis.

Full Sample Results

1.1 Respondent Characteristics

The following analysis is based on data from the full sample of 942 responses. Overall the sample respondents demonstrated a distribution by sex not significantly different from the national average with 56.6% female respondents and 43.4% male. The relevant national averages were 61% and 39% respectively in 2000 (Barbados Statistical Service, 2004). In terms of age, the average age was 22.5 years, with a minimum of 16 years and a maximum of 61 years. The majority (89.9%) of the sample considered their ethnicity to be African, while 5.2% classified themselves as Other, 2.7% as Indian, 1.7% as European, and 0.6% as Oriental.

In order to ascertain the overall character of the sample, respondents were asked to indicate their current occupation. While the majority (60.6%) indicated that they were full-time students, 12% indicated that they were professionals, and 10% indicated that they were in a clerical occupation.

In terms of registration, 68.1% were full-time students, and 56.4% had the majority of their classes in the morning. Twenty-seven percent (27%) had the majority of their classes in the evening, which the remainder had their classes in the afternoon. In terms of instruction, the majority (88.8%) was on-campus, while 6.9% had instruction both on- and off-campus. In looking further at this issue of exposure to campus life, exposure to the physical confines of the institution, respondents were also asked to indicate the average amount of time spent on-campus outside of normal learning activities. While 20.7% indicated that they did not spend any extra time on campus, the majority (43.9%) spent 5 or less hours on campus outside of normal learning activities. Over one-quarter of respondents (25.5%) indicated that they spent between 6 and 10 extra hours on campus, indicating a high level of exposure to 'campus life'.

In terms of qualifications being pursued, the table below outlines the main responses.

Qualifications Pursued

Qualification	Valid Percent
CAPE	13.1
A-Levels	0.9
Diploma	9.1
Associate Degree	25.8
First Degree	36.4
Post-Graduate Degree	1.2
Certificate	12.9
Other	0.5
TOTAL	100.0

As the table above demonstrates, the majority of respondents were studying for either First or an Associate Degree (62.2%), which is to be expected as the majority of the sample was taken from the University of the West Indies and the Barbados Community College.

As regards year of study, 48.1% of respondents were in their first year of study, while 37.4% were in their second. Only 2.8% were in their fourth year of study or above.

1.2 Drug Use Patterns

In seeking to assess the level and character of drug use (legal and illegal) among tertiary level students, respondents were asked to indicate the frequency of use of a selection of drugs, age of first use, and location of most frequent use. The table below presents the results for frequency and age of first use for a selection of legal drugs.

Legal Drugs- Frequency and Age of First Use

	Never	Seldom	Monthly	Weekly	Daily	Don't Know	Average Age of First Use (years)*	Prevalence Rate**
Frequency of use of: Low Alcohol (beer, stout, etc.)	29.4%	50.2%	8.5%	8.3%	1.8%	1.9%	14	70.60%
Frequency of use of: Medium Alcohol (wine, liqueurs, etc)	34.9%	48.4%	9.2%	5.2%	.3%	1.9%	15	65.10%
Frequency of use of: High Alcohol (rum, vodka, brandy, etc)	45.9%	37.8%	8.0%	5.8%	.6%	1.9%	16	54.10%
Frequency of use of: Cigarettes	87.2%	8.7%	.5%	.8%	2.0%	.8%	15	12.80%
Frequency of use of: Pain killers (aspirin, Tylenol, ibuprophen etc.)	24.1%	50.4%	18.4%	3.6%	.8%	2.7%	12	75.90%
Frequency of use of: Prescribed drugs (sleeping pills, antidepress.)	65.7%	27.6%	2.4%	.2%	1.9%	2.2%	13	34.30%
Frequency of use of: Inhalants (glue, paint etc.)	92.4%	4.7%	.5%	.6%	.5%	1.4%	10	7.60%
Frequency of use of Fanta***	90.8%	5.6%	.6%	.8%	1.9%	.4%	13	9.20%

*Average age for proportion of sample that had used the specific drug.

**Represents the percentage of respondents indicating some level of use.

***It needs to be noted that although there is ambiguity surrounding the status of Fanta as a drug, it is not illegal under the laws of Barbados and included here in the analysis of legal drug use.

As the table above demonstrates, the least utilised legal drugs were inhalants, fanta and cigarettes, with only approximately 10% indicating some level of use. Conversely, the most utilised legal drugs were Pain Killers, and Low and Medium Alcohol. The overall average age of first use of these legal drugs, for those indicating some level of use, was 14 years of age.

In terms of location of use of these legal drugs, the table below shows the main results to emerge from the survey.

Legal Drugs- Location of Most Frequent Use

	Home	On Campus	Community	Friend's House	Sporting Events	Social Events	Number of Responses
Low Alcohol	33.3%	1.1%	6.1%	4.6%	2.9%	52.0%	627
Medium Alcohol	37.5%	.7%	4.7%	2.4%	1.3%	53.5%	550
High Alcohol	24.7%	1.3%	7.2%	2.7%	2.3%	61.8%	474
Cigarettes	40.3%	8.4%	14.3%	8.4%	1.7%	26.9%	119
Pain killers	98.1%	1.2%	.2%	-	.5%	-	573
Prescribed drugs	97.6%	1.7%	-	.3%	.3%	-	295
Inhalants	74.2%	24.2%	-	1.6%	-	-	62
Fanta	33.3%	5.8%	40.6%	14.5%	1.4%	4.3%	69

The three (3) lowest response levels were seen with Inhalants, Fanta, Cigarettes and Prescribed Drugs, where the main single location of use was the Home, while Social Events were the main location for the use of Alcohol of all strengths. Interestingly, and of core interest to the current research, use on Campus demonstrated one of the lowest responses, with the exception of the use of Inhalants, but this only accounted for 15 persons or 1.6% of the total sample. For Fanta, the main location of use was in the Community (40.6%), followed by in the Home (33.3%)

In terms of illegal drugs, participants were also requested to provide information related to frequency of use, age of first use, and location of most frequent use. The tables below outline the main results to emerge.

Illegal Drugs- Frequency and Age of First Use

	Never	Seldom	Monthly	Weekly	Daily	Don't Know	Age of First Use	Prevalence Rate*
Frequency of use of Marijuana	77.0%	15.7%	1.4%	2.3%	2.6%	1.0%	15	23.00%
Frequency of use of Cocaine-powder	99.5%	-	.3%	-	.1%	.1%	na	0.50%
Frequency of use of Cocaine-crack	99.5%	.3%	-	-	.1%	.1%	na	0.50%
Frequency of use of Heroin	99.5%	.1%	-	.1%	.1%	.1%	na	0.50%
Frequency of use of Ecstasy	98.9%	.8%	-	-	.1%	.3%	na	1.10%

na- Data insufficient due to low level of use

*Represents the percentage of respondents indicating some level of use.

As the results demonstrate, the only illegal drug which demonstrated any meaningful level of use was Marijuana. As the data for the other listed drugs only returned responses from between seven (7) and eleven (11) respondents, this data is not presented as it relates to age of use, location of use, and method of intake. The only listed drug for which this data is robust enough for presentation is Marijuana, as shown in the table below.

Illegal Drugs- Location of Most Frequent Use

	Home	On Campus	Community	Friend's House	Sporting Events	Social Events	Number of Responses
Marijuana	29.7%	6.4%	25.7%	18.8%	2.5%	16.8%	202

The results demonstrate that for Marijuana, the main location of use was in the Home (29.7%), followed by in the Community (25.7%) and at a Friend's House (18.8%). Again, as with legal drugs, there appears to be a low level of use on Campus. In terms of method of intake of the drugs, the majority cited Smoking (97.5%).

Apart from indicating drug use patterns, respondents were also asked about their sexual activity. These results are presented in the section below.

1.3 Sexual Activity Patterns

Of the 942 respondents to the survey, only 571 indicated that they had ever had sex (60.6%). The following analysis is therefore based solely on these responses.

In terms of the age of first sexual activity, the average age was 16 years old, while the median amount of sexual partners in the last 30 days was one (1), with a mean of 1.7. On average, male respondents indicated that they had 3.4 female sexual partners in the last year, and 8.3 in the last 5 years, while females indicated that they had 1.4 male partners in the last year and 2.3 male partners in the last 5 years. Nearly eighty percent (78.6%) of respondents indicated that their sexual activity was currently confined to one partner, while the median amount of partners at any one time was also one (1), with partners for the most part ranging between 16 and 25 years of age (63.2%).

Alarming, in terms of the practice of safe sex, nearly half (49.1%) of respondents indicated that they only used a condom during sex 'Sometimes', and 13.7% 'Never' used a condom during sex. In addition, and confirming this result, when asked as to how often they had unprotected sex, 30.9% said 'Never', while 41.9% said 'Occasionally' and 19.5% responded 'Most of the time'. Contrasting these results to some degree is the fact that 59% of respondents indicated that they have refused to have sex in the past because no condom was available, and 54.3% of males indicated that their partner had requested that they wear a condom at some point.

Concerning the preference for using a condom, only 28.2% indicated that they liked using a condom, while 28.8% said only sometimes did they like to use a condom.

Despite this apparent 'risky sexual behaviour', where unprotected sex is occurring on a regular basis, only 5.9% of respondents indicated that they had contracted a sexually transmitted infection (STI). This was based on 556 responses. Of those that had contracted an STI, the average age of contraction was 21 years.

Related to these issues, respondents were also asked to indicate their importance rating for a number of issues related to condom use. The results are shown in the table below.

Importance of Condom Use

	Extremely Important	Very Important	Important	Not Very Important	Not Important
How important is using a condom to avoid pregnancy?	66.6%	14.4%	11.1%	2.7%	5.2%
How important is using a condom to avoid STIs?	88.2%	8.7%	2.6%	.2%	.4%
How important is using a condom to avoid HIV?	92.1%	5.7%	1.6%	-	.6%
How important is using a condom to enjoy sex?	20.6%	5.5%	9.3%	19.5%	45.1%

As the results demonstrate, respondents placed a high degree of importance on condom use to avoid STIs and HIV, with a lower rating for avoiding pregnancy. However a very low rating for wearing a condom to enjoy sex may indicate that respondents feel constrained in their sexual pleasure by the use of a condom, although they recognise the importance of its use. If these rational considerations are curtailed through drug use, condom use in this regard may be reduced.

Other sexual behavioural traits were investigated through the survey instrument and these are shown in the table below.

Sexual Behavioural Traits

	Yes	No	No Response
Have you ever had sex at school/campus?	14.8%	81.0%	4.3%
Do you always insist that your partner wear a condom?	28.6%	55.5%	15.9%
Have you ever been refused sex because no condom was available?	40.2%	48.0%	11.8%
Have you ever insisted that your partner wear a condom?	57.3%	30.9%	11.8%
Have you ever had sex without using a condom because your partner did not want to use one?	34.0%	59.2%	6.9%
Is it solely the male's responsibility to provide a condom?	12.9%	83.7%	3.4%
Is it solely the female's responsibility to provide a condom?	6.9%	89.1%	3.9%
Is it the responsibility of both partners to ensure a condom is used during sex?	92.1%	4.8%	3.1%

Respondents were also asked for the main reasons that they had sex. The majority indicated it was for Pleasure (78.4%), while Pressure from Partner accounted for 7.7% of responses, and To Get Pregnant accounted for 6.7%. To Get Rewards (money and gifts) accounted for 3.3%.

The issue of homosexuality was also analysed. However, due to the low level of incidence, with only 18 males (4.5% of male respondents) and 19 females (3.6% of female respondents) demonstrating this sexual preference, no higher level statistical analysis could be undertaken of this cohort.

1.4 Drug Use and Sexual Behaviour

The last purpose of the questionnaire survey was to garner information on drug use and sexual behaviour among respondents. A series of questions were asked as to respondents' and their partners' behaviour. The main results are discussed below.

Overall, only 15.9% of all respondents indicated that they had engaged in sex while drunk, and only 10% indicated that they had done so while under the influence of drugs. More specifically, for those that demonstrated this type of behaviour, they were requested to indicate the type of drug that they were under the influence of. These results are shown in the table below.

Drug Use and Sexual Activity: Type of Drug

Respondent had sex under the influence of...	Yes	No	Number of Responses
Either a legal or illegal drug	22.1%	77.9%	551
Low Alcohol	87.2%	12.8%	94
Medium Alcohol	83.1%	16.9%	59
High Alcohol	86.8%	13.2%	76
Pain killers	75.0%	25.0%	32
Prescribed drugs	42.9%	57.1%	14
Fanta	60.0%	40.0%	20
Marijuana	85.7%	14.3%	63
Cocaine- powder	38.5%	61.5%	13
Cocaine- crack	33.3%	66.7%	12
Heroin	18.2%	81.8%	11
Ecstasy	27.3%	72.7%	11

As the table above shows, the main drugs which respondents were under the influence of when they engaged in sex were Alcohol (all strengths), followed by Marijuana, Pain Killers and Fanta. The low response levels for the other listed drugs is indicative of the lack of use demonstrated in earlier responses.

In addition to engaging in sexual activity while under the influence of drugs, respondents were also requested to indicate whether they had ever been requested to have sex for drugs. Only 6 respondents indicated this to be the case, with 5 of these respondents indicating that they were offered Marijuana.

In terms of sexual partners, respondents were also asked whether their partners used legal or illegal drugs, and the frequency with which they used the various drugs. Nearly forty-five percent (44.8%) of respondents indicated that their partners used legal or illegal drugs, the table below outlines their frequency of use.

Drug Use and Sexual Activity: Partner's Drug Use Frequencies

Partner Uses...	Never	Seldom	Monthly	Weekly	Daily	Don't Know	Partner's Prevalence Rate*
Low Alcohol	5.9%	45.5%	14.4%	12.6%	7.2%	14.4%	94.10%
Medium Alcohol	5.2%	45.8%	17.7%	10.4%	5.2%	15.6%	94.80%
High Alcohol	8.9%	43.0%	15.1%	12.3%	5.0%	15.6%	91.10%
Pain killers	20.1%	46.3%	8.1%	2.7%	2.0%	20.8%	79.90%
Prescribed drugs	22.2%	42.1%	5.6%		3.2%	27.0%	77.80%
Inhalants	62.1%	5.3%	1.1%		4.2%	27.4%	37.90%
Fanta	58.2%	7.3%	1.8%	3.6%	12.7%	16.4%	41.80%
Marijuana	26.5%	24.7%	4.2%	14.5%	18.1%	12.0%	73.50%
Cocaine- powder	74.3%	3.0%	1.0%	1.0%	2.0%	18.8%	25.70%
Cocaine- crack	76.5%	1.0%		1.0%	2.0%	19.4%	23.50%
Heroin	77.3%	1.0%		1.0%	1.0%	19.6%	22.70%
Ecstasy	77.1%	3.1%				19.8%	22.90%

*Represents the percentage of respondents indicating some level of use among their partners.

As the table demonstrates, the majority of respondents' sexual partners use legal drugs, although on a seldom basis, while, with the exception of Marijuana, the majority do not use illegal drugs. Overall legal drug use appears to occur less than once a month, while illegal drug use is rare.

Campus Influences

During discussions in the planning stages of the project, it was considered that the campus environment may have an influence on the variables of interest, drug use and risky sexual behaviour. In order to investigate whether any such influential relationship exists, the institutions included in the survey were categorised as either Open Campus or Closed Campus, as alluded to above. The data was then analysed to determine whether any significant differences between the two types of institutions existed, as it related to drug use and risky sexual behaviour. In addition, data was also analysed according to the amount of non-instruction time the respondents spent on campus.

Following an analysis of all continuous variables, only age of first use of a selection of drugs demonstrated any significant differences. These drugs, relevant ages and test statistic values are shown in the table below.

Significant Differences between Age of First Use and Campus Type

Age of First Use of...	Closed Campus Average Age	Open Campus Average Age	Test Statistic (t-test)
Low Alcohol	12.6	14.4	3.33
Medium Alcohol	12.8	15.2	4.33
High Alcohol	14.2	16.2	3.46
Pain Killers	10.4	12.1	3.17
Prescribed Drugs	9.3	14.2	3.43

All test statistics significant at the 5% level.

As the table above demonstrates, Closed Campus respondents' first use of the drugs shown occurred at a significantly lower age than their Open Campus colleagues².

Use of Fanta by Campus Type

Type of Campus	Never Used Fanta	Have Used Fanta
Closed Campus	95.3%	4.7%
Open Campus	89.9%	10.1%
Average	90.6%	9.4%

In terms of Fanta use, it appears that this was less prevalent among Closed Campus respondents than Open Campus respondents (Chi-squared asymptotic significance of 0.077). The same was true for the illegal drug marijuana, as shown below, where the Chi-Squared asymptotic significance was 0.009.

Use of Marijuana by Campus Type

Type of Campus	Never Used Marijuana	Have Used Marijuana
Closed Campus	86.9%	13.1%
Open Campus	75.5%	24.5%
Average	77.0%	23.0%

In addition to these drug related issues, significant differences were also seen as it related to sexual activity, with significantly more Closed Campus respondents indicating that they had never had sex (asymptotic significance 0.000), as shown in the table below.

² As this activity occurred, for the most part, before enrollment at the relevant institutions, no level of causality can be related to Campus Type in this instance.

Sexual Activity by Campus Type

Type of Campus	Never Had Sex	Have Had Sex
Closed Campus	67.9%	32.1%
Open Campus	29.0%	71.0%
Average	34.1%	65.9%

Due to the low level of sexual activity among Closed Campus respondents, all other sex-related variables did not present sufficient numbers on which to conduct statistically significant tests.

In reviewing the results to emerge from an analysis of time spent on campus outside of normal instruction, only one significant difference was seen with those spending more time on campus having had sex on campus, as shown in the table below.

Sexual Activity on Campus by Time on Campus

Time on Campus	Never Had Sex on Campus	Had Sex on Campus
5 hours or less per week	88.4%	11.6%
6 hours or more per week	78.2%	21.8%
Average	84.7%	15.3%

Other variables tested for which no significant differences were seen included:

- Existence of sexual activity
- Number of sexual partners
- Sex while drunk
- Sex while high
- Sex while under the influence of either a legal or illegal drug
- Frequency of unprotected sex
- Partners' use of legal or illegal drugs
- Type of Campus
- Marijuana Use
- Fanta Use

None of these variables demonstrated any significant differences based on time spent on campus outside of normal instruction.

Main Differences Related to Sex of Respondent

In order to delve deeper into the character of the sample, sex of respondent was tested against the main variables of interest as it related to drug use and risky sexual behaviour. The main significant differences seen between males and females related to the following:

- Age of first sexual experience
- Number of sexual partners in the 30 days preceding the survey
- Average age of sexual partners
- Whether their current sexual activity was confined to one partner
- Whether they had ever had sex on campus
- Always insisting on using a condom during sex
- Whether partner refused to have sex because no condom available
- Partners' use of legal or illegal drugs
- Use of all strengths of alcohol
- Use of cigarettes
- Use of pain killers
- Use of marijuana
- Use of fanta
- Whether they had ever had unprotected sex

Many of these variables are strongly interrelated and were utilised in this manner to confirm related responses throughout the questionnaire. The main results and related test statistics are shown in the tables below.

Significant Differences between Sex of Respondent and a Selection of Continuous Variables

Continuous Variable	Male Average	Female Average	Test Statistic (t-test)
Age of first sexual experience	15.2 years	16.9 year	-5.2
Number of sexual partners in last 30 days	2.4	1.1	3.9
Average age of sexual partners	23 years	28 years	-4.9

All test statistics significant at the 5% level.

*Average age of respondents was 22.5 years (22 years for females; 23 for males).

As the results presented in the table above show, females had their first sexual experience in life later, had fewer sexual partners in the last 30 days, and their sexual partners were on average older males, whose sexual partners were on average the same age. All of these recognised differences were significant at the 5% level.

In terms of the categorical variables tested in the survey related to frequency of use or practice (Never to Daily), these were recoded into dichotomous variables to give an indication of whether the respondent had ever participated in the activity of interest. These results would therefore then be presented as ‘Never’ or ‘Some Activity’, rather than the categorical scale used previously. For the ‘yes/no’ responses, these were tested without any further recoding. The results of this analysis are presented below.

Significant Differences between Sex of Respondent and a Selection of Categorical Variables

Categorical Variable	Male Average	Female Average	Asymptotic Significance
Current sexual activity was confined to one partner	72.4%	95.0%	0.000
Had sex on campus	26.4%	7.0%	0.000
Always insisting on using a condom during sex	22.4%	39.8%	0.001
Partner refused to have sex because no condom available	55.7%	37.7%	0.000
Partner uses legal or illegal drugs	29.6%	56.6%	0.000
Uses Low Alcohol	77.9%	65.2%	0.000
Uses Medium Alcohol	69.9%	61.6%	0.011
Uses High Alcohol	63.3%	47.0%	0.000
Uses Cigarettes	17.4%	9.3%	0.000
Uses Pain killers	66.9%	82.8%	0.000
Uses Fanta	15.5%	4.7%	0.000
Uses Marijuana	30.1%	17.7%	0.000
Had unprotected sex	64.3%	72.7%	0.040

The results of the analysis appears to demonstrate that females have fewer sexual partners, and are more demanding in terms of condom use. However, females have had unprotected sex to a larger extent than their male colleagues, and they admit to their partners’ use of drugs. Females were also less likely to use alcohol, cigarettes, marijuana or fanta, but utilised pain killers to a greater degree than males. These results imply that males are more promiscuous than females and more likely to use legal and illegal drugs.

Summation

In seeking to address the HIV/AIDS epidemic in the Caribbean, and to fill knowledge gaps related to drug use and sexual behaviour among tertiary level students in Barbados, the current project utilised a survey methodology on a sample of tertiary level students at tertiary institutions in the country. The project managed to obtain responses from 942 tertiary level students, representing approximately 8% of the relevant population. While several of the variables received extremely low response rates, probably due to the nature of the issues being investigated, which negated any statistical analysis in some instances, the main elements of the survey received reasonable response rates that allowed for the statistical analysis outlined above to be undertaken.

The main results to emerge from the survey included:

- Low level of drug use seen among respondents
- High degree of importance placed on condom use to protect against HIV/AIDS, STIs, and, to a lesser degree, pregnancy
- Moderate level of sex under the influence of legal or illegal drugs (22.1%), with 15.9% of respondents indicating that they have had sex while drunk, and 10% indicating that they had sex under the influence of illegal drugs, mainly marijuana
- Marijuana and fanta use was less prevalent among Closed Campus respondents
- Fewer Closed Campus respondents had ever had sex
- Respondents that had spent significant time on campus outside of formal instruction were more likely to have had sex on campus

Matters of concern were also revealed from the results of the analysis of the data by sex of respondent. The results indicated that males were more promiscuous with current sexual activity not confined to one partner, and they had an average of 2.4 partners in the last 30 days. This was compared to females, who on average only had 1.1 partners in the last 30 days, and for the most part their current sexual activity was confined to one (1) partner³.

Overall the results indicate that females were more likely to insist on condom use, and they used fewer legal and illegal drugs. However, the results paradoxically revealed that they were more likely to have unprotected sex than males, as well as more likely to have a partner that used legal or illegal drugs, putting them in a position of vulnerability from risky sexual behaviour, without the related *direct* drug use. Indeed, 31.8% of female respondents had admitted that they have had sex without a condom because their partner did not want to use one.

Although the results indicate that drug use and risky sexual behaviour is not widespread, there should be some concern that engaging in sex while under the influence of legal or illegal drugs is occurring among approximately 20% of the tertiary student population, and that males are demonstrating a significantly higher degree of promiscuity than females. Undoubtedly action will need to be taken to sensitise these students as to the

³ It needs to be noted that these partners may or may not be in the population external to the sample.

risks to which non-condom use can present to their existence, especially as nearly one-half of respondents that had sexual intercourse admitted to only using a condom 'Sometimes'. This should also be read in light of the fact that 14% indicated that they never used a condom during sex. While this 'risky' behaviour has not presented itself in the contraction of STIs, there is an evident risk for future contractions should this behaviour continue.

Survey Instrument

**National Council on Substance Abuse (NCSA) Survey of Tertiary Education Students
Drug Use and Risky Behaviour**

The National Council on Substance Abuse (NCSA) is conducting a study on the relationship between drug use and risky sexual behaviour. The information obtained will assist in the implementation of programs that will allow young people to become aware of the dangers of drug use and the increasing risk of STDs (sexually transmitted diseases) through drug use.

Please be informed that all information will be confidential and will only be used for statistical purposes. **Please either write answers or tick (✓) in the spaces provided. If a question does not apply to you, continue from the next shaded box.**

1. Sex	<input type="checkbox"/> Male	<input type="checkbox"/> Female	2. Age (years)	
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3. At which of these Tertiary Institutions are you currently enrolled? (Please tick only one)		
<input type="checkbox"/> 1. Sixth Form School	<input type="checkbox"/> 2. Community College	<input type="checkbox"/> 3. SJP Polytechnic
<input type="checkbox"/> 4. University of the West Indies	<input type="checkbox"/> 5. BIMAP	<input type="checkbox"/> 6. Erdiston

4. Are you currently enrolled Full-time or Part-time?	<input type="checkbox"/> Full-time	<input type="checkbox"/> Part-time
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5. At what time of day are the majority of your classes? (Please tick ALL that apply)	<input type="checkbox"/> Morning	<input type="checkbox"/> Afternoon	<input type="checkbox"/> Evening
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6. Is instruction MAINLY on-campus, off-campus, or both?	<input type="checkbox"/> On-campus	<input type="checkbox"/> Off-campus	<input type="checkbox"/> Both
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7. For what qualification are you studying?			
<input type="checkbox"/> CAPE	<input type="checkbox"/> A-levels	<input type="checkbox"/> Diploma	<input type="checkbox"/> Associate Degree
<input type="checkbox"/> First Degree	<input type="checkbox"/> Post-graduate Degree	<input type="checkbox"/> Technical/Vocational Qualification	<input type="checkbox"/> Other

8. What year of study are you in?	<input type="checkbox"/> 1 st year	<input type="checkbox"/> 2 nd year	<input type="checkbox"/> 3 rd year	<input type="checkbox"/> 4 th year and above
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9. How many hours a week do you spend on-campus outside of normal learning activities (class, library, laboratory work, computer time)				
<input type="checkbox"/> Zero	<input type="checkbox"/> 5 or less hours	<input type="checkbox"/> 6 to 10 hours	<input type="checkbox"/> 11 to 15 hours	<input type="checkbox"/> More than 15 hours

10. Which of the following best describes your descent?				
<input type="checkbox"/> African	<input type="checkbox"/> European	<input type="checkbox"/> Oriental	<input type="checkbox"/> Indian	<input type="checkbox"/> Other (specify)

11. Which of the following best describes your religion?			
<input type="checkbox"/> Anglican	<input type="checkbox"/> Catholic	<input type="checkbox"/> Methodist	<input type="checkbox"/> Moravian
<input type="checkbox"/> Wesleyan	<input type="checkbox"/> Seventh Day Adventist	<input type="checkbox"/> Jehovah Witness	<input type="checkbox"/> Hindu
<input type="checkbox"/> Pentecostal	<input type="checkbox"/> Muslim	<input type="checkbox"/> Rastafarian	<input type="checkbox"/> Other (specify)

12. Which of the following best describes your current occupation?			
<input type="checkbox"/> Full-time Student	<input type="checkbox"/> Professional	<input type="checkbox"/> Clerical	<input type="checkbox"/> Skilled Labourer
<input type="checkbox"/> Unskilled Labourer	<input type="checkbox"/> Self-employed	<input type="checkbox"/> Not employed	

13. In your opinion, how would you define a legal drug?
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14. For the following legal drugs, please indicate your frequency of use? If you have used any of these legal drugs , please indicate your age of first use							
	Never	Seldom	Monthly	Weekly	Daily	Don't Know	Age of first use
Low Alcohol (beer, stout etc.)	<input type="checkbox"/>						
Medium Alcohol (wine, liqueurs etc)	<input type="checkbox"/>						
High Alcohol (rum, vodka, brandy etc.)	<input type="checkbox"/>						
Cigarettes	<input type="checkbox"/>						
Pain killers (aspirin, Tylenol, ibuprophain etc.)	<input type="checkbox"/>						
Prescribed drugs (sleeping pills, antidepressants, etc.)	<input type="checkbox"/>						
Inhalants (glue, paint etc.)	<input type="checkbox"/>						

15. If you have ever used any legal drugs, please indicate where you MOST often use them						
	At home	At school/ college	In the community	Friend's house	Sporting events	Social events
Low Alcohol (beer, stout etc.)	<input type="checkbox"/>					
Medium Alcohol (wine, liqueurs etc)	<input type="checkbox"/>					
High Alcohol (rum, vodka, brandy etc.)	<input type="checkbox"/>					
Cigarettes	<input type="checkbox"/>					
Pain killers (aspirin, Tylenol, ibuprophain etc.)	<input type="checkbox"/>					
Prescribed drugs (sleeping pills, antidepressants, etc.)	<input type="checkbox"/>					
Inhalants (glue, paint etc.)	<input type="checkbox"/>					

16. In your opinion, how would you define an **illegal** drug?

17. For the following **illegal** drugs, please indicate your frequency of use? If you have used any of these **illegal drugs**, please indicate your age of first use

	Never	Seldom	Monthly	Weekly	Daily	Don't Know	Age of first use
Marijuana	<input type="checkbox"/>						
Cocaine- powder	<input type="checkbox"/>						
Cocaine- crack	<input type="checkbox"/>						
Heroin	<input type="checkbox"/>						
Ecstasy	<input type="checkbox"/>						
Fantas	<input type="checkbox"/>						

18. If you **have ever** used any **illegal** drugs, please indicate where you MOST often use them

	At home	At school/ college	In the community	Friend's house	Sporting events	Social events
Marijuana	<input type="checkbox"/>					
Cocaine- powder	<input type="checkbox"/>					
Cocaine- crack	<input type="checkbox"/>					
Heroin	<input type="checkbox"/>					
Ecstasy	<input type="checkbox"/>					
Fantas	<input type="checkbox"/>					

19. If you **have ever** used any **illegal** drugs, please indicate how you take them? (Tick ALL that apply)

	Use needle	Snorting through nose	Smoking	Drinking	Other (please specify)
Marijuana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cocaine- powder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cocaine- crack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Heroin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ecstasy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fantas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

20. Have you ever had sex?	<input type="checkbox"/> Yes (go to Question.21)	<input type="checkbox"/> No (Go to Question 38)
21. At what age did you first have sex?	_____ Years old	
22. In the past 30 days, how many sexual partners have you had?	_____	
23. Are your sexual activities confined to one partner only?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No response

24. Approximately how many **MALE** sexual partners have you have in the following time periods?

a. In the last year	_____
b. In the last 5 years	_____

25. Approximately how many FEMALE sexual partners have you have in the following time periods?		
a. In the last year		
b. In the last 5 years		
26. How often do you use a condom during sex?		
<input type="checkbox"/> Never	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Always

27. Please select the appropriate answer to the following questions			
	YES	NO	No Response
a. Have you ever had sex while drunk?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have you ever had sex while high?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have you ever refused to have sex because there was no condom available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Have you ever had sex at school/campus?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Do you always insist that your partner wear a condom?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Have you ever been refused sex because no condom was available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Have you ever insisted that your partner wear a condom?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Have you ever had sex without using a condom because your partner did not use one?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Is it solely the male's responsibility to provide a condom?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Is it solely the female's responsibility to provide a condom?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. It is the responsibility of both partners to ensure a condom is used during sex?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28. What is the main reason that you have sex? (Tick only ONE)	
For Pleasure	<input type="checkbox"/>
To get pregnant	<input type="checkbox"/>
Pressure from Partner	<input type="checkbox"/>
Don't Know	<input type="checkbox"/>
Won't Say	<input type="checkbox"/>

29. Have you ever had sex while under the influence of either a legal or illegal drug ?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
IF YES, please indicate which drugs you were under the influence of?		
a. Low Alcohol (beer, stout, etc.)	<input type="checkbox"/>	
b. Medium Alcohol (wine, liqueurs etc.)	<input type="checkbox"/>	
c. High Alcohol (rum, vodka, wine etc.)	<input type="checkbox"/>	
d. Pain killers (aspirin, Tylenol, etc.)	<input type="checkbox"/>	
e. Prescribed drugs (sleeping pills, antidepressants)	<input type="checkbox"/>	
f. Marijuana	<input type="checkbox"/>	
g. Cocaine- powder	<input type="checkbox"/>	
h. Cocaine- crack	<input type="checkbox"/>	
i. Heroin	<input type="checkbox"/>	
j. Ecstasy	<input type="checkbox"/>	
k. Fantas	<input type="checkbox"/>	
l. Other (please specify)	<input type="checkbox"/>	

30. Have you ever been offered sex for drugs?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
IF YES, please indicate which drugs you were offered? (Tick ALL that apply)			
a. Low Alcohol (beer, stout, etc.)		<input type="checkbox"/>	
b. Medium Alcohol (wine, liqueurs etc.)		<input type="checkbox"/>	
c. High Alcohol (rum, vodka, wine etc.)		<input type="checkbox"/>	
d. Pain killers (aspirin, Tylenol, etc.)		<input type="checkbox"/>	
e. Prescribed drugs (sleeping pills, antidepressants)		<input type="checkbox"/>	
f. Marijuana		<input type="checkbox"/>	
g. Cocaine- powder		<input type="checkbox"/>	
h. Cocaine- crack		<input type="checkbox"/>	
i. Heroin		<input type="checkbox"/>	
j. Ecstasy		<input type="checkbox"/>	
k. Fantas		<input type="checkbox"/>	
l. Other (please specify)		<input type="checkbox"/>	

31. How often do you have unprotected sex?			
<input type="checkbox"/> Never	<input type="checkbox"/> Occasionally	<input type="checkbox"/> Most of the Time	<input type="checkbox"/> Always
32. On average, how many partners do you have sex with at any one time?			
33. What is the average age of your sexual partners?			
<input type="checkbox"/> 15 or younger	<input type="checkbox"/> 16 to 20	<input type="checkbox"/> 21 to 25	<input type="checkbox"/> 26 to 30
<input type="checkbox"/> 31 to 40	<input type="checkbox"/> Over 40		

34. Do any of your partners use legal or illegal drugs?							<input type="checkbox"/> YES	<input type="checkbox"/> NO
IF YES, please indicate their frequency of use.								
	Never	Seldom	Monthly	Weekly	Daily	Don't Know		
Low Alcohol	<input type="checkbox"/>							
Medium Alcohol	<input type="checkbox"/>							
High Alcohol	<input type="checkbox"/>							
Pain killers	<input type="checkbox"/>							
Prescribed drugs	<input type="checkbox"/>							
Inhalants	<input type="checkbox"/>							
Marijuana	<input type="checkbox"/>							
Cocaine- powder	<input type="checkbox"/>							
Cocaine- crack	<input type="checkbox"/>							
Heroin	<input type="checkbox"/>							
Ecstasy	<input type="checkbox"/>							
Fantas	<input type="checkbox"/>							

35. Have you ever contracted a sexually transmitted disease (STD) from any of your partners?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
a. If YES, please name the STD?			
b. If YES, at what age did you contract the STD?		years	
36. Do you like using a condom?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Sometimes	<input type="checkbox"/> No Response
37. How easy is to put on a condom after drug use?			
<input type="checkbox"/> Very Easy	<input type="checkbox"/> Easy	<input type="checkbox"/> Neutral	<input type="checkbox"/> Difficult
<input type="checkbox"/> Very Difficult			

38. How important is using a condom...					
	Extremely	Very	Important	Not Very	Not

	Important	Important		Important	Important
To avoid pregnancy	<input type="checkbox"/>				
To avoid STDs	<input type="checkbox"/>				
To avoid HIV	<input type="checkbox"/>				
To enjoy sex	<input type="checkbox"/>				

FOR MALES ONLY			
	YES	NO	No Response
39. Have you ever been asked by your partner to wear a condom?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for your time in completing this very important questionnaire. Please be reminded that all information will be held in strictest confidence. If you have any questions please contact Mr. Jonathan Yearwood at the NCSA, tel. 429-6272.