DRUG USE AMONG STUDENTS IN THE CAYMAN ISLANDS 1998-2002

CISDUS

DETAILED REPORT

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ACKNOWLEDGEMENTS

It must be acknowledged that a study of this magnitude would not have been possible without the cooperation and support of many individuals and organisations alike. Over the past 12 months, many have provided valuable input into this study. We are especially grateful to the Ministry of Education and the Department of Education for their assistance in co-ordinating the fieldwork. Special thanks to the many volunteers, concerned individuals and organisations, who took time out of their busy schedules to administer the survey.

Most importantly, the high level of cooperation by school principals, parents and students has played a major role in ensuring the success of this project. We hereby gratefully acknowledge the contributions made by all involved in this project.

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1. INTRODUCTION

In this report we describe the extent and patterns of alcohol and other drug use among students in grades 7-12 across the Cayman Islands. The findings are based on the third cycle of the *Cayman Islands Student Drug Use Survey* (CISDUS). We are now able to present trend data on changes that have occurred over the past five years since the first survey was conducted.

Surveys such as CISDUS, contribute to a better understanding of both current and changing rates of drug use. Although the survey is based on a core set of questions, changes have been made to reflect contemporary public health issues.

It is important to note that this is the first in a series of research reports that the NDC will be publishing. Other subsequent reports will address issues including, but not limited to the following:

- The extent and nature of alcohol-related and drug-related problems;
- Attitudes, beliefs and perceptions about alcohol and other drug use; and
- Public and mental health issues related to drug use.

This being the first in a series of reports will be limited to the extent of drug use by students in grades 7-12, and any changes that may have occurred since 1998.

WHY SURVEY AND MONITOR THE DRUG USE OF STUDENTS?

It is important to determine and monitor alcohol, tobacco and other drug use among adolescent students for the following reasons:

1. Adolescents are at a pivotal stage in their development and adverse effects of drug use could lead to other problems later in adolescence and adulthood. The survey will point to areas where prevention programmes and treatment may be necessary.

2. Due to the scientific basis of the survey, the data provided can either confirm or challenge anecdotal and media reports regarding the nature of drug use and its consequences. Thus, the results of the survey can inform the public and challenge myths.

3. Patterns and preferences in drug use and thus consequences can change quickly. (E.g. the prevalent use of crack cocaine and the associated health risk of AIDS with intravenous drug use).

4. Even if the number of students using drugs remains stable over time, or is declining, the pattern of drug use and the associated harm can differ dramatically over time.

5. If conducted regularly, every two years, the survey will provide a basis for programme and policy evaluation of goals established by government and non-governmental agencies. (E.g. the National Strategic Plan for Drug Abuse Prevention and Rehabilitation).

WHAT DOES THE SURVEY TELL US?

The *Cayman Islands Student Drug Use Survey (CISDUS)* provides important information that serves as a basis for evaluating the harm caused by drug use. Specifically, it tells us:

- The size of the adolescent drug using population;
- The factors that correlate with drug use; and
- The identification of high risk groups.

It is important to note that the size of the drug using population and the pattern of drug use are only two components of the harm caused by drug abuse. A host of other factors influence whether the use of a given drug causes significant problems to society or individuals. For example, the pharmacological effects of the drug being used, its addictive potential, level of purity, economic and social cost of treatment and enforcement. As well as evaluating the harm caused by drug use, it is important to balance the percentage using a drug and the absolute number of users.

WHAT DOES THE SURVEY NOT TELL US?

Because school-based drug use surveys represent adolescents only, their data cannot fully measure the totality of the substance abuse in the Cayman Islands. Thus, CISDUS cannot address the following:

- The extent of drug use among non-students and adults.
- The nature of the drug problem in the street drug scene.

Student drug use typically plays a small role in the various problem indicators such as arrests, convictions, deaths and treatment.

2. METHOD

SURVEY DESIGN

The *CISDUS,* employs a census (i.e., a 100% sample) of students enrolled in grades 7-12. In 2002, 2,479 students in the eight private and public schools were asked to complete anonymous, self-administered questionnaires between October 21 - 25, 2002. Also, in 2000, 2,361 students were interviewed between October 23 – 27, and in 1998, 2,300 students were interviewed between March 31 and April 4.

Although sample surveys are preferable for collecting data in large populations, there are several advantages to complete surveys when the population is small, as is the case for the Cayman Islands school population. First, public acceptance and compliance is often enhanced in complete surveys. In turn, this also strengthens political acceptance and credibility, especially in new research endeavors. Second, data analysis is less complicated because calculation of sampling error is irrelevant. Third, survey administration is easier. And fourth, complete surveys provide the maximum numbers required to study subgroup differences. In sum, complete surveys can increase reliability of collected data and public acceptance of it.

PROCEDURES

With the Ministry of Education's approval, the National Drug Council requested permission to survey students, grades 7-12, from every public and private high school in the Cayman Islands. In some schools, agreement to participate was conditional upon approval from school boards, teachers and parents. In the end, all eight schools agreed to participate in the survey.

An informational flyer was distributed to teachers and parents and students a week before the survey. Unless notified by a parental letter all students were included in the survey. No parent refused to let his or her child participate in the survey.

Eighty-four volunteers from community service organisations and private corporations agreed to assist with the survey administration. In an effort to standardize survey administration, volunteers attended a training session, which lasted between 20-30 minutes one week prior to conducting the survey, on procedures and guidelines for conducting CISDUS. Two exceptions to these procedures occurred for special needs students with reading difficulties and for Spanish speaking students. In both of these cases students were read the questions in small groups and recorded the answers themselves. In addition to ensure standardization of administration across islands, seven volunteers were also trained in Cayman Brac to administer the survey.

All students recorded their responses directly on the questionnaire, which was then sent to the Institute for Social Research at York University, Toronto for data entry.

SAMPLE PARTICIPATION AND CHARACTERISTICS

All eight schools middle and high schools in the Cayman Islands participated in the 1998, 2000 and 2002 survey. Of the 2,479 enrolled students 2,187 completed questionnaires in 2002; 2,219 completed questionnaires in 2000 and 1,979 completed questionnaires in 1998. Student participation rates were 88% in 2002, 94% in 2000 and 86.0% in 1998, which is comparable to or exceeds other large-scale surveys conducted elsewhere (e.g., Ontario Student Drug Use Survey, 77%; U.S. Monitoring The Future survey, 85%).

As seen below, the major characteristics of the sample do not change significantly between 1998, 2000 and 2002. In sum, the high response rate and comparability between samples suggests high quality of data.

TABLE 2.1
SAMPLE CHARACTERISTICS, CISDUS 1998-2002

	Interviewed 1998	Percentage (%) 1998	Interviewed 2000	Percentage (%) 2000	Interviewed 2002	Percentage (%) 2002
Total	1946		2186		2187	
Male	952	48.9	1063	48.9	1036	48.5
Female	982	50.5	1111	51.1	1148	51.5
Grade 7	359	18.4	409	18.7	429	19.0
Grade 8	376	19.3	378	17.3	420	18.6
Grade 9	329	16.9	361	16.5	340	16.3
Grade 10	349	17.9	372	17.0	368	17.2
Grade 11	300	15.4	369	16.9	321	15.7
Grade 12	228	11.7	297	13.6	309	13.2
West Bay	422	21.7	524	24.1	505	23.1
George Town	866	44.5	941	43.3	886	42.9
Bodden Town	390	20.	423	19.5	481	20.6
East End	71	3.6	79	3.6	79	3.7
North Side	76	3.9	77	3.5	75	3.6
Cayman Brac	110	5.7	127	5.8	140	6.0

Note: sex-year difference: $X^2(2df)=1.53$, $p=.464$; grade-year difference: $X^2(10df)=14.32$, $p=.158$: region-year difference: $X^2(10df)=12.11$, $p=.277$

THE QUESTIONNAIRE

The CISDUS 2000 questionnaire consisted of a total of 139 items presented in a two-column, 9-page booklet (See Appendix). Most items were in a multiple-response format. The average completion time of the questionnaire was 46 minutes, and ranged from 15 to 120 minutes.

The questionnaire included two broad areas: substance use outcomes (e.g., prevalence, frequency and consequences of use), and potential risk factors.

Drug Use Outcomes

- Lifetime and past year use of alcohol, tobacco, ganja and other drugs
- Problems related to alcohol, tobacco, ganja and other drugs.
- Incidence and onset of drug use

Risk Factors and Correlates of Drug Use

- Socio-demographic (e.g., sex, age, grade level)
- family factors (e.g., family structure, parental monitoring)
- school factors (e.g., school performance and attachment)
- environmental factors (e.g., drug availability,. drug-selling activity)
- psychological health (e.g., self-esteem, depression).

QUESTIONNAIRE DEVELOPMENT

The Cayman Islands Student Drug Use Survey questionnaire was based on an extensive development process, including international and national expert review, expert content review, and student debriefing pilot studies.

1. The initial development of the questionnaire began with the evaluation of procedures and items employed by international studies including the Centre for Addiction and Mental Health's OSDUS, the U.S. Monitoring The Future survey and general guidelines developed by the World Health Organization (Smart et al. 1980). Representatives of NDC and CAMH evaluated items for cultural appropriateness and policy and informational needs.
2. National experts then assessed the content of the initial pool of items. The School Committee of the National Drug Council reviewed and amended the questionnaire to ensure cultural and policy relevancy.
3. The questionnaire was administered to three classes (grades 7, 9 and 10) at the George Hicks High School in February 1998. (These students were re-sampled in the full survey because their pilot participation was also anonymous). The results of the pilot study were used to further revise the questionnaire, which was shortened considerably based on timing and content data.
4. For CISDUS 2002, minor changes were made to the questionnaire based on experience from the prior administrations. The survey was amended to include questions relating to the DARE Programme, which is offered by the Royal Cayman Islands Police. These questions were added to monitor those students who have graduated from the DARE Programme.

Drug Use Measures

In this report, we primarily emphasize the prevalence of drug use, i.e., the percentage of students who report using a given drug during the 12 months before the survey. For some substances with higher prevalence rates, e.g., alcohol, tobacco and ganja, we also examine the frequency of drug use. It is important to note that prevalence of drug use does not imply regular, frequent or problematic use, but it is an important first-order epidemiological indicator of the size the population who have tried alcohol, tobacco or other drugs.

Primary Substance Use Measures Described in this Report

MEASURE	DEFINITION
Cigarettes	Percentage smoking more than one cigarette in the last 12 months
Alcohol	Percentage drinking alcohol (liquor, wine or beer) during the 12 months before the survey. Use includes drinking during special events (e.g., weddings, Christmas, etc.) and excludes those who tried a sip of alcohol
Ganja	Percentage using ganja (herb or marijuana) at least once during the last 12 months
Inhalants	Percentage inhaling glue or solvents in order to get high at least once during the last 12 months
Other Non-medical Drug Use	Percentage reporting any use of 11 other non-medical drugs during the last 12 months (barbiturates; heroin; methamphetamine; stimulants; tranquilizers; LSD; other hallucinogens; cocaine; crack; MDMA ("ecstasy"); and crystal methamphetamine (i.e., "ice")

In addition, three central demographic characteristics are used in describing rates of substance use:

- Gender;

- Six Grade Levels (Gr.7 through Gr.12). Note that grade level is also used as a proxy for age given their strong association; and

- Six Home Districts indicating the residence of students (West Bay, George Town, Bodden Town, East End, North Side, Cayman Brac).

DATA ANALYSIS INTERPRETATION AND PRESENTATION

The analysis presented in this report is primarily descriptive. For most drugs, we describe rates of drug use among the total sample, and by gender, grade level and district. Knowledge about variation in drug use is important for identifying high-risk groups, and in turn, informing programme and policy considerations.

Because the survey is based on a complete sample, i.e., a census, there is no sampling error attached to estimates (although estimates still have error based on non-sampling error such as mis-reporting). Thus, the calculation of confidence intervals is inappropriate. Although these data are population derived, there are still important reasons to perform inferential statistical analysis. First, a complete census can be regarded as a sample because it is subject to observational error (rates of drug use could vary slightly if the census was replicated the following day) and it has a population limited in time and space (Kish 1965). Second, random sampling is not a prerequisite for drawing statistical inference (Fox 1997). For example, if we were to find numerical differences in drug use among districts, we still need to rule out the possibility of chance processes in generating the differences (Blalock 1972). Consequently, in this report we employ statistical tests, primarily the chi-square (χ^2) test, to ensure that differences are not due to chance processes.

This most important statement regarding the analysis in this report, or any survey report, is as follows:

1. Since there is still the element of chance findings, the element of non-sampling errors (such as mis-reporting), and the element of different sample sizes, we cannot treat all absolute differences in percentages as meaningful and important.

2. Small percentages are more unreliable than larger percentages.

For example, in 2002, the rate of cigarette smoking was 7.6% in George Town compared to 2.6% in the East End. Although this difference seems sizeable, the sample sizes are small (less than 100 in both regions); thus, we cannot be confident that this difference is stable or due to chance. The same applies to assessing change between the 1998 and 2000 surveys. For example, the use of cigarette increased from 5.0% in 2000 to 6.7%in 2002. Although the 2002 rate is numerically larger, we cannot be confident that this difference is not due to chance factors. For the two samples, a difference of about 3 to 4 percentage points is necessary to establish a statistically significant difference in the total samples at the error rate of 5%.

We report a difference as statistically significant if the probability is at the .05 level or lower.

3. RESULTS

3.1 OVERVIEW OF DRUG USE IN 2002

By far the most commonly used drug is alcohol, with 38.1% reporting use during the 12 months before the survey (see Table 3.1). Ganja is the next most common drug with 9.5% reporting use. Inhalants rank third with 6.9% use and tobacco ranks fourth with 6.7% smoking in the past year.

Rates of use for other drugs did not exceed 2.5%. Consequently, a summary category (Other Non-Medical) was constructed representing past 12 month use of any of the ten remaining drugs included in the survey. In this category, 4.6% reported use during the past 12 months.

TABLE 3.1:
PAST YEAR; DRUG USE BY GENDER AND GRADE LEVEL, 2002

	TOTAL	Males	Females	Gr. 7	Gr. 8	Gr. 9	Gr. 10	Gr. 11	Gr. 12
Alcohol	38.1	37.7	38.6	14.6	21.1	32.8	48.8	62.6	61.4
Tobacco	6.7	7.3	6.1	0.5	1.2	5.9	9.0	13.1	14.0
Ganja	9.5	11.8	7.4	1.9	3.6	6.5	13.9	18.7	16.6
Inhalants	6.9	7.6	6.4	12.0	8.9	6.2	5.5	4.4	2.2
Other Non-Medical Drugs	4.6	4.8	4.6	4.7	5.0	3.5	6.8	4.7	2.6

Note: "Other" category includes the following 10 drugs: barbiturates; heroin; methamphetamine; stimulants; tranquilizers; LSD; hallucinogens; cocaine; MDMA ("Ecstasy"); crystal methamphetamine ("ice")

LIFETIME DRUG USE

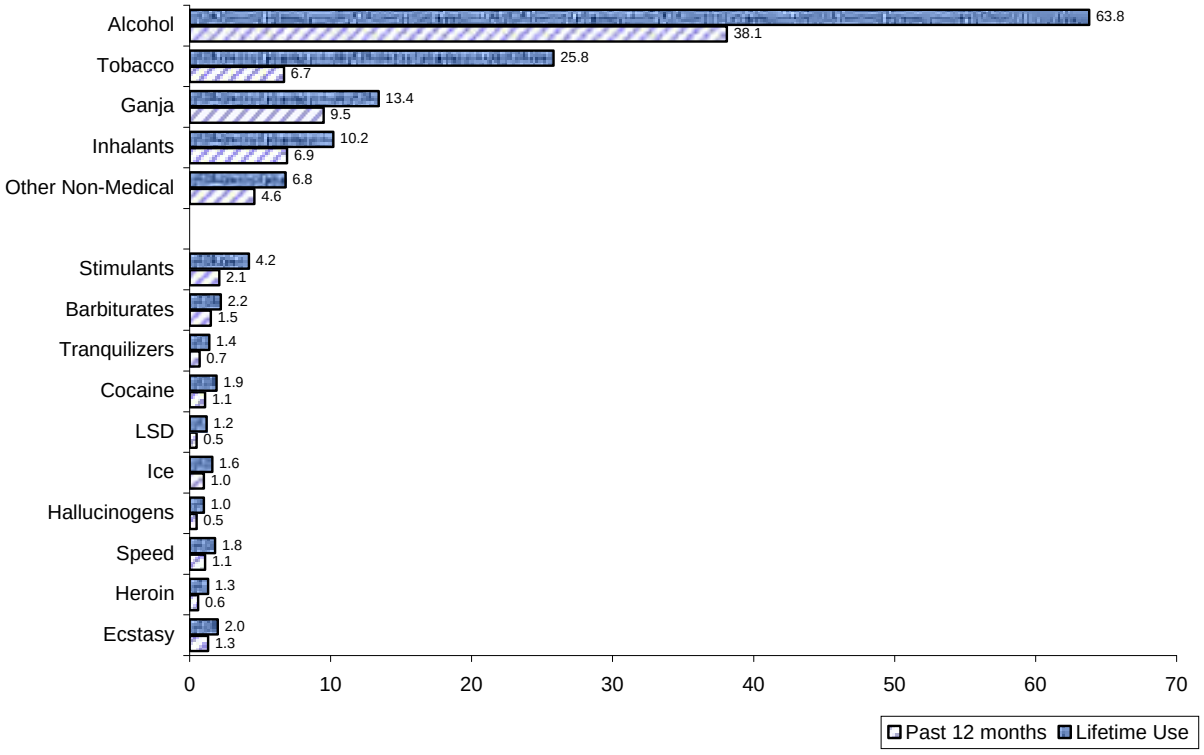
Estimates for lifetime drug use are as follows: alcohol, tobacco, ganja and inhalants are the four most common drugs (see Figure 3.1). Just under two thirds have ever used alcohol, about a quarter have ever used tobacco and about one-in-ten have ever used ganja, and inhalants in their lifetime. The remaining drugs were used by less than 4% of students in their lifetime.

FREQUENCY OF DRUG USE IN 2002

Frequent drinking is defined as one or more drinks per week. By this measure, about 6% of students drink frequently. For tobacco the measure of frequent smoking is 6 or more cigarettes per day. About one-in-ten report frequent smoking during the past 12 months.

For other drugs frequent drug use is defined as six or more times during the past 12 months. Excluding alcohol and tobacco, Ganja is most frequently used with about 6% report using ganja six or more times during the past 12 months. Inhalants are the next class of drugs most frequently used, with less than 1% reporting frequent use as defined. All other drugs are not likely to be used at this frequency.

Figure 3.1: Percentage Reporting Lifetime and Past 12 Months Drug Use, Grades 7-12, 2002, [N=2187]



OVERVIEW OF SHORT-TERM TRENDS, 1998-2002 (GRADES 7-12)

Of the six measures of drug use, 2 increased in the short-term (see Table 3). Heavy drinking increased significantly from 7.2% in 1998 to 12.6% in 2002. Similarly, ganja use increased from 6.6% in 1998 to 9.5% in 2002. Smoking, however, decreased between 1998 and 2002 from 8.5% to 6.7%.

Subgroup Changes

Overall there was an increase in heavy drinking and ganja use by subgroup between 1998 and 2002. Smoking and drinking, however showed significant decrease.

- Sex: Both males and females showed an increase in heavy drinking episodes and ganja in the short-term. However, there was a decrease in smoking among females.

- Grade: Among 7th and 8th graders both showed decline in rates of smoking and drinking. While both grades showed an increase in heavy drinking, only 7th graders reported a increase in inhalant use. 9th graders reported lower rates of drinking, 10th graders reported an increase in ganja use, 11th graders reported ore alcohol use, and 12th graders reported an increase in heavy drinking episodes.

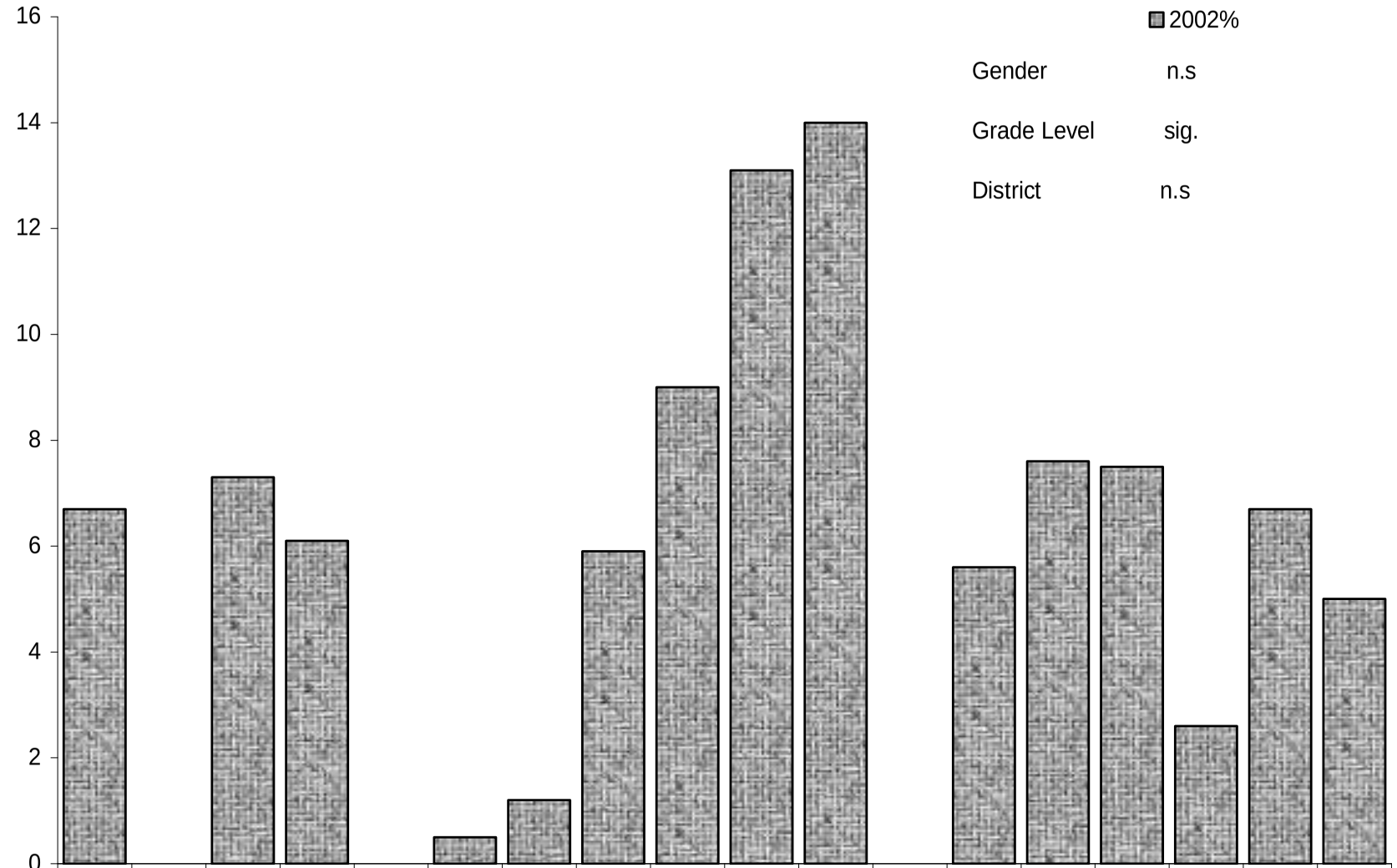
- Region: Students residing in West Bay showed a decrease in smoking and an increase in heavy drinking. Among students from both George Town and Bodden Town there was a significant increase in both heavy drinking and ganja use. East End students reported a decrease in drinking.

3.2 TOBACCO USE

PAST YEAR CIGARETTE SMOKING ***[FIGURE 3.2A, 3.2B]***

	CIGARETTE SMOKING IN 2002 (G7-12)	CHANGES IN CIGARETTE SMOKING BETWEEN 1998 AND 2002 (G7-12)
TOTAL	Overall, 6.7% of students report smoking cigarettes 12 months before the survey.	Cigarette smoking varied significantly between 1998 and 2002. The substantial change occurred between 1998 and 2000, during which time smoking declined from 8.5% to 5.9%. The rate in 2002 remains significantly lower than in 1998.
GENDER	There is no significant difference in smoking between males (7.3%) and females (6.1%).	Although cigarette smoking remained mostly stable among males, rates declined among females, from 8.4% in 1998 to 5.2% in 2000. The 2002 rate of 6.1% remains significantly lower compared to 1998.
GRADE	Cigarette smoking varies significantly by grade, with use increasing from 0.5% of 7th-graders to 14.0% of 12th-graders.	Changes in smoking differed by grade. Although smoking did not change significantly among 8th-, 10th- or 12th-graders, it declined among 7th-graders (2.3%, 0.5%, 0.5%) 9th-graders (8.3%, 2.0%, 5.9%) and 11th-graders (17.7%, 9.6%, 13.1%).
DISTRICT	Despite some district variation, rates of smoking does not differ significantly.	With one exception, smoking did not change dramatically by district. Fewer students in West Bay reported smoking in 2002 than they did in 1998 (5.6% vs 10.6%).

Figure 3.2A Percentage Reporting Past 12 Months Tobacco Use, Grades 7-12, 2002 [N=2187]



	Total		Male	Female		Gr.7	Gr.8	Gr.9	Gr.10	Gr.11	Gr.12		West Bay	George Town	Bodden Town	East End	North Side	Cayman Brac
2002%	6.7		7.3	6.1		0.5	1.2	5.9	9	13.1	14		5.6	7.6	7.5	2.6	6.7	5

FREQUENCY OF SMOKING ***[TABLE 3.2B]***

On average, smokers consume about 3 cigarettes daily. About 5.5% of all smokers (0.3% of all students), report smoking more than 20 cigarettes per day. The majority of smokers report smoking less than 1 cigarette per day (41.4%) or 3-5 cigarettes per day (23.4%).

Among smokers, there were no significant change in frequency of smoking between 1998 and 2002.

TABLE 3.2B
FREQUENCY OF CIGARETTE SMOKING AMONG PAST YEAR SMOKERS, BETWEEN 1998 AND 2002 (GRADES 7-12)

	N	1998 (%)	N	2000 (%)	N	2002 (%)
Less than 1 Per day	57	35.0	45	35.4	60	41.4
1-2 Per Day	44	27.0	32	25.2	20	13.8
3-5 Per Day	20	12.3	26	20.5	34	23.4
6-10 Per Day	22	13.5	16	12.6	13	9.0
11-15 Per Day	7	4.3	2	1.6	7	4.8
16-20 Per Day	3	1.8	1	0.8	3	2.1
More than 20 Per Day	10	6.1	5	3.9	8	5.5
Total	163	100.0	127	100.0	145	100.0

X^2 (12df) = 18.62, p=0.098

TABLE 3.2C:
PERCENTAGE REPORTING *TOBACCO USE* DURING THE PAST 12 MONTHS

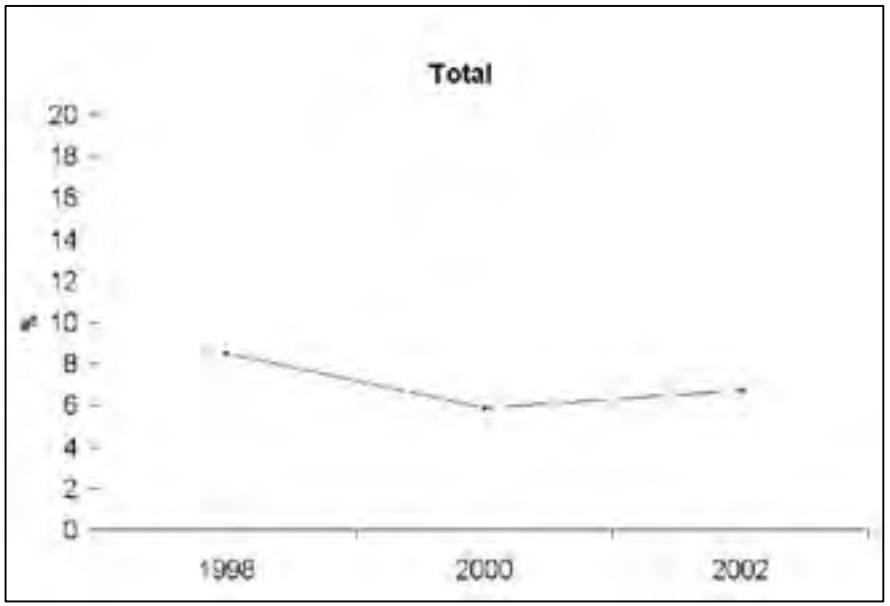
Year (N)		1998 (1946)	2000 (2186)	2002 (2187)	Overall Change	Change Between 2002 - 2000	Change Between 2002 - 1998
Total		**8.5**	**5.9**	**6.7**	**	n.s	*
Sex	Male	**8.6**	**6.7**	**7.3**	n.s	n.s	n.s
	Female	**8.4**	**5.2**	**6.1**	**	n.s	*
Grade	7	**2.3**	**0.5**	**0.5**	*	n.s	*
	8	**4.0**	**2.7**	**1.2**	n.s	n.s	*
	9	**8.3**	**2.0**	**5.9**	**	**	n.s
	10	**10.1**	**7.9**	**9.0**	n.s	n.s	n.s
	11	**17.7**	**9.6**	**13.1**	**	n.s	n.s
	12	**11.4**	**14.9**	**14.0**	n.s	n.s	n.s
Region							
	West Bay	**10.6**	**5.8**	**5.6**	*	n.s	*
	George Town	**8.4**	**6.1**	**7.6**	n.s	n.s	n.s
	Bodden Town	**5.7**	**5.2**	**7.5**	n.s	n.s	n.s
	East End	**4.3**	**2.6**	**2.6**	n.s	n.s	n.s
	North Side	**10.8**	**9.1**	**6.7**	n.s	n.s	n.s
	Cayman Brac	**11.8**	**5.0**	**5.0**	n.s	n.s	n.s

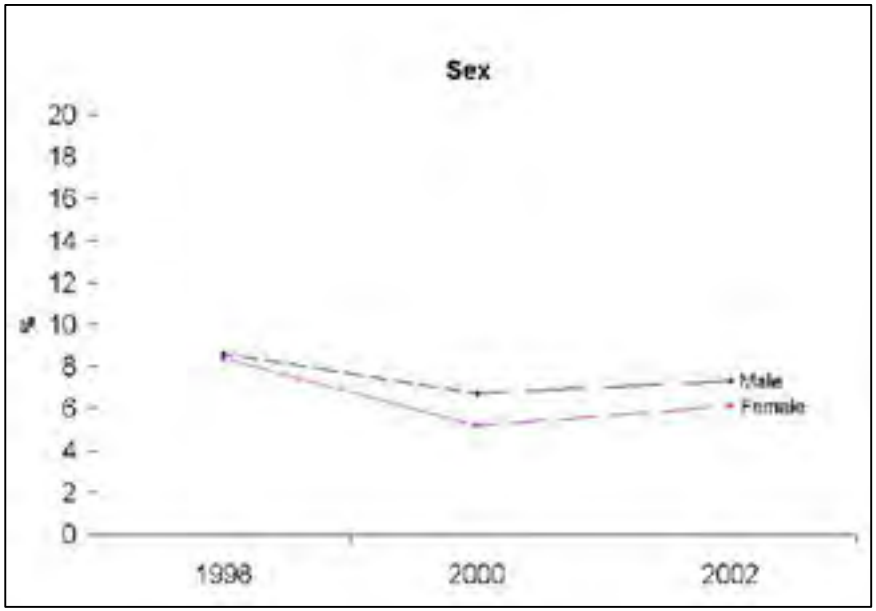
Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * p<0.05; ** p<0.01; *** p<0.001; n.s not significant; ~ nominal

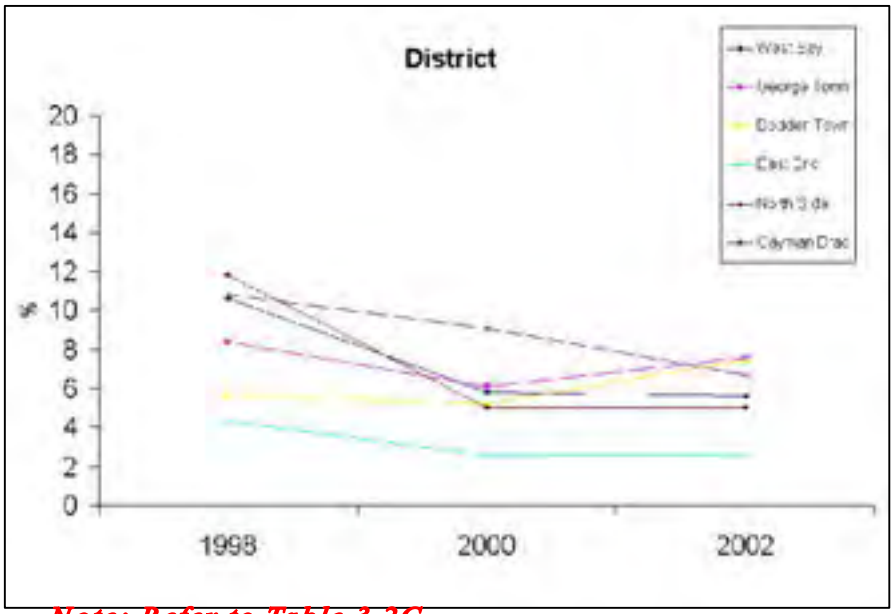
Question: In the last 12 months, how often did you smoke tobacco cigarettes?

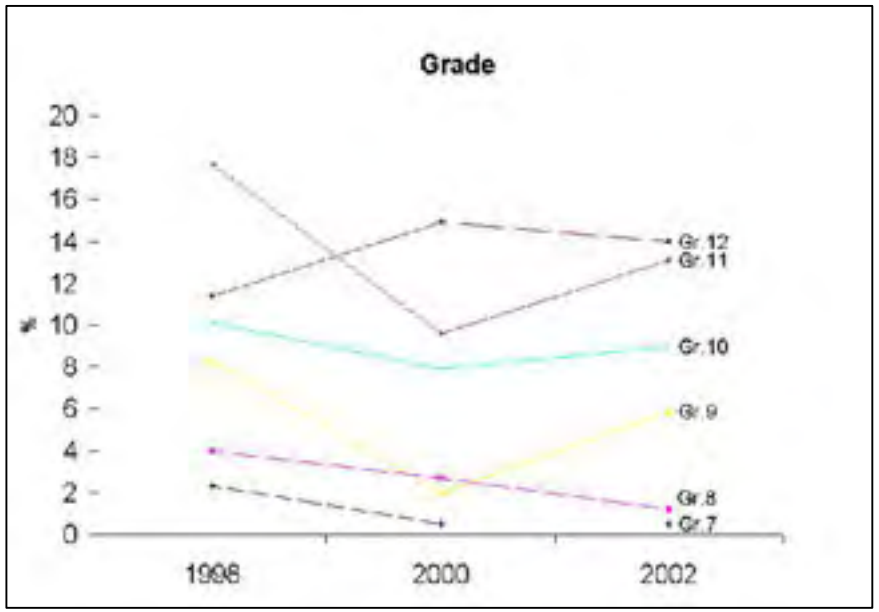
Source: CISDUS, National Drug Council

FIGURE 3.2B TRENDS IN PAST YEAR TOBACCO USE, (GRADES 7-12), CISDUS 1998-2002









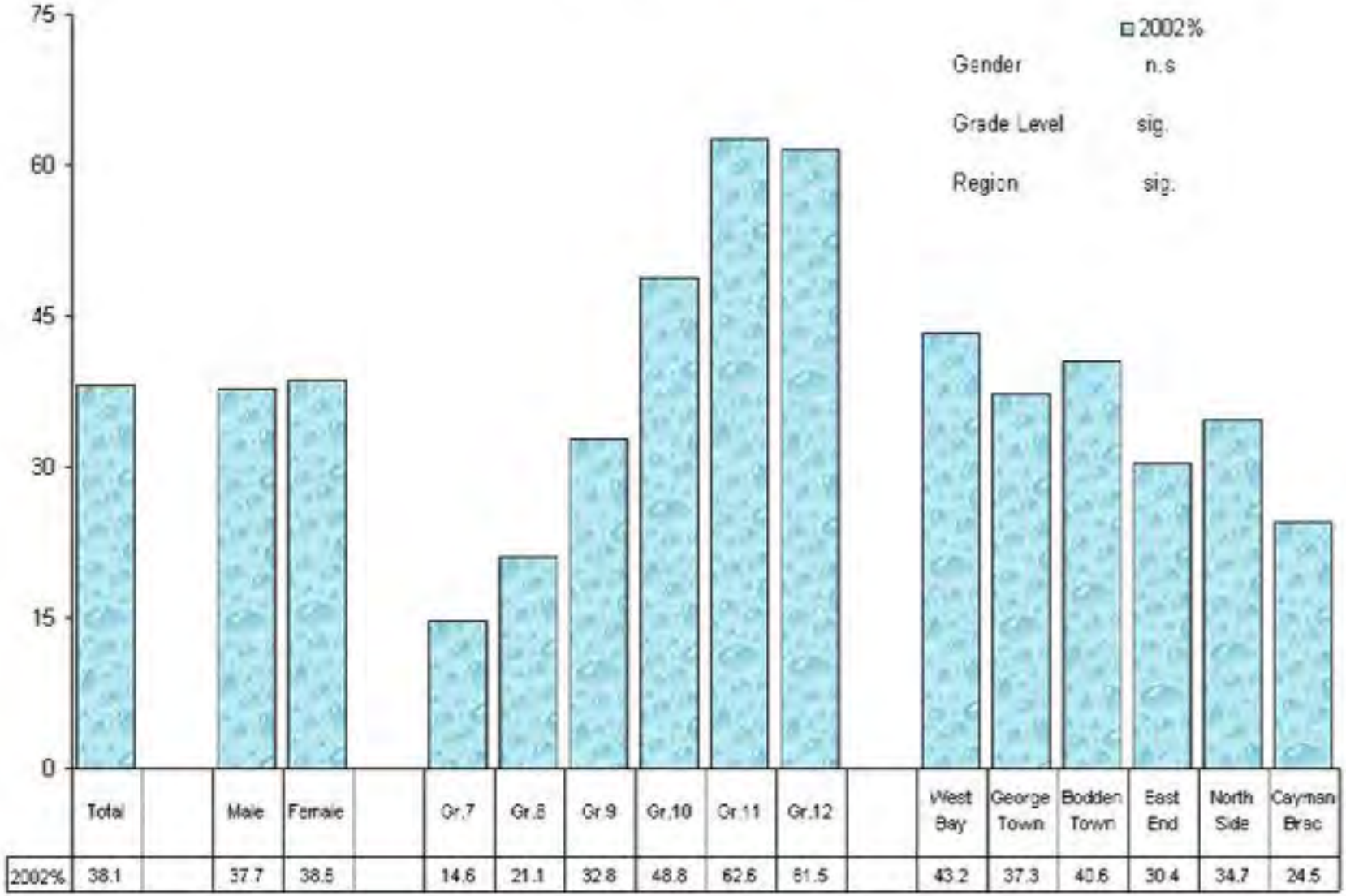
Note: Refer to Table 3.2C

3.3 ALCOHOL USE

PAST YEAR DRINKING ***[FIGURE 3.3A, 3.3B]***

	DRINKING IN 2002 (G7-12)	CHANGES IN DRINKING BETWEEN 1998 AND 2002 (G7-12)
TOTAL	Overall, 38.1% of students report drinking 12 months before the survey.	The prevalence of drinking remained relatively stable between 1998 and 2002, varying between 38.0% to 39.9%.
GENDER	Males and females are equally likely to report drinking 37.7% vs. 38.6%.	Past year drinking remained stable among both males (varying from 37.7% to 41.6%) and females (from 35.6% to 38.6%).
GRADE	Drinking is significantly related to grade, with rates increasing from 14.6% of 7th graders; 21.1% of 8th graders; 32.8% of 9th graders; 48.8% of 10th graders; 62.6% of 11th graders and 61.5% of 12th graders.	Changes in drinking vary by grade level. Compared to 1998, drinking in 2002 is significantly lower among 7th- graders (20.6% vs 14.6%), 8th- graders (32.4% vs 21.1%) and 9th- graders (45.2% to 32.8%), and higher among 11th- graders (50.5% vs 62.6%).
DISTRICT	The percentage reporting drinking in the past year is significantly related to geographical region, with rates varying from 24.5% (Cayman Brac) to 43.2% (West Bay).	Generally, rates of drinking did not change significantly within districts. The exception to this is among students from the East End, whose drinking declined from 47.1% in 1998 to 30.3% in 2000, which then remained stable into 2002.

Figure 3.3A Percentage Reporting Past 12 Months Alcohol Use, Grades 7-12, 2002 [N=2187]



	Total	Male	Female	Gr.7	Gr.8	Gr.9	Gr.10	Gr.11	Gr.12	West Bay	George Town	Bodden Town	East End	North Side	Cayman Brac
2002%	38.1	37.7	38.6	14.6	21.1	32.8	48.8	62.6	61.5	43.2	37.3	40.6	30.4	34.7	24.5

FREQUENCY OF DRINKING ***[TABLE 3.3B]***

About 57.3% of drinkers, 21.8% of all students, restrict their drinking to special occasions (e.g. Christmas, weddings, etc). Just over a quarter of all drinkers (26.8%) usually drink between 1 and 3 times per month. Another 13.8% drink 1 to 5 times a week, while 2.0% drink almost every day.

Between 1998 and 2002, the frequency of drinking occasions did not change significantly.

TABLE 3.3B
FREQUENCY OF DRINKING AMONG PAST YEAR DRINKERS, BETWEEN 1998 AND 2002 (GRADES 7-12)

	N	1998 (%)	N	2000 (%)	N	2002 (%)
Special Events	469	61.3	491	60.1	476	57.3
1 Per Month or Less	123	16.1	101	12.4	123	14.8
2-3 Times Per Month	77	10.1	114	14.0	100	12.0
Once A Week	42	5.5	39	4.8	49	5.9
2-3 Times Per Week	31	4.1	47	5.8	46	5.5
4-5 Times Per Week	14	1.8	13	1.6	20	2.4
Almost Every day	9	1.2	12	1.5	17	2.0
Total	765	100.0	817	100.0	831	100.0

X^2 (6df) =11.99, p= 0.62

TABLE 3.3C:
PERCENTAGE REPORTING *ALCOHOL USE* DURING THE PAST 12 MONTHS

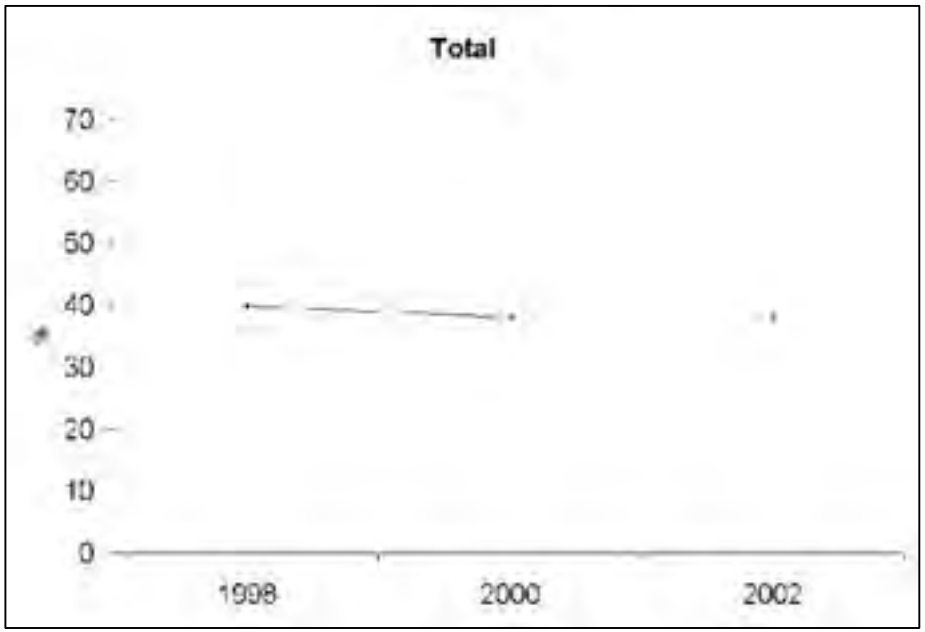
Year (N)		1998 (1946)	2000 (2186)	2002 (2187)	Overall Change	Change Between 2002 - 2000	Change Between 2002 - 1998
Total		**39.9**	**38.0**	**38.1**	**n.s**	**n.s**	**n.s**
Sex	Male	**41.6**	**40.7**	**37.7**	**n.s**	**n.s**	**n.s**
	Female	**38.4**	**35.6**	**38.6**	**n.s**	**n.s**	**n.s**
Grade	7	**20.6**	**14.2**	**14.6**	*****	**n.s**	*****
	8	**32.4**	**20.1**	**21.1**	*******	**n.s**	*******
	9	**45.2**	**37.2**	**32.8**	******	**n.s**	*******
	10	**42.0**	**45.8**	**48.8**	**n.s**	**n.s**	**n.s**
	11	**50.5**	**53.8**	**62.6**	******	*****	******
	12	**57.5**	**64.4**	**61.5**	**n.s**	**n.s**	**n.s**
Region							
	West Bay	**39.8**	**41.2**	**43.2**	**n.s**	**n.s**	**n.s**
	George Town	**38.0**	**37.7**	**37.3**	**n.s**	**n.s**	**n.s**
	Bodden Town	**44.4**	**38.6**	**40.6**	**n.s**	**n.s**	**n.s**
	East End	**47.1**	**30.3**	**30.4**	*****	**n.s**	*****
	North Side	**45.9**	**35.1**	**34.7**	**n.s**	**n.s**	**n.s**
	Cayman Brac	**30.0**	**29.4**	**24.5**	**n.s**	**n.s**	**n.s**

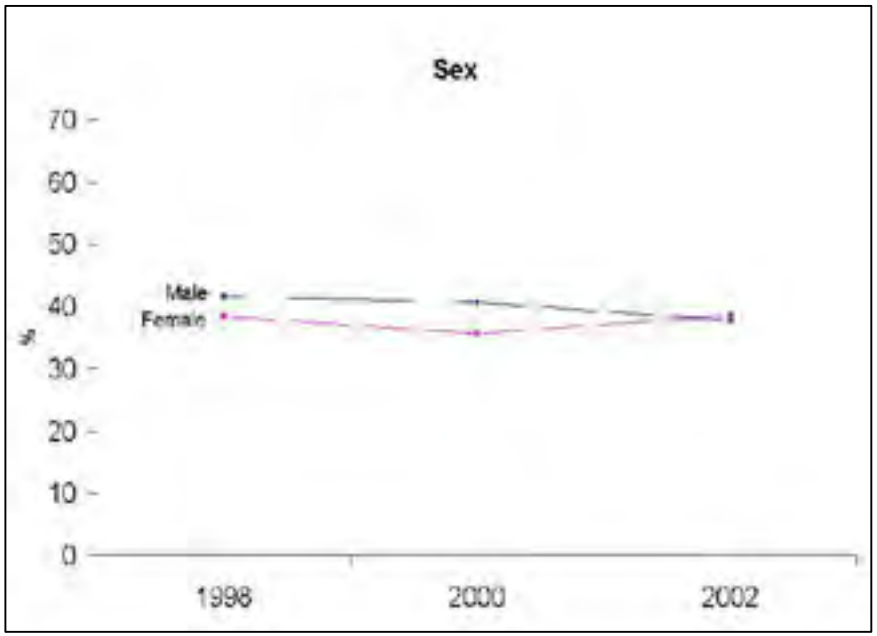
Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * p<0.05; ** p<0.01; *** p<0.001; n.s not significant; ~ nominal

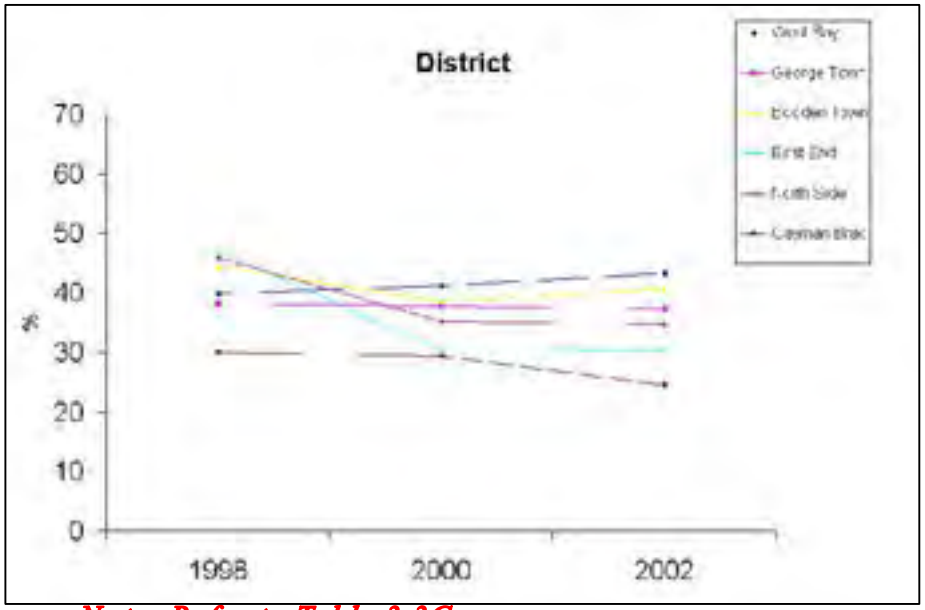
Question: In the last 12 months, how often have you used alcohol -liquor (rum, whiskey, etc.), wine coolers, wine or beer?

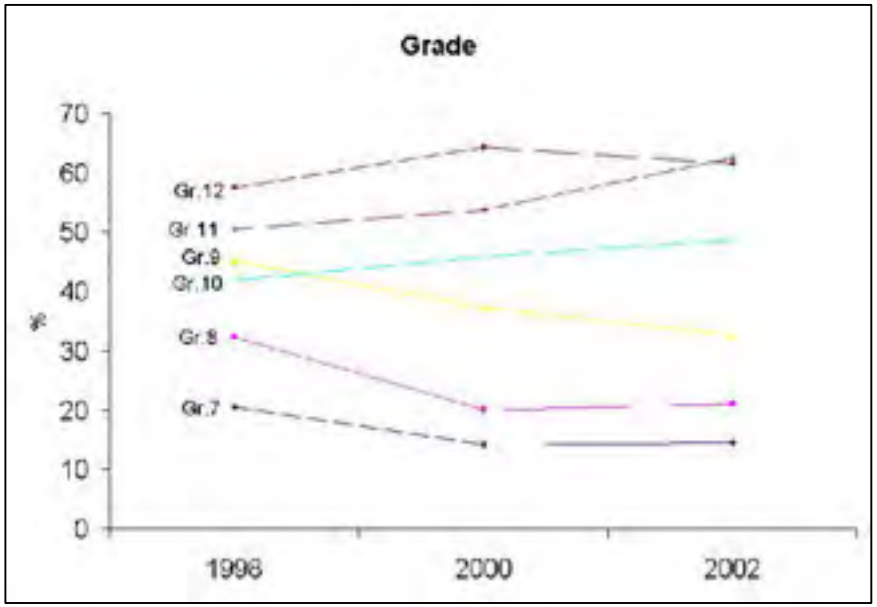
Source: CISDUS, National Drug Council

FIGURE 3.3B TRENDS IN PAST YEAR ALCOHOL USE, (GRADES 7-12), CISDUS 1998-2002







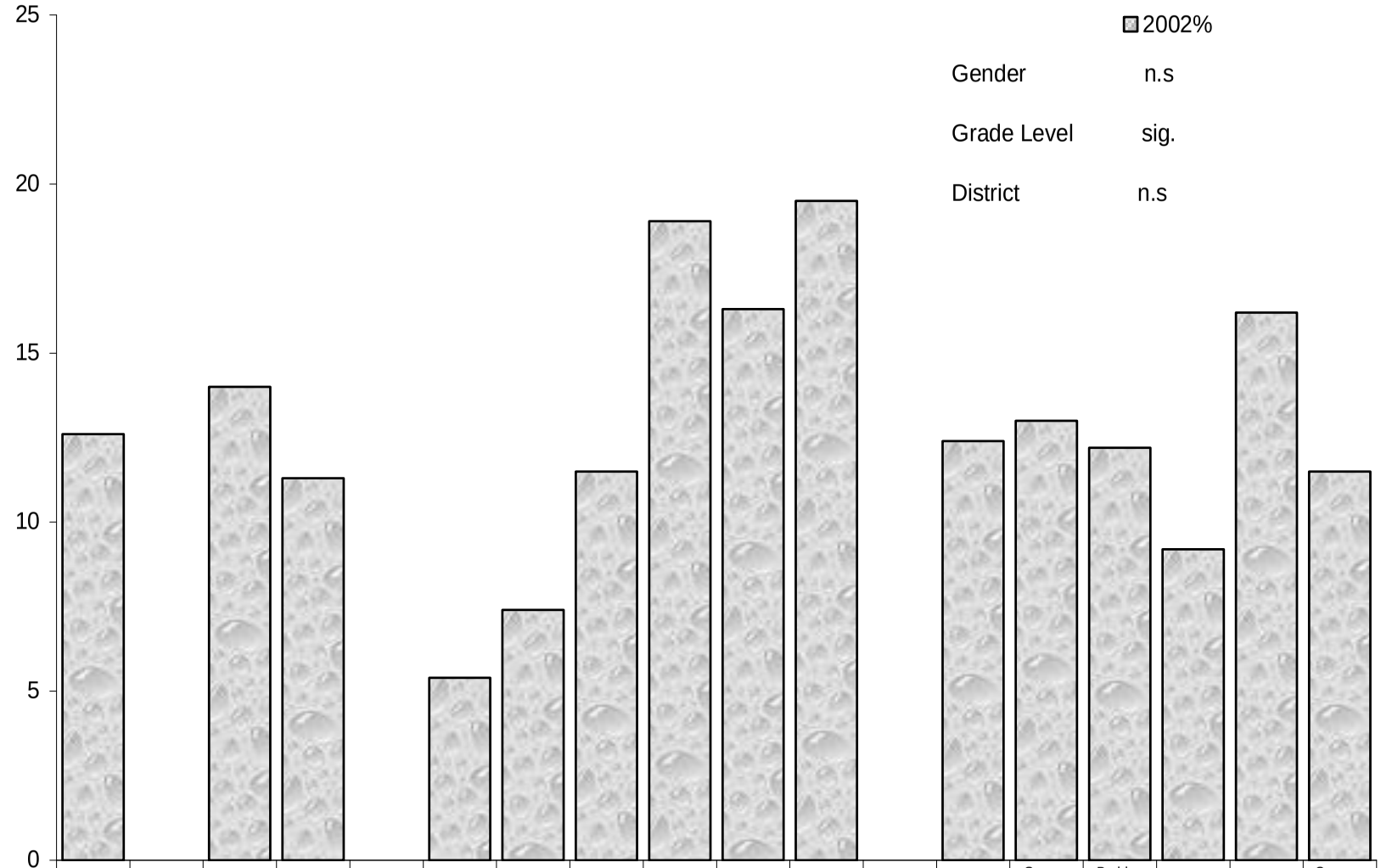


Note: Refer to Table 3.3C

HEAVY DRINKING EPISODES– PAST 12 MONTHS ***[FIGURE 3.3C, 3.3D]***

	HEAVY DRINKING IN 2002 (G7-12)	**CHANGES IN HEAVY DRINKING BETWEEN 1998 AND 2002 (G7-12)**
TOTAL	Overall, 12.6% of students report a heavy drinking episode (5 or more drinks on the same occasion) in the past 12 months.	Reports of heavy drinking changed between 1998 and 2002. Specifically heavy drinking increased between 1998 and 2000 (7.2% vs 12.7%).
GENDER	Males report a slightly higher rate of heavy drinking than do females (14.0% vs 11.3%).	Heavy drinking increased among both males and females between 1998 and 2002, significantly so between 1998 and 2000 (from 7.5% to 15.4% among males, and 6.9% to 10.2% among females).
GRADE	Heavy drinking is significantly related to grade level. Rates increase from 5.4% of 7th graders to 7.4% of 8th graders; 11.5% of 9th graders; 18.9% of 10th graders; 16.3% of 11th graders and 19.5% of 12th graders.	Increases in heavy drinking varied by grade level. Most notably, rates in 2002 are significantly higher compared to 1998 among 7th- graders (5.4% vs 1.5%), 8th- graders (7.4% vs 3.8%), 10th- graders (18.9% vs 6.6%) and 12th- graders (19.5% vs 12.7%).
DISTRICT	Heavy drinking does not vary significantly by district: rates vary nominally from 9.2% to 16.2%.	Although heavy drinking increased numerically in all districts, increases were especially prominent among students in George Town (7.7% in 1998, 13.8% in 2000 and 13.0% in 2002 and Bodden Town (4.5%, 11.8% and 12.2%).

Figure 3.3C Percentage Reporting Past 12 Months Heavy Drinking Episodes, Grades 7-12, 2002 [N=2187]



	Total		Male	Female		Gr.7	Gr.8	Gr.9	Gr.10	Gr.11	Gr.12		West Bay	George Town	Bodden Town	East End	North Side	Cayman Brac
2002%	12.6		14	11.3		5.4	7.4	11.5	18.9	16.3	19.5		12.4	13	12.2	9.2	16.2	11.5

TABLE 3.3E
PERCENTAGE REPORTING *HEAVY DRINKING EPISODES* DURING THE PAST 12 MONTHS

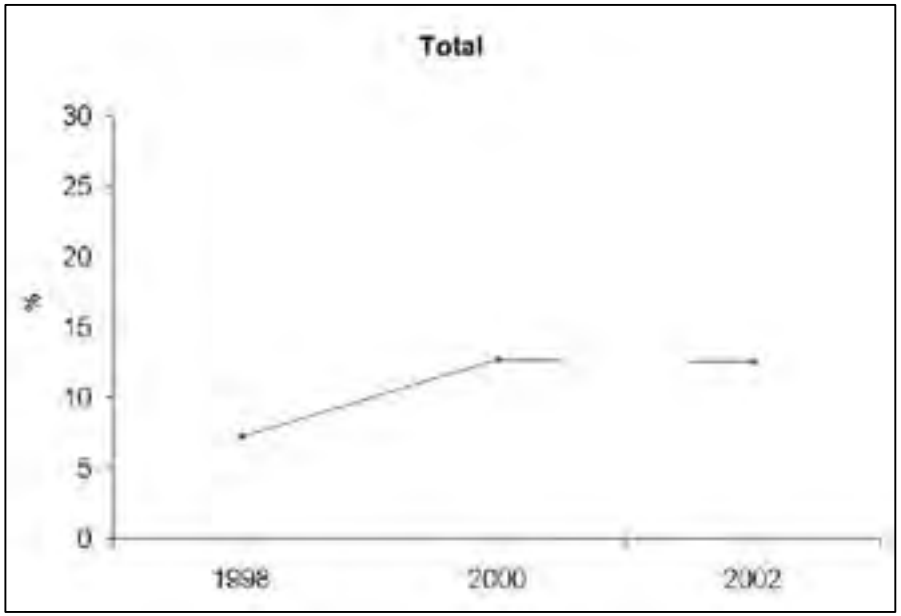
Year (N)		1998 (1946)	2000 (2186)	2002 (2187)	Overall Change	Change Between 2002 - 2000	Change Between 2002 - 1998
Total		**7.2**	**12.7**	**12.6**	***	**n.s**	***
Sex	Male	**7.5**	**15.4**	**14.0**	***	**n.s**	***
	Female	**6.9**	**10.2**	**11.3**	**	**n.s**	***
Grade	7	**1.5**	**6.1**	**5.4**	**	**n.s**	**
	8	**3.8**	**6.1**	**7.4**	**n.s**	**n.s**	**
	9	**8.8**	**13.7**	**11.5**	**n.s**	**n.s**	**n.s**
	10	**6.6**	**12.2**	**18.9**	***	**	***
	11	**12.8**	**16.5**	**16.3**	**n.s**	**n.s**	**n.s**
	12	**12.7**	**24.3**	**19.5**	**	**n.s**	*
Region							
	West Bay	**8.3**	**10.1**	**12.4**	**n.s**	**n.s**	*
	George Town	**7.7**	**13.8**	**13.0**	***	**n.s**	***
	Bodden Town	**4.5**	**11.8**	**12.2**	***	**n.s**	***
	East End	**5.9**	**10.4**	**9.2**	**n.s**	**n.s**	**n.s**
	North Side	**8.1**	**17.1**	**16.2**	**n.s**	**n.s**	**n.s**
	Cayman Brac	**9.3**	**15.4**	**11.5**	**n.s**	**n.s**	**n.s**

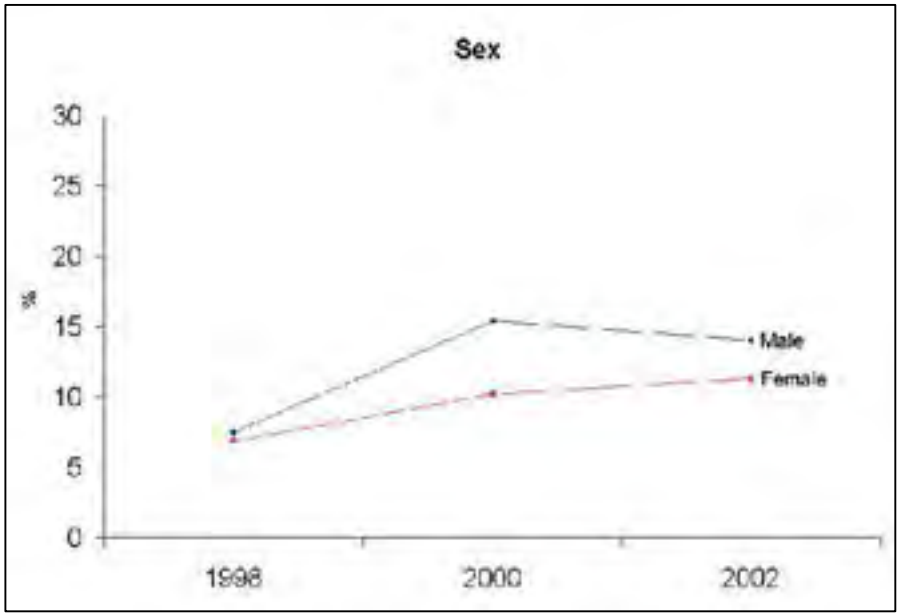
Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * p<0.05; ** p<0.01; *** p<0.001; n.s not significant; ~ nominal

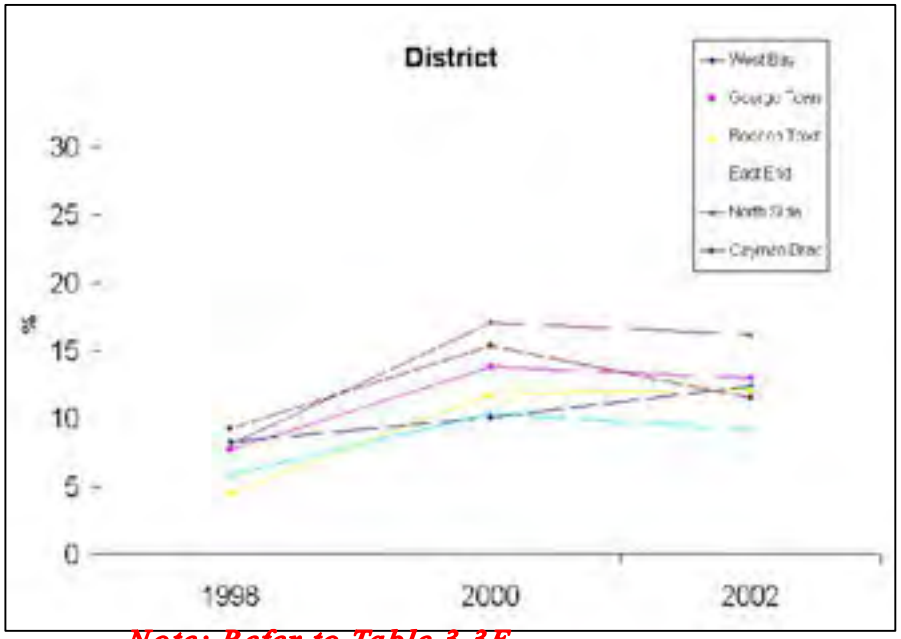
Question: How many times in the last four weeks have you had five or more drinks of alcohol on the same occasion?

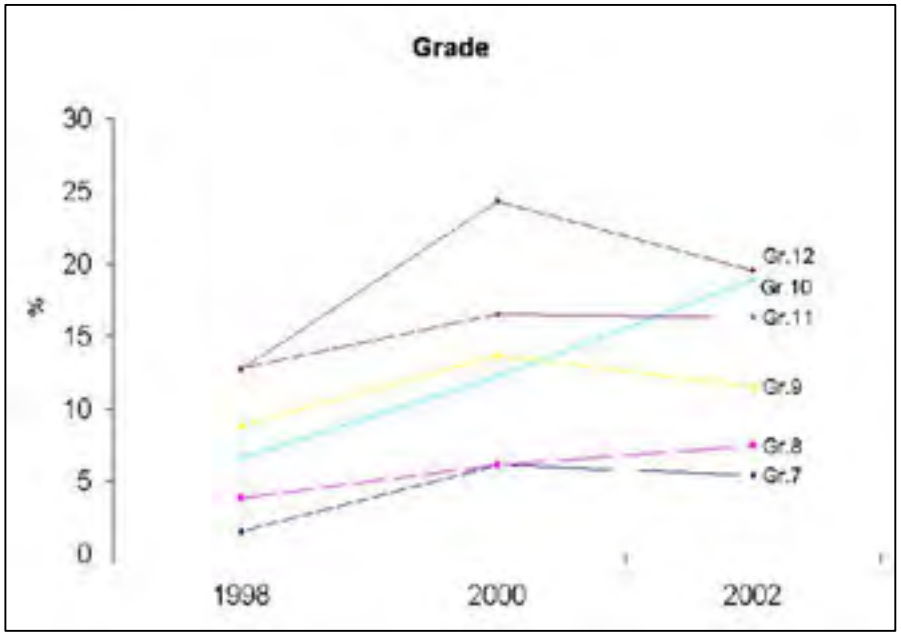
Source: CISDUS, National Drug Council

FIGURE 3.3D TRENDS IN PAST YEAR HEAVY DRINKING EPISODES, (GRADES 7-12), CISDUS 1998-2002









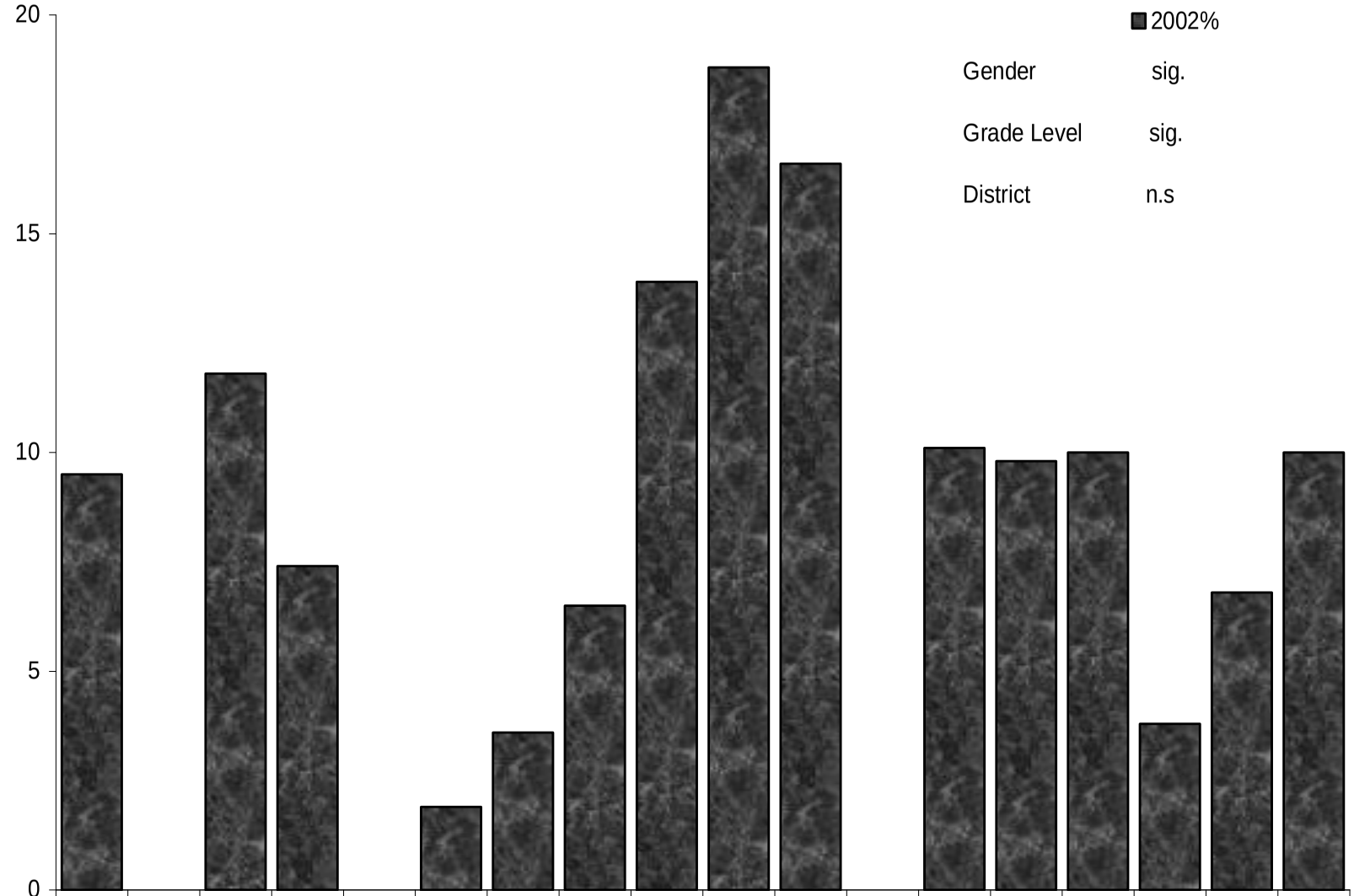
Note: Refer to Table 3.3E

3.4 GANJA USE

PAST YEAR GANJA USE ***[FIGURE 3.4A, 3.4B]***

	GANJA USE IN 2002 (G7-12)	**CHANGES IN GANJA USE BETWEEN 1998 AND 2002 (G7-12)**
TOTAL	Overall, 9.5% of students reported using ganja in the 12 months before the survey.	Past year ganja use increased steadily from 6.6% in 1998 to 7.2% in 2000 and 9.5% in 2002.
GENDER	Significantly more males (11.8%) than females (7.4%) use ganja.	Ganja use increased among both males and females alike (from 8.5% in 1998 to 8.3% in 2000 and 11.8% in 2002 among males, and from 4.7% to 6.1% to 7.4% among females).
GRADE	Ganja use is significantly related to grade level. Rates of ganja use increase steadily from 1.9% of 7th-graders; 3.6% of 8th-graders; 6.5% of 9th-graders; 13.9% of 10th-graders; 18.8% of 11th-graders and with a slight drop 16.6% of 12th-graders.	Increases in ganja use are dominant among 10th-graders (from 6.4% to 9.4% to 13.9%) and 11th-graders (14.0% to 10.9% to 18.8%).
DISTRICT	Rates of ganja use vary across districts, from 3.8% to 10.1% but this variation is not significant.	Steady increases in ganja use are dominant among students from George Town (from 6.5% to 7.6% to 9.8%) and Bodden Town (from 3.9% to 7.1% to 10.0%).

Figure 3.4A Percentage Reporting Past 12 Months Ganja Use, Grades 7-12 2002 [N=2187]



	Total		Male	Female		Gr.7	Gr.8	Gr.9	Gr.10	Gr.11	Gr.12		West Bay	George Town	Bodden Town	East End	North Side	Cayman Brac
2002%	9.5		11.8	7.4		1.9	3.6	6.5	13.9	18.8	16.6		10.1	9.8	10	3.8	6.8	10

About 40.1% of ganja users report using ganja 1 or 2 times over the past 12 months. However, 15.5% report use 40 or more times.

The changes between 1998 and 2002 in the frequency of ganja use were not significant.

TABLE 3.4
FREQUENCY OF GANJA USE AMONG PAST 12 MONTHS GANJA USERS, BETWEEN 1998 AND 2002 (GRADES 7-12)

	N	1998 (%)	N	2000 (%)	N	2002 (%)
1 or 2 Times	58	45.7	75	48.4	83	40.1
3 to 5 Times	18	14.2	24	15.5	39	18.8
6 to 9 Times	10	7.9	20	12.9	30	14.5
10 to 19 Times	15	11.8	12	7.7	12	5.8
20 to 39 Times	6	4.7	7	4.5	11	5.3
40 Times or More	20	15.7	17	11.0	32	15.5
Total	127	100.0	155	100	207	100.0

X^2 (10DF) =10.85, P= .369

TABLE 3.4B
PERCENTAGE REPORTING *GANJA USE* DURING THE PAST 12 MONTHS

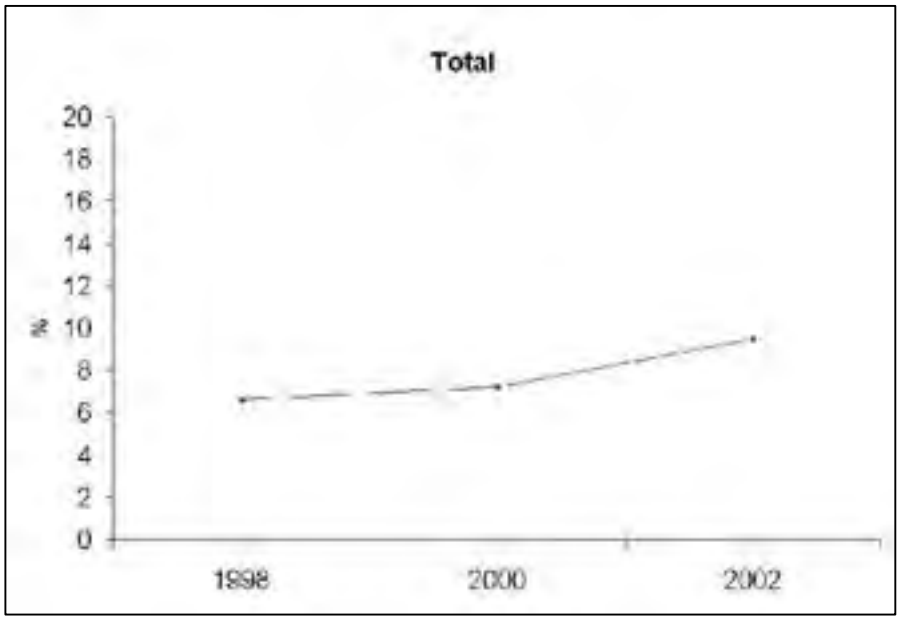
Year (N)		1998 (1946)	2000 (2186)	2002 (2187)	Overall Change	Change Between 2002 - 2000	Change Between 2002 - 1998
Total		**6.6**	**7.2**	**9.5**	***	**	***
Sex	Male	**8.5**	**8.3**	**11.8**	**	**	*
	Female	**4.7**	**6.1**	**7.4**	*	n.s	**
Grade	7	**1.7**	**1.2**	**1.9**	n.s	n.s	n.s
	8	**2.9**	**2.4**	**3.6**	n.s	n.s	n.s
	9	**5.8**	**5.3**	**6.5**	n.s	n.s	n.s
	10	**6.4**	**9.4**	**13.9**	**	n.s	***
	11	**14.0**	**10.9**	**18.8**	*	**	n.s
	12	**11.9**	**16.0**	**16.6**	n.s	n.s	n.s
Region							
	West Bay	**10.6**	**6.8**	**10.1**	n.s	n.s	n.s
	George Town	**6.5**	**7.6**	**9.8**	*	n.s	**
	Bodden Town	**3.9**	**7.1**	**10.0**	**	n.s	***
	East End	**5.7**	**7.8**	**3.8**	n.s	n.s	n.s
	North Side	**4.0**	**7.8**	**6.8**	n.s	n.s	n.s
	Cayman Brac	**4.5**	**3.9**	**10.0**	n.s	n.s	n.s

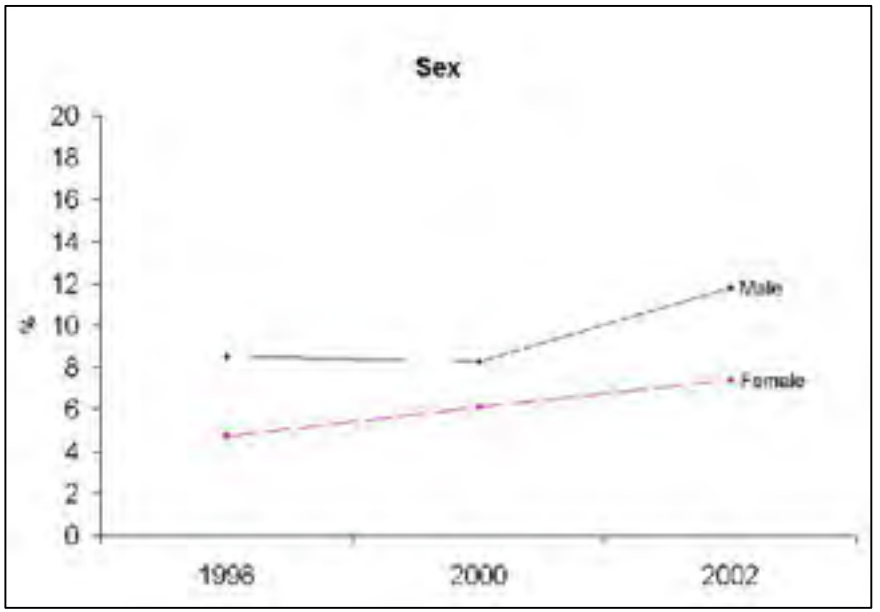
Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * p<0.05; ** p<0.01; *** p<0.001; n.s not significant; ~ nominal

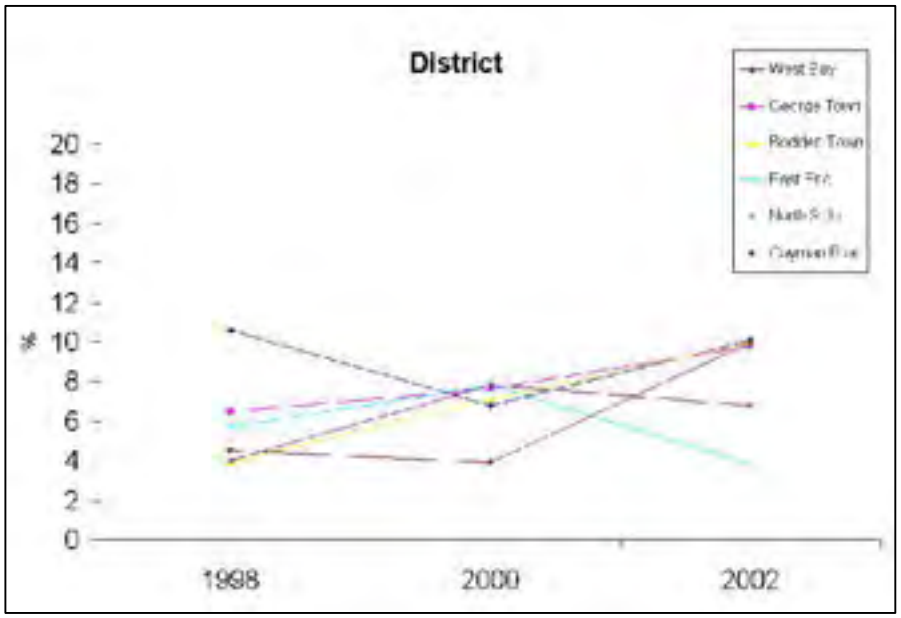
Question: In the last 12 months, how often did you use marijuana (also known as ganja, weed, herb, grass, pot)?

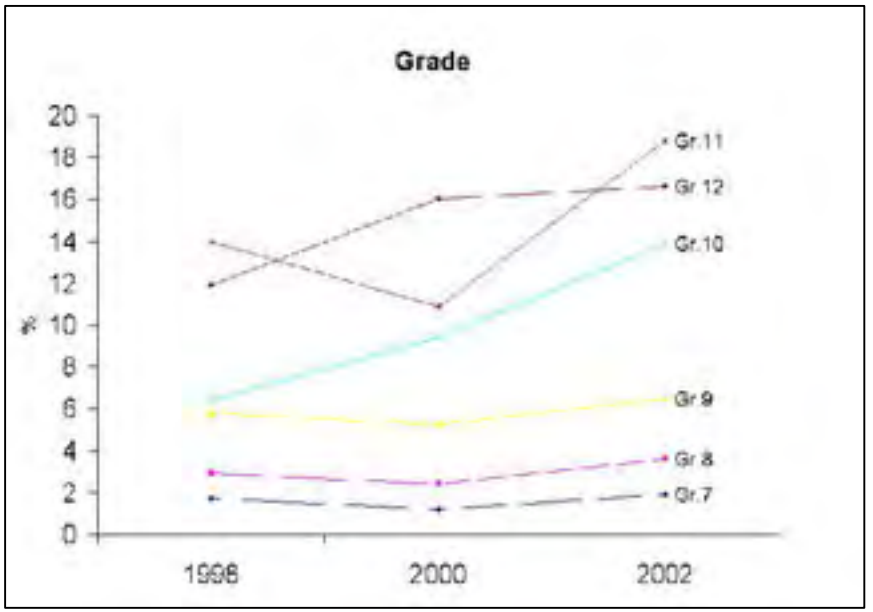
Source: CISDUS, National Drug Council

FIGURE 3.4B TRENDS IN PAST YEAR GANJA USE, (GRADES 7-12), CISDUS 1998-2002









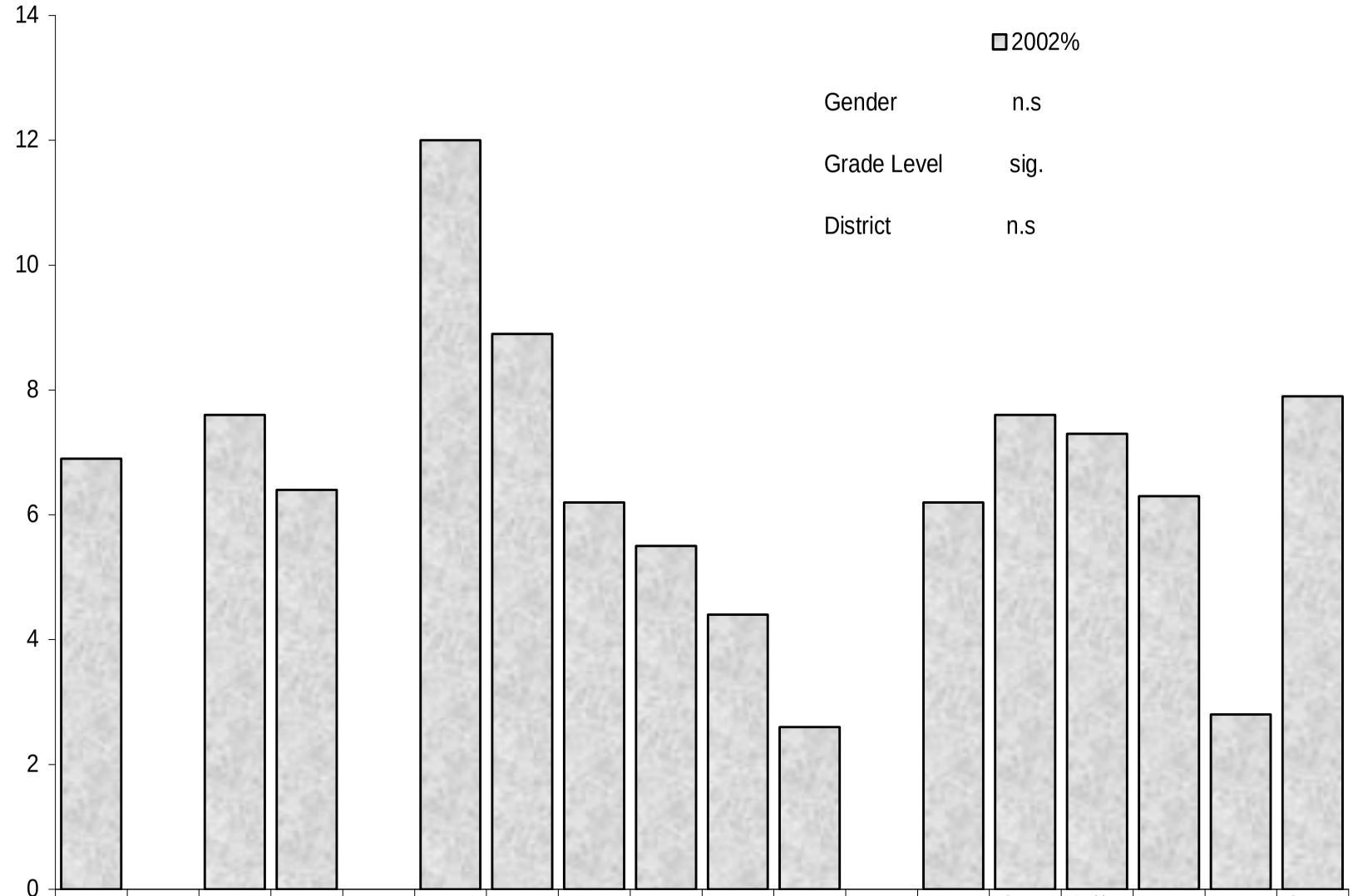
Note: Refer to Table 3.4B

3.5 INHALANT USE – GLUE & SOLVENT

PAST YEAR INHALANT USE ***[FIGURE 3.5A, 3.5B]***

	INHALANT USE IN 2002 (G7-12)	CHANGES IN INHALANT USE BETWEEN 1998 AND 2002 (G7-12)
TOTAL	Overall, 6.9% of students reported using inhalants at least once during the 12 months before the survey.	Inhalant use remained stable, showing minor fluctuations - 6.2% in 1998, 6.1% in 2000; and 6.9% in 2002..
GENDER	Inhalant use does not significantly differ between males (7.6%) and females (6.4%).	Changes in inhalant use remained stable for both males and females.
GRADE	Inhalant use varies significantly by grade, with use being highest among the youngest students – 12.0% of 7th-graders, and then declines with age to only 2.6% of 12th-graders.	Among 7th graders, the rate of inhalant use is higher in 2002 compared to 1998 (12.0% vs 6.8%).
DISTRICT	Inhalant use does not significantly differ between districts.	With one exception, inhalant use remained stable within districts. Fewer students in Cayman Brac, reported inhalant use in 2002 than they did in 1998 (7.9% vs 15.5%). Other regional changes are not statistically significant.

Figure 3.5A Percentage Reporting Past 12 Months Inhalant Use, Grades 7-12, 2002 [N=2187]



	Total		Male	Female		Gr.7	Gr.8	Gr.9	Gr.10	Gr.11	Gr.12		West Bay	George Town	Bodden Town	East End	North Side	Cayman Brac
2002%	6.9		7.6	6.4		12	8.9	6.2	5.5	4.4	2.6		6.2	7.6	7.3	6.3	2.8	7.9

TABLE 3.5B
PERCENTAGE REPORTING INHALANT USE DURING THE PAST 12 MONTHS

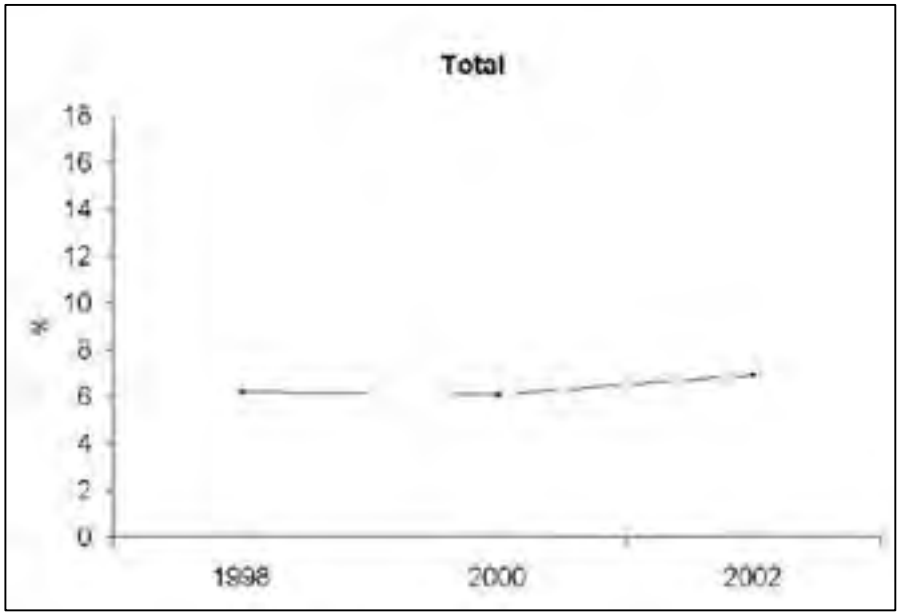
Year (N)		1998 (1946)	2000 (2186)	2002 (2187)	Overall Change	Change Between 2002 - 2000	Change Between 2002 - 1998
Total		**6.2**	**6.1**	**6.9**	**n.s**	**n.s**	**n.s**
Sex	Male	**6.6**	**6.5**	**7.6**	**n.s**	**n.s**	**n.s**
	Female	**5.9**	**5.7**	**6.4**	**n.s**	**n.s**	**n.s**
Grade	7	**6.8**	**11.4**	**12.0**	*****	**n.s**	*****
	8	**8.1**	**8.1**	**8.9**	**n.s**	**n.s**	**n.s**
	9	**8.5**	**5.9**	**6.2**	**n.s**	**n.s**	**n.s**
	10	**4.6**	**4.1**	**5.5**	**n.s**	**n.s**	**n.s**
	11	**5.4**	**3.0**	**4.4**	**n.s**	**n.s**	**n.s**
	12	**2.3**	**3.4**	**2.6**	**n.s**	**n.s**	**n.s**
Region							
	West Bay	**6.1**	**4.7**	**6.2**	**n.s**	**n.s**	**n.s**
	George Town	**5.7**	**8.0**	**7.6**	**n.s**	**n.s**	**n.s**
	Bodden Town	**5.2**	**6.3**	**7.3**	**n.s**	**n.s**	**n.s**
	East End	**4.3**	**13.2**	**6.3**	**n.s**	**n.s**	**n.s**
	North Side	**6.7**	**1.3**	**2.8**	**n.s**	**n.s**	**n.s**
	Cayman Brac	**15.5**	**6.3**	**7.9**	*****	**n.s**	**n.s**

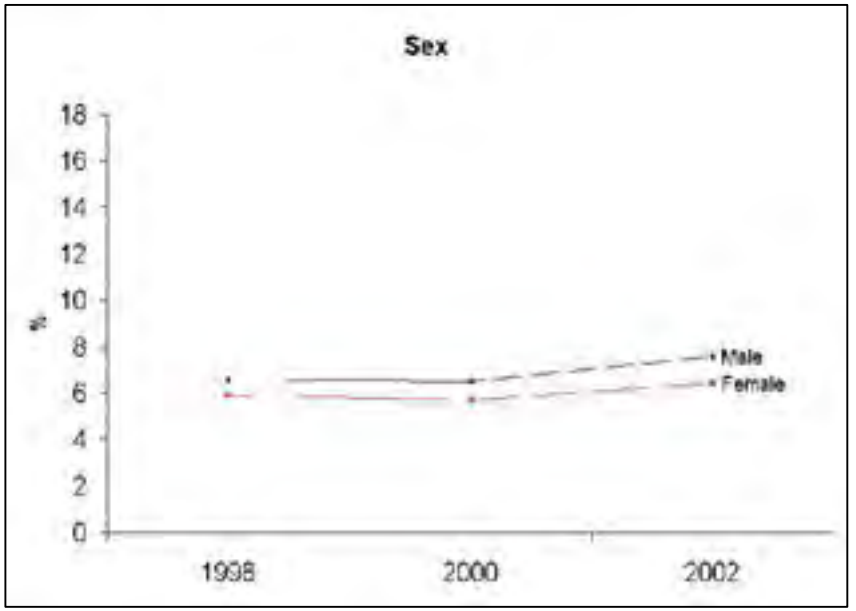
Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * p<0.05; ** p<0.01; *** p<0.001; n.s not significant; ~ nominal

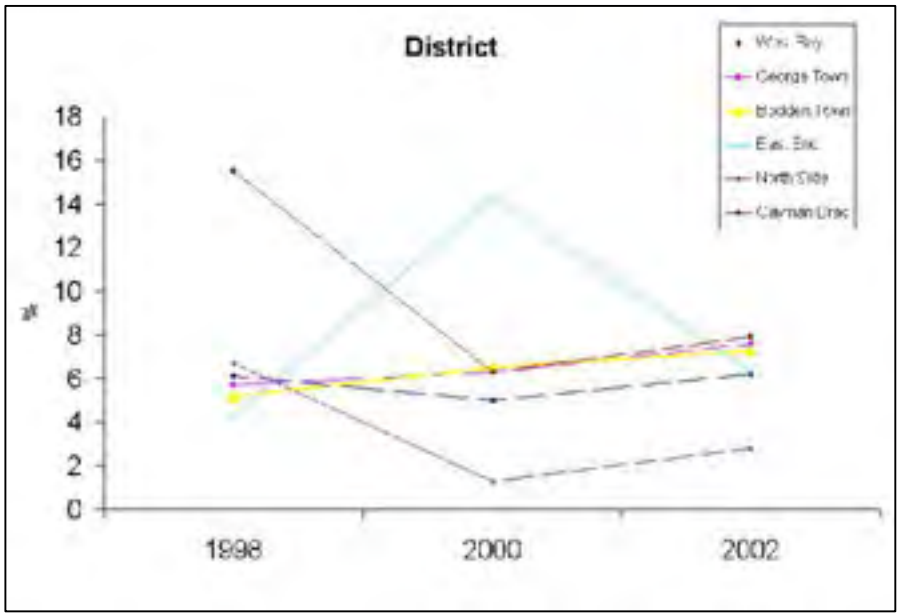
Question: In the last 12 months, how often did you sniff glue or solvents (for example, airplane glue, contact cement, nail polish remover, acetone, paints, gasoline, etc.) in order to get high?

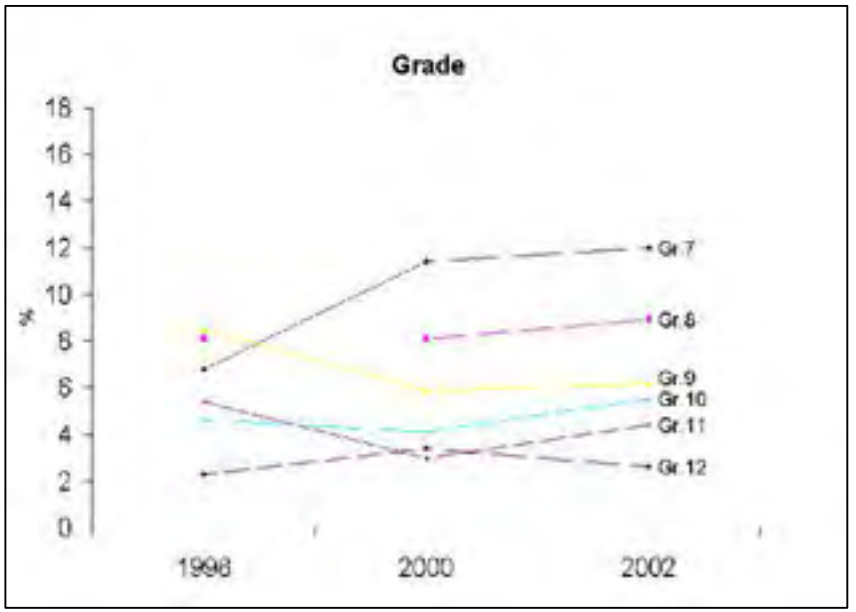
Source: CISDUS, National Drug Council

FIGURE 3.5B TRENDS IN PAST YEAR INHALANT USE, (GRADES 7-12), CISDUS 1998-2002







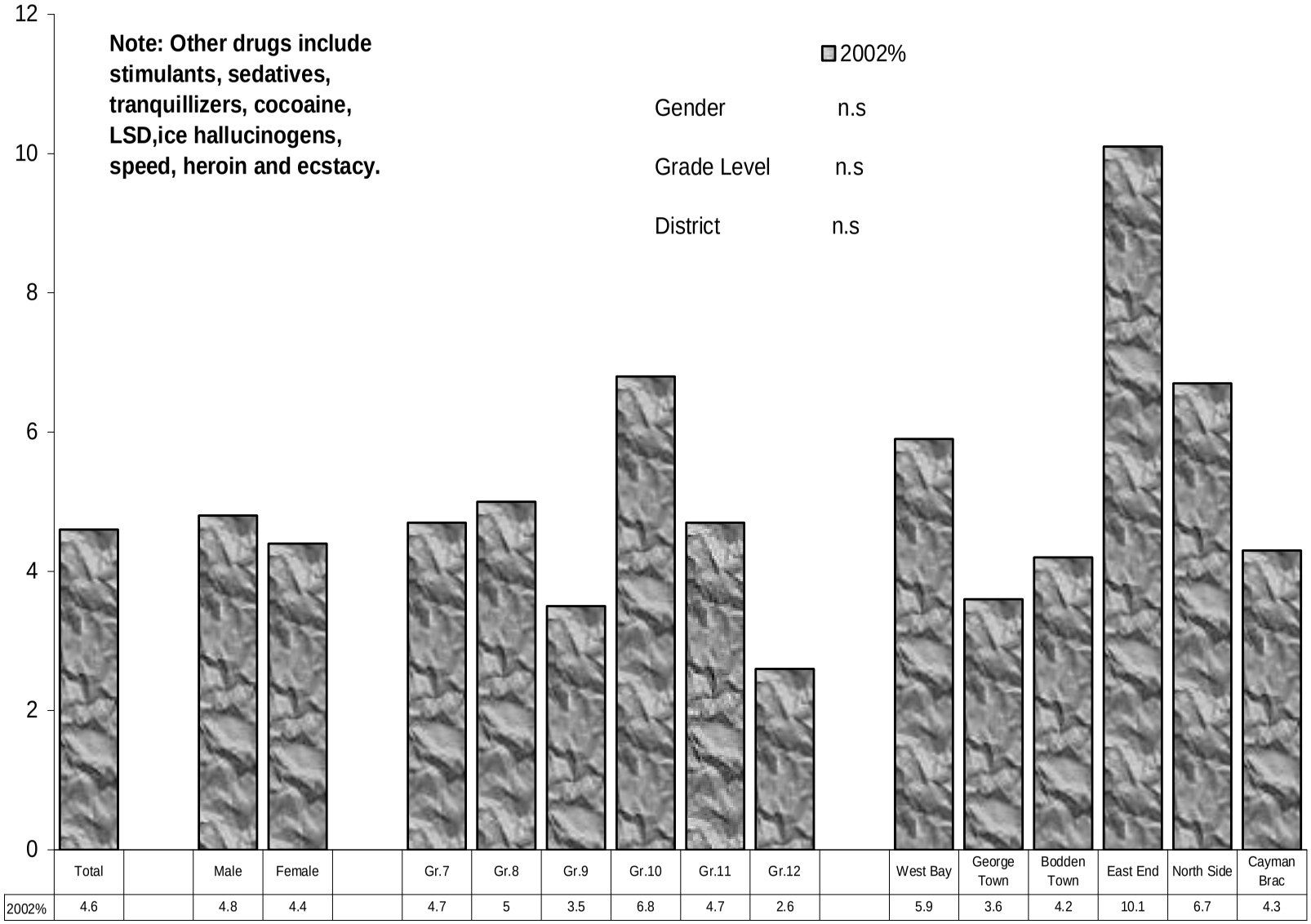


Note: Refer to Table 3.5B

3.6 OTHER NON-MEDICAL DRUG USE PAST YEAR *[FIGURE 3.6A, 3.6B]*

	OTHER DRUG USE IN 2002 (G7-12)	CHANGES IN OTHER DRUG USE BETWEEN 1998 AND 2002 (G7-12)
TOTAL	Overall, 4.6% of students reported using at least one of 11 drugs (sedatives, stimulants, tranquillizers, cocaine, crack, LSD, ice, hallucinogens, speed, heroin and ecstasy) during the 12 months before the survey.	Other drug use remained stable between 1998 and 2002, varying from 4.3% to 4.6%.
GENDER	Other drug use does not differ significantly between males (4.8%) and females (4.4%).	Rates of other drug use remained stable among both males and females.
GRADE	Other drug use does not vary significantly by grade.	Other drug use remained stable within each grade level.
DISTRICT	Although rates of other drug use vary between 3.6% to 10.1%, these differences are not statistically significant due to small sample sizes.	Other drug use remained stable within each district.

Figure 3.6A Percentage Reporting Past 12 Months Other Illicit and Non-Medical Drug Use, Grades 7-12, 2002 [N=2187]



	Total		Male	Female		Gr.7	Gr.8	Gr.9	Gr.10	Gr.11	Gr.12		West Bay	George Town	Bodden Town	East End	North Side	Cayman Brac
2002%	4.6		4.8	4.4		4.7	5	3.5	6.8	4.7	2.6		5.9	3.6	4.2	10.1	6.7	4.3

TABLE 3.6B
PERCENTAGE REPORTING OTHER NON-MEDICAL DRUG USE DURING THE PAST 12 MONTHS

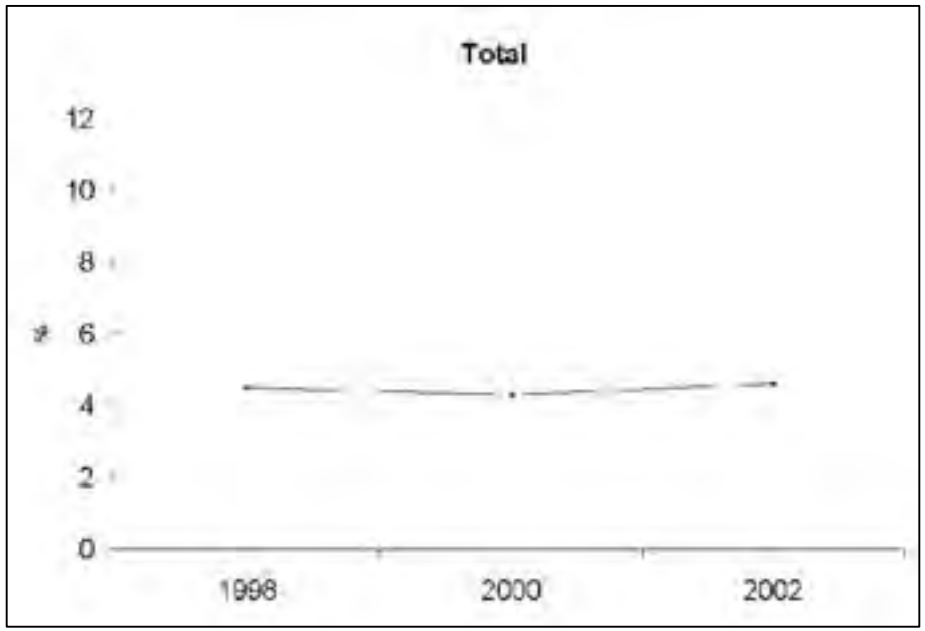
Year (N)		1998 (1946)	2000 (2186)	2002 (2187)	Overall Change	Change Between 2002 - 2000	Change Between 2002 - 1998
Total		**4.5**	**4.3**	**4.6**	**n.s**	**n.s**	**n.s**
Sex	Male	**3.7**	**4.5**	**4.8**	**n.s**	**n.s**	**n.s**
	Female	**5.2**	**4.1**	**4.4**	**n.s**	**n.s**	**n.s**
Grade	7	**3.6**	**3.9**	**4.7**	**n.s**	**n.s**	**n.s**
	8	**2.9**	**3.7**	**5.0**	**n.s**	**n.s**	**n.s**
	9	**4.3**	**4.7**	**3.5**	**n.s**	**n.s**	**n.s**
	10	**3.7**	**5.1**	**6.8**	**n.s**	**n.s**	**n.s**
	11	**7.3**	**4.3**	**4.7**	**n.s**	**n.s**	**n.s**
	12	**6.1**	**4.0**	**2.6**	**n.s**	**n.s**	*****
Region							
	West Bay	**3.6**	**3.8**	**5.9**	**n.s**	**n.s**	**n.s**
	George Town	**5.0**	**5.2**	**3.6**	**n.s**	**n.s**	**n.s**
	Bodden Town	**4.1**	**2.6**	**4.2**	**n.s**	**n.s**	**n.s**
	East End	**2.8**	**3.8**	**10.1**	**n.s**	**n.s**	**n.s**
	North Side	**5.3**	**3.9**	**6.7**	**n.s**	**n.s**	**n.s**
	Cayman Brac	**4.5**	**4.7**	**4.3**	**n.s**	**n.s**	**n.s**

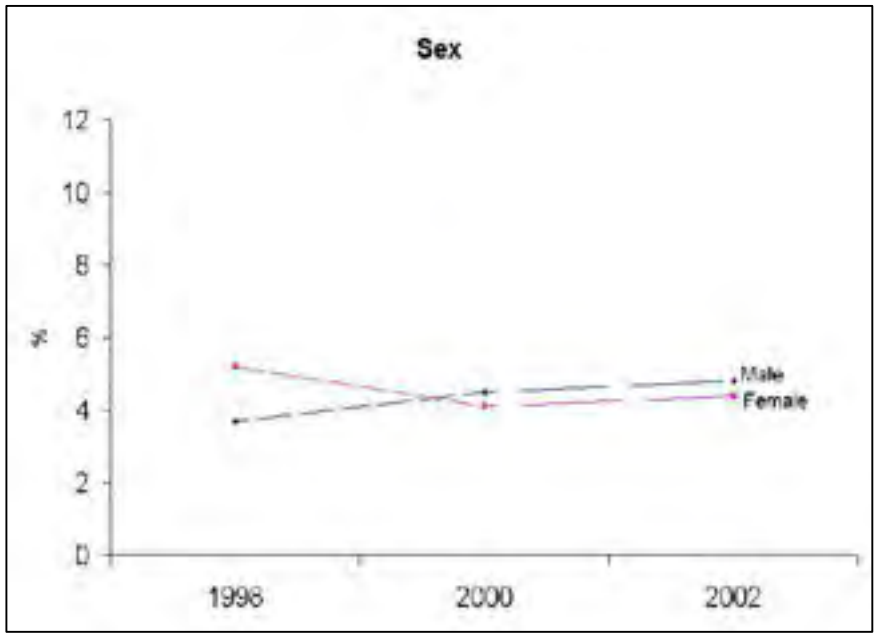
Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * p<0.05; ** p<0.01; *** p<0.001; n.s not significant; ~ nominal

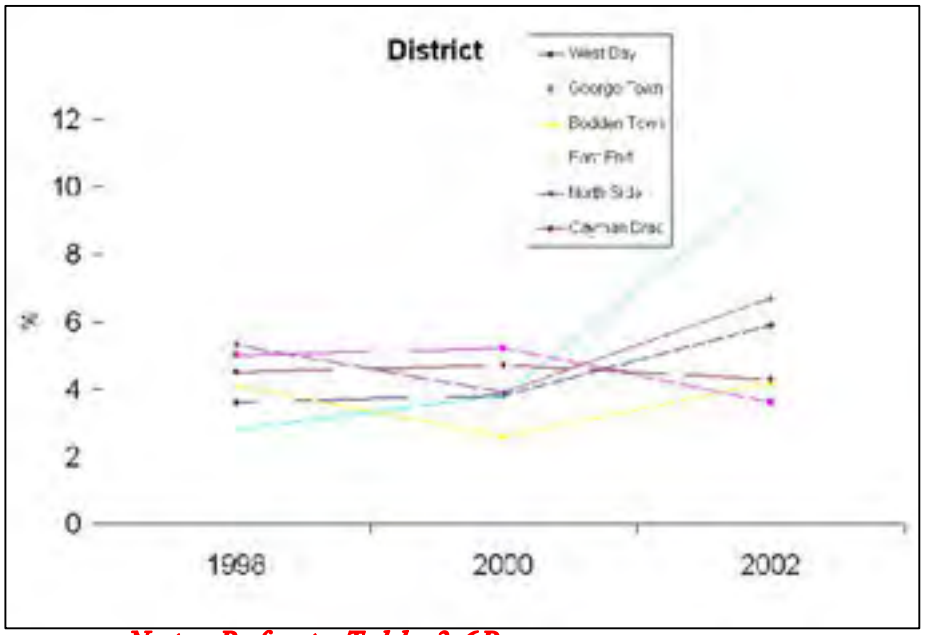
Question: In the last 12 months, how often did you use: Other drugs include stimulants, sedatives, tranquillizers, cocaine, LSD, ice hallucinogens, speed, heroin and ecstacy.

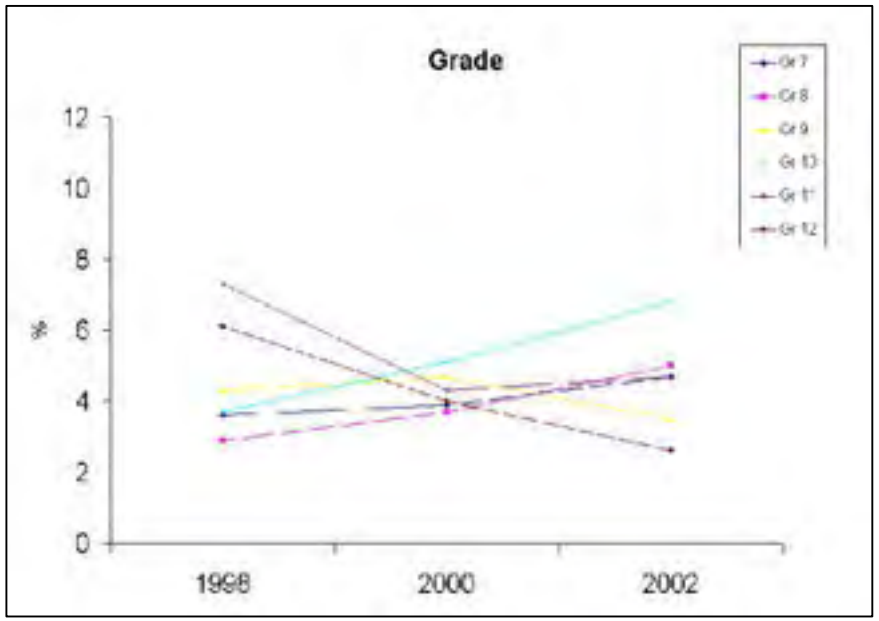
Source: CISDUS, National Drug Council

FIGURE 3.6B TRENDS IN PAST YEAR OTHER NON-MEDICAL USE, (GRADES 7-12), CISDUS 1998-2002









Note: Refer to Table 3.6B

3.7 MULTIPLE DRUG USE

PAST YEAR USE ***[TABLE 3.7]***

MULTIPLE DRUG USE IN 2002 (G7-12)

CHANGES IN MULTIPLE DRUG USE BETWEEN 1998 AND 2002 (G7-12)

TOTAL

Table 3.7 shows the most common pattern of drug use among students. In 2002, more than half (55.3%) did not use alcohol, tobacco or other drugs during the past year. In addition, 25.5% restrict their drug use to alcohol only, 1.7% to alcohol and tobacco, and 2.7% to alcohol and ganja. The other combinations account for 14.9% of all drug use.

The data also show that the pattern of drug taking changed significantly between 1998 and 2002.

The most dominant changes showed that fewer students reported using both alcohol and tobacco and more students reported using both alcohol and ganja.

TABLE 3.7
PERCENTAGE REPORTING VARIOUS DRUG USE COMBINATIONS DURING THE PAST 12 MONTHS, GRADES 7-12, BETWEEN 1998 AND 2002

	1998 (%)	2000 (%)	2002 (%)
No Drugs	54.9	56.6	55.3
Alcohol Only	27	26.6	25.5
Alcohol + Tobacco	3.1	2.1	1.7
Alcohol + Tobacco+ Ganja	2.5	1.9	2.7
Inhalants Only	2.2	2.7	3.5
Alcohol + Inhalants	1.9	1.6	1.4
Alcohol + Ganja	1.6	2.4	3.0
Other Illicit & Non- Medical	1.5	1	1.2
All other combinations	5.3	5.1	5.8
Total	100	100	100

X^2 (16df) = 32.21, p=0.009

3.8 ONSET OF DRUG USE *[FIGURES 3.7A, 3.7B, 3.7C]*

In addition to the prevalence of drug use, another important indicator of the character of drug use is the onset of drug use, and most notably early onset – the percentage of students who use a drug for the first time at an early age. Figures 3.7A, 3.7B and 3.7C display the cumulative percentages of students who report using alcohol, cigarettes and ganja for the first time by grade of student. For example, 15.7% of 7th-graders used alcohol by age 10 and 76.5% of 12th-graders used alcohol by 18 years of age. The most critical aspect to these data is early onset; indicated by the percentage who report drug use by 10 years of age.

Alcohol

- In Figure 3.7A, early onset of drinking varies between 10.4% of 11th-graders to 15.7% of 7th-graders. Although the rate of early onset among 7th-graders is somewhat elevated at 15.7% there is no dominant trend in early onset.
- Almost two-thirds of students used alcohol by age 15.
- Between 2000 and 2002, there is little to no change in early onset of drinking among 7th-graders (17.4% vs 15.7%), 9th-graders (13.2% vs 13.2%) and 12th-graders (11.9% vs 12.5%). There is some suggestion that more 10th-graders interviewed in 2002 used alcohol by age 14 than did 10th-graders interviewed in 2000 (59.5% vs 54.6%).

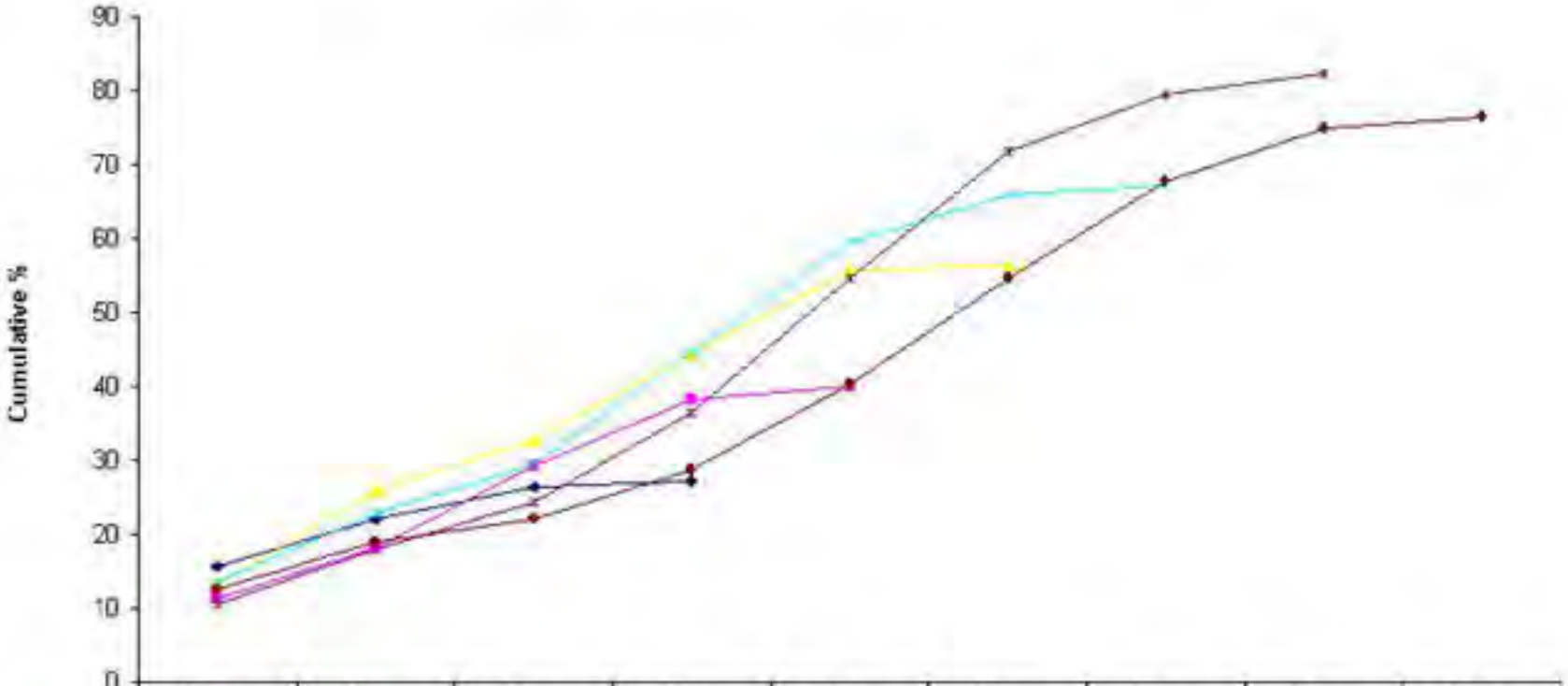
Cigarettes

- The data in Figure 3.7B suggest that more students are smoking at an earlier age. Most notably, 6.1% of 7th- and 8th-graders report smoking their first cigarette by age 10 compared to 5.2% of 7th- and 8th-graders in 2000. This finding is even more noticeable at older ages – 27.9% of 10th- and 11th-graders smoked cigarettes by age 13, compared to 21.5% of 10th-graders and 26.6% of 11th-graders in 2000.

Ganja

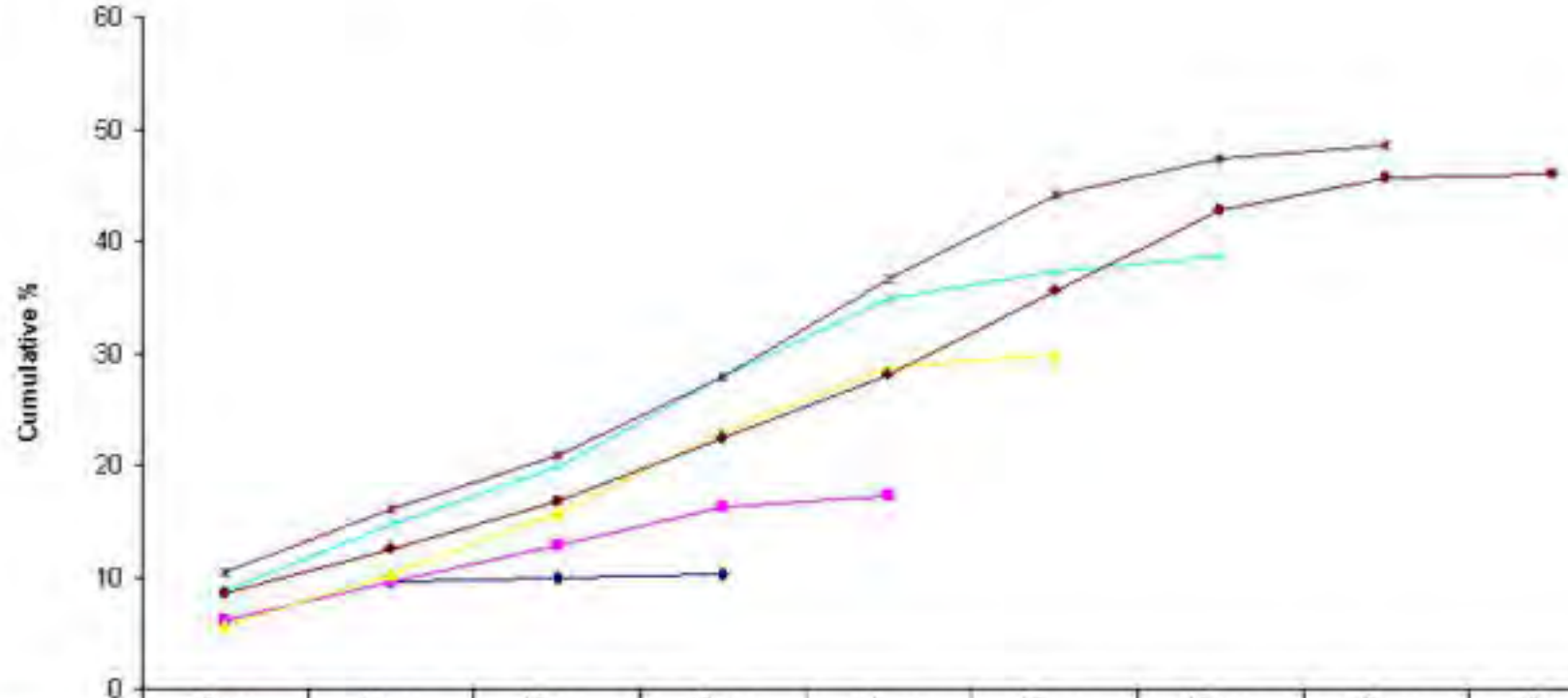
- As seen in Figure 3.7C there is no suggestion of changes in early onset of ganja use by age 10. However, more 7th-graders report ganja use by age 13 (2.5%) compared to (1.4%) of 7th-graders in 2000.
- More 10th-graders surveyed in 2002 used ganja by age 16 than did 10th-graders in 2000 (17.3% vs 12.9%) as well 11th-graders surveyed in 2002 used more ganja by age 16 than did 11th-graders in 2000 (28.2% vs 18.2%).

Figure 3.7A Age of First Use of Alcohol by Age Cohorts
Grades 7-12, 2002 [N=2187]



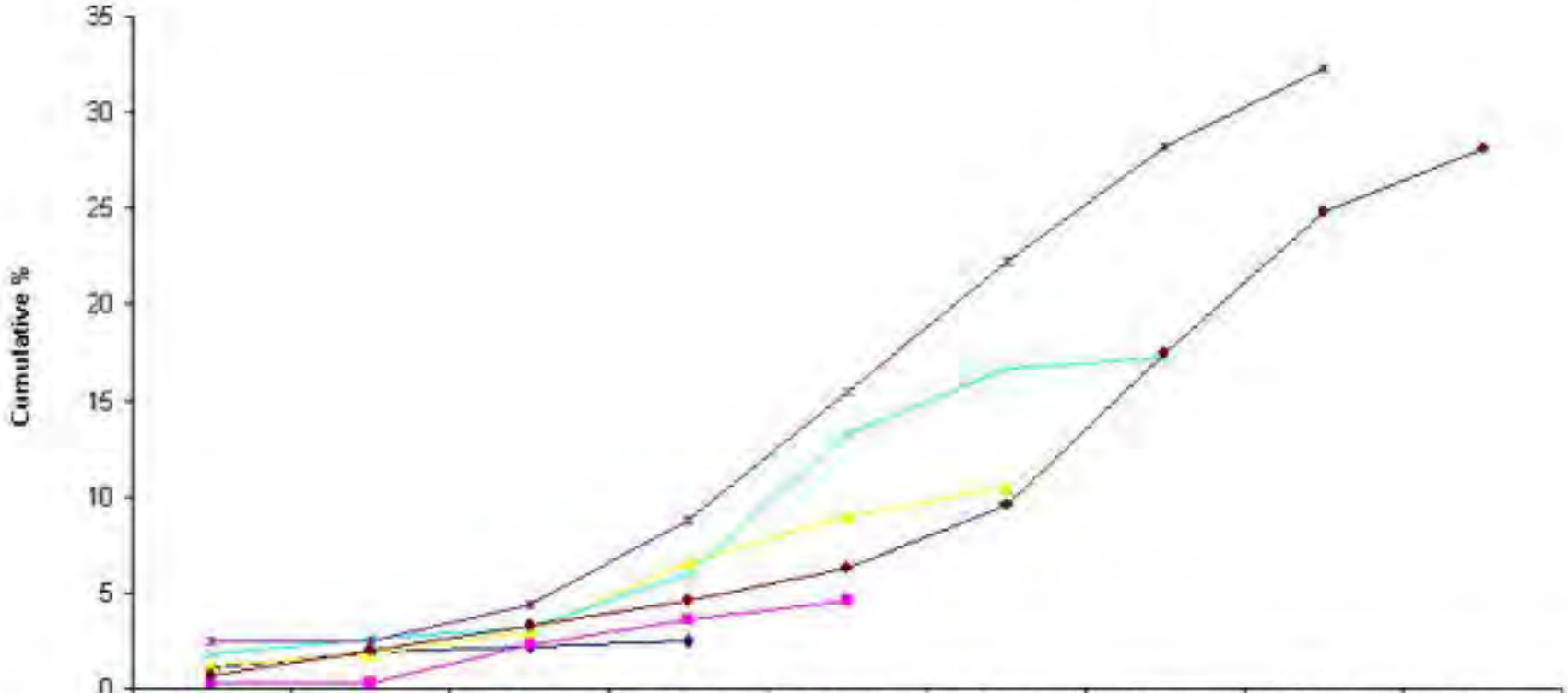
	10 yrs	11 yrs	12 yrs	13 yrs	14 yrs	15 yrs	16 yrs	17 yrs	18 yrs
Gr. 7	15.7	22	26.3	27.3					
Gr. 8	11.3	18.2	29.2	38.3	40				
Gr. 9	13.2	26	32.8	44.4	55.7	56.3			
Gr. 10	13.6	22.6	29.5	44.5	59.5	65.9	67.3		
Gr.11	10.4	18	24.4	36.5	54.7	71.9	79.5	82.4	
Gr.12	12.5	18.9	22	28.8	40.3	54.5	67.7	74.8	75.5

Figure 3.7B Age of First Use of Cigarettes by Age Cohorts
Grades 7-12, 2002 [N=2187]



	10 yrs	11 yrs	12 yrs	13 yrs	14 yrs	15 yrs	16 yrs	17 yrs	18 yrs
Gr 7	6.1	9.5	10	10.2					
Gr 8	6.1	9.5	12.9	16.3	17.3				
Gr 9	5.7	10.2	15.8	22.9	28.8	30			
Gr 10	8.7	14.7	19.9	27.9	34.8	37.3	38.7		
Gr 11	10.4	16.1	20.9	27.9	36.5	44.1	47.3	48.6	
Gr 12	8.6	12.5	16.8	22.4	28	35.5	42.7	45.7	46

Figure 3.7C Age of First Use of Ganja by Age Cohorts
Grades 7-12, 2002 [N=2187]



	10 yrs	11 yrs	12 yrs	13 yrs	14 yrs	15 yrs	16 yrs	17 yrs	18 yrs
Gr 7	1.1	1.9	2.2	2.5					
Gr 8	0.3	0.3	2.3	3.6	4.6				
Gr 9	1.2	1.8	3	6.6	9	10.5			
Gr 10	1.8	2.6	3.2	6	13.3	16.7	17.3		
Gr 11	2.5	2.5	4.4	8.8	15.5	22.2	28.2	32.3	
Gr 12	0.7	2	3.3	4.5	6.3	9.6	17.5	24.8	28.1

4. SUMMARY & DISCUSSION

Table 4.1 Summarizes changes in drug use between 2000 and 2002.

Between 2000 and 2002, we found the following:

- Tobacco use declined among 9th & 11th graders.
- Alcohol use increased among 11th graders.
- Heavy drinking increased among 10th graders.
- Ganja use increased among the total sample and among males and 11th graders.

Regarding subgroup differences in rates of drug use in 2002, we found the following:

- Gender differences occurred for ganja and heavy drinking; with males reporting higher rates of use than females.
- Grade or age was an important discriminator in differing rates of drug use. Three of the four most prevalent drugs, tobacco, alcohol and ganja, showed a significant difference that was positively correlated with grade level, while an inverse relationship was found to exist for inhalant use.
- Regional difference overall was not influential, and only occurred for alcohol.

TABLE 4.0
SIGNIFICANT CHANGES IN PAST YEAR DRUG USE BETWEEN 2000 AND 2002 (GRADES 7-12)

DIFFERENCES BETWEEN 2000 AND 2002	TOBACCO	ALCOHOL	HEAVY DRINKERS	GANJA	INHALANTS	OTHER NON-MEDICAL DRUG USE
Total	–	–	–	↑	–	–
Male	–	–	–	↑	–	–
Female	–	–	–	–	–	–
Grade 7	–	–	–	–	–	–
Grade 8	–	–	–	–	–	–
Grade 9	↓	–	–	–	–	–
Grade 10	–	–	↑	–	–	–
Grade 11	↓	↑	–	↑	–	–
Grade 12	–	–	–	–	–	–
West Bay	–	–	–	–	–	–
George Town	–	–	–	–	–	–
Bodden Town	–	–	–	–	–	–
North Side	–	–	–	–	–	–
East End	–	–	–	–	–	–
Cayman Brac	–	–	–	–	–	–

TABLE 4.1
SIGNIFICANT SUBGROUP DIFFERENCES IN 2002

Subgroup Differences	Tobacco	Alcohol	5+ Drinkers	Ganja	Inhalants	Other non-medical Drugs
Males vs Females	-	-	M↑	M↑	-	-
Overall Grade Variation	↑ g7-12	↑ g7-12	↑ g7-12	↑	↓	-
Overall District Variation	-	- 24.5%(CB) – 43.2% (WB)	-	-	-	-

DISCUSSION

As with all studies there are some limitations, which must be acknowledged before any discussion of results and implications can take place. Self reported data cannot be readily verified. However, under conditions of anonymity, such as class administration, there is evidence that reports of drug use are reasonably accurate. Nevertheless, we must accept that drug use data based on self-reports are underestimated to some unknown degree. Fortunately, these results have not been found to change over time, and thus remain valid and unbiased. The high response rate of the study has increased the validity of the results by reducing the bias due to non-responses by students present or absent from school. And finally, this study cannot be generalized to adolescents not attending school, e.g., drop-outs, street youth and adolescents in the workplace.

The results presented show both gains and losses in terms of overall drug use. There are positive findings that signal a reduction or containment of rates of drug use, and negative findings that should be viewed as warnings for public health professionals.

Some of the more positive findings are as follows:

- **Fewer females report smoking in 2002.**

  Overall, the percentage of females reporting tobacco use fell from 8.4% in 1998 to 6.1% in 2002.

- **The number of drug free students remains stable**.

  More than half (55.3%) of all students grades 7-12 did not use alcohol, tobacco or any other drugs during the past year compared to 56.6% in 2000, and 54.9% in 1998.

- **The number of students using inhalants remains stable.**

  Overall inhalant use remains stable across gender, grade and district showing only minor fluctuations.

However, there are also some findings that should be flagged as health warnings:

- **More students are smoking at an earlier age.**

  Age of first use of cigarettes appears to be increasing 6.1% of 7^{th}- and 8^{th}-graders report smoking their first cigarette by age 10 compared to 5.2% of 7^{th}- and 8^{th}-graders in 2000. This finding is even more noticeable at older ages – 27.9% of 10^{th}- and 11^{th}-graders smoked cigarettes by age 13, compared to 21.5% of 10^{th}-graders and 26.6% of 11^{th}-graders in 2000.

- **More students are using ganja.**

  The percentage reporting ganja use increased from 7.2% to 9.5%. Rates of use increased for both males and females alike (from 8.3% in 2000 to 11.8% in 2002 for males and from 6.1% in 2000 to 7.4% in 2002 for females).

- **More students are drinking heavily.**

  The percentage of students reporting heavy drinking increased from 7.2% in 1998 to 12.7% in 2000, and remained at this rate in 2002. Moreover, rates of heavy drinking in 2002 are significantly higher compared to 1998 for males and females, 7^{th}, 8^{th} 10^{th} and 12^{th} graders, and among students residing in West Bay, George Town and Bodden Town.