BAHAMAS SECONDARY SCHOOL DRUG PREVALENCE SURVEY

2003

Sponsored In Part By:



The Caribbean Drug Abuse Epidemiology And Surveillance System Project

Bahamas National Drug Council

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For access to further information and resources on conducting school drug surveys, visit the United Nations Office on Drugs and Crime (UNODC) Global Assessment Programme on Drug Abuse (GAP) website at www.undcp.org, email gap@undcp.org, or contact the Demand Reduction Section, UNDCP, P.O. Box 500, A-1400 Vienna, Austria.

For additional information regarding the SIDUC survey methodology, visit the Inter-American Observatory on Drugs website at http://www.cicad.oas.org/oid/, email oidcicad@oas.org, or contact the Inter-American Observatory on Drugs, Inter-American Drug Abuse Control Commission, Organization of The American States, 1889 F Street N.W. Washington, D.C. 20006 United States.

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> Terrance Fountain National Coordinator

Foreword

The scarcity of information relative to the consumption of illicit substances has been identified as a hemispheric problem that has hindered both national and regional efforts to counter, either through prevention or reduction, this major public health threat in a manner that is timely, effective and efficient. As a result, the Inter-American Drug Abuse Control Commission (CICAD) of the Organization of the American States (OAS) has developed, with the full support of its member countries, the Inter-American Uniform Drug Use Data System (SIDUC).

The basic objective of SIDUC is to implement a simplified but comprehensive system of statistical information in order to understand drug use trends and patterns, the variables influencing drug use, and the social consequences of using drugs. While this information will serve as a reference tool for policy formulation and specific and general decision-making within countries, the key indicators will also serve as tools for measuring national and hemispheric efforts to combat illicit drug use, production and trafficking as a part of CICAD's Multilateral Evaluation Mechanism (MEM). This evaluation will provide feedback on how nations are meeting goals in a wide range of areas including the development of anti-drug strategies and national plans, drug seizure operations, the creation of prevention and rehabilitation programs, reductions in illicit crop production, diversion of precursor chemicals, prevention of money laundering and arms trafficking, among others.

In support of this agreement, a set of questionnaires was developed for the capture of a minimum set of data relative to the drug situation. These include:

- 1. Survey of Addicted Patients in Treatment Centres;
- 2. Survey of Emergency Room Patients:
- 3. Forensic Survey of Psychoactive Substance Consumption;
- 4. Survey of Juvenile Offenders;
- 5. Survey of Secondary School Students;
- 6. Survey of Students of Higher Education (Post-Secondary);
- 7. National Household Survey; and
- 8. Study of Prices of Drugs.

From an operational standpoint, the first four surveys are those that give rise to continuous measurements, while the latter four, by contrast, are studies that are periodical in nature.

In conducting their drug situational assessments, the measurement techniques utilized by the countries and the frequency of measurement will be governed by the availability of resources and the problems unique to each country. Although there are a total of 8 different instruments that can be utilized, the frequency of which these surveys will be conducted and the scope or coverage of each, particularly the periodic surveys, will have to be specified by the countries. As a matter of priority, it has been suggested that countries commence with surveys of Secondary Schools, Emergency Rooms, Treatment Centres, and Juvenile Offenders. It must be understood, however, that because the questionnaires and the reporting format have been standardized, neither these core questions nor the reporting format can be altered in any way. These core questions may be augmented by additional country-specific questions, added to meet more specific national information needs.

Such periodic surveys as those of middle school students, students pursuing higher education and household surveys have been undertaken in some countries at varying intervals. However, the methodology used in these studies tends to vary substantially and, therefore, the information obtained cannot be compared. SIDUC therefore proposes to introduce certain specific elements that allow comparison of these data between countries, without altering the processes that tend to provide information regarding the specific questions of interest to individual countries.

As earlier intimated, the responsibility for conducting the surveys is shared between the countries and the Statistical Section of CICAD. The countries are specifically responsible for:

- Framing the survey;
- Organizing the data collection process, including the selection and training of field and office staff;
- Collecting the data and storing it in magnetic files;
- Analysing the data; and
- Publishing the findings.

CICAD is responsible for:

- General organization;
- Sample design and selection;
- Data processing; and
- · General advisory assistance.

1. Introduction

The Commonwealth of the Bahamas is an archipelago of some 700 islands and cays with a landmass of 5,382 sq. miles scattered over an area of 80,000 sq. miles from the southeast coast of Florida on the west to the island twin-nation of Hispaniola to the east.

The 2000 Census of Population and Housing revealed a total population of 303,611 ⁽¹⁾. Males accounted for 48.5% of the total population, while females accounted for 51.5%. Approximately 29.4% of the population was under 15 years of age and about 5.2% over 65. During 1996-2000, life expectancy at birth was 68.8 years for males and 75.3 for females.

The large majority of the population resided on the two main commercial centres: New Providence, where the capital Nassau was located; and on the island of Grand Bahama. New Providence alone accounted for 69.4% of the population, and had a population density of 2,635 persons per square mile (1). A total of 15.5% of the population was on Grand Bahama, with a population density of 89 persons per square mile. The remaining 15.1% of the population was distributed across another 20 or more islands.

The Commonwealth of The Bahamas is governed by a parliamentary democracy based on the Westminster/Whitehall model. As such, the country has a bicameral legislature comprised of the elected House of Assembly (lower house) and the appointed Senate (Upper House). The Prime Minister, who is assisted by a Cabinet, heads the executive arm of the government. There is an independent Judiciary.

The economy of The Bahamas is based mainly on Tourism, which employs, directly and indirectly, a substantial proportion of the labour force (2). Financial Services is the second largest industry, with the emphasis placed on the offshore banking sector. This is followed by construction, fishing and agriculture. The official currency is the Bahamian dollar, which, since 1972, is on par with the US dollar. With a mean household income (\$31,369) that ranks among the leaders in the Western Hemisphere, The Bahamas enjoys a relatively high standard of living and universal access to all essential social services, including health, education and housing (3). There are two categories of secondary schools in The Bahamas: i) those operated by the various Christian denominations and other private entities; and ii), those operated by the Government of The Bahamas (GOB).

The overall unemployment rate in 1999 was estimated at 7.8% ⁽⁴⁾. However, this was not equally distributed throughout the islands, and the government remains challenged to provide sustained economic activity in the less-populated islands ⁽²⁾.

As a responsible member of the international community, The Bahamas maintains membership in a number of international, regional and hemispheric organisations. These include: the United Nations; the Commonwealth of Nations; the Organisation of the American States; and the Caribbean Community (CARICOM). The Bahamas is also a long-standing and active member of the Inter American Drug Abuse Control

Commission (CICAD) and the Commission On Narcotic Drugs (CND). As such, it has agreed to and ratified most major Conventions and Protocols related to drugs.

Additionally, The Bahamas has developed a number of bilateral agreements such as the U.S.-Bahamas Mutual Legal Assistance Treaty (MLAT), which facilitates the bilateral exchange of information and evidence for use in criminal proceedings. The US Government MLAT requests seek and secure financial information and evidence for use in criminal investigations and prosecutions. The Bahamas also has MLATs with the United Kingdom and Canada.

The involvement of The Bahamas in the drug trade is a result, primarily, of its geography. Lying directly in the transshipment corridor between the South American producers and the North American consumers, the country's archipelagic make-up, with many unsupervised islands, numerous cays and coves and potentially hazardous waters, made it an ideal platform for drug trafficking.

Although some marijuana growth has been observed, in general, the soil characteristics of The Bahamas prohibit the cultivation of such plants or those used for the production of other illicit drugs. Additionally, as none of the base products or precursor chemicals used in the production of drugs such as cocaine and heroine are made in the Bahamas, it is not economically feasible to produce such drugs here and, to date, there is no evidence of clandestine laboratories used for the production of cocaine.

The first evidence of illicit drug use was recognized in the late 1960s and early 1970s and coincided with the introduction of marijuana smuggling from Jamaica and Latin America, through the Bahamas, en route to South Florida. By the mid to late 1970s, in addition to marijuana, drugs available on the local market included quaaludes and cocaine, the latter, primarily sold as cocaine powder and snorted intranasally.

By the late 1970s and early 1980s, the transhipment of cocaine through the islands had escalated, due in large measure to its profitability as compared to similar size shipments of marijuana. As a consequence, cocaine trafficking through The Bahamas became firmly established, and the country became, and remains, a major transit area.

The Bahamas has been used as a transit point for the smuggling of "club drugs" such as ecstasy into the U.S. by airliner from Europe; a trend which continues today. Although club drug seizures in The Bahamas have been minimal over the past two years, according to the government of The United States, the Bahamian route remains a potential threat.

The negative impact of drugs on the society became apparent when compensation for the facilitation of trafficking changed from money to drugs, which were then sold on the local market. As vast quantities of cocaine passed through the islands, increasingly larger portions remained behind for local consumption. Simultaneously, cocaine use had progressed to the more addictive smoking of freebase cocaine. The result of this was an increase in the local cadre of pushers, abusers and addicts and a rapid rise in admission rates to the treatment and rehabilitation institutions.

While it is unsure whether the previous levels of usage have been continued, there is no doubt that drugs and drug use remain a major public health threat to all members of society. With respect to the school-aged population, statistics on drug consumption is available from the 1997 Bahamas Adolescent Health Survey (5), which targeted high school students in grades 7, 9 and 11 across The Bahamas. Questions were included on the use of various substances within the year preceding the survey. According to this survey, 32.2% (39.6% males; 24.9% females) of respondents had drunk alcohol, 8% (12% males, 4.9% females) had smoked marijuana, 6.8% had smoked cigarettes (9.4% males, 4.2% females), and 1.2% (no gender differences) had used cocaine.

As a matter of government policy, The Bahamas does not encourage or facilitate illicit production or distribution of narcotic or psychotropic drugs, other controlled substances, or the laundering of proceeds from illegal drug transactions. Possession of illicit drugs for personal use and for illicit trafficking is a crime. Theoretically, any amount of an illicit substance can result in an arrest and charges being brought. Additionally, the government ratified the Inter-American Convention against Corruption in 2000.

In the area of law enforcement, the agencies involved in the anti-drug effort include the Royal Bahamas Police Force (RBPF), the Royal Bahamas Defence Force (RBDF), the Office of the Attorney General, the Customs Department, and the Ministry of Foreign Affairs.

The primarily government sponsored National Drug Council coordinates the national demand reduction effort, including programs implemented and operated by governmental entities as well as by Non-governmental Organizations (NGOs) such as the Drug Action Service and the Bahamas Association for Social Health.

The country has two main facilities for the treatment of substance abuse: The Sandilands Rehabilitation Centre (SRC), an in-patient facility that provides geriatric and psychiatric services, including a comprehensive drug and alcohol abuse treatment centre; and the Community Mental Health Centre (CMHC), also known as Knowles House, which provides outpatient treatment, counseling and group therapy services. There are a number of private rehabilitation facilities that vary greatly in their approach and in their expertise. While these facilities do see at-risk groups such as women and teens, there are no facilities that specialize in the treatment of such groups.

2. Methodology

2.1. Objectives

The intent of the survey was to provide a complete assessment of the drug situation among adolescent girls and boys, as part of an assessment of needs and priorities for youth-oriented drug programs at the school, community and national level. It is anticipated that schools will use survey feedback for curriculum revision, for planning needed school interventions, and as a general means for informing parents and community members of the needs of their youths; and that National policy-makers and planners would be able to observe trends, thereby monitoring and evaluating national efforts to improve the situation.

The survey design followed that of a general population-based cross sectional survey.

2.2. Sample Design

2.2.1. Selection of Islands

The selection of islands included in the survey was based on a combination of convenience and economics. Chosen to be included in the sampling frame were the 8 most populated islands of the Bahamas that were all easily accessible. Together these islands accounted for approximately 96.1% of the total population (2000 Census); 84.9% in New Providence and GB alone. The proportions of the school-aged populations in New Providence and Grand Bahama may in fact exceed the figure for the general population on these islands as many Family Island students migrate to these islands to attend what is perceived as the "better" schools. These 8 islands included New Providence, Grand Bahama, Abaco, Andros, Eleuthera, Exuma, Long Island and Cat Island.

2.2.2. Selection of Grade Levels

The original intention was to draw a representative sample from grades 8 through 12. This proved to be too expensive and thus the decision was made to limit the number of grade levels to include in the survey. To allow for a fairly broad age representation and to be consistent with the SIDUC methodology, the decision was made to include grade levels 8, 10 and 12. Schools that had students at these grade levels were categorized as All Age and Secondary Schools. Each of the selected grade levels was treated as a separate stratum to allow for individual representation.

The decision was made early on to include the private as well as the public schools in the survey. This was important because in the Bahamas approximately one-fifth of all secondary school students were enrolled in private schools, too large a population to ignore.

2.2.3. Required Number of Classes/Sample Size Calculation

The number of grades 8, 10 and 12 was obtained from each school in the country along with the total number of students at that grade level. This was then used to construct a sampling frame for each grade level from which the required sample size was calculated. Once calculated, an additional amount was added due to an expected response rate of 80% resulting from non-attendance on the day of the survey as well as incomplete responses. The formula used is outlined in Appendix B.

2.2.4. Selection of Classes

The sampling units for the survey were classes and once selected the intent was to survey the entire class. To facilitate the selection process, three grids containing the actual number of grades at each level for public and private schools were prepared. For the actual selection of classes in New Providence and the Family Islands, the schools were listed geographically (consecutively for public and private) and a sampling fraction applied after the initial random selection at each grade level. The sampling fraction was calculated as found below.

Sampling Fraction = <u>Total No. of Classes at each Grade Level</u> Total No. of Required Classes

The initial class selected from the list was determined by randomly selecting a number between 1 and the sampling fraction.

2.3. Data Collection

Schools were notified in writing, with follow-ups made by telephone, as to which classes were selected. The school in turn provided the most convenient time(s) in which to administer the survey. As the classes were pre-selected, on the day of the survey the facilitators only had to report to the principals' office to be directed and introduced to the correct class. Teachers then made sure the class was in order and generally prepared to answer the questionnaire. Facilitators then requested the teacher's assistance in filling out a form detailing basic information about that particular class, including the name of the school, name of the class, date of survey, number of students registered for that class, and the number of students taking part in the survey (Annex C).

Once the class information form was completed, the teachers were asked by the facilitator to leave the classroom to ensure confidentiality and to make the students feel more comfortable when completing the questionnaire. In rare cases where the teacher

preferred to remain, they were not allowed to take part in any aspect of the survey process and were to maintain an inconspicuous presence in the room.

The survey was conducted among all students in the selected classes through the use of a self-administered, pre-coded questionnaire (Annex D). The questionnaire was self-administered in order to give the students greater confidence in the privacy of their responses. No information that could be used to identify the students was recorded, and the facilitators did not have access to the responses at the time the questions were answered. All facilitators received training to familiarize them with the instruments, the methodology, and on their role as facilitators. Prior to the start of the survey in each class, the facilitators were required to explain the confidential nature of the survey, how to answer the questions, and to explain any locally identified difficulties. Once questionnaires were completed, the students were requested to bring them forward and place them in the envelopes at the front of the class. Once all questionnaires had been collected, the envelopes were sealed and eventually returned to the Health Information Unit of the Ministry of Health.

The fact that the students themselves would administer the survey was taken into account in the design of the questionnaire. It was extremely important to express the concepts in everyday language used by young people in each country so that they would fully understand the questions. Any necessary changes in terminology, as a qualifier to the original question, were made by the National Coordinator. Data collection began in November 2003 and ran for a period of 4 weeks.

The surveys collected data on the use of the following drugs: tobacco; alcohol; tranquilizers; stimulants; marijuana; cocaine hydrochloride; crack cocaine; ecstasy; methamphetamines; hallucinogens; heroin; opium; morphine; and inhalants. In addition, the variable "any illicit drug", which was not a question included in the questionnaire, was created to obtain an overall assessment of drug use. It was the result of a process developed in the data processing stage and encompassed the use of solvents and inhalants, marijuana, hashish, hallucinogens, heroin, opium, morphine, cocaine hydrochloride, crack, ecstasy, methamphetamines, and "other drugs".

The use of these drugs was measured through three indicators:

- 1. Lifetime prevalence, which is the percentage of the targeted population that had used drugs at least once in their lifetime:
- 2. Prevalence in the last year, which is the percentage that had used drugs one or more times in the 12 months preceding the survey; and
- 3. Prevalence in the last month, which is the percentage of the population that had used drugs one or more times in the 30 days immediately preceding the survey.

Lifetime prevalence is generally considered an indicator of the level of experimental drug use while use in the past 30 days is indicative of current use.

In addition to the prevalence data, information was also collected on other relevant factors such as the students' family composition, friends who used drugs and/or alcohol,

academic performance, personal opinions about the seriousness of using certain drugs, personal predisposition to drug use, exposure to prevention measures, etc.

The questionnaire was organized according to the following sections:

- 1. Basic socio-demographic data;
- 2. Types of problems encountered in these studies;
- 3. Opinion on risk associated with consumption of legal and illegal substances;
- 4. Relationship of friends to legal and illegal substances;
- 5. Prevalence of cigarette and alcohol consumption and pattern of consumption (frequency, starting age);
- 6. Prevalence of psychotropic medication consumption and pattern of consumption (frequency, starting age);
- 7. Prevalence of drug consumption and patterns of consumption (frequency, starting age);
- 8. Level of information and exposure to prevention programs.

2.4. Data Handling

There were several steps that were recommended by SIDUC and followed to ensure the accuracy, completeness and integrity of the data. In the first instance, the facilitators gave clear and consistent instructions and explanations to reduce the chance of ambiguity. Secondly, the facilitators were responsible for checking the completed questionnaires for completeness and consistency in the responses, as soon as possible after each class and prior to returning them to the Health Information Unit. Finally, the data was double entered for verification purposes to eliminate the chance of data entry error.

Experienced personnel performed all aspects of data processing, including coding, editing, entry, cleaning and analysis. Data entry and cleaning were performed using the Data Entry module of SPSS 3.0 PC Version[©]. SPSS (Statistical Package for Social Sciences) was used in analysing the data.

For the purpose of this report, the 8th, 10th and 12th grades will be used synonymously with the 1st, 3rd, and 5th forms, respectively. In the event there was no data to report or the numbers were small, tables may have been excluded. All tables are reported in percentages.

2.5. Data Analysis

The data was weighted to account for differences in the probability of selection across grade levels due to stratification. The weighting variable was based on the reciprocal of the probability of selection and represented the number of observations represented by single cases in the data file.

Initially, a univariate analysis was conducted to observe the distribution of the variables and to make a determination as to outliers and cut-points for the grouping of continuous variables and further aggregation of categorical variables. Following this, both bivariate and multivariate analyses were used to determine those factors related to substance use. The bivariate analysis was used to look specifically at the inter-relations between the various factors as well as the association between each of the student characteristics and substance use. The multivariate analysis was employed to determine those factors, in the presence of all others, that were able to predict the outcome of interest most efficaciously. Results of the latter reflect those factors, given all the known factors associated with substance use and for which data was captured in this study, that are most important in the presence of all other factors. If economics were a factor, then these would be the issues upon which intervention emphasis should focus.

The testing for differences between the means of two groups for data on a continuous scale was performed using the t-test. If tests for differences between the means of more than two groups were required, then an Analysis of Variance (ANOVA) was performed. The statistical test employed for differences in proportions between two or more groups was the Chi Square test.

The multivariate analysis technique used was logistic regression and was specifically used to estimate the odds of "ever use of marijuana", "marijuana use in the last 12 months" and "alcohol consumption in the past 12 months", all as a dichotomous variable. The analysis compared students who did use to those who did not, while controlling for all predictor variables simultaneously. The multivariate analysis was limited to these three outcome variables because marijuana was the main illicit drug of choice and because of the role that the use of alcohol is believed to play in the subsequent use of more dangerous substances. The inclusion criteria were based on statistical associations with the study outcomes observed in the bivariate analysis and through known associations identified in the literature. The Stepwise Backward Elimination method was then employed to remove those variables that did not contribute significantly to the model based on the Likelihood Ratio test.

3. Student Demographics and Knowledge, Attitudes and Beliefs about Drugs

3.1. Student Demographics

The demographics of the survey participants are presented in Table 1 and reveal that the final analysis was performed on a total of 2222 students selected from 21 educational institutions across 8 islands. During the process of random selection of grades, none of the schools in Long Island were selected. The majority of the students were from New Providence (63.3%) and Grand Bahama (19.6%).

The gender split was roughly equal with 48.1% male and 51.9% female. As for age, the majority of the students were 14 years and younger (58.6%). Another one-third (29.0%) were 15-16 years and the remaining 12.4% were 17 years and older. The average age was 14.2 years, with a range from 10 to 19 years.

Table 1: Student Demographics

Demographic Indicator	Distribution of Students		
Type of School Public Private	67.0 33.0		
Grade in School 8 th 10 th 12 th	39.1 32.0 28.9		
Gender Males Females	48.1 51.9		
Age Groups ≤14 15 – 16 17 – 18 19+	58.6 29.0 12.1 0.3		
Type of Family Mother and Father Parent and Stepparent Mother or Father Other Relative Other Arrangement	37.9 13.0 38.2 6.8 3.9		

The distribution based on grade level revealed that approximately a third of the sample was selected from each grade (Grade 8, 39.1%; Grade 10, 32.0%; Grade 12, 28.9%).

Two out of three (67%) students who took part in the survey were from the Public schools, while 33% were Private school students.

The students were also asked about their parents' marital status. Surprisingly, most of the students reported their parents as having been married (43.5%). Approximately one quarter (26.7%) were single or never married, 11% separated, and 8.6% of the students' parents were divorced. Continuing, another 3% of the respondents' parents were widowed, 3.6% in common-law unions, and 3.6% indicated that they did not know their parents' marital status.

Simply listing those individuals with whom the students stated that they lived, 81.9% lived with their mother, 46.6% their father, 4.3% lived with a stepmother, 10.3% a stepfather, 17.6% lived with their grandparent(s), 2.3% lived with a girl/boyfriend, 1.8% lived with a spouse, 24.7% lived with another relative, 3.2% resided with a friend, and 4.8% lived with another person other than those already mentioned.

In order to get an assessment of the potential for parental influence, more specific living arrangements were looked at. Results revealed that two out of every five students (37.9%) lived with both parents, 9.8% lived with their mother and stepfather, and 3.2% lived with their father and a stepmother. Approximately 38.2% of all students lived with a single parent, 33.6% with their mother and no father figure (father/stepfather) and 4.6% with their father and no mother or stepmother. As for other types of guardianship, 4.1% lived with their grandparent(s) and 2.7% lived with another relative.

Most (82.4%) of the students did not work for pay while attending school. As for those who did work (17.6%), the median number of hours worked was eight hours a week. There was a gender difference with males working 8 hours and females 6 hours per week.

3.2. School Performance

The students were also asked about any academic difficulties that they might have had. These included any problems that affected their performance as a student or that led to lower grades in either primary or secondary school. Approximately 4 of every 10 (36.6%) Bahamian students "never" had such problems, but an almost equal proportion (39.3%) stated that they have had academic difficulties "a few times". One out of five (20.1%) had school difficulties "once", and 4% had them "often" or "a lot".

Additionally, the students were asked how many grades or forms that they had repeated during their studies at both the primary and secondary levels. Next to expulsion, grade repetition can be considered the ultimate consequence or measure of academic difficulty and would normally include those students who, for whatever reason, were the

worst performers at that time. As for grade repetition, 82.6% never had to repeat a grade. Approximately one out of ten (12.3%) repeated once, while the remaining 5% had to had to stay back a grade more than once.

With respect to behavioural problems, measured in the survey by the number of times disciplined, again, the majority experienced some sort of punishment "a few times but not often" (43.2%). Approximately one-third (31.5%) were never disciplined, 18.8% were disciplined once, and 6.5% were punished "often or a lot". Examples of the disciplines experienced included detentions, suspensions, expulsions and beatings.

3.3. Knowledge of Drug Use

In response to the general question of whether they felt that they knew enough about the consequences of drugs, more than one-half of the respondents (56.4%) felt they were "well informed" about the consequences of drugs. About one third (29.9%) thought they were "slightly informed", and 13.7%, "not informed".

Parents and relatives (30.5%) appeared to be the most influential to students with regards to where they get information about drugs. Another 19.9% got their information, primarily, from the television, 14.4% from "Friends", and 10.5% from "Teachers". A total of 5.5% reported that most of their information was based on their own experiences. The top four most popular sources did not change according to grade level. However, the proportion who identified parents or relatives as the main information source did decrease somewhat as grade level increased, giving way to sources such as friends or the students' "own experience", which increased with increasing grade level (Table 2).

Table 2: Main Source of Information on Drugs by Grade Level

Main Information Source		Total		
Main information Source	8 th	10 th	12 th	Total
Parents/Relatives	34.1	28.9	27.5	30.5
TV	20.2	18.0	21.8	19.9
Friends	12.8	14.4	16.6	14.4
Teachers	11.1	11.5	8.7	10.5
Own Experience	4.5	5.7	6.4	5.5
Professionals	6.7	8.3	8.3	7.7
Newspapers	2.2	2.3	1.5	2.0
Poster/Brochures	4.0	8.1	6.4	6.0
Internet	1.9	1.9	2.1	2.0
Radio	2.5	1.0	0.6	1.5
Total	100	100	100	100

The students were also asked about their exposure to drug prevention education through having taken any courses, workshops or lectures. Results revealed that drug prevention education in the secondary schools was at a relatively low level, not universally implemented within schools and varied in its coverage across schools. The

overwhelming majority of students (69.4%), approximately 7 of every 10, have never participated in any drug prevention activity such as workshops, courses or lectures. One out of five (18.8%) took a course once and 11.8% more than once.

Looked at in relation to grade level, it was obvious that much smaller proportions of those students in the lower grades had participated in any of these prevention activities. While 77% of all 8th graders had not participated in any such activity, for the 10th graders and 12th graders this proportion decreased to 69.1% and 59.7%, respectively. Results based on the type of school the students attended revealed that while 73.8% of the public school students had never been involved in any of these activities, the same could only be said of 60.9% of the private school students. As a group, the 8th grade students from the public schools (84.1%) had the highest percentage of students who had never participated and the 12th grade students from the private schools (55.7%) had the lowest percentage of non-participants (Table 3).

Table 3: Percentage of Students Who Have Participated in Drug Prevention Activities Based on Type of School and Grade Level

Drug Prevention	Public Schools			Private Schools		
Activity	Grade 8	Grade 10	Grade 12	Grade 8	Grade 10	Grade 12
Never Participated	84.0	73.0	61.8	65.4	59.7	55.7
Once	10.1	16.5	24.4	21.6	25.7	23.5
More than once	5.8	10.5	13.8	13.1	14.6	20.9

Of those who have participated at least once, 42.1% found these activities "very useful", 28.6% "useful, 12.8% "slightly useful", 6.2% "not useful", and 10.4% did not know how to rate the activities.

It was encouraging to see that most of the students (62.7%) thought that these activities had changed their attitude toward drugs "a lot". Less than one quarter (23.5%) thought that their attitude had changed only a "little", and 8.9%, "not at all". A total of 4.9% were not sure or did not know whether their attitude towards drugs had changed.

As to how recent these prevention activities had taken place, similar proportions of students participated in their last prevention activity either within the past year (28.2%), one to two years ago (25.2%), or so long ago that they did not remember (30.8%). The remaining 15.8% had participated in their last activity more than two years ago.

3.4. Exposure to Drugs and Drug Use

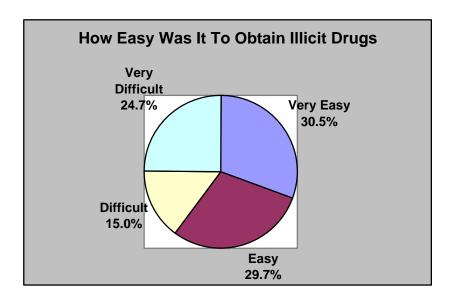
Hypothesized etiologies of drug and alcohol use point to exposure to these substances as a significant factor in both their initiation and continued use. The potential for peer pressure to play a major role in student use of alcohol was great as approximately one of every 2 secondary school students (51.1%) had at least one friend who occasionally drank too much alcohol; A total of 10.7% had "one", 31.3% "some", and 9.1% had "a lot" of friends who sometimes drank too much.

The percentage of respondents with at least one friend who "occasionally drank too much alcohol", however, varied tremendously by grade level. Whereas only 34.6% of the 8th graders had such a friend, this increased to 53.5% among the 10th graders and even higher to 70.6% among those students in the 12th grade.

Additionally, student exposure to illicit drugs through friends was also a concern in The Bahamas, with results revealing that one of every three (36.7%) Bahamian students had at least one friend who used illicit drugs; 6.7% one, 23% "some", and 6.9% "a lot" of friends who used illegal drugs. Again, these results differed greatly across grade levels. The proportion of students with no friends who used illicit drugs decreased from a high of 79.1% in the 8th grade to 60.8% in the 10th grade and 45.3% in the 12th grade.

In response to the general question of how easy it was to obtain illicit drugs, results revealed that 6 of every 10 students (60.2%) thought that obtaining illegal drugs would be either "easy" or "very easy". The remaining 39.8% considered this to be a difficult task; 24.7% "very difficult" and 15.1% "difficult" (Figure 1). Not surprisingly, the higher the students grade level, the higher the likelihood that they would find obtaining illicit drugs either "easy" or "very easy". As the grade levels increased from 8 through 12, the percentage of students with this opinion increased from 42.5% to 62.9% and peaked at 80.4%.

Figure 1



However, when the students were asked the direct question of whether they ever had a chance to try an illicit drug, the majority, 70.2%, indicated that they never had a chance to try an illegal drug. Thirteen percent (13.2%) had the chance once, and 16.6% several times.

When asked if they had ever been curious about trying illegal drugs, again most students reported that they were not (68.2%). Fifteen percent (15.1%) indicated that they "may be" curious and 16.7% responded "yes" to the question on curiosity for trying an illegal drug.

Responses to the more direct question of "if they had the chance, would they try an illicit drug" suggests that if Bahamian students had the chance to try an illegal drug, 83.3% would not take it. Twelve percent (11.7%) may and 5% would definitely try an illegal drug if given the opportunity.

3.5. Attitudes and Beliefs about Drugs and Drug Use

The students were asked how harmful they thought selected drugs would be to their health when taken at varying frequencies. Responses were categorized as not harmful, slightly harmful, quite harmful, and very harmful. In the event the students were not familiar with a particular drug or did not know enough about a drug to form an opinion on its potential to cause harm, the response was "do not know". Results are presented in Table A1.

Overall, the majority of students considered the taking of the mentioned drugs as quite or very harmful. However, it stills says a lot when even a moderate proportion of students would think of smoking marijuana "sometimes" as generally not harmful. The view that occasional marijuana smoking was "okay", while still held by a minority of students, is even more disconcerting when comparing prevalence rates based on the perception of harmfulness, as discussed later in the results.

Looking at cigarette smoking, 10.7% thought the practice was "not or only slightly harmful", but most, 82.7%, thought smoking was "quite or very harmful". Around seven percent (6.6%) indicated that they did not know how harmful cigarettes were.

Most students thought that drinking alcohol frequently (78.9%) and getting drunk (80.5%) was quite or very harmful to their health. Another 15.9% considered drinking alcohol frequently as not or only slightly harmful and 11.9% getting drunk as not or slightly harmful. Roughly 1 of 20 reported that they did not know how harmful drinking frequently or getting drunk would be to their health.

As for marijuana smoking, 75.4% thought of smoking marijuana "sometimes" as generally "quite" or "very harmful" and 16.2% not harmful. For smoking marijuana frequently, 7.5% considered this not harmful and 83.2% thought that frequent marijuana smoking was not good for their health. Less than 10% did not know of the effects of marijuana.

A very small proportion of the students thought of taking cocaine, whether sometimes (5.6%) or frequently (3.9%), as not or only slightly harmful. Approximately 85% thought cocaine was quite or very harmful, and the remainder, roughly 10%, did not know.

Of interest was that a quarter of the students did not know the extent to which taking tranquilizers or stimulants "sometimes" or "often" was harmful to their health. Another 10.3% thought taking these drugs "sometimes" were not or only slightly harmful, and 64.4% saw them as quite or very harmful. As for taking tranquilizers or stimulants frequently, a smaller percentage, 4.3%, saw these drugs as not or slightly harmful, and 71% saw them as mainly harmful.

Similarly, a sizeable proportion of students, when compared to the more well-known drugs such as cocaine, marijuana and cigarettes, appeared to have little knowledge of solvents and did not know whether inhaling solvents "sometimes" (16.9%) or "frequently" (16.5%) was harmful. Thirteen percent (13.3%) saw occasionally inhaling solvents as not or slightly harmful, and 69.8% saw inhaling as quite or very harmful. As for frequent inhalation, 6.2% thought it was generally not harmful, and more than three out of four (77.3%) saw frequently inhaling solvents as quite or very harmful.

This suggests that drugs such as tranquillizers, stimulants and solvents are not normally discussed with the students or not on the same level of detail as the more popular drugs.

4. Prevalence of Cigarette Use

Tobacco is the second most consumed drug in the world, following alcohol. It has been shown to significantly increase the risk of lung cancer, pulmonary emphysema and heart disease among other illnesses, and can seriously aggravate clinical conditions such as high blood pressure (6).

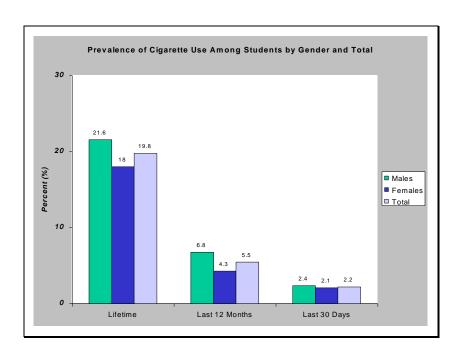
Overall, one out of every five (19.8%) Bahamian students have smoked a cigarette at some point in their life. Approximately six percent (5.5%) have smoked in the past year, and 2.2% within the past 30 days. For those students who had smoked within the past 30 days, 39.6% or 4 of every 10, reportedly, did not smoke daily. A total of 39.1% smoked between 1-5 cigarettes per day, 7.1% from 6-10, and the remaining 14.1% more than 10 cigarettes per day.

Students had their first cigarette at an overall mean age of 11.4 years. As compared to the males (11.1 years), females (11.6 years) appeared to wait until they were a little older to try their first cigarette.

4.1. Prevalence of Cigarette Use by Gender

A comparable proportion of males (21.6%) and females (18%) have smoked cigarettes at least once in their life. The same can be said for yearly use (males 6.8%, females 4.3%) as well as current use (males 2.4%, females 2.1%)(Figure 2).

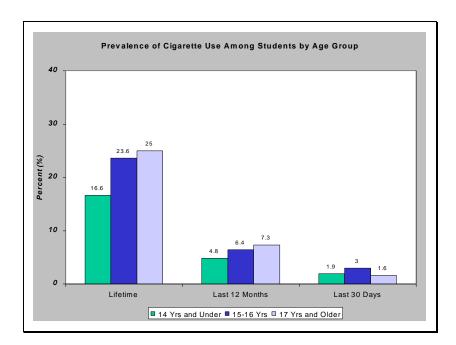




4.2. Prevalence of Cigarette Use by Age

About one-quarter of the students who were between 15-16 years (23.6%) and 17 years and older (25%) have smoked a cigarette before; this compared to 16.6% of those 14 years and younger. On the other hand, the percentages for yearly use showed a steady increase with age from 4.8% to 6.4% and then to 7.3% in those under 15, 15-16 and 17 years and older, respectively (Figure 3).

Figure 3



4.3. Prevalence of Cigarette Use by Grade Level

Lifetime prevalence by grade level revealed that cigarette smoking appears to be more popular among 10th graders (Figure 4). While 14.4% of the 8th graders reportedly tried cigarettes, this increased to 23.6% among the 10th graders, before deceasing slightly to 22.7% among the 12th graders. The results for more recent use were no different. In the past year, 3% of those in the 8th grade, 8.6% of those in the 10th grade and 5.3% of the12th graders had taken a smoke.

4.4. Prevalence of Cigarette Use by Category of School

Virtually the same proportions of public and private school students reported lifetime (20.4%, 18.6%), past year (5.2%, 6%), and current use (2%, 2.7%) of cigarettes (Figure 5).

Figure 4

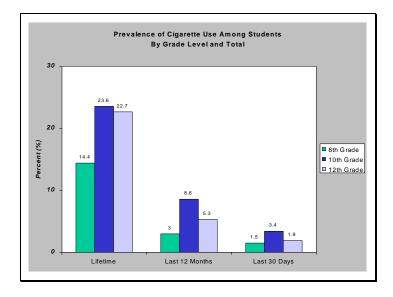
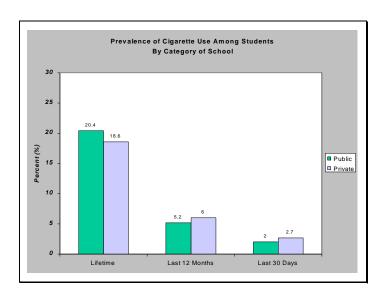


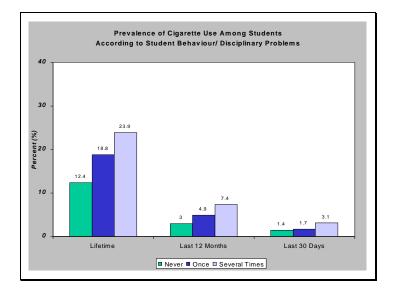
Figure 5



4.5. Prevalence of Cigarette Use by Behavioural Problems

As seen in Figure 6, a positive association was observed between behavioural problems and cigarette smoking. Smoking prevalence increased the more times the students were disciplined for behavioural problems. Of those who were never disciplined, those disciplined once and those who reported being discipline a few times or often, the lifetime rates were 12.4%, 18.8%, and 23.9%, respectively. Similarly, the rates in the past year were 3%, 4.9%, and 7.4%, while current smoking rates were 1.4%, 1.7%, and 3.1%, respectively.

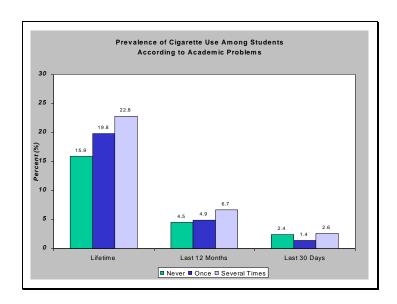
Figure 6



4.6. Prevalence of Cigarette Use by Academic Problems

Notable differences in the prevalence of cigarette smoking by academic difficulties were apparent for only lifetime use and smoking within the past year. Sixteen percent (15.9%) of those who never experienced difficulties, 19.8% of those who had difficulties once, and 22.8% of those who had them a few times or a lot had smoked at least once. Differences were not as obvious when looking at smoking in the past year; 4.5% of those who reported no academic problems, 4.9% of those with only one such experience and 6.7% of those who had them a few times or a lot, smoked within the past year (Figure 7).

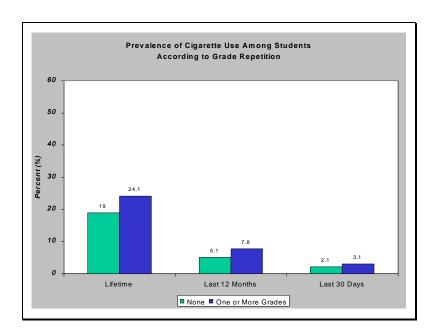
Figure 7



4.7. Prevalence of Cigarette Use by Grade Repetition

One out of five (19%) students who never repeated a grade, as compared to 24.1% of those who repeated one or more grades, had tried cigarette(s). In the past year, 5.1% of those who never repeated a grade and 7.8% of those who repeated at least once, had taken a smoke (Figure 8).

Figure 8



4.8. Prevalence of Cigarette Use by the Existence of Friends Who Used Drugs

Having friends who used illegal drugs appeared to be associated with the use of legal substances as well, with the difference in prevalence rates increasing the more recent the use of cigarettes. A lifetime prevalence rate of 14.1% was observed for students with no friends who use illegal drugs, 22.4% for those with just one friend, 29.6% for those with some friends, and 35.3% among the group of students with a lot of friends who use illicit drugs; the latter more than double that in those with no such friends (Figure 9). An even sharper graduated rise in prevalence according to the number of drug using friends became evident for smoking in the past year. During that time period, the rates were 2.9% when there were no drug-using friends, 6% when there was one such friend, 9.7% with some friends, and 14% when there were a lot of friends who used illicit drugs.

4.9. Prevalence of Cigarette Use by Perceived Harm of Cigarette Smoking

Students who thought that cigarette smoking was not or only slightly harmful were nearly twice as likely to have smoked in their life (32.6%), in the past year (10%) and

past month (4.3%) than those who saw smoking as quite or very harmful (19.3%, 5.3%, 2%)(Figure 10).

Figure 9

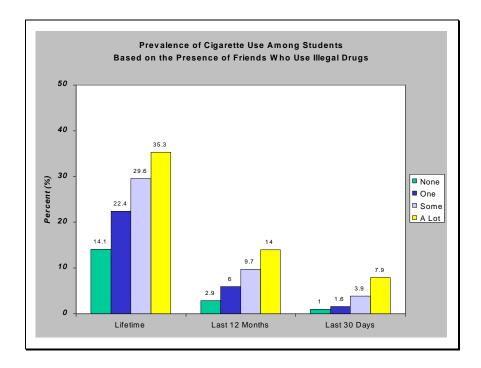
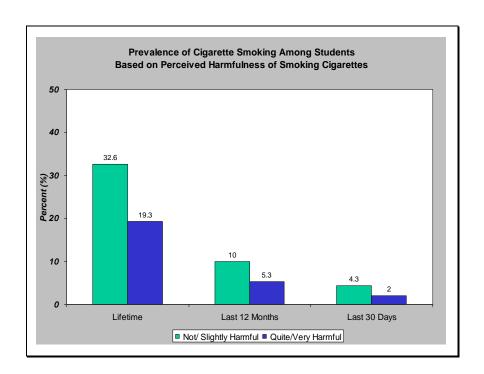


Figure 10



5. Prevalence of Alcohol Use

Without question, alcohol is the world's most widely used drug, both in terms of volume consumed and number of consumers. The active ingredient is ethyl alcohol, a drug that causes depression in the central nervous system and dependency. Its effects include progressive organic problems, chronic gastritis, enlarged liver followed by hepatic cirrhosis, etc. Chronic drinkers also suffer from dyspepsia, chronic neuritis and serious mental disorders. In addition, drinking increases the risk of death from automobile crashes as well as recreational and on-the-job injuries. Furthermore, both homicides and suicides are more likely to be committed by persons who have been drinking (7).

Together with tobacco, alcohol has been identified as a gateway drug; one that leads to the use of many other substances. Alcoholic inebriation suppresses inhibitions and results in drinkers becoming more vulnerable to the use of other drugs as well as a display of attitudes and behaviours they would otherwise never adopt.

Almost two out of three (64.4%) students have drunk alcohol at some point in their lives. Less than half (43.9%) have drunk within the last year, and 22.6% are current users or have taken a drink in the past 30 days. For those students who have taken at least one drink during the past 30 days, just above one-half (54.6%) did not drink on a daily basis. A total of 28.9% took between 1-5 drinks per day during this period.

The median age for the students' first drink of alcohol was 12 years and the mean was 11.5 years. On average, males (11.1 years) took their first drink almost a year earlier than females (11.8 years).

5.1. Prevalence of Alcohol Use by Gender

No substantial differences by gender were apparent for alcohol consumption. A total of 63% of the male students and 65.6% of the females have drunk alcohol at some point in their lives. While a slightly greater proportion of females have drunk alcohol once before, a higher percentage of males than females have reported drinking both within the past year and past month. In the past year, 44.9% of the males and 43.1% of the females had taken a drink, and in the past month, 25.2% of the males and 20.4% of the females (Figure 11).

5.2. Prevalence of Alcohol Use by Age

A larger percentage of students age 15-16 (76.3%) and 17 years and older (76.3%) have consumed alcohol at some point in their lives than those 14 years and younger (56.8%). The same pattern emerges for use within the year, when 35.2% of those students 14 years and younger, 57.6% of the 15-16 year olds and 59.2% of those 17 years and older had taken a drink. For current use, the rates were 15.3% for the

youngest cohort, 31.3% of those 15-16 years old and 36.3% of the students who were 17 years and older (Figure 12).

Figure 11

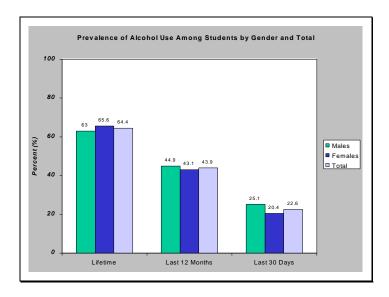
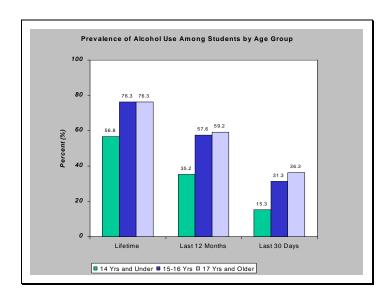


Figure 12

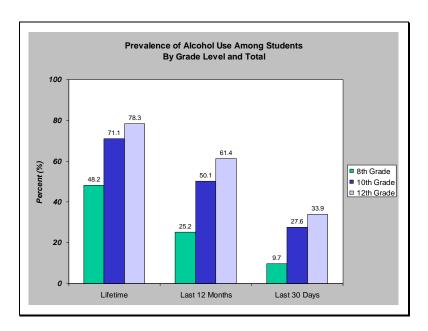


5.3. Prevalence of Alcohol Use by Grade Level

As grade level increased, so did lifetime, annual, and current prevalence. Forty-eight percent (48.2%) of the 8th graders, 71.1% of the 10th graders and 78.3% of the 12th graders have drank alcohol at least once in their life, while for use in the past year the

rates were 25.2%, 50.1%, and 61.4%, respectively. A total of 9.7% of the 8th graders, 27.6% of the 10th graders, and 33.9% of the 12th graders can be considered current drinkers (Figure 13).

Figure 13



5.4. Prevalence of Alcohol Use by Type of High School

Lifetime consumption of alcohol does not substantially differ by type of high school. A total of 63.1% of public and 66.9% of private school students have reported such use. As for yearly and current use, however, proportionally more private school students have drank alcohol. Over half (51.7%) of the private school students, as compared to 39.9% of the public school respondents have drank within the past year, while 26.8% of all private and 20.4% of all public school students reported drinking within the 30 days preceding the survey (Figure 14).

5.5. Prevalence of Alcohol Use by Behavioural Problems

Based on the results as seen in Figure 15, it was obvious that the prevalence of drinking increased the more times the students were disciplined. Approximately 50.9% of those who were never disciplined, 60% of those disciplined once, and three out of four (74.9%) of those who were disciplined a few times or a lot had drank alcohol in their life. Along the same vein, 29.4% of those who were never disciplined, 38.7% of those who received discipline once, and 55.9 of those disciplined a few times or a lot drank within the past year. In the past month, the rates were 14.1%, 17.4%, and 30.2%, respectively.

Figure 14

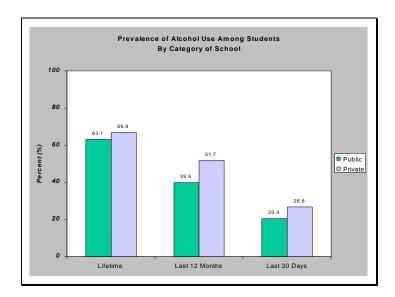
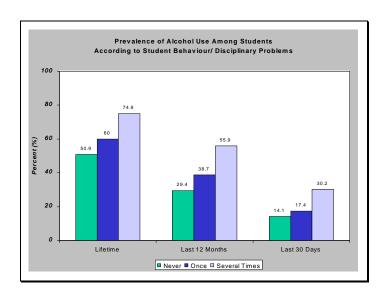


Figure 15

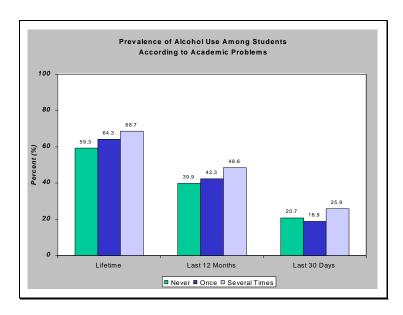


5.6. Prevalence of Alcohol Use by Academic Problems

Prevalence rates were also positively associated with reported academic problems. The greater the numbers of incidences of academic difficulties, the more likely the students were to have taken a drink in their lifetime, past year and past month (Figure 16). Among those who had no academic difficulties, 59.3% had drank at least once in their life; less than the 64.3% of those who had difficulties at least once, and the 68.7% of those who had reported academic problems a few times or a lot, combined. Similarly,

39.9%, 42.3%, and 48.6% of those who never experienced school difficulties, reported difficulties once, and those with a few or a lot of academic problems, respectively, reported drinking within the past year.

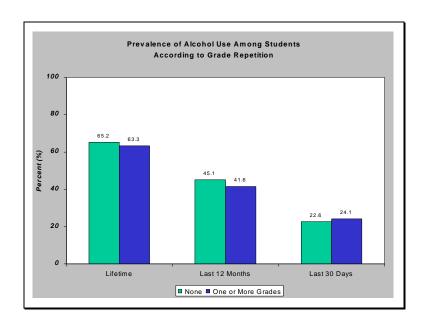
Figure 16



5.7. Prevalence of Alcohol Use by Grade Repetition

There were no significant differences in alcohol drinking prevalence between students who never repeated a grade and those who repeated one or more (Figure 17).

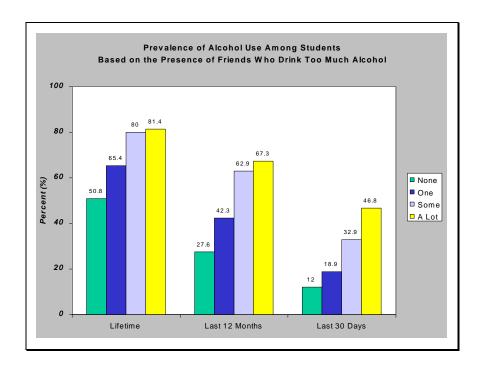
Figure 17



5.8. Prevalence of Alcohol Use by the Existence of Friends Who Used Alcohol Or Illegal Drugs

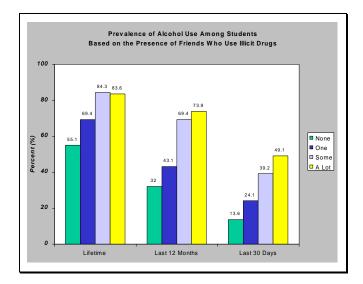
Figure 18 reveals that the more the amount of friends of the students who "occasionally drink too much alcohol", the more likely the students were to report having drunk in their lifetime, in the past year, and in the past month. Of those students with none, one, some, and a lot of friends who drank too much, 50.8%, 65.4%, 80%, and 81.4%, respectively, have drunk alcohol at least once in their life. The proportion of drinkers among the same groups in the past year were 27.6%, 42.3%, 62.9%, and 67.3% and in the past month, 12%, 18.9%, 32.9%, and 46.8%.

Figure 18



A similar trend was observed when drinking was looked at in relation to the existence of friends who used illegal drugs. A total of 84.3% of the students with some friends who used and 83.6% with a lot of friends who used illegal drugs reported lifetime alcohol use, compared to 69.4% of those with one friend and 55.1% of those with no such friends. Again, the prevalence gap became wider the more recent the alcohol use. Respectively from students with no friends who use illicit drugs to students with a lot, 13.6%, 24.1%, 39.2%, and 49.1% reported current alcohol drinking; the latter more than 3 times that of the group with no drug-using friends (Figure 19).

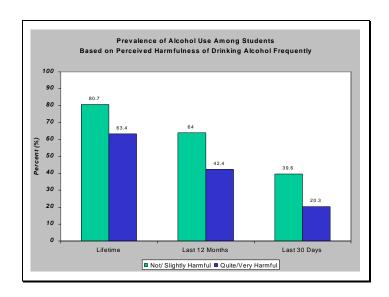
Figure 19



5.9. Prevalence of Alcohol Use by Perceived Harmfulness of Alcohol

Students who saw "frequent drinking" of alcohol as not or only slightly harmful, as compared to those who viewed alcohol as quite or very harmful, appeared more likely to have tried alcohol at some point in their lives or to have been more recent drinkers. The lifetime prevalence of those students who saw frequent alcohol drinking as not or only slightly harmful was 80.7%, as contrasted with the 63.4% who thought the practice as quite or very harmful. Two out of three (64%) students who did not see much harm in frequent alcohol consumption and 42.4% who saw frequent drinking as quite or very harmful drank within the past year (Figure 20). A similar trend was observed when drinking was looked at based on the perceived harmfulness of getting drunk.

Figure 20



5.10. Logistic Regression Results for Drinking Within the Past 12 Months

Variables included in the model were: grade level, sex, age, live with father, having academic difficulties, being disciplined at school, perception about the harm from drinking alcohol frequently, smoking cigarettes in the last 12 months and having friends who occasionally drink too much alcohol. Subsequently eliminated from the model due to large p-values were sex, age and having academic difficulties.

Table 4: Risk for Drinking Alcohol in the Past 12 Months Among Adolescents

Characteristic	Adjusted Odds Ratio (OR)	Confidence Interval (CI)	<i>p</i> -value
Grade Level			
8 (Form 1)	1.00		
10 (Form 3)	2.52	(1.92-3.30)	0.0000
12 (Form 5)	3.83	(2.90-5.06)	0.0000
12 (1 01111 0)	0.00	(2.50 0.00)	0.0000
Live with father			
Yes	1.00		
No	1.27	(1.02-1.58)	0.0290
Frequency of discipline for behaviour			
Never	1.00		
Once	1.48	(1.07-2.04)	0.0165
A few times but not often	2.61	(2.02-3.38)	0.0000
Often/A lot	3.90	(2.43-6.26)	0.0000
Perceived harm in drinking alcohol			
frequently			
Very harmful	1.00		
Quite harmful	1.69	(1.29-2.21)	0.0001
Slightly harmful	2.62	(1.82-3.77)	0.0000
Not harmful	1.61	(0.93-2.79)	0.0906
Don't know	0.48	(0.27-0.85)	0.0120
	-		
Smoked cigarettes in the past 12 months			
No	1.00		
Yes	12.67	(5.63-28.5)	0.0000
Have friends who occasionally drink too much alcohol			
None	1.00		
One	1.36	(0.95-1.94)	0.0936
Some	2.54	(1.98-3.26)	0.0000
A lot	3.33	(2.22-5.01)	0.0000

The results revealed that after taking all other factors associated with drinking in the past 12 months into consideration, the strongest significant associations were observed with smoking cigarettes in the last 12 months, grade level, being disciplined as a result

of behavioural problems and having friends who occasionally drink too much alcohol (Table 4).

Regarding smoking cigarettes in the last 12 months, the estimated risk of students having a drink within the past 12 months among smokers was approximately 13 times that of the non-smokers (OR=12.7). Although highly significant, there was a rather wide confidence interval around the odds ratio (CI=5.6 - 28.5).

As observed in the bivariate analysis, being disciplined for behavioral problems remained a highly significant risk in the presence of all other factors. Compared to those who were never disciplined, the risk of having taken a drink within the year preceding the survey was four times higher for those disciplined "often or a lot" (OR=3.9, Cl=2.4 - 6.3) and almost three times higher for those disciplined "A few times but not often" (OR=2.61; Cl=2.02 - 3.38).

With respect to grade level, the estimated risk of students having a drink within the past 12 months increased significantly with each grade level increase. For students in grade 12, there risk was almost 4 times that of those in grade 8 (OR=3.8, CI=2.9-5.1), while for those in grade 10, the risk was two and one-half times that of the grade 8 students (OR=2.52, CI=1.92-3.30).

Having "a lot" of friends who occasionally drink too much alcohol increased the risk of drinking more than three times when compared to those students with no friends who drank (OR=3.33; C=2.22-5.01). For those with "some" friends who drank, this increase was on the order of two and one-half times (OR=2.54; C=1.98-3.26).

6. Prevalence of Marijuana Use

Marijuana is the most widely used illicit drug in the world ⁽⁸⁾. The drug itself is the leaves and flowers of the cannabis plant and the active ingredient is tetrahydrocannabinol (THC). It is generally used in a manner similar to tobacco as a cigarette, and also as hashish and hashish oil; the latter two containing a greater concentration of THC.

The potency of this drug varies greatly, with some of the more potent versions grown throughout South and Central America and the Caribbean. When used for a prolonged period, marijuana produces psychological dependence. Chronic users can have dilated pupils, hunger, and cravings for sweets, etc. Marijuana significantly reduces libido in both men and women, affects the nervous system, and over the long-term, can cause cerebral atrophy ⁽⁹⁾.

A total of 14.4% of Bahamian students have smoked marijuana at least once in their lifetime. Almost one out of ten (8.3%) had taken a smoke in the past year and one out of twenty (4.7%) in the past month. With respect to how often persons who had smoked marijuana in the past 12 months had done so, almost one-third (32.7%) had used on a weekly or more frequent basis.

The mean age of first use was 13.2 years. On average, males first tried marijuana at age 13 and females a year later at 14 years.

6.1. Prevalence of Marijuana Use by Gender

As marijuana use became more recent, so did the gap in prevalence between males and females. Percentage-wise, twice as many males (20.1%) as females (9%) have tried marijuana. Twelve percent (12.1%) of males, compared to 4.7% of females used marijuana in the past year, while four times as many males (7.5%) than females (2%) could be categorized as current users (Figure 21).

6.2. Prevalence of Marijuana Use by Age

For the most part, as age increased, so did the prevalence of marijuana use. More than three times as many students 15-16 years (24.1%) and 17 years and older (26.1%) than those 14 years and younger (6.8%) have smoked marijuana at some point in their lives. Similarly, 3.8% of those 14 and younger, 13.7% of 15-16 year olds, and 15.1% of the 17 years and older group have used marijuana within the past year, and 1.9%, 7.3% and 9.8% from the youngest to oldest age groups, respectively, smoked marijuana in the past month (Figure 22).

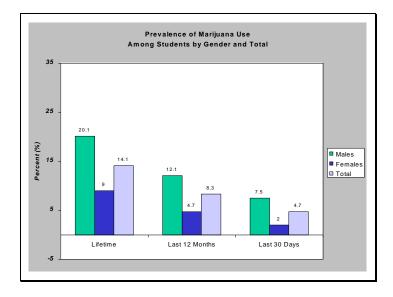
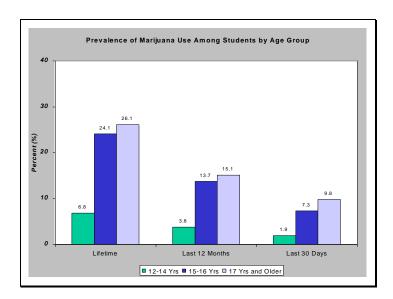
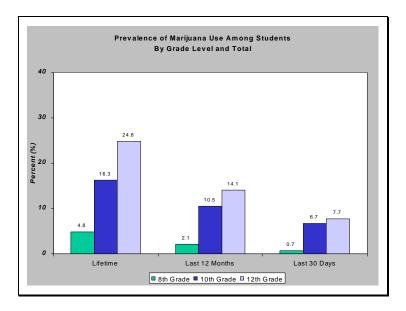


Figure 22



6.3. Prevalence of Marijuana Use by Grade Level

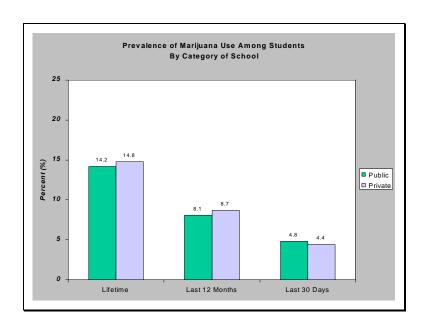
Differences were just as dramatic when marijuana use was looked at based on grade level. One out of every twenty (4.8%) 8th graders, 16.3% of the 10th graders, and 24.8% of all 12th graders had used marijuana at least once in their life. Looking at yearly and current use, similar patterns emerged: 2.1%, 10.5%, and 14.1%, respectively, reported yearly use, and 0.7%, 6.7%, and 7.7% current use (Figure 23).



6.4. Prevalence of Marijuana Use by Category of School

No apparent distinctions existed between public and private schools. A total of 14.2% of the public and 14.8% of the private students reportedly used marijuana once in their lifetime, while 8.1% of the public and 8.7% of the private students smoked marijuana in the past year. Approximately one of every twenty of both groups (4.8% public, 4.4% private) reported marijuana use within the 30 days preceding the survey (Figure 24).

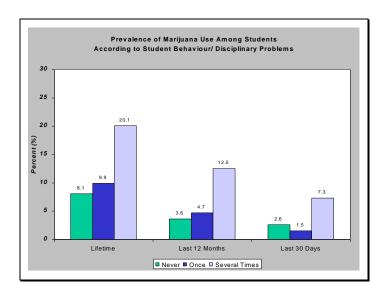
Figure 24



6.5. Prevalence of Marijuana Use by Behavioural Problems

Students who reported never having any behavioural or discipline problems in school had significantly lower marijuana usage rates than those who did (Figure 25). One out of five (20.1%) students who experienced discipline problems a few times or a lot had tried marijuana; more than twice the rate in those never disciplined (8.1%) and those who were only disciplined one time (9.9%). Approximately three times as many students who experienced punishment a few times or a lot (12.5%) as a result of behavioural problems smoked marijuana in the past year, compared to those never punished (3.6%) and punished only once (4.7%).

Figure 25



6.6. Prevalence of Marijuana Use by Academic Problems

The prevalence of marijuana use was also positively associated with reported academic problems. Approximately 1 in 5 (17.3%) of those who reportedly experienced academic difficulties a few times or a lot had smoked marijuana at least once. This is a stark contrast to the group of students who reported no such problems (10.5%) and those who had academic difficulties only once (15.3%). The same patterns emerged for annual and current use. Twice as many of those who had difficulties a few times or a lot had smoked marijuana in the past year (10.9%), as compared to those who never had difficulties (5.1%). A total of 8% of those who had problems once had smoked marijuana during this period (Figure 26).

6.7. Prevalence of Marijuana Use by Grade Repetition

A slightly larger proportion of students who had repeated at least one grade, as compared to those who never repeated, reported lifetime, annual and current use of marijuana. In that order, 13.3% of non-repeaters and 19.7% of repeaters, smoked at least once. Likewise, 7.8% of the non-repeaters, less than the 10.7% in the group of repeaters, smoked marijuana in the past year, and 4.2% of non-repeaters, as compared to 7.2% of repeaters could be considered current marijuana smokers (Figure 27).

Figure 26

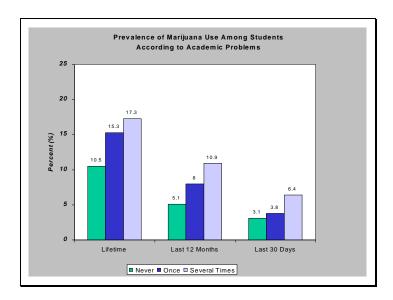
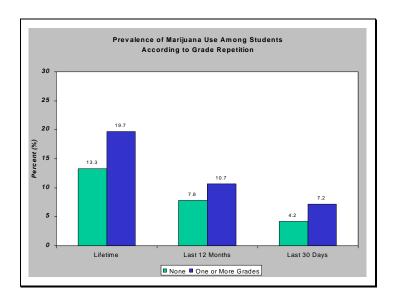


Figure 27

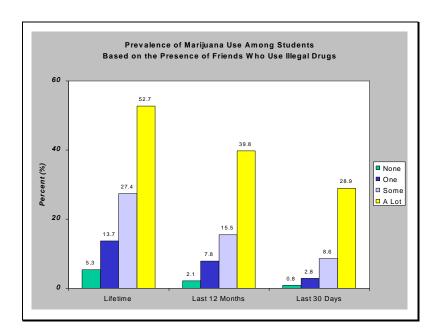


6.8. Prevalence of Marijuana Use by the Existence of Friends Who Used Drugs

The impact of drug-using friends was quite obvious for marijuana use, particularly for experimental use or use at least once in the students' life. For those students with no

friends, one friend, some friends and a lot of friends who use illicit drugs, reported lifetime marijuana use was 5.3%, 13.7%, 27.4%, and 52.7%, respectively. Among the same groups, a total of 2.1%, 7.8%, 15.5%, and 39.8% have smoked marijuana in the past year, and 0.8%, 2.8%, 8.6%, and 28.9% could be considered current marijuana smokers. Essentially, prevalence rates increased on the order of two to three times for each gradation in the number of drug-using friends (Figure 28).

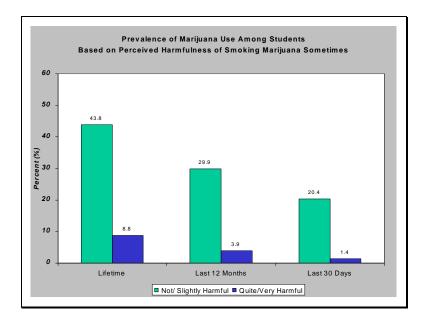
Figure 28



6.9. Prevalence of Marijuana Use by Perceived Harmfulness of Marijuana Use

There was a vast difference in marijuana smoking rates between those who saw marijuana smoking "sometimes" as generally harmful and those who did not. Further, the more recent the marijuana use, the greater the disparity. The lifetime prevalence rate for students who thought smoking marijuana "sometimes" was not or only slightly harmful was 43.8%, more than four times that of the harmful group at 8.8%. Looking at the annual and monthly rates, 29.9% of the not harmful group, versus 3.9% of the harmful group smoked in the past year, and 20.4% of the not harmful group versus 1.4% of the harmful group in the past month (Figure 29).

A similar trend was observed for the harmfulness related to the "frequent" use of marijuana. This is especially revealing, as the level of perceived harmlessness of marijuana in general may be a reason for the resurging popularity of the drug, especially among Bahamian male youth.



6.10. Logistic Regression Results for Ever Use of Marijuana

The independent predictor variables initially included in the model for "ever use of marijuana" included the sociodemographic variables sex, age and living with father; the school-related variables grade level, academic difficulties, disciplined for behavioural problems and participation in drug prevention activities; knowledge about the consequences of drugs and students' perception of how harmful marijuana use is; the influence of friends who use illicit drugs, the ease in obtaining illicit drugs and curiosity about trying an illicit drug; as well as the potential gateway effect due to cigarette use in the past 12 months.

Eliminated from the model were grade level, which had a high correlation with age, living with father, knowledge about the consequences of drugs and participation in drug prevention activities.

Results showed that when adjusted for each other, sex (particularly being male), age, having academic difficulties, being disciplined at school (at increasing levels) as a result of behaviour, perception about the harmfulness of marijuana, smoking cigarettes in the past year, having friends who use illicit drugs, ease in obtaining illicit drugs and curiosity about trying an illicit drug - presented increased risk for ever use of marijuana. When adjusted for other factors, strongest associations were seen between age (OR=4.3; CI=2.8-6.5), little (OR=3.15; CI=1.90-5.22) or no perception (OR=8.05; CI=4.18-15.48) about the harmfulness of marijuana and curiosity about trying an illicit drug (OR=4.35; CI=2.78-6.82) (Table 5).

Table 5: Risk for Ever Use of Marijuana Among Adolescents

Characteristic	Adjusted Odds Ratio (OR)	Confidence Interval (CI)	p-value
Sex			
Female	1.0		
Male	2.31	(1.59-3.39)	0.0000
Age (Years)	4.00		
10-14 15-19	1.00 4.26	(2.77.6.EE)	0.0000
15-19	4.20	(2.77-6.55)	0.0000
Academic Difficulties			
Never	1.00		
Once	2.03	(1.20-3.45)	0.0081
A few times	1.14	(0.73-1.78)	0.5729
Often/A lot	0.78	(0.28-2.18)	0.6460
Frequency of Discipline for Behaviour Never			
Once	1.00		
A few times but not often	1.15	(0.61-2.17)	0.6695
Often/A lot	1.46	(0.87-2.44)	0.1503
	2.09	(1.01-4.34)	0.0483
Perceived harm in smoking marijuana sometimes Very harmful	1.00		
Quite harmful	1.30	(0.81-2.09)	0.2765
Slightly harmful	3.15	(1.90-5.22)	0.0000
Not harmful Don't know	8.05 1.60	(4.18-15.48) (0.73-3.50)	0.0000 0.2407
Smoked cigarettes in the past 12 months	1.60	(0.73-3.50)	0.2407
No			
Yes	1.00		
	5.70	(3.25-10.03)	0.0000
Have friends who was illisit droves			
Have friends who use illicit drugs None	1.00		
One	0.94	(0.43-2.06)	0.8700
Some	1.66	(1.06-2.61)	0.0267
A lot	3.76	(2.06-6.86)	0.0000
Para Salakatatan III. Kal			
Ease in obtaining illicit drugs	1.00		
Very difficult Difficult	1.00 2.65	(1.15-6.08)	0.0216
Easy	1.92	(0.90-4.07)	0.0216
Very easy	2.42	(1.14-5.12)	0.0208
Curiosity about trying an illicit drug		(
No			
Maybe	1.00	(4.70.4)	0.0000
Yes	2.90	(1.76-4.77)	0.0000
	4.35	(2.78-6.82)	0.0000

6.11. Logistic Regression Results for Marijuana Use in the Past 12 Months

Significant independent risk factors for the use of marijuana at least once in the previous 12 months were sex (particularly being male), grade level (higher grades), having academic difficulties, being disciplined at school (at increasing levels), perception about the harmfulness of marijuana use sometimes, smoking cigarettes in the past year, having friends who use illicit drugs, curiosity about trying an illicit drug and participation in drug prevention activity. When adjusted for other factors, the strongest associations were observed between higher grade level (OR=5.03; Cl=2.24-11.27), smoking cigarettes in the past 12 months (OR=4.31; Cl=2.38-7.80), having a lot of friends who use illicit drugs (OR=6.44, Cl=3.20-12.93), and having a low perception of harm towards smoking marijuana (OR=7.18; Cl=3.64-14.15) (Table X2).

Variables eliminated from the model were age, living with father, ease in obtaining illicit drugs and knowledge about the consequences of drugs. These variables were not retained in the final model as they did not improve the fit of the model and had p-values greater than 0.05.

Table 6: Risk for Marijuana Use in the Past 12 Months Among Adolescents

Characteristic	Adjusted Odds Ratio (OR)	Confidence Interval (CI)	p-value
0			
Sex	4.00		
Female	1.00	(4.00.0.54)	0.0040
Male	2.21	(1.38-3.54)	0.0010
Grade Level			
0.000 =0.00	1.00		
8 (Form 1)	3.12	(4.40.6.06)	0.0054
10 (Form 3) 12 (Form 5)	5.03	(1.40-6.96) (2.24-11.27)	0.0054
12 (F0111 5)	5.05	(2.24-11.21)	0.0001
Academic Difficulties			
Never	1.00		
Once	2.13	(1.10-4.13)	0.0245
A few times	1.42	(0.81-2.49)	0.2149
Often/A lot	0.97	(0.29-3.25)	0.9592
Frequency of Discipline for Behaviour	0.0.	(0.20 0.20)	0.0002
Never	1.00		
Once	1.39	(0.58-3.36)	0.4605
A few times but not often	2.30	(1.14-4.62)	0.0197
Often/A lot	3.11	(1.30-7.46)	0.0109
Perceived harm in smoking marijuana sometimes			
Very harmful	1.00		
Quite harmful	0.86	(0.44-1.67)	0.6601
Slightly harmful	3.07	(1.69-5.59)	0.0002
Not harmful	7.18	(3.64-14.15)	0.0000
Don't know	2.27	(0.91-5.65)	0.0777

Table 6 Cont'd.

		ı	
Smoked cigarettes in the past 12 months No Yes	1.00 4.31	(2.38-7.80)	0.0000
Have friends who use illicit drugs			
None	1.00		
One	1.33	(0.51-3.47)	0.5567
Some	2.25	(1.23-4.14)	0.0087
A lot	6.44	(3.20-12.93)	0.0000
Curiosity about trying an illicit drug			
No	1.00		
Maybe	2.00	(1.04-3.82)	0.0366
Yes	3.15	(1.82-5.44)	0.0000
Deuticination in deve appropriate activity			
Participation in drug prevention activity	4.00		
More than once	1.00		
Once	2.00	(1.01-3.97)	.0482
None	2.34	(1.07-5.08)	.0324

7. Solvents and Inhalants

Inhalants are volatile substances that produce chemical vapours that can be inhaled through the mouth or more generally the nose to induce a psychoactive effect. In most cases, these substances are very cheap and easy to obtain, which makes their control difficult. Examples include gasoline, kerosene, certain types of glue, nail enamel, polishes, paints, solvents, anaesthetics, and other solvents like turpentine, thinner, etc. These substances severely affects the respiratory system, and persons under the influence of solvents and/or inhalants become fearless, do not measure the consequences of their actions, and lose their connection to the real world (10).

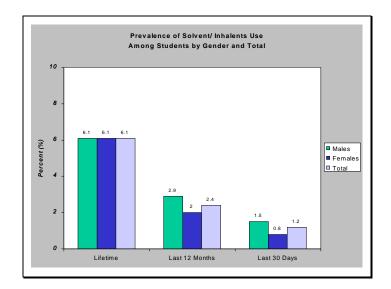
A total of 6.2% of Bahamian secondary school students had used a solvent or inhalant at some point in their lives. This would rank these substances as the 4th most popular substance tried behind cigarettes, alcohol and marijuana. In the 12-month and 30-day periods preceding the survey, the prevalence rates were 2.4% and 1.2%, respectively.

As regards the frequency of use of these substances over the past year, approximately 1 of every 5 (21.7%) students who had used had done so on a weekly or more frequent basis. The mean age at first use was 10.7 years.

7.1. Prevalence of Solvents and Inhalants by Gender

While there was no real difference between males and females in lifetime use, Figure 30 reveals that slightly more males than females were found to have used in the past year and past month. The lifetime, annual, and monthly rates in that order, for males and females respectively, were 6.1% and 6.1%; 2.9% and 2%; and 1.5% and 0.8%.

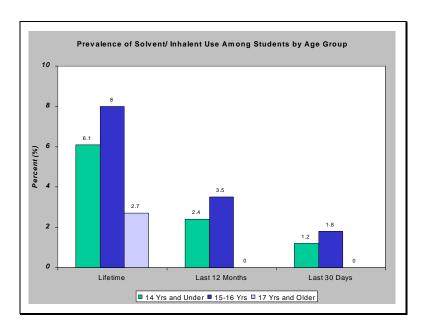
Figure 30



7.2. Prevalence of Solvents and Inhalants by Age

Solvents and/or inhalants were more popular among the younger students included in this survey. The lifetime prevalence rates for students less than 15 years, 15-16 years and those 17 years and older were 6.1%, 8%, and 2.7%. The rates during the past year were 2.4%, 3.5% and 0% (Figure 31).

Figure 31



7.3. Prevalence of Solvents and Inhalants by Grade

With the exception of current rates, solvent and/or inhalant use appeared to be more common among 10th graders. As seen in Figure 32, 5.8%, 8%, and 4.8% of the 8th, 10th, and 12th graders, respectively, have used solvents or inhalants at least once in their lifetime. While the same trend was observed in the year and month prior to the survey, those differences were less obvious. A total of 2.5%, 3.5%, and 1.3% of all 8th, 10th, and 12th graders used solvents and/or inhalants within the past year, and 1.4%, 1.2%, and 0.8% reported current use.

7.4. Prevalence of Solvents and Inhalants by Category of School

Prevalence rates were slightly higher among public school students for each of the three indicators. A total of 6.5%, and 5.6% of public and private schools, respectively, used solvents and/or inhalants in their life; 2.5% and 2.3% reported annual use, and 1.3% and 0.9% reported use within the past month (Figure 33).

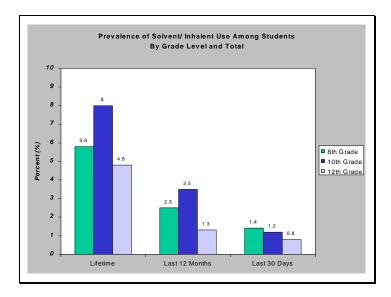
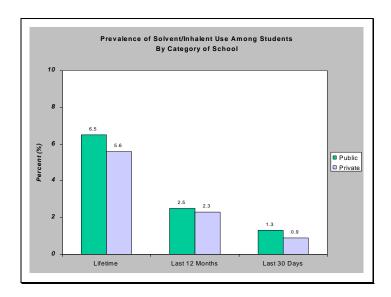
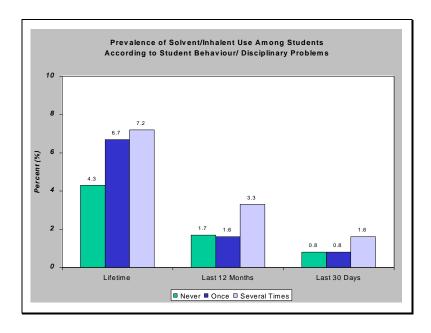


Figure 33



7.5. Prevalence of Solvents and Inhalants by Behavioural Problems

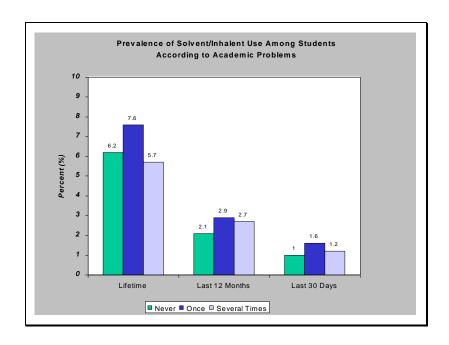
Lifetime and annual prevalence rates increased the more times students reported being disciplined. Four percent (4.3%) of the students who had never been disciplined, 6.7% of those disciplined once, and 7.2% of those students disciplined a few times or a lot, had used a solvent or an inhalant at least once in their life. Among the same groups, 1.7%, 1.6%, and 3.3% had used solvents or inhalants in the past year (Figure 34).



7.6. Prevalence of Solvents and Inhalants by Academic Problems

There were no noticeable differences by academic problems (Figure 35).

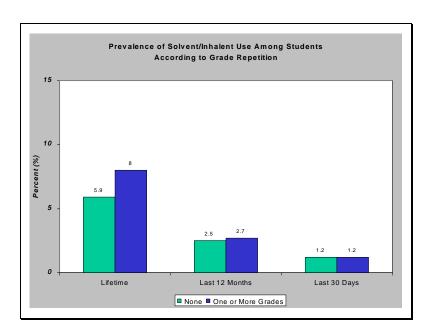
Figure 35



7.7. Prevalence of Solvents and Inhalants by Grade Repetition

Statistically significant differences were not evident for whether students repeated a grade (Figure 36).

Figure 36



7.8. Prevalence of Solvent and Inhalant Use by Friends Who Used Drugs

Differences in solvent and/or inhalant use based on the number of friends who used illicit drugs were more noticeable between students who had no such friends and everyone else combined, as rates were similar for the groups with some friends and a lot of friends who used drugs. Commencing with the group with no such friends and on to the group with a lot of friends using drugs, the lifetime usage rates were 4.8%, 8.3%, 7.3%, and 11.1%, respectively. For both annual and current use, approximately four times as many students with a lot of drug-using friends had used solvents, as compared to those with no such friends (Figure 37).

7.9. Prevalence of Solvent and Inhalant Use by Perceived Harmfulness of Solvents or Inhalants

More than twice as many students who thought that inhaling solvents "sometimes" was not or only slightly harmful (12.2%), as compared to those who thought solvents was quite or very harmful (5.1%), had tried solvents in their life. Along similar lines, 7.7% of the not harmful or only slightly harmful group, as compared to the 1.7% among the quite or very harmful group, had used solvents and/or inhalants in the past year. As for current use, 2.7% of the students with the perception of "not" or "slightly" harmful and

1.1% of those with the perception of "quite" or "very" harmful used solvents and/or inhalants in the past month.

When the rates were looked at in relation to the harmfulness of the "frequent" use of inhalants or solvents, even larger differences in prevalence were observed. Proportionally, more than three times as many students (16.4%) of the not harmful group, versus those of the harmful group (5.3%) had tried solvents in their life (Figure 38).

Figure 37

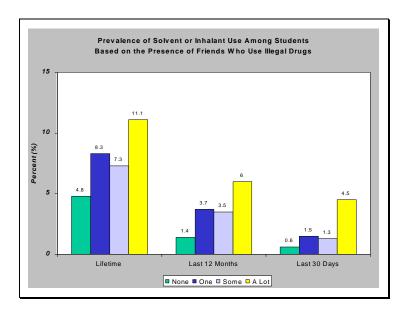
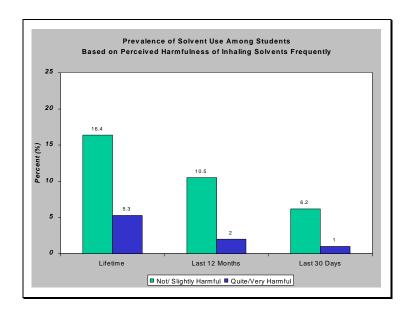


Figure 38



8. Cocaine

While the prevalence of cocaine use was very low, results are presented separately and in more detail for this drug because of its popularity in society and the accompanying interest in the drug due to the impact it has had on society.

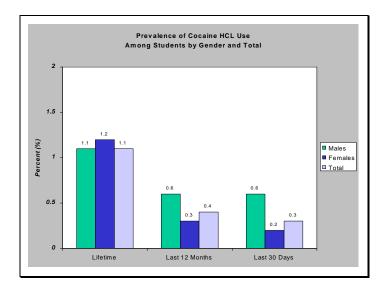
Cocaine is the most powerful natural stimulant and, at high doses, can produce a state of euphoric excitement and hallucinatory experiences. The drug induces a sense of muscular strength and extraordinary mental capacity that leads users to overestimate their abilities. Accompanied by paranoia, visual and auditory illusions, the use of this drug can make the user a very dangerous person capable of committing anti-social acts (11).

8.1. Cocaine Hydrochloride (HCI)

Cocaine hydrochloride is normally the most widely used form of cocaine and the illegal version is distributed in the form of a white crystalline powder. At each stop in the distribution chain, the drug is generally diluted with other ingredients to the point where the eventual users generally consume a highly adulterated and very dangerous drug. The most common method of use is through sniffing or snorting, where the powder is inhaled through the nose where it is absorbed into the blood stream through the nasal tissue. However, it is also injected directly into the blood stream through the use of needles (11).

The lifetime, annual, and current prevalence rates for cocaine HCl. were 1.1%, 0.4% and 0.3%, respectively. There were virtually no differences by gender (Figure 39). The mean age of first use of cocaine powder was 11.6 years.

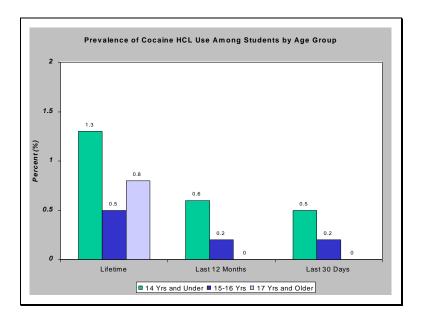




8.1.1. Prevalence of Cocaine Hydrochloride by Age

A surprise finding was that a look at the prevalence rates based on age groups revealed that the highest proportion of use of cocaine HCL was reported by the youngest age groups. A total of 0.6% of those 14 years and younger, as compared to 0.2% of the 15-16 year olds and 0% of respondents 17 years and older, took cocaine in the past year (Figure 40).

Figure 40



8.1.2. Prevalence of Cocaine Hydrochloride by Grade Level

Six out the eight students who took cocaine in the past 12 months (0.8% of 8th graders, 0.3% of 10th graders, and 0% of 12th graders), and 5 out of the 7 who reported use in the past 30 days were in the lowest grade level (0.7% of 8th graders, 0.3% 10th graders, 0% 12th graders) (Figure 41).

8.1.3. Prevalence of Cocaine Hydrochloride by Friends Who Used Illegal Drugs

Despite the overall low prevalence rates, the concurrent rise in the prevalence of cocaine powder use along with the increase in the number of drug-using friends the students reported was very clear. Figure 42 clearly illustrates this increase in lifetime rates from 0.2%, 3.8%, 1.3%, and 5.3% in the order from no friends to a lot of friends, respectively. The annual rates were virtually the same: 0.2%, 1.5%, 0.2% and 2.3%.

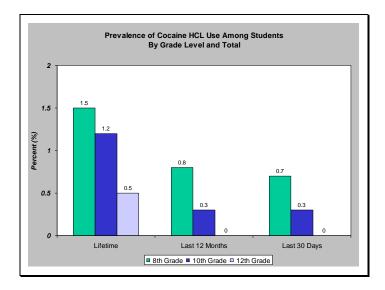
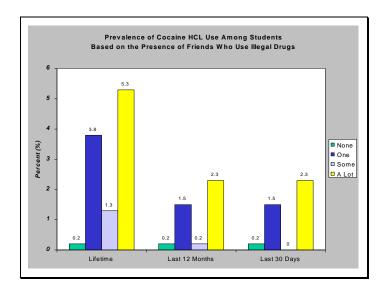
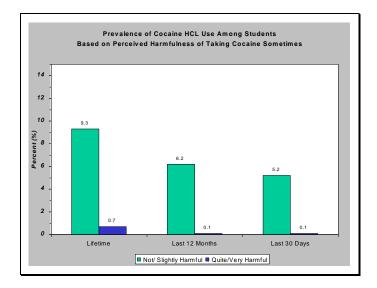


Figure 42



8.1.4. Prevalence of Cocaine Hydrochloride by Perceived Harmfulness

The students who believed that taking cocaine "sometimes" or "frequently" was harmful were less likely to report being lifetime, annual, and monthly users of cocaine powder. Since the differences in rates were similar for perceived harm of both occasional and frequent cocaine use, they will be discussed together. A little less than ten percent (9.3%, 7.4%) of the "not" or "slightly" harmful group have taken cocaine powder in their life, as compared to the less than one percent (0.7%, 0.9%) of the "quite" or "very" harmful group (Figure 43).

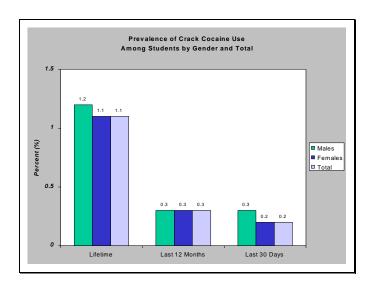


8.2. Crack Cocaine

According to the UNODC, crack is cocaine base that is obtained from cocaine hydrochloride through specific conversion processes to make it suitable for smoking. It appears as hard white rocks that are smoked (11).

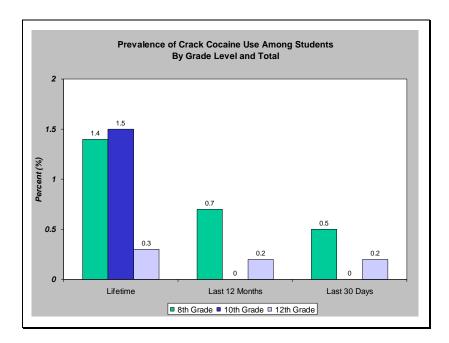
The prevalence rates for Crack cocaine were comparable to those of cocaine powder: 1.1% lifetime, 0.3% annual and 0.2% past month. Again, while there were no significant differences by gender (Figure 44), the majority of the cases by age and grade level were found among the younger ages and lower grade levels. The mean age of first use of crack was 12.3 years and there were no gender differences.

Figure 44



A total of 1.4% of the grade 8 students, 1.5% of the students in grade 10 and 0.3% of the 12th graders have used crack at least once in their life (Figure 45).

Figure 45



9. Other Named Drugs

Other drugs, namely tranquilizers, stimulants, hallucinogens, heroin, opium, morphine, ecstasy and methamphetamines all had low prevalence rates and are not seen as problematic among Bahamian secondary school students, based on the numbers involved, at this time.

9.1. Tranquilizers

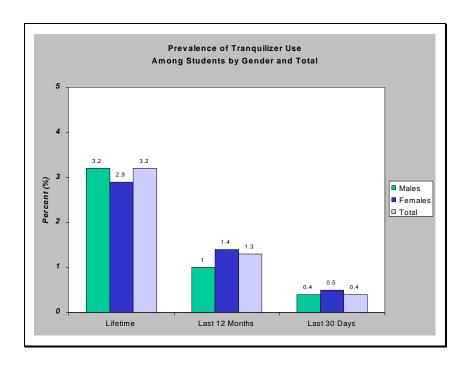
Tranquilizers are generally categorized into major and minor tranquilizers. Minor tranquilizers are the more common and include the Benzodiazepines; known by trades names such as Valium, Xanax, Librium, etc. The primary route of tranquilizer administration is oral, swallowed either as a tablet, capsule or liquid. However, they are also available in solution for intravenous use (12).

The minor tranquilizers induce a feeling of calm and relaxation and can be addictive even at prescribed dosages if the medication is administered for long periods of time.

The overall lifetime, annual and monthly prevalence rates for tranquilizer use were 3.2%, 1.3%, and 0.4% respectively. Interestingly, prevalence by gender was virtually equivalent. In the order of male and female rates, 3.2% and 2.9% had used tranquilizers at least once; 1.0% and 1.4% used these types of drugs in the past year; and 0.4% and 0.5% in the past 30 days (Figure 46).

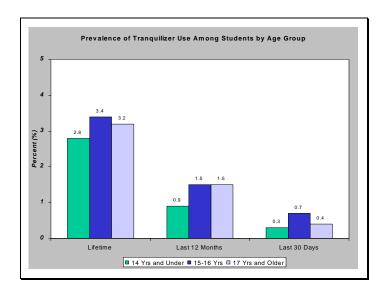
The mean age of first use was 11 years, with no obvious gender differences.

Figure 46



While there may have only been little differences by age, what was clear was that the rates of tranquilizer use were consistently highest among the 15-16 year olds. For those students 14 years and younger, 15-16 years, and 17 years and older, the lifetime rates were 2.8%, 3.4%, and 3.2%, respectively. The rates for the past year were 0.9%, 1.5%, and 1.5% and for the past month, 0.3%, 0.7% and 0.4% (Figure 47).

Figure 47



9.2. Stimulants

As the name suggests, stimulants are a class of drugs that enhance brain activity. They cause an increase in alertness, attention, and energy that is accompanied by elevated blood pressure and increased heart rate and respiration. Stimulants were used historically to treat asthma and other respiratory problems, obesity, neurological disorders, and a variety of other ailments. But as their potential for abuse and addiction became apparent, the medical use of stimulants began to wane. Now, stimulants are prescribed for the treatment of only a few health conditions, including narcolepsy, attention-deficit hyperactivity disorder, and difficult cases of depression (12).

The use of stimulants produces euphoria, temporary happiness, hyperactivity, insomnia, and loss of appetite, but can also result in irritability, anxiety, and apprehension. When used continuously, the effects can be contrary, leading to extremely unpleasant and profound depression. Users normally seek to relieve depression by taking larger doses of these stimulants, which creates a vicious circle that is very difficult to stop. The added danger lies in the fact that stimulants come in many varieties and potencies and are often used without persons realizing what they are using.

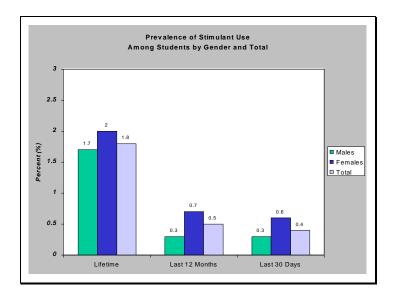
The lifetime, annual, and monthly rates were 1.8%, 0.5%, and 0.4% respectively. Prevalence rates, while comparable by gender, did reveal a slight increase in use

among females. The lifetime, annual, and monthly rates, for males and females, respectively, were 1.7% and 2%; 0.3% and 0.7%; and 0.3% and 0.6%.

The mean age of first use of stimulants was 11.4 years. No significant gender differences were apparent in the age at initiation.

The rates for stimulant use by age were also similar. For the 3 age groups, in order from youngest to oldest, 1.6%, 1.5% and 2.3% had taken stimulants in their life and, 0.3%, 0.7%, and 0.8% took stimulants in the past year. A total of 0.4% of those students 14 years and younger, 0.5% of the 15-16 year olds, and none (0%) of the students 17 years and older had used in the month prior to the survey (Figure 48).

Figure 48

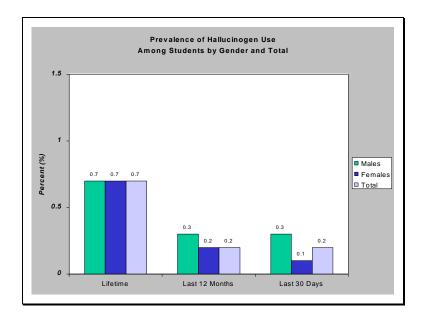


Approximately one-half (53.3%) of those who used a stimulant in the past month reportedly got it from a doctor. Another 32.4% got it from a friend.

9.3. Hallucinogens

Hallucinogens are substances that affect the senses, producing hallucinations. Vision, hearing, touch, taste and smell are all affected. The use of these substances, two of the more popular ones being lysergic acid diethylanmide (LSD) and phencyclidine (PCP), produces a sensation of separation, numbness, impaired speech, loss of motor coordination, a sense of invincibility, distorted images and altered mental states, etc. Paranoia and violent hostility often result (13).

Hallucinogen use was not popular among Bahamian students at this time, with only 0.7%, 0.2% and 0.2% having used these drugs at least once in their lifetime, in the past year and past month, respectively (Figure 49).

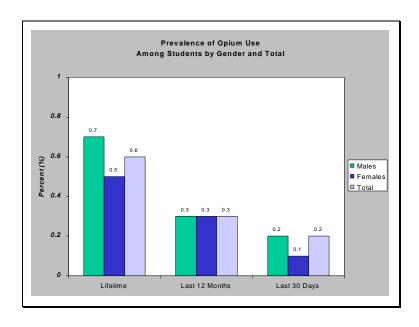


9.4. Opium

Opium is a natural narcotic and may appear as a liquid, solid or powder. It acts as a powerful relaxant and also induces sleep. Its addictive capabilities are extremely great and result in both a strong physical and psychological dependence.

Less than one percent (0.6%) used opium at least once in their life, 0.3% in the past year, and 0.2% in the past month (Figure 50).

Figure 50

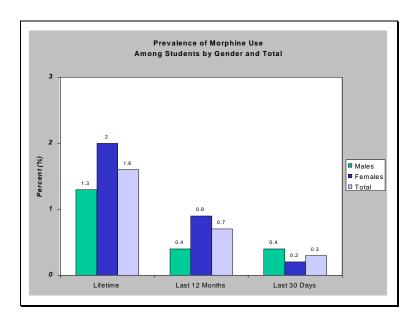


9.5. Morphine

Morphine is an opium derivative and, as a drug, is sold in the form of white crystals, hypodermic pellets, and preparations for injections. It is administered subcutaneously, intramuscularly and intravenously and dependence and tolerance develop rapidly. Morphine use can lead to a feeling of relaxation and satisfaction; however, this depends on the quality of the drug, the means of administration and the dosage.

Fewer than two percent (1.6%) of the sample had ever used morphine in order to get "high". Rates in the past year and month, respectively, were 0.7% and 0.3% (Figure 51).

Figure 51



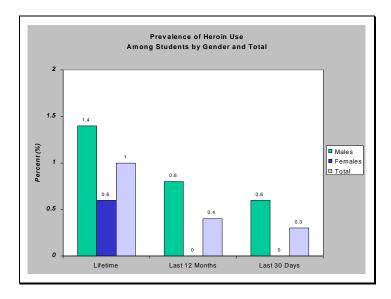
9.6. Heroin

Heroin is an illegal, highly addictive drug that is processed from morphine. It is both the most abused and the most rapidly acting of the opiates. It is typically sold as a white or brownish powder or as the black sticky substance known on the streets as "black tar heroin." Although purer heroin is becoming more common, most street heroin is "cut" with other drugs or with substances such as sugar, starch, powdered milk, or quinine. Heroin is usually injected, sniffed/snorted, or smoked. (14).

One of the most detrimental long-term effects of heroin is addiction itself. Addiction is a chronic, relapsing disease, characterized by compulsive drug seeking and use, and by neurochemical and molecular changes in the brain. In the US, there has been an increase observed in young users across the country that are being lured by inexpensive, high-purity heroin that can be sniffed or smoked instead of injected.

Only 1.0% of Bahamian students had ever tried heroin and approximately one-half of that figure (0.4%) had used heroin in the past year, and 0.3% in the past month (Figure 52).

Figure 52

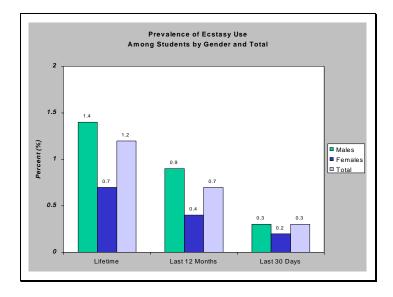


9.7. Ecstasy (MDMA)

Ecstasy is a synthetic or psychoactive drug with both stimulant (amphetamine-like) and hallucinogenic (LSD-like) properties. It can come in the form of pills, capsules, or a crystalline white powder and may be of varying potency. It is usually taken orally or intravenously, but it has been snorted or smoked with tobacco. Like other stimulants, its use generally results in anxiety, hyperactivity, anorexia, increased temperature, etc, and research has also linked MDMA use to long-term damage to those parts of the brain critical to thought and memory (15). As a result of an increase in the availability of ecstasy within the region, the authorities are particularly interested in the current level of use of this substance.

As Figure 53 shows, while ecstasy use is not a problem in The Bahamas among the secondary school population based on the prevalence of use, the response of the students does indicate that this drug is available. Overall, only 1.2% of the students had tried ecstasy at least once in their lifetime, 0.7% in the past year and 0.3% in the past month. Proportionally, twice as many males were likely to experiment with this drug as well as to use in the past year. The lifetime usage rates were 1.4% for males and 0.7% for females and within the past year, 0.9% of the males and 0.4% of the females had used ecstasy.

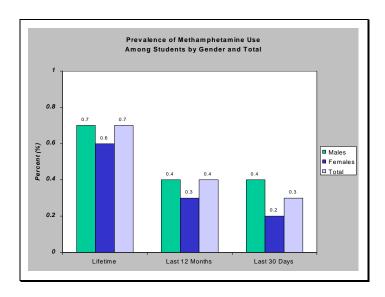
The mean age of first use of ecstasy (13.3 years) was higher than that for the more popular drugs. There were no gender differences in the age of first use.



9.8. Methamphetamine

The lifetime, annual, and monthly prevalence rates for methamphetamines were 0.7%, 0.4%, and 0.3%, respectively (Figure 54).

Figure 54



Methamphetamine is a powerfully addictive stimulant that dramatically affects the central nervous system. It is a white, odourless, bitter-tasting crystalline powder that easily dissolves in water or alcohol and can be smoked, snorted, orally ingested or injected. Like amphetamine, it causes increased activity, decreased appetite, and a

general sense of well-being that can last up to 8 hours. It is associated with serious health conditions, including memory loss, aggression, psychotic behaviour, and potential heart and brain damage ⁽¹⁶⁾. According to the U.S. National Institute on Drug Abuse, the abuse of this drug is a very serious and growing problem due, in part, to the ease with which it can be made using relatively inexpensive over-the-counter ingredients.

10. All Other Drugs

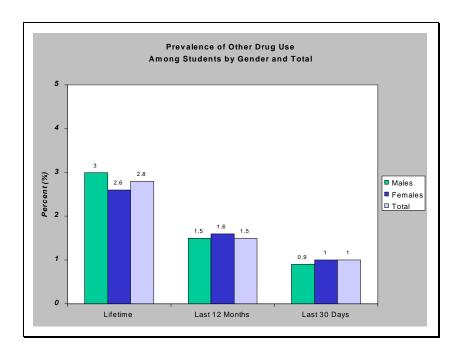
A small fraction of Bahamian students reported using drugs other than those specifically named in the questionnaire and categorized here as "other drugs". A total of 2.8% reported the use of some other drug during their lifetime and 1.5% took some other type of drug within the past year. Within the 30 days preceding the survey, 1% of the students had tried some other drug.

The mean age of first use of these "other" drugs was 12.4 years.

10.1. Prevalence of Other Drug Use by Gender

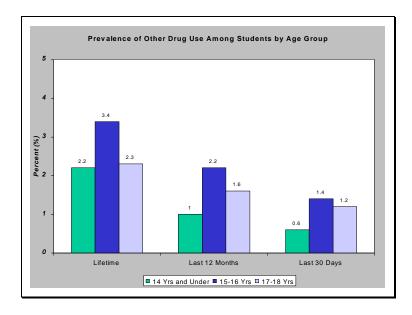
Prevalence by gender was essentially the same (Figure 55).

Figure 55



10.2. Prevalence of Other Drug Use by Age

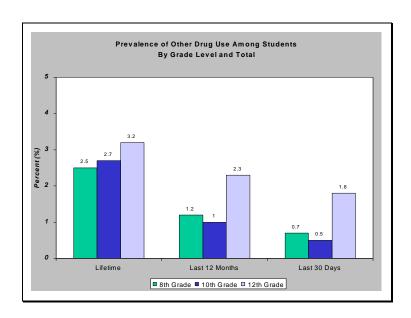
Prevalence rates by age groupings again revealed higher rates in those students age 15-16 years. For lifetime use, age-specific rates were 2.2% among those 14 years and younger, 3.4% among the 15-16 year olds, and 2.3% in those students 17 years and older. Annual use from youngest to oldest age groups were 1%, 2.2%, and 1.6% respectively, while the rates for current use were 0.6%, 1.4% and 1.2% from the youngest to the oldest age group (Figure 56).



10.3. Prevalence of Other Drug Use by Grade Level

Overall, use of other drugs did not significantly differ by grade level, with the exception being 12th graders, who had slightly higher prevalence rates. Roughly 3% at each grade level have taken another drug at least once in their lifetime (2.5% in the 8th grade, 2.7% in the 10th grade and 3.2% in the 12th grade). In the past year, the rates were 1.2%, 1% and 2.3%, and in the past month, 0.7%, 0.5% and 1.8% among students in the 8th grade, 10th grade and 12th grade, respectively (Figure 57).

Figure 57



11. Any Illicit Drug

The variable "any illicit drug", which was not a question included on the survey questionnaire, was created to obtain an overall assessment of drug use. It was the result of a process developed in the data processing stage and encompassed the use of solvents and inhalants, marijuana, hashish, hallucinogens, heroin, opium, morphine, cocaine hydrochloride, crack, ecstasy, methamphetamines, and "other drugs".

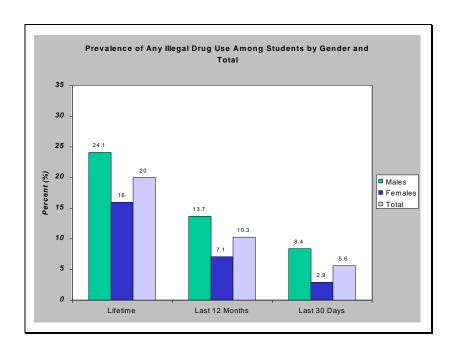
A total of 1 out of every 5 students (20%) had taken an illicit drug at some point in their life, and 1 out of 10 (10.3%) within the past year. Approximately 1 of 20 had used at some point during the month preceding the survey.

The mean age of first use of an illegal drug was approximately 13 years.

11.1. Prevalence of Any Illicit Drug Use by Gender

For each of the 3 prevalence indicators, males had higher usage rates of illegal drugs than females. One of every four (24.1%) male students reported trying an illegal drug at least once in their life, as compared to 16% of the females. Similarly, 13.7% of the males and 7.1% of the females took an illegal drug in the past year; the female rate in this instance less than one-half the prevalence reported by the males. A total of 8.4% of all males and 2.9% of all females could be considered current users of, at least, one illegal drug (Figure 58).

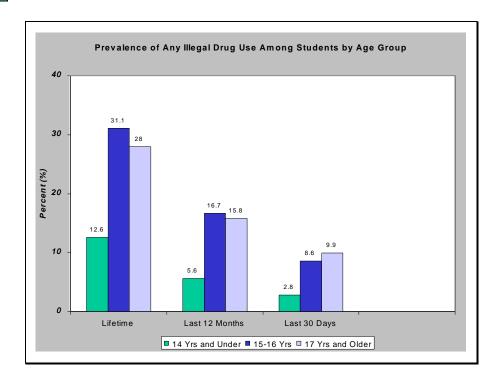
Figure 58



11.2. Prevalence of Any Illicit Drug Use by Age

Prevalence rates based on age increased up to the age of 15-16 years, then remained, more or less, constant. The lifetime, annual, and monthly prevalence rates of illegal drugs for students 14 years or younger were distinctly less than the 15-16 and the 17 and over groups. In the above age order, 12.6%, 31.1%, and 28.0% used an illegal drug in their life; 5.6%, 16.7%, and 15.8% reported using an illegal drug in the past year; 2.8%, 8.6%, and 9.9% used such drugs in the past month (Figure 59).

Figure 59



11.3. Prevalence of Any Illicit Drug Use by Grade Level

Unlike the association observed with age, for each of the 3 prevalence indicators, usage rates consistently increased with each subsequent increase in grade level. For the 8th, 10th, and 12th graders, respectively, 10.5%, 23.2%, and 29.2% took an illegal drug at least once; 4.1%, 13.2%, and 15.6% reported annual use; and 2%, 7.2%, and 8.7% used an illegal drug within the past month (Figure 60).

11.4. Prevalence of Any Illicit Drug Use by Category of School

There were virtually no differences in the proportion of students who tried an illicit drug at least once in their lifetime or who used in the past year or 30 days based on the type of school that they went to (Figure 61).

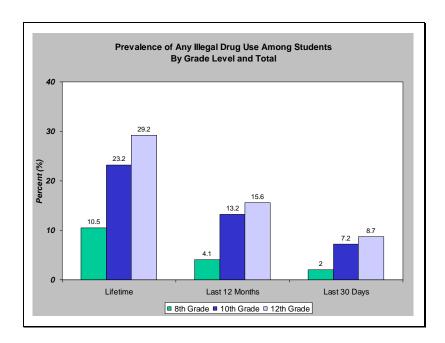
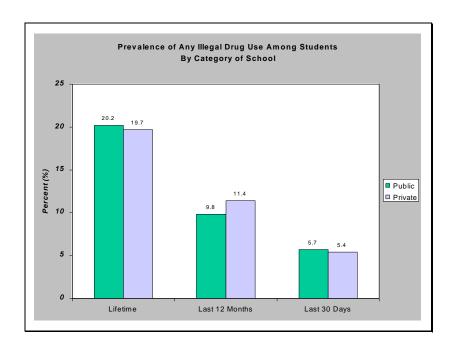


Figure 61

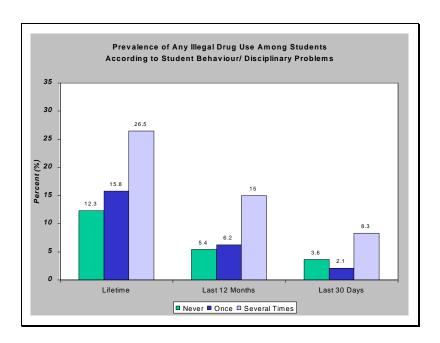


11.5. Prevalence of Any Illicit Drug Use by Behavioural Problems

Except for current use of illegal drugs, the more times the students received some sort of punishment for behavioural problems, the more likely they were to report the use of an illegal drug. In the order of students who were never disciplined, students who were

disciplined once, and those disciplined a few times or a lot, the lifetime rates for drug use were 12.3%, 15.8%, and 26.5%. Additionally, a total of 5.4%, 6.2%, and 15% reported illegal drug use in the past year while 3.6%, 2.1% and 8.3% could be considered current users (Figure 62).

Figure 62



11.6. Prevalence of Any Illicit Drug Use by Academic Problems

Noteworthy differences were apparent between students who never had academic difficulties, and those who had one or more. There were little differences in prevalence between students who had difficulties once, and those who had them a few times or a lot. The lifetime rates of students who had never had any academic difficulties, had one incident, and had a few or a lot of academic difficulties were 16.3%, 21.4%, and 22.6%, respectively. In the past year, 6.8%, 11% and 12.9%, respectively, had used an illegal drug and in the past month the rates were 4%, 5.2% and 7.1% among the students who had never had any academic difficulties, had one incident, and had a few or a lot of academic difficulties, respectively (Figure 63).

11.7. Prevalence of Any Illicit Drug Use by Grade Repetition

With the exception of annual prevalence, students who had repeated a grade at least once were more likely to report having used an illegal drug. The lifetime, annual and current prevalence rates of those who have repeated one or more grades are 25.8%, 12.4%, and 8.2%, respectively. These rates are significantly higher than those who never repeated a grade: 18.8% (lifetime), 9.9% (annual), and 5.1% (current) (Figure 64).

Figure 63

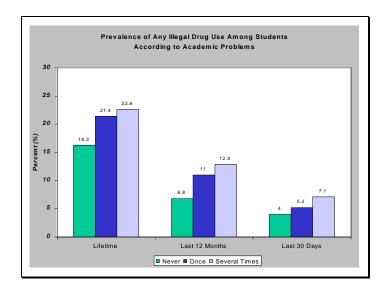
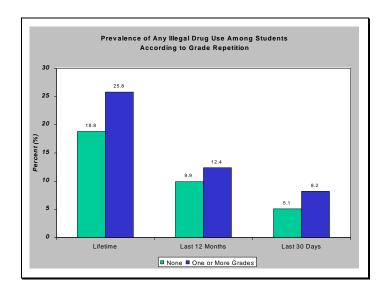


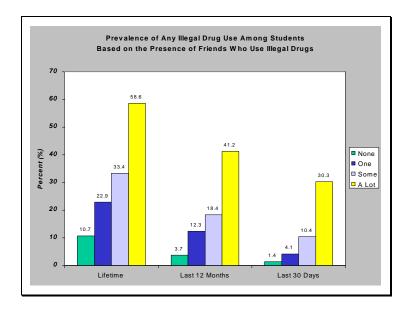
Figure 64



11.8. Prevalence of Any Illicit Drug Use by the Existence of Friends Who Used Illegal Drugs

Predictably, the more the amount of friends of the students who had used illicit drugs, the more likely they were to report illegal drug use themselves. In the sequence of none, one, some and up to a lot of friends who used illegal drugs, the lifetime rates were 10.7%, 22.9%, 33.4%, and 58.6%; the latter more than 5 times that of the group who had no such friends. Similarly, 3.7%, 12.3%, 18.4% and 41.2% used an illicit drug within the past year, and 1.4%, 4.1%, 10.4%, and 30.3% are current users (Figure 65).

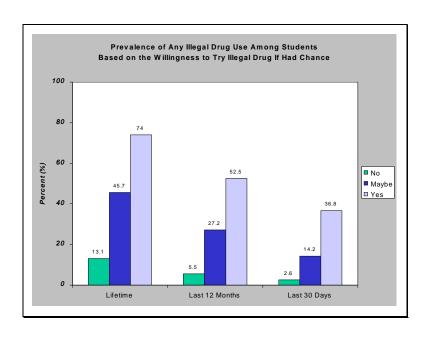
Figure 65



11.9. Prevalence of Any Illicit Drug Use by Curiosity about Trying Drugs

An expressed curiosity to try illicit drugs was positively associated with student drug use. From students who responded "no", to "maybe", then "yes" as to whether they would try an illicit drug if given the chance, 13.1%, 45.7%, and 74% have used an illegal drug in their life; 5.5%, 27.2%, and 52.5% have used such drugs within the past year; and 2.6%, 14.2%, and 36.8% used an illegal drug in the past month (Figure 66).

Figure 66



12. Discussion and Conclusions

Previous studies have identified drug use among secondary school students in The Bahamas as one of the major threats to the health of this segment of the population⁽⁵⁾. Based on the results of this study, that designation should remain, with alcohol, marijuana and tobacco products being the substances most commonly used.

Alcohol is the drug of choice with just below one-half (43.9%) of all students and 61.4% of all 12th graders using in the past year, and 1 of every 3 (33.9%) 12th graders using within the past month. Research findings have suggested that up to two drinks per day for men and one drink per day for women and older people is not harmful for most adults⁽⁸⁾. Nonetheless, the health of a large number of people is jeopardized because they engage in risky drinking such as binge drinking and heavy drinking on a regular basis that could eventually lead to more serious alcohol-related problems. In this study, the amount drank was also a concern with possible precursors to these dangerous drinking habits having been identified. A total of 40.4% of the students had several friends who occasionally drank enough to get drunk and of those who drank within the last 30 days, 16.5% reportedly consumed more than 6 drinks per day.

Approximately 1 of every 5 (19.8%) students felt inclined to have smoked a cigarette at least once during their lifetime, where it was ranked 2nd only to alcohol as the substance tried most often; this in spite of the well known adverse health consequences attributed to the use of tobacco products. Fortunately, even though many may have tried cigarettes, quite possibly the result of the continuing influence through stealth advertisements and the community involvement of cigarette companies, this product was not used continuously. Only 2.2% had smoked a cigarette in the month preceding the survey.

The use of illicit drugs in the Bahamas presents a direct threat not only to the students' health, but also to any future opportunities that they may have otherwise had. Convictions for the possession of such substances can result in police records, which can limit travel opportunities and also carries with it a stigma that may limit job prospects. Nonetheless, 20% of all students had tried an illicit drug and 10.3% or 1 in 10 had used within the past year. The most prevalent of these drugs, by far, was marijuana. The UNODC's report on Global Illicit Drug Trends 2003⁽⁸⁾ states that cannabis continues to be the most widely produced, trafficked, and consumed illicit drug worldwide, a fact supported by the results from this survey, where 1 of every 4 of the 12th grade students had tried marijuana and overall more had used it within the past year and past month than had smoked cigarettes. This is a testament both to the availability of this substance and to its popularity among adolescents.

In general, while cocaine and other coca-derived substances may be the second most widely abused drug among the general population in The Bahamas⁽¹⁷⁾, this is not the case among the Bahamian student population. After alcohol, cigarettes and marijuana, the substance tried most often by the students was solvents and inhalants. A total of 6.2% of all students had tried this drug, as compared to the 1.1% who had tried cocaine

powder and the 1.1% who had tried crack cocaine. The low prevalence of cocaine did not come as a complete surprise, as results from the 1990 National Drug Prevalence Survey (17) placed the average age at initiation for cocaine users at 18 years; just beyond the high school age of most students.

The public health threat presented by solvents and/or inhalants is related to the fact that these substances are very cheap and easy to obtain, which makes their control extremely difficult, and usage can result in severe mental problems and probably even death. The use of these drugs is completely discouraged, and it is imperative that this phenomenon be further investigated to find out what these specific substances are and then all efforts made to nip their use in the proverbial bud.

Increasingly, in the more industrialized countries, synthetic drugs have become the recreational drugs of choice among young people⁽¹⁸⁾. Drugs such as ecstasy in Europe and methamphetamines in the US have both become growing social problems that have already impacted available treatment resources⁽⁸⁾. Fortunately, these drugs, as well as others such as hallucinogens and the opium derivatives, were not popular among the Bahamian students with less than 2% of that population having ever tried any.

Treatment statistics have long proven that drug use and abuse is not limited to any particular group or social class. At the same time, however, it is recognized that some persons are more likely to take drugs than others; hence, it was important that attempts be made to identify these factors. Regarding those factors that increase the likelihood of drug use, results from the multiple logistic regression revealed that being male, older, curious about trying illicit drugs, holding the view that smoking marijuana "sometimes" was only "slightly harmful" or "not harmful", having "some" or "a lot" of friends that used, finding it "very easy" to access drugs, having smoked cigarettes in the past 12 months, or having experienced academic problems "once" or having been disciplined for behavioural problems "often or a lot" were all significant independent correlates of experimentation with marijuana at least once in the students' life.

Similar findings were observed for the use of marijuana within the past year, with the exception of older age being replaced by a grade level of 10 and above, persons disciplined "a few times" added to those disciplined "often or a lot", and the ease of obtaining illicit drugs having been dropped from the model and replaced by participation in drug prevention activities, which was associated with a decreased risk of marijuana use in the past year.

The exception to the rule of higher rates in males was observed for tranquilizer use. While only 3.2% of the students had ever taken a tranquilizer in their life, a higher proportion of females than males had done so. U.S.-based studies have shown that women are more likely than men to be prescribed prescription drugs, particularly narcotics and anti-anxiety drugs; in some cases 48 percent more likely. However, for the non-medical use of these drugs, men and women have been observed to have roughly similar rates. An exception however, and one that has a connection to this

study, is found among 12 to 17 year-olds. In this age group, young women are more likely than young men to use psychotherapeutic drugs non-medically, a finding that supports this observation (12).

Prevalence rates for grade 10 students were consistently above those for the students in grade 8 for all three parameters and most drugs and quite often found to be above those of the 12th graders as well. This finding can be interpreted to mean that usage rates are simply lower in a group that may not have had ample opportunities to try drugs (8th graders) and, again, lower among members of what should be a more mature population (12th graders). However, these results are more than likely due to a combination of those factors mentioned above as well as to repeating students that are enrolled below the normal grade for their age, increased dropouts as a result of the students going beyond the legally required school attendance age, or having been kicked out as a result of school policy; the latter 3 all related to higher drug usage.

The evidence provided lends support to the gateway phenomenon and suggests that early cigarette and alcohol use can serve as a predictor of other substance use later on. Persons who smoked cigarettes and drank alcohol had much higher prevalence rates for other substances than persons who did not smoke cigarettes or drink alcohol. Additionally, the evidence of an association between drug use and behavioural or discipline problems was quite strong. Prevalence rates for all drugs consistently increased with each level of increase in behavioural problems. This begs the question as to whether the characteristics of persons with behavioural problems are such that it increases the likelihood of cigarette use or whether this group are exposed to a different set of circumstances that resulted in more substance use.

The evidence for an association with academic performance and grade repetition, while it does exist, was not as obvious and consistent as it was for behavioural problems. Many of the drugs only showed differences when persons with no problems or who had never repeated a grade were compared with persons who had. A further breakdown based on the reported number of problems or number of grades repeated did not result in any further differences.

It can also be concluded that the presence of friends in the lives of the students who drank frequently and used drugs played a significant role in the etiology of the students' own drug and alcohol use. Even though adolescents may not appreciate conclusions being drawn about them based on the company that they keep, the evidence indicates there is merit in such action. The more alcohol and drug-using friends the students reported, the more likely that they themselves would both try and continue using these substances. This may have been based on a combination of the pressure to use from existing friends or on the desire to associate themselves with persons who exhibited similar behaviours so as not to be faced with unwanted anti-drug lectures.

The need for the authorities to continue and possibly enhance efforts to limit access to and the availability of drugs is underscored as the prevalence of illicit drug use among students got progressively higher as the group opinions changed from very difficult to access illicit drugs to very easy. This is coupled with the fact that accessibility increased with increasing grade levels to the point where 80.4% of the 12^{th} grade students believed that obtaining drugs would be either easy or very easy.

With respect to those factors related to a decrease in risk, results from the bivariate analysis revealed a clear protective effect when both father and mother were present as compared to other family structures. Unfortunately, only 4 of every 10 students lived with both parents, so consequently it is in the students' best interest then for persons involved in their lives to take all the necessary action to fill the void that may be missing as a result of their growing up in homes without their parents. Contrary to findings from other studies, living with one's father, as the only parent, was not a predictor of marijuana use. However, it was significantly associated with a reduced risk for drinking alcohol in the past 12 months.

Regarding the students' knowledge of the dangers of drugs, results revealed that while the large majority knew about drugs such as marijuana and cocaine etc, and felt that they were harmful, a relatively large proportion of students, in particular the younger cohort, did not know about some of the prescription drugs like tranquillizers, stimulants and solvents or inhalants. Such ignorance could lead to a population that is inadequately prepared to face the challenges of drugs being introduced to the Bahamian community for the first time.

The perception that the students had regarding the dangers of taking the various drugs was extremely important to their choice of whether to use or not. Prevalence rates revealed that those who thought of drugs as less harmful, as compared to those who considered them harmful or very harmful, were far more likely to use drugs.

The proportion of students receiving the benefits of drug prevention education was at an unacceptably low level. Drug prevention education programs were not universally implemented within schools and varied in its coverage across schools. As a result, one must seriously question the existence of a national school drug policy or the adherence to such a policy, if one exists. With such a low overall coverage rate for these activities and, even when they were taken, having been taken more than 2 years ago by one-half of all participants, the commitment of policy makers beyond the rhetoric along with the effectiveness of such efforts must be called into question.

The top sources of information on drugs were parents, television, friends and teachers; with the influence of parents giving way to that of friends and self-reliance as the students aged. This suggest that, at the very least, those in authority must ensure that the parents of the younger students are targeted and, along with the teachers and other school personnel, adequately prepared with the facts so that the correct anti-use messages could be communicated to these students. Parents, in particular, must be made aware of the negative impact of mixed messages from both their own actions and the television. For the older student, who trusts and listens to advice from their friends, an appropriate course of action would be the use of well-planned, closely monitored peer programs supported by a good referral system.

These particular findings indicate that to reduce the chance of experimentation with and the continued use of marijuana and other drugs, drug prevention education programs need to be more streamlined and targeted towards specific groups. This is due to the fact that prevention efforts directed at key risk and protective factors have been shown to have a significant impact on adolescent substance use. School officials now have sufficient information to assist in the identification of high-risk individuals for the purpose of assigning them to appropriate risk reduction or prevention programs. As an example, such programs should highlight the harmfulness of drugs and the importance of selecting positive friends and role models to those students truly at risk. In particular male students, those with friends who used drugs, those with academic and behavioural problems and those from areas where the prevalence of drug usage and/or the sale of drugs is common.

Research that compares school-youths with those older adolescents not in school or youths of school age that are truant indicate that prevalence rates for risk behaviours are generally lowest among in-school youth. As a result, while these findings may not be representative of the general population of Bahamian adolescents, particularly older youths and dropouts, and most likely underestimates the true population parameters, they do provide valuable information on a high-risk population that is accessible and thus amenable to corrective action. Fortunately, the estimated dropout rate for students in The Bahamas was rather low: 0.3% in the Public Sector and 0.2% in the Private Sector for the 2001/2002 school year; the latest figures available.

In spite of the acknowledged limitations in this survey, there were findings that increased the confidence placed in the results. These findings were consistent with and supported what has been observed elsewhere and what would not be seen if the students had been giving random or consistently dishonest answers. Hence, National drug prevention personnel should view this report as a valuable piece of literature that can be of great use in the efforts to plan, implement and evaluate drug prevention programs and projects.

13. Recommendations

Although the study was in a school setting, an examination of factors related to adolescent substance use and abuse show that for prevention and treatment programs to be effective in The Bahamas, they must extend well beyond the school campus. These factors included the fact that: the students found it so easy to access drugs; they had friends who used drugs; the proportion exposed to prevention education was low; the education they did receive was infrequent and not as comprehensive as it should be; the students were getting information from questionable sources; many of them were willing to try certain drugs if presented with the opportunity; and others were already users of various illicit substances. These all served to reinforce the knowledge that effective prevention and treatment programs require the combined efforts of communities, law enforcement, families, media and ongoing school-based substance abuse programs.

As a result, in order to address the above-mentioned factors, the following specific recommendations are proffered for consideration.

13.1. Policy Recommendations

- Ensure that every adolescent who has a substance abuse or dependence problem, particularly those in the school system, can receive treatment. Having school-based treatment programs is the proactive approach as it enhances accessibility by bringing these services to youths in need of treatment. The goal should be to have such programs expanded to all high schools and mid-level schools or have these services made available through a referral network that offers the kind of help that may be required.
- Substance abuse prevention should be identified as a priority in every community. The perceived availability of substances and exposure to people using substances are critical risk factors in substance use and abuse. As a result, community efforts to reduce availability through voluntary efforts and through the enforcement of any laws prohibiting the sale of alcohol and tobacco products to minors must be continued and increased. Restricting drinking and smoking in public can also help to decrease exposure to substance abuse.
- Improve the information system with respect to drug use in the schools. In addition to inconsistent epidemiological studies, the failure to keep good records limits the ability to design efficient and effective policies. Such a policy should ensure that records of all incidences involving drugs and how they were resolved are consistently kept across schools. This will not only assist with the monitoring and evaluations of programs, but will help greatly in the explanation of trends.

13.2. Program Recommendations

- Strengthen the family's role and skills in substance abuse prevention efforts. Parents and family members must recognize that exposure to substance use by family members places these young persons at great risk for substance use and abuse. The expressed disapproval by parents of substance use has been shown to be a powerful deterrent against such use by children. The risk and protective factors that were observed in this study suggests that parents need to take an active role in their children's lives, including monitoring their activities, understanding their problems, talking to them about the dangers of substance use and being prepared to face up to and support any needed drug treatment.
- Implement or strengthen substance abuse prevention programs in the schools. It is recommended that school-based drug education start very early, continue throughout high school, offer age appropriate sessions that address all types of drugs, and in the event resources do not permit universal coverage, programs must target those at increased risk for drug use and abuse. These programs should provide more information on the consequences of drug use, address the less well-known drugs in addition to the more common substances, and convey the message that the majority of students have chosen to abstain from the use of illicit drugs. In addition, they should also seek to strengthen the students' decision-making skills as well as educate and inform the students of all available resources so that they can be more helpful to peers that may have need of drug treatment or counselling services.
- Strengthen substance abuse prevention programs in the community. School-based prevention programs must be augmented by community-based approaches serving young people after school and school-aged dropouts, and by programs that target parents of young adolescents and high-risk families. Both school and community-based prevention efforts should address known risk and protective factors and should incorporate proven curricula and approaches. There is much governmental, private sector and non-governmental outreach work already occurring in the fields of health, sports, esteem-building, employment readiness training, skills training, entrepreneurship and other areas which touch secondary school students and younger children at risk of harm from drug use. To the extent possible, every opportunity to combine anti-drug initiatives with these existing efforts should be seized.
- Increase Mass Media Coverage on Substance Abuse Prevention and Treatment. Comprehensive prevention efforts must include extensive, targeted mass media coverage designed to educate parents, to increase public awareness regarding substance abuse symptoms and treatment programs, and to raise awareness of the problems and solutions to underage drinking. The goal here is to counter the myth that substance use, any substance, is the norm and not the exception. Such a media campaign could involve public service announcements (PSAs) on

television and radio, featured news stories, printed material distributed in workplaces, etc.

13.3. Research Recommendations

- Conduct surveys following CICAD's guidelines every 2 years to allow trend assessments to be made:
- Supplement the information from this and future surveys with qualitative information obtained from all major stakeholders such as students, teachers, parents, etc. to explain the results, which can help to fine-tune the behavioural change messages.

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Annexes

Annex A

Additional Tables

Table A1: Student Opinion on the Harmfulness of Taking Selected Drugs at Varying Frequency by Grade Level

Drugs and Frequency Of Use	Opinion of drug	Grade 8	Grade 10	Grade 12
	Not serious	4.1	3.9	2.1
	Slightly serious	8.4	7.1	5.9
Smoking Cigarettes	Quite serious	17.1	19.3	20.1
	Very serious	63.7	62.2	66.5
	Don't know	6.7	7.6	5.5
	Not serious	3.7	5.6	3.1
	Slightly serious	11.0	11.8	12.8
Drinking Alcohol Frequently	Quite serious	20.5	19.9	21.3
	Very serious	58.9	56.8	59.0
	Don't know	5.8	5.9	3.9
	Not serious	3.3	3.9	3.1
	Slightly serious	6.3	10.7	9.1
Getting Drunk	Quite serious	15.2	17.5	20.0
	Very serious	66.4	60.3	62.3
	Don't know	8.8	7.7	5.4
	Not serious	2.4	3.1	2.4
Compation on Taking Chimadonto	Slightly serious	8.4	6.4	8.1
Sometimes Taking Stimulants	Quite serious	19.8	20.9	18.4
or Tranquilizers	Very serious	40.5	43.0	51.9
	Don't know	28.9	26.7	19.2
	Not serious	2.3	1.8	1.4
Fraguently Taking Stimulanta	Slightly serious	3.1	2.4	1.8
Frequently Taking Stimulants	Quite serious	9.2	9.3	7.8
or Tranquilizers	Very serious	57.2	61.5	69.5
	Don't know	28.2	25.1	19.5
	Not serious	4.5	3.9	2.0
Comptimes Taking Calvents or	Slightly serious	8.2	11.9	9.2
Sometimes Taking Solvents or	Quite serious	23.9	23.6	27.1
Inhalants	Very serious	44.7	42.2	48.7
	Don't know	18.8	18.3	13.0
Francisco Calcarta	Not serious	4.0	2.3	1.4
Frequently Taking Solvents or	Slightly serious	4.3	3.2	2.9
Inhalants	Quite serious	12.0	12.7	9.7
	Very serious	62.2	63.6	72.9
	Don't know	17.5	18.2	13.2

Cont'd

Table A1: Student Opinion on the Harmfulness of Taking Selected Drugs at Varying Frequency by Grade Level

Drugs and Frequency Of Use	Opinion of drug	Grade 8	Grade 10	Grade 12
	Not serious	4.1	7.1	8.0
	Slightly serious	6.9	8.6	15.7
Sometimes Smoking Marijuana	Quite serious	22.3	23.7	24.4
	Very serious	59.0	50.0	45.2
	Don't know	7.8	10.6	6.8
	Not serious	2.8	4.9	4.6
	Slightly serious	2.5	3.2	4.9
Frequently Smoking Marijuana	Quite serious	8.4	7.8	11.5
	Very serious	76.4	74.0	71.0
	Don't know	9.8	10.0	7.9
	Not serious	2.7	2.3	1.0
	Slightly serious	5.6	2.8	1.4
Sometimes Taking Cocaine	Quite serious	20.5	19.0	14.1
	Very serious	61.6	65.1	75.4
	Don't know	9.5	10.8	8.1
	Not serious	2.6	2.0	1.4
	Slightly serious	3.0	1.9	0.4
Frequently Taking Cocaine	Quite serious	4.9	3.5	1.5
	Very serious	80.4	80.9	88.3
	Don't know	9.2	11.7	8.4

Table A2: Age of First Use of Selected Drugs by Gender

	Age of First Use Of Drugs By Gender					
Type Of Drug	Males		Fen	nales	Total	
	Mean	Median	Mean	Median	Mean	Median
Tobacco	11.1	11	11.6	12	11.4	12
Alcohol	11.1	12	11.8	12	11.5	12
Tranquilizers	10.8	12	11.6	12	11.0	12
Stimulants	10.6	12	11.9	12	11.4	12
Solvents/Inhalants	10.7	12	10.7	11	10.7	11
Marijuana	12.9	13	14.0	14	13.2	14
Hallucinogens	11.9	11	13.8	14	13.1	14
Heroin	12.3	13	12.0	12	12.2	12
Opium	7.8	7.8	10.4	12	8.9	9
Morphine	8.9	10	13.5	13	12.0	13
Cocaine HCI	11.7	11.0	11.5	12	11.6	12
Crack Cocaine	12.3	12	12.3	12	12.3	12
Ecstasy	13.3	14	13.4	12	13.3	14
Methamphetamines	8.5	11	11.0	12	9.6	11
Other Drugs	11.8	12.0	13.0	13	12.4	13

Appendix B

Sample Size Calculations

Description	Formulae	Grade 8	Grade 10	Grade 12
Average grade per school	_ y = # grades / # schools	3.134	2.95	2.873
Variance	$s^2 = (\sum_{c=1}^{n} y^2 - (y^2/n)) / n-1$	8.84531886	9.151748252	8.919098822
	Variance = (1-f) s ² / n	.132019684	.138662852	.141572997
Standard Error	se =√var	.363345131	.372374613	.376261873
Minimum number of grades	$n = s^2/(v^2 + s^2/N)$	24	25	24
Desired number of grades based on 80% response rate	n/.80	30	31	30
Average student per grade	_ y = # students / # grades	26.21	24.91	24.11
Projected number of students	_ y (Desired grades)	780	775	720
Percent (%) of students	Projected number/Total	14.16	15.95	16.49

Annex C: Class Information Form

Caribbean Drug	Information	Network		Code		
(CARIDIN)						
Survey of Higi	н S снооL S TU	DENTS				
COUNTRY				BS		
Island						
School						
Class						
Type of school 2 Private 3 Other						
Date of survey (d/m/y)						
Day of the week	м т	W TI	n F			
Number of students in the class	Total	Male	Female			
Number of students interviewed	Total Male Female					
Number of students absent	Total	Male	Female			

Annex D

Questionnaire



INTER-AMERICAN UNIFORM DRUG USE DATA SYSTEM SIDUC/CICAD

The information provided in this questionnaire will be kept strictly anonymous and will only be used to generate general statistics.

SURVEY OF SECONDARY SCHOOL STUDENTS STANDARDIZED QUESTIONNAIRE

1. COUNTRY	2. CITY			3. NUM. OF	QUESTIO	NNAIRE
4. What type of high school are you studying in?			or evenin By	g classes?	□ 2.	Evening
☐ 1. Public ☐ 2. Private ☐ 3. Other 6. Is your school:			t grade a	re you in so	hool?	
☐ 1. All male ☐ 2. All female ☐ 3. Mixed				<u></u>		
8. Sex		9. Age				
☐ 1. Male	☐ 2. Female	J. Age		years		
10. What is your parents' m		11. Wit	h whom	do you live	·	
zor what is your parents in	iarrear seacas.			uo you iive	•	
☐ 1. Married	☐ 2. Divorced		Ye	es No		Yes No
☐ 3. Separated	☐ 4. Widow(er)	1. Fathe	er 🗆] 🛘 2.	Mother	
☐ 5. Living together	☐ 6. I do not know	3. Stepr	nother 🗆] 🛭 4.	Stepfather	
= 3. E.v.i.g together	_ 0110011001111011		Boyfriend \Box] 🛭 6.	Spouse	
		7. Other	relative \square] 🗆 8.	Friend	
		9. Lives	alone [□ 10.	Other	
12. If you are working as w	ell as studying,	13. Ha	ve you h	ad acaden	nic difficul	ties wit
how many hours do you wo	ork per week?	your st	udies?			
☐ 1. I don't work		□ 1. Ne	ever		□ 2.	Once
☐ 2. I work approximately	hours a week	☐ 3. Of	ten			
44 11				h = d - b - b		
14. How many grades or co to repeat during your studion			nve you ns at sch	had behav ool?	noral or (aiscipiin
☐ 1. None		□ 1. Ne	ever		□ 2.	Once
☐ 2 courses		☐ 3. Of	ten			
*	Salda dha Gallanda a		- 111-2			
In your opinion, how harmf	ui is the following	1.	2.	3.	4.	5.
		Not	Slightly	Quite	Very	Don't
		harmful	harmful	harmful	harmful	know
16.1 Smoking cigarettes						131077
16.2 Frequently drinking alcohol						
16.3 Getting drunk						
16.4 Sometimes taking tranquilizer	rs/stimulants					
16.5 Frequently taking tranquilizers	s/stimulants					
16.6 Sometimes inhaling solvents						
16.7 Frequently inhaling solvents						

16.8 Sometimes smoking marijuana			
16.9 Frequently smoking marijuana			
16.10 Sometimes taking cocaine			
16.11 Frequently taking cocaine			

	smoked cigarettes in your		u when you smoked a
life?	П 2 N (1: 1 #22)	cigarette for the first ti	me?
1. Yes	☐ 2. No (skip to #22)	years	-i
months?	ed cigarettes in the last 12	days?	cigarettes in the last 30
1. Yes	☐ 2. No (skip to #22)	1. Yes	☐ 2. No (skip to #22)
	now many cigarettes have		sumed alcoholic drinks I
	in the last 30 days?	in your life?	
☐ 1. From 1 to 5	☐ 2. From 6 to 10		
	☐ 3. More than 20	☐ 1. Yes	☐ 2. No (skip to #27)
23. How old were yo		24. Have you consume	d alcoholic drinks
consumed alcoho	lic drinks?	in the last 12 months?	
	Years	☐ 1. Yes	☐ 2. No (skip to #27)
	med alcoholic drinks in the		, how many drinks have
last 30 days?		you consumed daily?	□ 2 E C to 10
□ 1. Yes	☐ 2. No (skip to #27)	☐ 1. From 1 to 5☐ 3. From 11 to 20	☐ 2. From 6 to 10
<u> п. тез</u>	2. No (skip to #27)	☐ 3. FIOIII 11 to 20	☐ 3. More triair 20
27. Have you ever ta	aken tranquilizers in your	28. How old were you	when you first took
life?	-	tranquilizers?	-
☐ 1. Yes	☐ 2. No (skip to #33)	Yea	· -
	tranquilizers in the last 12	_	nquilizers in the last 30
months?	□ 2 No (okin to #22)	days?	□ 2 No (okin to #22)
1. Yes	2. No (skip to #33)	☐ 1. Yes 32. From where did you	2. No (skip to #33)
you have taken tran		32. FIOIII WIIEIE UIU YU	u get tilose
	auilizers?		
, , , , , , , , , , , , , , , , , , , ,	quilizers?	tranquilizers?	☐ 2. In the street
	quilizers? Days		☐ 2. In the street ☐ 4. From a
		tranquilizers? ☐ 1. From the doctor	
		tranquilizers? ☐ 1. From the doctor ☐ 3. In the house	☐ 4. From a
		tranquilizers? ☐ 1. From the doctor ☐ 3. In the house friend	☐ 4. From a
		tranquilizers? ☐ 1. From the doctor ☐ 3. In the house friend	☐ 4. From a
33. Have you ever to	Days	tranquilizers? 1. From the doctor 3. In the house friend 5. Other (specify):	☐ 4. From a
33. Have you ever talife? ☐ 1. Yes 35. Have you taken	Days aken stimulants in your	tranquilizers? 1. From the doctor 3. In the house friend 5. Other (specify): 34. How old were your stimulants? Yes 36. Have you taken st	☐ 4. From a
33. Have you ever to life? 1. Yes 35. Have you taken months?	Days aken stimulants in your 2. No (skip to #39) stimulants in the last 12	tranquilizers? 1. From the doctor 3. In the house friend 5. Other (specify): 34. How old were you stimulants? Ye 36. Have you taken st days?	☐ 4. From a when you first took ars imulants in the last 30
33. Have you ever to life? ☐ 1. Yes 35. Have you taken months? ☐ 1. Yes	Days aken stimulants in your 2. No (skip to #39)	tranquilizers? ☐ 1. From the doctor ☐ 3. In the house friend ☐ 5. Other (specify): 34. How old were you stimulants?	☐ 4. From a when you first took
33. Have you ever to life? ☐ 1. Yes 35. Have you taken months? ☐ 1. Yes	Days aken stimulants in your 2. No (skip to #39) stimulants in the last 12 2. No (skip to #39) ays, how many days have	tranquilizers? ☐ 1. From the doctor ☐ 3. In the house friend ☐ 5. Other (specify): 34. How old were you stimulants?	when you first took ears imulants in the last 30 2. No (skip to #39) u get those stimulants? 2. In the street
33. Have you ever to life? ☐ 1. Yes 35. Have you taken months? ☐ 1. Yes 37. In the last 30 da	Days aken stimulants in your 2. No (skip to #39) stimulants in the last 12 2. No (skip to #39) ays, how many days have hulants?	tranquilizers? 1. From the doctor 3. In the house friend 5. Other (specify): 34. How old were your stimulants? Ye 36. Have you taken st days? 1. Yes 38. From where did you	when you first took ears imulants in the last 30 2. No (skip to #39) u get those stimulants?
33. Have you ever to life? ☐ 1. Yes 35. Have you taken months? ☐ 1. Yes 37. In the last 30 da	Days aken stimulants in your 2. No (skip to #39) stimulants in the last 12 2. No (skip to #39) ays, how many days have	tranquilizers? ☐ 1. From the doctor ☐ 3. In the house friend ☐ 5. Other (specify): 34. How old were you very stimulants? ☐ Yes 36. Have you taken st days? ☐ 1. Yes 38. From where did you ☐ 1. From the doctor ☐ 3. In the house friend	when you first took ears imulants in the last 30 2. No (skip to #39) u get those stimulants? 2. In the street

			40. Do you have friends who use illicit drugs?					
drink too much al	cohol?		0					
☐ 1. None		□ 2.	One	☐ 1. None ☐ 2. One				
☐ 3. Some	on ha		u io it to obtoin		☐ 3. Some 42. Have you ever had the chance to try an			
41. In your opinion, how easy is it to obtain illicit drugs?				drug?	i ever nau the ch	ance to	ury an	
☐ 1. Very difficult ☐ 2. Difficult			IIIICIC	a.ug.				
☐ 3. Easy ☐ 4. Very easy			□ 1.	Never	□ 2	2. Once		
_ = ====,			, ,	□ 3.	Several t	imes		
43. Have you eve	er bee	n curio	ous about trying			d the chance, wo	uld you	try an
an illicit drug?					drug?	–		
☐ 1. No □	☐ 2. M	laybe	☐ 3. Yes	□ 1.	No	☐ 2. Maybe	□ 3	. Yes
			1			T 40	T 4.5	
45.	ron /	ad.	46. Age of first	47.		48. How often	49.	
Have you ever tak	ten/us	eu:	use	Have y take		approx.?	Have y takeı	
			use		, I in the	(see codes		in the
				last	12	below)	last	30
				mon	ths:		days	:
	No	Yes		No	Yes		No_	Yes
1. Marijuana							$\perp \sqsubseteq$	
2. Hashish								
3. Coca paste								
4. Cocaine								
5. Hallucinogens								
6. Native drugs:								
7. Solvents								
8. Heroin								
9. Opium, morphine								
10. Crack								
11. Methanpheta- mines								
12. Other designer Drugs:								
CODES (Q. 48)								
Once Occasionally during the last 12 months Monthly								
4. Weekiy 5. Daily	4. Weekly							
L.J. Daily								i
50. Do you feel y	vou kn	low er	nough about the	51.	What i	s the main sou	urce of	VOIIT
consequences of						bout drugs?		, •••
drinks, marijuan	a, co	caine	base, cocaine,	□ 1.	Friends		rents, rela	itives
etc.)?				□ 3.	Teachers		ofessionals	
				□ 5.	Newspap	ers 🗆 6. Te	levision	



☐ 1. Not informed ☐ 2. Slightly informed	☐ 7. Posters, brochures ☐ 8. Own experience
☐ 3. Well informed	
52. Have you take drug prevention courses?	53. How would you rate the prevention
	courses you took?
☐ 1. I have not taken (End of questionnaire)	☐ 1. Very useful ☐ 2. Useful
☐ 2. Once ☐ 3. Sometimes	☐ 3. Slightly useful ☐ 4. Not useful
	☐ 5. Don't know
54. Have these courses changed your attitude	
about drugs?	
☐ 1. I feel as attracted to using drugs as before	
☐ 2. I feel less interested in drugs	
\square 3. My lack of interest in consuming drugs is the	
same as before	
☐ 4. My conviction not to take drugs is stronger	