

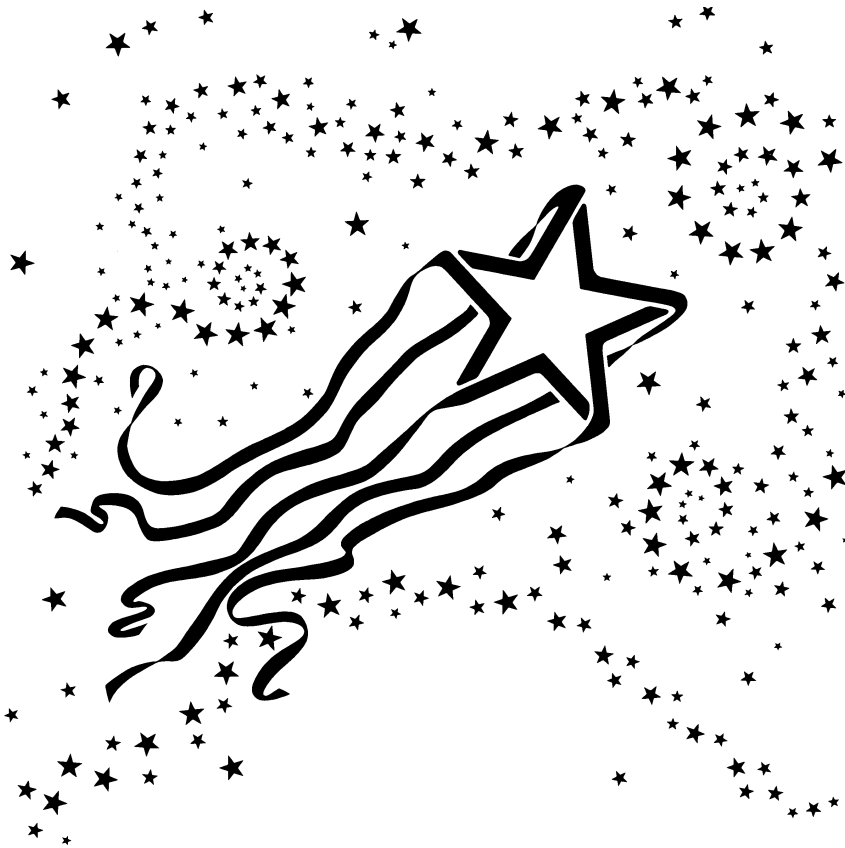
Nova Scotia Student Drug Use 2002

TECHNICAL REPORT



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Addiction Services
Nova Scotia Department of Health
and Dalhousie University

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The 2002 Nova Scotia Student Drug Use Survey was a collaborative initiative involving the Departments of Health and Education, Dalhousie University, and the School Boards and schools of Nova Scotia. The Nova Scotia survey was funded through Addiction Services, Nova Scotia Department of Health. The standardization of a survey protocol for the Atlantic Provinces was initially accomplished in 1994 under the leadership of Christiane Poulin with support from the National Health Research and Development Program, Health Canada (grant 6603-1402-DA). The standardized survey in the Atlantic Provinces was revised in 2001 under the leadership of Christiane Poulin with support from the Canadian Population Health Initiative. Implementation of the 2002 Nova Scotia survey and preparation of the Technical and Highlights reports were performed by the Department of Community Health and Epidemiology, Dalhousie University.

Abstract/Résumé

Nova Scotia Student Drug Use 2002: Technical Report

The Nova Scotia Student Drug Use Survey is a standardized study conducted in collaboration with Prince Edward Island, New Brunswick and Newfoundland and Labrador. The survey provides information about substance use, gambling and problems and risks associated with these behaviours among adolescent students in grades 7, 9, 10 & 12. The 2002 Nova Scotia estimates were based on a randomly selected sample of 4,247 students. For no substance was an increased prevalence of use observed in 2002 compared with 1998. A decreased prevalence from 1998 to 2002 was observed relative to any use of alcohol, cigarettes, LSD and inhalants. The most marked change was a decrease in the percentage of adolescent students who reported having smoked cigarettes over the course of a year, from 36% in 1998 to 23% in 2002. The prevalence of any use of cannabis (37%), psilocybin or mescaline (12%) and non-medical stimulants (13%) remained essentially unchanged from 1998 to 2002. Less than 5% of students reported the use of one of the remaining substances. Regarding gambling, the proportions of students who met the definition of at-risk gambling (3%) and problem gambling (2%) in 2002 were essentially the same as in 1998.

Une enquête sur la consommation de l'alcool et autres drogues chez les étudiants et étudiantes de la Nouvelle- Écosse, 2002: le rapport technique

Une enquête transversale standardisée au sujet de la consommation de l'alcool et autres drogues chez les adolescents et adolescentes, a été effectuée en 2002 en Nouvelle-Écosse en collaboration avec les provinces atlantiques, soit le Nouveau Brunswick, l'Île du Prince-Édouard et la Terre-Neuve et le Labrador. Cette enquête fournit de l'information au sujet de la consommation de l'alcool et autres drogues, de la participation dans les jeux d'argent, et des problèmes et risques associés à ces comportements, parmi les étudiants et étudiantes en 7^{ième}, 9^{ième}, 10^{ième} et 12^{ième} année. En 2002 en Nouvelle-Écosse, la prévalence de ces comportements fut estimée à partir d'un échantillon aléatoire de 4247 étudiants et étudiantes. Aucune hausse de la prévalence de l'usage de substance n'a été observée en Nouvelle-Écosse en 2002 par rapport à 1998. Cependant, l'enquête a démontré une tendance à la baisse en 2002 par rapport à 1998 de la prévalence de la consommation de l'alcool, les cigarettes, le LSD et les solvants hallucinogènes. Le changement le plus remarquable fut une décroissance dans la prévalence de la consommation de cigarettes, soit de 36% en 1998 à 23% en 2002. La prévalence de l'usage du cannabis (37%), de la psilocybine ou la mescaline (12%), et des stimulants non-médicaux (13%) a resté relativement stable en 2002 par rapport à 1998. Moins de 5% des étudiants et étudiantes ont utilisé une des autres drogues. En ce qui concerne les jeux d'argent, en 2002 environ 2% des étudiants(es) ont satisfait les critères du jeu pathologique et 3% ont satisfait les critères d'être à risque du jeu pathologique. Ces taux étaient comparables à ceux observés en 1998.

Executive Summary

The 2002 *Nova Scotia Student Drug Use Survey* asked junior- and senior-high school students about their experiences with substance use, gambling and associated risk behaviours. The survey revealed decreases from 1998 to 2002 in the prevalence of use of alcohol, cigarettes, LSD and inhalants, and no change relative to the use of any of 9 other substances.

The most marked change revealed by the 2002 survey was a decrease in the percentage of students who reported having smoked cigarettes over the course of a year, from 36% in 1998 to 23% in 2002. The percentage of students who reported smoking more than 10 cigarettes per day also decreased, from 7% in 1998 to 4% in 2002. The prevalence of cigarette smoking among adolescent students in Nova Scotia is now at the lowest level observed since the beginning of the province-wide survey in 1991.

Similar decreases in youth smoking have been observed in Canada. The Canadian Tobacco Use Monitoring Survey revealed that 22.5% of Canadian youth 15 to 19 years of age were current smokers in 2001 and that almost all Canadian provinces had experienced a decrease in the prevalence of cigarette smoking from 1999 to 2001. The widespread decline in smoking is thought to be due to the implementation of many complementary measures including media awareness about the harm caused by smoking, restrictions in access to tobacco by minors, public smoking bans, increased advertising on cigarette packages about the harms associated with smoking, preventing tobacco companies from funding youth-orientated events and educational programs. The 2002 *Nova Scotia Student Drug Use Survey* also revealed that 7% of students felt they needed help for their cigarette smoking. The Comprehensive Tobacco Control Strategy adopted by Nova Scotia in October 2001 targets cessation and youth prevention as key areas of action. The recognition by youth of their need for help may increase the likelihood of success of such programs.

Alcohol is the substance most commonly used by adolescent students in Nova Scotia. The prevalence of any alcohol use decreased significantly since the time of the last survey, from 57% in 1998 to 52% in 2002. However, a considerable proportion of adolescent students reported high-risk alcohol consumption patterns in 2002 such as drinking to the point of drunkenness (28%).

Cannabis ranks as the second substance most commonly used by adolescent students in Nova Scotia. In 2002, 37% of students reported they had used cannabis at least once, and 16% reported they had used cannabis more frequently than once per month, during the course of a year. Those rates were essentially the same as observed in 1998. The upward trend in the prevalence of cannabis use appears to have ended. However, the rates have not returned to the lower level observed a decade ago.

Youth represent the subgroup of the population most at risk of motor vehicle accidents resulting in death or injury. Alcohol is involved in a large proportion of such accidents. Although less data is available about the role of cannabis in motor vehicle accidents, cannabis is known to have physiological and psychological effects on driving. In 2002, 15% and 26% of Nova Scotia students with a driver's license reported they had, on at least one occasion during the course of the year, driven a motor vehicle within an hour of having used alcohol or cannabis, respectively. The lower prevalence of driving under the influence of alcohol is likely related to the many prevention measures acting in concert including graduated licensing regulations, the existence of a roadside test to determine intoxication, and consistency in public awareness campaigns. The high rate of adolescents' driving after cannabis use should be viewed as a priority for prevention efforts. Prevention may be enhanced by inter-sectoral collaboration and a clear consensus in the goal of prevention efforts.

Unplanned sexual intercourse under the influence of a substance is associated with an increased risk of multiple sexual partners and inconsistent condom use, among both male and female adolescent students. In 2002, about 29% of adolescent students engaged in sexual intercourse, and of those, 35% reported having had unplanned sexual intercourse while under the influence of alcohol or other substance, at least once during the course of the year. The findings of the 1998 and 2002 *Nova Scotia Student Drug Use Surveys* suggest that sex and drug education and interventions should provide information about the relationship between the two sets of behaviours. Interventions aimed at decreasing the prevalence of unplanned sexual intercourse under the influence of a substance might also decrease other high-risk sexual behaviours.

The 2002 survey revealed that 10% of Nova Scotia students attended a rave during the course of the year. Attendance at a rave does not necessarily imply substance use; however, MDMA (ecstasy) is one of the substances sometimes available and used at a rave. The 2002 survey revealed that 4% of Nova Scotia students used MDMA in the course of the year. The issue of the safety of raves has come to the forefront in Canada and elsewhere due to the death of several youths attending these events. Measures have been proposed to minimize the risk of harm at raves including requiring that rave promoters provide free water, adequate ventilation, and medical and security personnel.

The 2002 survey revealed that adolescent students' participation in almost all gambling activities has decreased since 1996. An estimated 3% and 2% of adolescent students met the definitions for at-risk and problem gambling, respectively. Males were more likely than females to be at-risk and problem

gamblers. The estimated rate of problem gambling in Nova Scotia was essentially the same in 2002 as in 1998. Efforts are needed to determine how best to define and measure problem gambling among adolescents.

The 2002 survey was conducted in Nova Scotia, New Brunswick and Prince Edward Island. The prevalence of substance use among adolescent students was essentially the same in Nova Scotia as in New Brunswick. The prevalence of use of illicit substances, including cannabis, was significantly lower among students in Prince Edward Island. The prevalence of cigarette smoking decreased markedly in all three provinces.

In summary, the *2002 Nova Scotia Student Drug Use Survey* provides epidemiological information useful for the development of policy and programs. The improvement in the prevalence of cigarette smoking was likely the result of many interventions by many groups focussed on a common goal. This success may serve as a model for inter-sectoral collaboration addressing other adolescent substance use issues. In addition to targeting the prevalence of substance use itself, efforts are also needed to decrease the prevalence of high-risk behaviours such as driving under the influence of a substance, especially cannabis, and unplanned sexual intercourse under the influence of a substance. Attendance at raves may be considered as high risk depending on the availability of substances. The risk associated with attendance at commercial raves may be decreased through regulations at appropriate government levels. Regarding gambling, the prevalence of problem gambling remained relatively stable. Efforts are needed to determine how best to define and measure problem gambling among adolescents.

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Foreword

The provinces of Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador each enjoy and nurture their own identity. However, the four provinces often are grouped together and recognized as a unique region of Canada because of their strong cultural, political and economic similarities and ties. Clearly, our understanding of adolescents' drug use and our ability to address the situation in each province can be enhanced by the availability of comparable information throughout the region.

The 2002 survey is the third application of the standardized Student Drug Use Survey in the Atlantic Provinces. The Department of Community Health and Epidemiology at Dalhousie University was a key partner in standardizing the survey. The protocol was developed with the support of a research grant from Health Canada in 1994. The goals of the survey and the questionnaire were revised in 2001 with the support of a grant from the Canadian Population Health Initiative.

It is hoped that the information in the provincial reports will lead to enhanced policy, programming and research concerning adolescents' substance use and associated risk behaviours in each province separately and in the Atlantic region as a whole.

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Introduction

The 2002 Nova Scotia Student Drug Use Survey is the third application of a standardized survey conducted in collaboration with Newfoundland and Labrador, Prince Edward Island and New Brunswick. Each province performs its own survey adhering to a standard protocol developed collaboratively in 1994.¹ The first two surveys were conducted in 1996 and 1998 in the four provinces.²⁻⁹ In 2002, three provinces participated in the survey (Nova Scotia, New Brunswick and Prince Edward Island). Newfoundland and Labrador did not perform data collection in 2002.

The focus of the *Student Drug Use Survey* is substance use, gambling and related high-risk behaviours. The questionnaire is administered to adolescents enrolled in grades 7, 9, 10 and 12. Thus, the survey provides representative information only about adolescents actually enrolled in and attending school. Street youth, dropouts and adolescents frequently absent from school are at higher risk of alcohol and other drug use than are adolescents in school.¹⁰

The 2002 *Technical Report* is restricted to descriptive findings such as the prevalence of substance use, problems and risk behaviours. Whenever possible, the 2002 results are compared with the findings from 1991, 1996 and 1998 in Nova Scotia.^{3,8,11} Also included is a summary table of the prevalence of substance use in 2002 Nova Scotia, New Brunswick and Prince Edward Island. Detailed results pertaining to Prince Edward Island and New Brunswick are presented in their provincial reports. Further analyses based on the full data from the four provinces are being planned.

Objectives

The goal of the 2002 *Student Drug Use Survey in the Atlantic Provinces* is to develop a population health perspective on addictions-related health in the adolescent student population; in each province separately and in the Atlantic region as a whole.

The objectives are:

- 1 To estimate in the adolescent student population, the prevalence of the various patterns of substance use and gambling, related high-risk behaviours and harmful consequences and risk continua;
- 2 To identify determinants of addictions-related health in the adolescent student population;
- 3 To determine students' awareness of exposure to drug prevention/education programming during the school year;
- 4 To provide students with the opportunity to identify issues and needs they consider relevant to addictions-related health;
- 5 To provide sound epidemiological information useful for the development of policies and programming in prevention and treatment.

About Nova Scotia

In 2002, the province of Nova Scotia had a population of about 942,700 persons of whom 126,611 were 10 to 19 years of age.¹² About 95% of the population speaks English at home.

In Nova Scotia, the age restriction for access to alcohol or tobacco, or to gambling such as casinos, lottery tickets, video lottery terminals and sports betting, is 19 years of age. The age restriction for alcohol has not changed since 1972 when the *Liquor Control Act* was revised. The *Tobacco Access Act*, which came into force in April 1994, raised the age restriction for tobacco

to 19 years from 16 years. The *Gaming Control Act* came into force in April 1995. The minimum age to obtain a beginner's driver's license in Nova Scotia is 16 years, and a graduated driver's license program came into effect in October 1994.

In Nova Scotia, the provision of health services is organized into nine District Health Authorities. The District Health Authorities (DHA) are sometimes regrouped into Shared Services Areas. Comparisons between the 2002 and 1998 *Nova Scotia Student Drug Use Surveys* can be made based on the approximately equivalent areas as noted below.

District Health Authority in 2002	DHA #	Shared Service Area in 2002	Health region in 1998
South Shore	1		
South West Nova	2		
Annapolis Valley	3	DHA 1, 2 and 3	Western
Cohchester East Hants	4		
Cumberland County	5		
Pictou County	6	DHA 4, 5 and 6	Northern
Guysborough Antigonish Strait	7		
Cape Breton	8	DHA 7 and 8	Eastern
Capital Health	9	DHA 9	Central

Methods

Ethics Approval and Consent

The ethics approval for the 2002 survey was granted by the Dalhousie University Health Sciences Research Ethics Board. The issues addressed in the ethics review were consent, voluntary participation and confidentiality.

In Nova Scotia, the initial consent to conduct the survey was obtained from the Department of Education, the School Boards Association, the individual school boards and the principals of individual schools. The requirement for parental consent was determined by individual schools.

Consent from individual students was obtained at the time of the survey. Since the student drug use survey was anonymous, consent by individual students was implicit. The questionnaire provided students with information about the purpose of the survey and the anonymous, confidential and voluntary nature of the survey. In Nova Scotia, questionnaires were administered by university students who received specific training for the purpose. Confidentiality was further ensured by having the participants insert and then seal their completed questionnaires in an unlabelled manila envelope.

Participants

The 2002 *Nova Scotia Student Drug Use Survey* was a province-wide survey of students in the public school system in grades 7, 9, 10 and 12. Not included in the sampling frame were students attending private school (accounting for approximately 2% of all junior and high school students in Nova Scotia), street youth, school-leavers and adolescents absent from school on the day of the survey.

The sample design was a single-stage stratified cluster sample of randomly selected classes. A census of classes of students in junior and senior high school was performed in the spring of 2002. Sampling was performed in four grades in four shared service areas of Nova Scotia resulting in sixteen strata. The four shared service areas are approximately equivalent to the health regions of 1998. The sample allowed for approximately equal numbers of students in each grade in order to achieve a precision of +/- 5% in each grade; thereafter, the sample was allocated proportionately according to shared service areas. Data were weighted subsequently in order to correct for the overall disproportionate sampling strategy. Details about the census and sampling strategy are presented in Table 1 of Appendix 2.

The survey was administered in 205 randomly-selected classes in 87 schools throughout Nova Scotia. Fourteen percent of the 5,069 students enrolled in the randomly-selected classes were absent at the time the survey was administered. The absentee rates in each shared service area and in the province as a whole were comparable to those found in the previous student drug use surveys in Nova Scotia. Nearly all (99.4%) of the students present on the day of the survey participated, resulting in a sample of 4,303 students. Excluded from further analyses were the responses of 45 students who reported using the fictitious drug and 11 students whose grade was not verifiable. Detailed information about participation is shown in Table 1 of Appendix 2.

The present study on drug use and associated risk behaviours among Nova Scotia adolescents, therefore, is based on the responses of 4,247 students in grades 7, 9, 10 and 12.

Demographic Characteristics of the 2002 Sample

Males and females were equally represented in the 2002 *Nova Scotia Student Drug Use Survey*. As intended, grades 7, 9, 10 and 12 each contributed about 25% of the survey participants. The average age of the 4247 participants was 15.3 years with the average age ranging from 12.7 years in grade 7 to 17.7 years in grade 12. Also as planned, each shared service area contributed participants proportionate with the number of students in that shared service area relative to the total number of students in Nova Scotia (Table 1). The gender ratio and the average age of respondents in 2002 were essentially the same as in the 1991, 1996 and 1998 surveys.

General Demographic Information about Students in Nova Scotia

About 78.3% of adolescent students reported they were living in two parent households, 16.4% in single-parent households and 4.2% reported they were living with neither parent (Table 2). Those proportions are comparable with the 1991, 1996 and 1998 *Nova Scotia Student Drug Use Surveys*.

About 28% of students reported they had a type of driver's license. The findings pertaining to driver's license in 2002 were essentially the same as in 1998.

About 70% of students reported their mother had attained a level of education of high school graduate or higher.

Table 1. Demographic characteristics of the 2002 sample

		Number of students	%
Total		4247	
Gender	Male	2110	49.7
	Female	2077	48.9
	Not stated	60	1.4
Grade (average age)	7 (12.7 years)	1000	23.6
	9 (14.5 years)	1087	25.6
	10 (15.8 years)	1150	27.1
	12 (17.7 years)	1010	23.8
Shared service area	DHA 9	1352	31.8
	DHA 1, 2 & 3	994	23.4
	DHA 4, 5 & 6	842	19.8
	DHA 7 & 8	1059	24.9

Table 2. General demographic characteristics of Nova Scotia students in grades 7, 9, 10 & 12, 2002

		%
Lives with ...	Both parents	67.8
	One parent only	16.4
	Either & Step	10.7
	Neither parent	4.1
	No response	1.1
Driver's license	No license	72.0
	Beginner's	9.7
	Driver's license less than 1 year	5.1
	Driver's license 1 year or longer	12.7
	No response	<1
Mother's highest level of education	Did not attend high school	2.4
	Attended high school	11.5
	Graduated from high school	21.2
	Attended college or trade school	3.2
	Graduated from college or trade school	14.5
	Attended university	3.8
	Graduated from university	27.2
Don't know/no mother	14.8	
	No response	1.5

Questionnaire

The 2002 *Nova Scotia Student Drug Use Survey* employed a self-reported drug use questionnaire (Appendix 1). Students indicated their responses directly on the computer-scannable questionnaire. The content of the questionnaire was determined by the goal and objectives noted in the Introduction.

The 2002 questionnaire comprised 100 items and one open-ended question. Information was requested on demographics, social environment, substance use, problems related to substance use, related sexual behaviour and other risk behaviours, help seeking behaviour, gambling and school drug education and policy. The 2002 questionnaire also included a new section on mental health. Findings pertaining to the section on mental health will be reported at a later date.

Most substance use items in the questionnaires from 1991 to 2002 have remained identical in order to ensure comparability through time. Detailed information about the validity and reliability of the questionnaire is reported elsewhere.¹³

Definitions

In the present report, *any smoking* refers to smoking more than one cigarette in the 12 months prior to the survey, and *frequent smoking* refers to smoking more than 10 cigarettes per day. For alcohol, *any use* refers to alcohol use in the 12 months prior to the survey, ranging from less often than once per month to daily use of alcohol; *frequent alcohol use* is defined as use more than once per month. For all other substances, *any use* refers to use on one or more occasions during the 12 months prior to the survey, and *frequent use* refers to use more frequently than once per month.

The definition of problem gambling was based on the South Oaks Gambling Screen, Revised for Adolescents (SOGS-RA).¹⁴⁻¹⁶ At-risk gambling is defined as a score of 2 or 3 and problem gambling is defined as a score of 4 or more in the SOGS-RA scale.

Statistical Analysis

Data were summarized using descriptive statistics such as percentages and means. The standard errors and their associated confidence intervals were corrected for the disproportionate sampling design by means of probability weights and for the cluster sampling technique, using the Kish design effect.¹⁷ Confidence intervals are presented only for the major estimates.

As determined by the sampling strategy, the shared service area is the smallest geographical unit for which results are presented. Analyses concerning individual participating school boards and schools would not be reliable and therefore were not performed.

Users and non-users, and frequent users and infrequent users of selected drugs were compared in terms of gender, grade, shared service area, grade point average and friends' use of drugs. The differences in proportions were tested using logit or ordered logit estimation taking into account the cluster sampling technique. The STATA computer program was employed for all statistical analyses.¹⁸

In keeping with other provincial student drug use surveys, the *2002 Technical Report* presents 95% confidence intervals for the proportions of students using specific drugs. For all other statistical tests, the more stringent confidence level of 99% ($p < 0.01$) was used.

How to read the graphs

The *2002 Technical Report* includes several graphs showing the proportions of adolescent students who used alcohol, tobacco and other drugs, as observed in the 1991, 1996, 1998 and 2002 surveys. The plots show the estimated prevalence of use (as a dot) and the 95% confidence intervals (as whiskers joined by a vertical line above and below the dot).

If the 95% confidence intervals do *not* overlap, then we say the prevalence estimates are significantly different. If the 95% confidence intervals *do* overlap, then the prevalence estimates are *not* significantly different.

For example, in Figure 2 on cigarette smoking, the 95% confidence intervals for any cigarette smoking in 1998 and 2002 do *not* overlap. Thus, we say that the proportion of students who reported any cigarette smoking decreased significantly from 1998 to 2002 (from 36.1% to 23.2%). However, in that same Figure, the 95% confidence intervals for the prevalence of cigarette smoking in 1996 and 1998 *do* overlap. In that case, we conclude the small difference in the prevalence estimates in those two years is *not* significantly different. That is, the small difference is probably due to sampling rather than real changes in cigarette smoking from 1996 to 1998 in the adolescent student population.

Qualitative Analysis

The 2002 questionnaire included an open-ended question asking students "Is there anything else you would like to tell us related to the questions in this survey?". A total of 601 students wrote a comment in this section. Each response was transcribed and categorized into one or more descriptive themes. Quotes were selected to illustrate the issues addressed in the 2002

reports. The comments provide insights into the breadth of adolescent students' experiences, opinions and concerns regarding substance use and related issues.

Comparisons Among the Atlantic Provinces

Reported in this document are the estimates of the prevalence of alcohol, tobacco and other drug use among adolescents in New Brunswick and Prince Edward Island based on the 2002 standardized survey. Those results provide a general sense of how adolescents fare in those provinces and in the region as a whole.

Inevitably, one province or another has the highest or the lowest proportion of the use of a particular drug. In some cases, differences in the observed proportions are small and not significant and probably reflect sampling rather than real underlying differences among the provincial populations of adolescents. In other cases, differences are significant and probably do represent real differences among the adolescent student populations.

Findings

Trends in Substance Use among Nova Scotia students: 1991 to 2002

The substances most commonly used by students in 2002 were alcohol, cannabis and tobacco. More than half of the students in grades 7, 9, 10 and 12 reported having consumed alcohol, more than one third used cannabis and almost one quarter smoked cigarettes in the 12 months prior to the survey (Table 3).

A considerable proportion of students reported having used hallucinogens such as LSD, psilocybin or mescaline. Less than 10% of students reported the non-medical use of stimulants such as amphetamines and methylphenidate. Less than 5% of students reported having used any of the remaining substances.

Table 4 shows that the rates of substance use have varied greatly since 1991. Whereas marked increases were observed from 1991 to 1998 in the prevalence of use of many substances, for no substance was an increased prevalence observed in 2002 compared to 1998. A decreased prevalence was observed from 1998 to 2002 relative to any use of alcohol, cigarettes, LSD and inhalants. The most marked change was a decrease in the percentage of adolescent students who reported having smoked cigarettes over the course of a year, from 36% in 1998 to 23% in 2002. The prevalence estimates of the use of cannabis, psilocybin or mescaline, and non-medical stimulants were essentially the same in 2002 as in 1998. Finally, as in previous years, less than 5% of students reported having used one of the remaining substances.

Table 3. Any substance use in 2002 among students in grades 7, 9, 10 & 12, as percentages

Any use of...	%
Alcohol	51.7
Cannabis	36.5
Cigarettes	23.2
Psilocybin or Mescaline	12.2
Non-medical amphetamines	9.3
Non-medical methylphenidate (Ritalin)	7.5
LSD	5.5
Inhalants	4.9
Non-medical tranquilizers	4.7
MDMA (Ecstasy)	4.4
Cocaine or crack	3.9
Anabolic steroids	2.7
PCP	3.2
Heroin	1.6

Table 4. Any substance use, 1991 to 2002, among students in grades 7, 9, 10 & 12, as percentages

Any use of...	1991	1996	1998	2002
	%	%	%	%
Alcohol	50.6	54.1	56.7	51.7
Cannabis	17.2	32.1	37.7	36.5
Cigarettes	26.0	34.9	36.1	23.2
Non-medical stimulants*	5.3	8.9	10.5	12.8
Psilocybin or mescaline	4.0	8.3	10.7	12.2
LSD	7.1	12.4	10.1	5.5
Inhalants	9.6	7.2	7.0	4.9
Non-medical tranquilizers	2.6	4.8	5.9	4.7
MDMA (Ecstasy)	n/a	n/a	n/a	4.4
Cocaine or crack	2.5	3.6	4.7	3.9
PCP	1.1	2.6	3.0	3.2
Anabolic steroids	n/a	2.8	2.5	2.7
Heroin	1.6	2.1	2.8	1.6
Non-medical barbiturates	2.3	1.8	2.3	n/a

n/a data not available

* The 1991, 1996 and 1998 surveys asked about the non-medical use of various stimulants in one question only. The 2002 survey asked about the use of non-medical amphetamines and methylphenidate in separate questions. In order to compare the estimates through time, the above 2002 estimate was calculated as the non-medical use of either amphetamines or methylphenidate (Ritalin).

Table 5 shows the proportions of students who reported having used alcohol, cigarettes or cannabis in a manner that might be characterized as frequent. The proportion of students who reported having smoked more than 10 cigarettes per day decreased markedly from

1998 to 2002, from 7.4% to 4.3%. In 2002, 15.5% of students reported having used cannabis more often than once a month. Table 5 shows a continued upward trend in the proportion of students who reported this cannabis use pattern from 1991 to 2002.

Table 5. Frequent use of alcohol, tobacco and cannabis, 1991 to 2002, among students in grades 7, 9, 10 and 12, as percentages

Any use of...	1991	1996	1998	2002
	%	%	%	%
Alcohol more often than once/month	25.4	30.3	33.0	30.3
Cigarette smoking more than 10 cigarettes/day	4.9	7.2	7.4	4.3
Cannabis more often than once/month	4.3	12.3	13.5	15.5

Alcohol

Patterns of Use

In 2002, 51.7% of adolescent students reported having had some alcohol during the course of the year, 30.3% consumed alcohol more than once per month and 13.6% did so at least once per week. Figure 1 shows that the prevalence of any alcohol use decreased significantly from 1998 to 2002. The prevalence of alcohol use more often than once per month did not change significantly from 1998 to 2002.

Figure 1: Prevalence of alcohol use among students in grades 7, 9, 10 & 12 in the 12 months prior to the survey

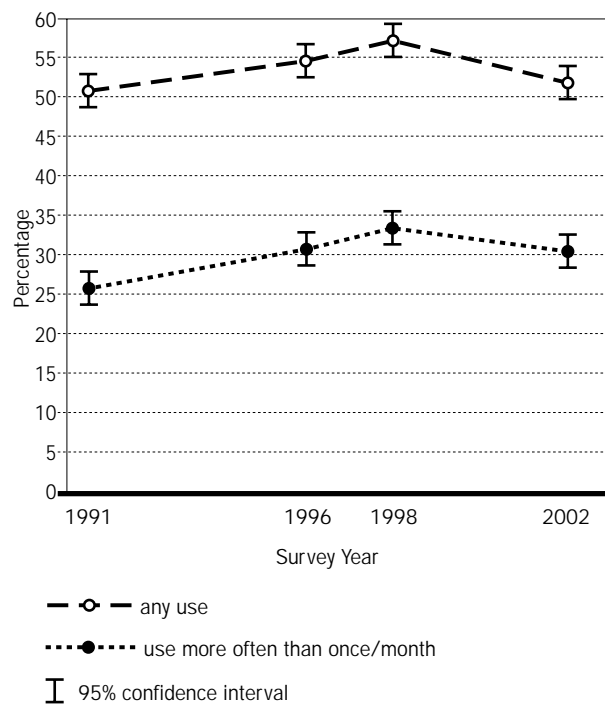


Table 6 shows that the proportions of males and females who reported having consumed some alcohol are about equal. Furthermore, the proportions of students who reported having consumed some alcohol are about equal in the four shared service areas of the province.

As in previous surveys, the 2002 survey showed that the prevalence of any alcohol use increases with higher grade level, ranging from 15.5% in grade seven to 81.2% in grade twelve. The 2002 survey also asked students in which grade they had first had alcohol. About 25.8% percent of students reported that they had never drunk alcohol. Of the remaining students, over half said the first time they drank alcohol was in grade 8.

Table 6. Any alcohol use in the past 12 months, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Any ALCOHOL use (n=4247) %
Overall		51.7
Gender	Male	51.7
	Female	52.1
Grade	7	15.5
	9	50.9 **
	10	64.5 **
	12	81.2 **
Shared service area	DHA 9	49.7
	DHA 1, 2 & 3	50.9
	DHA 4, 5 & 6	47.4
	DHA 7 & 8	54.6

* p < 0.01; ** p < 0.001

Alcohol consumption is associated with grade point average and with friends' use of alcohol. A greater proportion of students with an average higher than 60% in their course work at school, than students with a lower average in their school work, reported having had alcohol in the 12 months prior to the survey (51.8% vs. 72.6%). Students whose friends used alcohol were more likely to have consumed alcohol themselves. For example, 22.3% of students with only a few drinking friends reported having consumed alcohol, whereas 93.7% of those whose every friend drank themselves reported having consumed alcohol.

Table 7 shows that 30.3% of students reported having consumed alcohol more often than once per month in 2002. This pattern of use is increasingly common as students progress from grade 7 to 12. Males and females, and students in the four shared service areas, are approximately equally likely to report alcohol use more often than once per month.

Table 8 shows the proportion of students who consumed 5 or more drinks at one sitting in the 30 days prior to the survey. About 56.6% of students in grades 7, 9, 10 and 12 reported they had not consumed any alcohol in the 30 days prior to the survey, and 14.4% reported they had consumed alcohol but had not taken 5 or more drinks at a sitting. However, 29% of students in grades 7, 9, 10 and 12 reported having had 5 or more drinks at a sitting on at least one occasion in the 30 days prior to the survey. More older than younger students reported having taken 5 or more drinks at a sitting. This drinking pattern did not differ by gender or shared service area.

Table 7. Frequent alcohol use in the past 12 months, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		ALCOHOL use more than once/month (n=4247) %
Overall		30.3
Gender	Male	31.8
	Female	29.0
Grade	7	7.7
	9	27.8 **
	10	37.6 **
	12	51.7 **
Shared service area	DHA 9	28.9
	DHA 1, 2 & 3	29.4
	DHA 4, 5 & 6	29.9
	DHA 7 & 8	33.4

* p < 0.01; ** p < 0.001

Table 8. Drinking 5 or more drinks at a sitting, in the 30 days prior to the survey, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Did not consume any alcohol %	Consumed less than 5 drinks at a sitting %	Consumed 5 or more drinks at a sitting %	p-value
Overall		56.6	14.4	29.0	
Gender	Male	56.7	12.2	31.1	n.s.
	Female	56.1	16.8	27.1	
Grade	7	85.5	7.9	6.7	
	9	56.3	19.9	23.8	**
	10	48.4	16.2	35.5	**
	12	31.7	13.9	54.4	**
Shared service area	DHA 9	58.6	13.6	27.8	
	DHA 1, 2 & 3	56.4	15.2	28.5	n.s.
	DHA 4, 5 & 6	58.1	14.3	27.6	n.s.
	DHA 7 & 8	52.6	14.9	32.5	n.s.

* p < 0.01; ** p < 0.001; n.s. not significant

Drinking 5 or more drinks at a sitting was found to be associated with a low average in school work and with friends' alcohol use. For example, whereas 6.2% of students with a few drinking friends reported having consumed 5 or more drinks at a sitting, 71.1% of students whose every friend drank alcohol, also reported having consumed alcohol to that extent at a sitting on at least one occasion in the 30 days prior to the survey.

Table 9 shows the proportions of students who drank alcohol to the point of drunkenness in the 30 days before the survey. About 16% of students in

grades 7, 9, 10 and 12 reported having consumed alcohol, but not to the point of drunkenness, in the 30 days prior to the survey. However, 28% of students in grades 7, 9, 10 and 12 reported having been drunk at least once in the 30 days prior to the survey.

More older than younger students reported having been drunk in the 30 days prior to the survey. Males and females were equally like to report having been drunk. Students in District Health Authorities 7 and 8 were more likely than those in District Health Authority 9 to report having consumed alcohol to the point of drunkenness.

Table 9. Drunkenness in the 30 days prior to the survey among students in grades 7, 9, 10 & 12, as percentages, according to gender, grade and shared service area, 2002

		Did not consume alcohol %	Consumed alcohol but did not get drunk %	Got drunk on at least one occasion %	p-value
Overall		56.0	16.0	28.0	
Gender	Male	56.1	16.7	27.2	
	Female	55.5	15.5	29.0	n.s.
Grade	7	85.6	8.2	6.2	
	9	55.3	18.9	25.8	**
	10	47.6	18.5	34.0	**
	12	31.1	19.3	49.6	**
Shared service area	DHA 9	58.5	15.4	26.1	
	DHA 1, 2 & 3	56.1	16.5	27.4	n.s.
	DHA 4, 5 & 6	56.4	16.0	27.6	n.s.
	DHA 7 & 8	52.0	16.5	31.5	*

* p< 0.01; ** p<0.001; n.s. not significant

Drunkenness is associated with grade point average and friends' use of alcohol. Students with an average < 60% in their course work at school are more likely than students with a higher average to report drunkenness (45.5% vs. 27.8%).

Drunkenness becomes increasingly more common as more and more students' friends themselves consume alcohol.

In summary, among students in grades 7, 9, 10 and 12, any alcohol consumption, frequent alcohol consumption, heavy drinking and drunkenness are all positively associated with increasing grade, a low grade point average and friends' use of alcohol.

Me and my friends drink a lot because when your [sic] in a small town there's truly nothing else to do on the weekend but drink/smoke pot. Don't get me wrong we don't everyday but we usually do.

– Female, grade 10

I am not dependent on alcohol. I know my limits and keep myself safe.

– Female, grade 10

I only drink alcohol on special occasions. [sic]

– Female, grade 7

I've only been drunk once in my life and have never drunk again.

– Female, grade 7

I have had the urge a few times to get drunk because my friends were.

– Female, grade 7

Some teenagers might have a small drink or even just a sip of alcohol on special events, like Christmas or New Years. So I would ask that you keep that in mind when you tally the results for this survey.

– Female, grade 9

Drinking Venues and Deception about Age for Alcohol

In 2002, 14.9% of students in grades 7, 9, 10 and 12 reported having consumed alcohol in a bar, tavern or lounge in the 12 months prior to the survey. Table 10 shows that drinking in licensed venues was more common among males than females (16.6% vs. 13.3%), and more common as students progress from grade 7 to 12 (from 4.3% to 40.4% respectively). The proportions of students who reported having consumed alcohol in a licensed venue did not differ significantly across shared service areas.

In Nova Scotia, a person must be 19 years of age or older to be legally allowed to consume alcohol in a venue licensed to serve alcohol. About 4% of students 14 years of age or younger, 10% of students 15 or 16 years of age, and 34% of students 17 or 18 years of age, reported they had consumed alcohol in a licensed venue in the 12 months prior to the survey.

Table 10 also shows that in 2002 about 9% of students in grades 7, 9, 10 and 12 reported having used fake identification or having lied about their age in order to obtain alcohol. Males and females, and students in the various shared service areas, were equally likely to have reported this behaviour.

Less than 2% of students 14 years of age or younger, 7% of students 15 or 16 years of age and 24% of students 17 or 18 years of age, reported having used fake identification or having lied about their age to obtain alcohol in the 12 months prior to the survey.

Table 10. Drinking in a licensed venue and age deception, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Drinking in a licensed venue (n=4247) %	Fake ID or lying about one's age to get alcohol (n=4247) %
Overall		14.9	9.0
Gender	Male	16.6	9.8
	Female	13.3*	8.2
Grade	7	4.3	1.1
	9	6.9	5.4 **
	10	11.5 **	8.2 **
	12	40.4 **	23.2 **
Shared service area	DHA 9	15.4	10.0
	DHA 1, 2 & 3	13.1	7.3
	DHA 4, 5 & 6	17.1	9.4
	DHA 7 & 8	14.1	8.8

* p< 0.01; ** p<0.001

Driving after Drinking

The 2002 survey asked students about their experiences with drinking and driving in the 12 months before the survey. Among students 16 years of age or older, 66% reported they had a driver's license with the proportions among males and females essentially the same (68.5% and 62.8%, respectively).

About 6.6% of students in grades 7, 9, 10 and 12 reported having driven a motor vehicle within an hour of having two or more alcoholic drinks. That proportion is essentially unchanged compared with 1998. About 14.8% of students with a driver's license reported having driven after drinking.

About 5.5% of students in grades 7, 9, 10, and 12 reported having been in a motor vehicle accident when they had been the driver. Less than 1% of students reported having been the driver in a motor vehicle accident within two hours of having consumed alcohol.

Table 11 shows the proportions of students who reported having driven after consuming alcohol. More males than females reported having driven after drinking. Driving after drinking was found to be most common among students in grade 12. Students in the various shared service areas of Nova Scotia were about equally likely to have reported driving after drinking.

Table 11. Driving after drinking among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Among all students (n=4247)	Among students with a driver's license (n=1236)
		%	%
Overall		6.6	14.8
Gender	Male	8.8	18.5
	Female	4.3 **	10.6*
Grade	7	-	-
	9	5.0	-
	10	5.4	7.4
	12	15.9 **	18.4**
Shared Service Area	DHA 9	5.0	13.2
	DHA 1, 2 & 3	6.9	14.1
	DHA 4, 5 & 6	7.2	15.6
	DHA 7 & 8	7.9	16.4

- cell too small to be meaningful; * p< 0.01; ** p<0.001

Table 12 shows the proportions of students who reported having been a passenger of a motor vehicle with a driver who had had too much to drink. About 22.8% of students in grades 7, 9 10 and 12 reported having been a passenger under those circumstances in the 12 months prior to the survey. More females than males reported having been a passenger. Being a passenger with an impaired driver was reported by increasingly large proportions of students from grade 7 to 12.

Table 12. Being a passenger with an impaired driver among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

Being a passenger with an impaired driver (n=4247)		
%		
Overall		22.8
Gender	Male	20.4
	Female	25.5 **
Grade	7	12.4
	9	25.4 **
	10	25.7 **
	12	28.8 **
Shared service area	DHA 9	20.1
	DHA 1, 2 & 3	23.0
	DHA 4, 5 & 6	24.8
	DHA 7 & 8	24.7

* p< 0.01; ** p<0.001

...as a student I find people are expirmenting [sic] more; but with that my friends have been very responsible i.e. quick to take keys if someone is to intoxicated to drive and I find as a persons there is more help, info available to me about long term affects of drugs, alcohol etc. But people will always expirement [sic] you really can't stop it.

- Female, grade 12

Tobacco

Patterns of Cigarette Smoking

In 2002, 40.6% of students reported having smoked a whole cigarette in their lifetime. The average age for first smoking a whole cigarette was 12.6 years. That age is essentially unchanged from 1998 when the average age for first smoking a whole cigarette was 12.7 years.

Figure 2 shows an upward trend in the prevalence of cigarette smoking from 1991 to 1998 and a marked decrease from 1998 to 2002. The decrease in the past four years occurred both for the reporting of any cigarette smoking and smoking more than 10 cigarettes per day.

Table 13 shows the proportions of students who reported having smoked cigarettes in the 12 months prior to the survey. About 23.2% of students in grades 7, 9, 10 and 12 reported having smoked more than one cigarette in the 12 months prior to the survey. About 4.3% of all students reported having smoked more than 10 cigarettes per day in that time frame. The proportions of males and females who reported having smoked cigarettes were essentially the same. The proportions of students who reported having

smoked cigarettes increased from grade 7 to 12, ranging from 10.2% among students in grade 7, to 34.9% among students in grade 12.

In 2002, differences were observed among the shared services areas in the proportion of students who reported having smoked cigarettes. In particular, a larger proportion of students in District Health Authorities 1, 2 and 3 reported having smoked cigarettes compared with students in the other shared service areas.

Figure 2: Prevalence of cigarette smoking among students in grades 7, 9, 10 & 12 in the 12 months prior to the survey

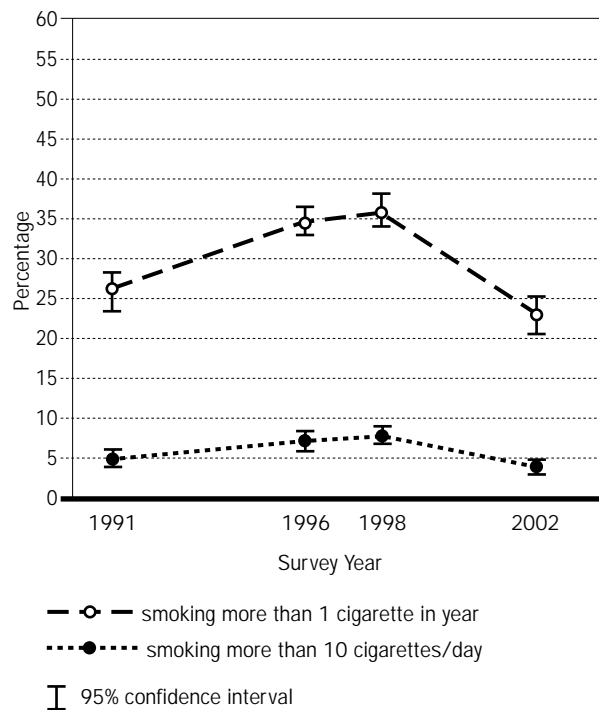


Table 13. Any cigarette smoking in the previous 12 months, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Any CIGARETTE smoking (n=4247) %
Overall		23.2
Gender	Male	22.2
	Female	24.2
Grade	7	10.2
	9	21.7 **
	10	28.0 **
	12	34.9 **
Shared service area	DHA 9	20.3
	DHA 1, 2 & 3	26.7 *
	DHA 4, 5 & 6	23.4
	DHA 7 & 8	23.4

* p<.01; ** p<.001

More than twice as many students with an average below 60% in their course work at school smoked cigarettes than did those with a higher average. Cigarette smoking is also strongly associated with friends' use of tobacco, with smoking in youth increasing as more of their friends use tobacco. For example, students who reported that a few of their friends used tobacco were less likely to have smoked cigarettes than did students who said that all of their friends used tobacco (11.2% vs. 74.0%, respectively).

Lots of people have started smoking this year, and I think that it is because they feel the need to be 'cool', but I have not.

– Female, grade 7

I believe smoking is the most harmful of everything and should be outlawed. It is offensive and disgusting.

– Female, grade 12

Smoking cigarettes is for faddists who want to fit in. I smoke weed and drink, but that's only because I feel better when I do it.

– Male, grade 9

Cigarettes cost a lot and don't get you stoned. Smokers are "—" morons.

– Female, grade 9

I think that more teens will end up smoking pot because cigarettes have such a high price.

– Female, grade 10

About 22.2% of students reported having smoked cigarettes in the 30 days prior to the survey (Table 14). About 4% of students reported having smoked more than 10 cigarettes per day in that time frame. The pattern of past-month smoking among males was essentially the same as among females. The proportions of students who reported having smoked cigarettes increased as students progressed from grade 7 through 12. Compared with students in District Health Authority 9, larger proportions of students in District Health Authorities 1, 2 and 3 reported having smoked in the 30 days prior to the survey (Table 14).

Other Tobacco Products

In 2002, 14.4% of students reported having smoked a cigar or pipe and 4.8% reported having used chewing tobacco in the 12 months prior to the survey. The prevalence of cigar or pipe smoking was 22.9% in 1998.

More males than females reported use of these tobacco products. In particular, 22.0% of males and 7.1% of females reported having smoked a cigar or pipe in 2002. The use of cigars or pipes and chewing tobacco was reported by more older students. For example, among students in grade 12, 24.9% reported having smoked a cigar or pipe and 7.5% reported having used chewing tobacco.

The proportions of students who reported the use of these tobacco products were relatively stable among the various shared service areas. Detailed findings regarding the various tobacco products are presented in Table 15.

Table 14. Cigarette smoking in the previous 30 days, among students in grades 7, 9, 10 & 12, as percentages, according to gender, grade and shared service area, 2002

		No smoking %	≤ 10 cigs/day %	> 10 cigs/day %	p-value
Overall (n=4247)		77.8	18.2	4.0	
Gender	Male	78.6	16.9	4.5	
	Female	76.9	19.6	3.5	n.s.
Grade	7	89.9	9.5	<1	
	9	79.0	17.9	3.1	**
	10	73.7	21.2	5.1	**
	12	66.6	25.7	7.8	**
Shared service area	DHA 9	80.7	16.9	2.5	
	DHA 1, 2 & 3	74.0	21.2	4.8	*
	DHA 4, 5 & 6	78.1	16.9	5.0	n.s.
	DHA 7 & 8	77.4	18.2	4.4	n.s.

* p< 0.01; ** p< 0.001; n.s. not significant

Table 15. Use of tobacco products among students in grades 7, 9, 10 & 12 as percentages, according to demographic characteristics, 2002

		Cigar or Pipe	Chewing Tobacco
		%	%
Overall		14.4	4.8
Gender	Male	22.0	8.5
	Female	7.1 **	1.3 **
Grade	7	3.7	1.2
	9	12.3 **	4.6 *
	10	18.8 **	6.6 **
	12	24.9 **	7.5 **
Shared service area	DHA 9	13.8	5.1
	DHA 1, 2 & 3	17.2	6.3
	DHA 4, 5 & 6	16.1	4.2
	DHA 7 & 8	11.2	3.5

* p< 0.01; ** p< 0.001

Table 16: Use of fake identification to obtain tobacco products, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Used fake ID to obtain tobacco
		(n=4247) %
Overall		10.0
Gender	Male	11.6
	Female	8.4 *
Grade	7	2.4
	9	7.2 **
	10	11.9 **
	12	20.0 **
Shared service area	DHA 9	10.0
	DHA 1, 2 & 3	9.9
	DHA 4, 5 & 6	8.9
	DHA 7 & 8	10.7

* p< 0.01; ** p< 0.001

Deception about Age for Tobacco

Students were asked if they had used fake identification or lied about their age in order to get tobacco products (Table 16). About 10% of students in grades 7, 9, 10 and 12 reported they had done so in the 12 months prior to the survey. More males than females reported this behaviour. The proportions of students who reported this behaviour increased from grade 7 to 12. Less than 3% of students 14 years of age or younger, 10% of students 15 or 16 years of age, and 21% of students 17 or 18 years of age reported having used fake identification or lied about their age in order to obtain tobacco products.

I smoke but rarely with friends. In a year all together it is probably added up to about 2 packs that I have smoked.
– Female, grade 10

Quitting

More than half (56.4%) of students who reported having smoked during the year also reported having tried to quit in the 6 months prior to the survey. Table 17 shows no differences in attempted quitting in terms of the gender, grade and shared service areas.

I gave up smoking drugs 5 months ago by myself. I do not consider lottery tickets [sic] gambling.

– Male, grade 12

I need help to quit smoke.

– Female, grade 12

Table 17. Tried to quit smoking in the 6 months prior to the survey, as percentages of students who reported smoking in the past 12 months, according to gender, grade and shared service area, 2002

		Tried to quit smoking (n=1036) %
Overall		56.4
Gender	Male	57.0
	Female	56.5
Grade	7	52.9
	9	57.3
	10	56.8
	12	56.5
Shared service area	DHA 9	52.5
	DHA 1, 2 & 3	56.1
	DHA 4, 5 & 6	60.4
	DHA 7 & 8	58.1

* p< 0.01; ** p< 0.001

Cannabis

Patterns of Use

Cannabis, a hallucinogenic drug, is the most commonly used illicit substance in Canada. Possession, manufacture or cultivation, and distribution of cannabis are prohibited by law.

In 2002, 36.5% of students in grades 7, 9, 10 and 12 reported having used cannabis at least once in the 12 months prior to the survey. Figure 3 shows an upward trend in the prevalence of *any use* of cannabis, from 1991 to 1998. The prevalence of any cannabis use in 2002 was essentially the same as in 1998. Figure 3 also shows an upward trend in the prevalence of cannabis use more frequently than once per month, from 4.3% in 1991 to 15.5% in 2002.

Table 18 shows the proportions of students using cannabis according to demographic characteristics. The proportions of males and females who reported having used cannabis were essentially the same. Cannabis use is associated with increasing grade with the proportions of students steadily increasing as students progress from grade 7 to grade 12. The proportions of students who reported having used cannabis use were essentially the same in the four shared service areas of Nova Scotia.

Figure 3: Prevalence of cannabis use among students in grades 7, 9, 10 & 12 in the 12 months prior to the survey

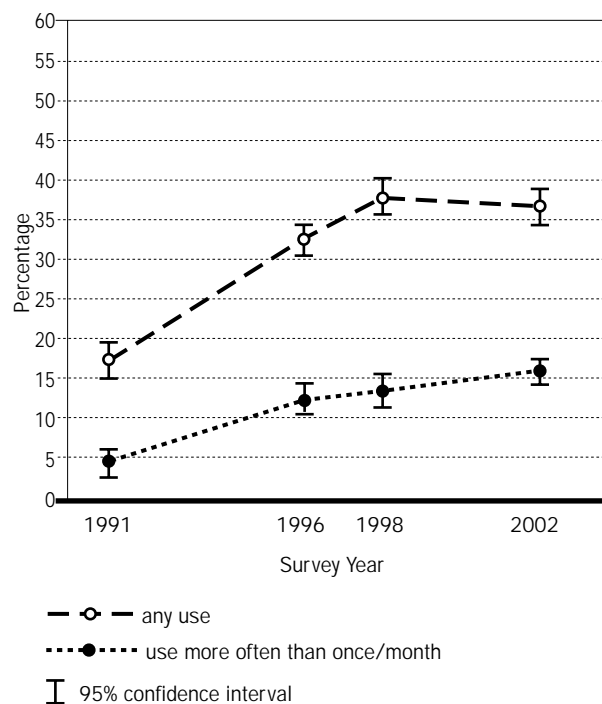


Table 18. Any cannabis use in the past 12 months among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Any use of CANNABIS (n=4247) %	CANNABIS use more often than once/month (n=4247) %
Overall		36.5	15.5
Gender	Male	38.3	18.5
	Female	34.9	12.7
Grade	7	10.0	2.5
	9	37.6 **	15.3 **
	10	45.4 **	20.3 **
	12	56.8 **	25.7 **
Shared service area	DHA 9	36.1	16.0
	DHA 1, 2 & 3	36.6	16.2
	DHA 4, 5 & 6	36.6	15.5
	DHA 7 & 8	36.9	14.1

* p<.01; ** p<.001

Students are increasingly likely to use cannabis as more and more of their friends use cannabis. For example, whereas 26.0% of students with a few cannabis-using friends themselves used cannabis, nearly every student (92.4%) whose every friend used cannabis, themselves used cannabis (see Table 4 in Appendix 2).

In 2002, about 21.8% of students in grades 7, 9, 10 and 12 reported having used cannabis in the 30 days prior to the survey (Table 19). About 10.4%, 6.1% and 5.3% of students reported having used cannabis less often than every week, almost every week, and almost every day, respectively. A larger proportion of males than females reported more frequent cannabis use. Students in the higher grades reported more committed patterns of cannabis use.

Table 19. Cannabis use in the 30 days prior to the survey, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		No use	Less often than every week	Almost every week	Almost every day	p-value
		%	%	%	%	
Overall (n=4247)		78.2	10.4	6.1	5.3	
Gender	Male	74.9	10.5	7.3	7.4	
	Female	81.4	10.4	4.9	3.3	**
Grade	7	94.7	3.2	1.3	<1.0	
	9	77.8	10.8	7.5	3.9	**
	10	72.3	12.3	7.3	8.1	**
	12	65.5	16.5	8.7	9.3	**
Shared service area	DHA 9	79.2	8.5	5.7	6.6	
	DHA 1, 2 & 3	76.9	11.1	6.5	5.5	n.s.
	DHA 4, 5 & 6	77.8	10.7	6.9	4.6	n.s.
	DHA 7 & 8	78.3	12.3	5.6	3.9	n.s.

* p<.01; ** p<.001; n.s. not significant

Driving after Cannabis Use

In 2002, 9.7% of students in grades 7, 9, 10 and 12 reported having driven a motor vehicle within one hour of their having used cannabis, on at least one occasion in the 12 months prior to the survey (Table 20). More males than females reported this behaviour. Driving after cannabis use was more common among students in the older grades, with more than one quarter of grade 12 students having reported this behaviour. The prevalence of driving after cannabis use was essentially the same in the four shared service areas of Nova Scotia.

Table 20. Driving within one hour of cannabis use, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Among all students (n=4247)	Among students with a driver's license (n=1236)
		%	%
Overall		9.7	25.7
Gender	Male	12.8	30.4
	Female	6.6 **	20.2**
Grade	7	-	-
	9	5.0	-
	10	9.1 *	15.9
	12	26.0 **	30.3**
Shared service area	DHA 9	8.2	24.8
	DHA 1, 2 & 3	11.3	30.2
	DHA 4, 5 & 6	10.4	24.9
	DHA 7 & 8	9.8	23.0

- cell too small to be meaningful; * p<.01; ** p<.001

I am a average student, who gets pretty good marks and have a great social and family life, and I smoke marijuana very often. This drug doesn't have bade [sic] side effects like most people think it does.

- Male, grade 12

I think it is possible to use drugs/alcohol responsibly and not let it interfere with school or anything else. I don't think using marijuana has in anyway affected my grades or my mental health. I am not at all an addict, I just use alcohol/marijuana for entertainment.

- Female, grade 10

People do not pressure me to smoke marijuana, I do it maybe once or twice a month because I do like the high, but only when I can feel safely high. So I know that the drug can be controlled in my life, I find it helps me with stress once a month.

- Male, grade 10

I dislike how you classify pot so much with the many other drugs on this survey. While taking the survey it seems you tolerate alcohol abuse much more then that of cannabis. Cannabis is illegal but so is underage drinking, not to mention the loss of control associated with drinking alcohol as well as the damage it causes to a young persons liver. I am not saying cannabis is good for you but classifying it with cocaine or heroin is pure bull shit.

- Male, grade 10

I only smoke marijuana at partys. [sic]

- Male, grade 10

I smoke a lot of weed but I don't do it in school. I feel that I am semi-responsible at using drugs. I don't let them take over my life because that's not what I want.

- Male, grade 11

Marijuana helps relax people so they can do things like study for tests, play instruments and sing. It helps you concentrate on what you are doing. It makes you appreciate every good thing in life. Everyone thinks it's bad but that is when they haven't tried it before. Only idiots do more than that, like the harder drugs that ruin their lives. I've been smoking it for 4 years, my grades are good and I feel good about who I am.

- Male, grade 10

Other Drugs

LSD

LSD (lysergic acid diethylamide) is a synthetic hallucinogenic drug. Possession, manufacture and distribution of LSD are prohibited by law.

In 2002, 5.5% of students in grades 7, 9, 10 and 12 reported having used LSD at least once in the 12 months prior to the survey. Figure 4 shows that the proportion of students reporting LSD use increased from 1991 to 1996, and has steadily decreased since 1996.

Figure 4: Prevalence of any LSD use among students in grades 7, 9, 10 & 12 in the 12 months prior to the survey

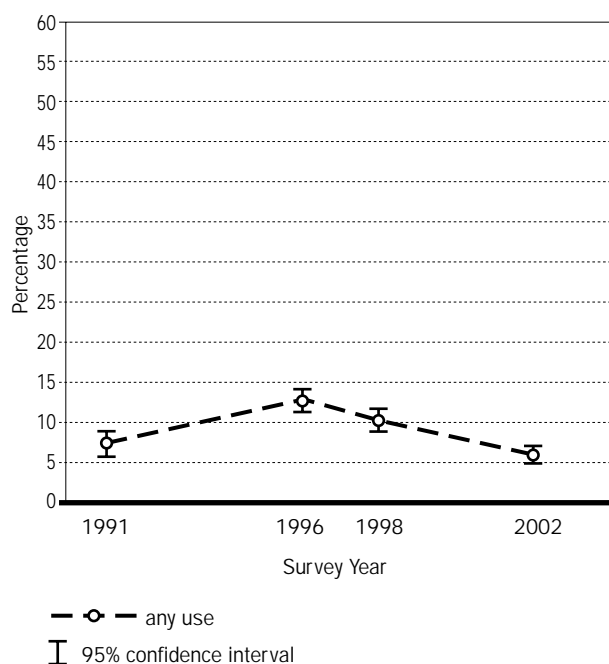


Table 21 shows that about the same proportions of male and female students reported having used LSD. Less than 2% of students in grade 7, whereas about 7% of students in the higher grades, reported having used LSD. LSD use was less commonly reported by students in District Health Authority 9.

Table 21. LSD use, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Any use of LSD (n=4247) %
Overall		5.5
Gender	Male	6.2
	Female	4.9
Grade	7	1.8
	9	6.0 **
	10	7.1 **
	12	7.7 **
Shared service area	DHA 9	3.5
	DHA 1, 2 & 3	6.7 *
	DHA 4, 5 & 6	6.9 *
	DHA 7 & 8	6.2 *

* p < 0.01; ** p < 0.001

Amphetamines and Methylphenidate

Amphetamines and methylphenidate (MPH) are controlled drugs which are legal only through a physician's prescription. The trade name for MPH is Ritalin. MPH is chemically similar to amphetamine. These substances, which have a stimulant effect on the central nervous system, are sometimes used for non-medical purposes.

Students were asked about their non-medical use of amphetamines and MPH. In 2002, 9.3% of students in grades 7, 9, 10 and 12 reported having

used amphetamines, and 7.5% used MPH, without a prescription at least once in the 12 months prior to the survey (Table 22). About 12.8% of students reported having used either amphetamines or MPH without a prescription at least once in that time period.

The proportions of males and females who reported the non-medical use of amphetamines and MPH were essentially the same. Table 22 shows an association between non-medical amphetamines use and increasing grade, with the proportions of students increasing from 2.2% in grade 7 to 16% in grade 12. Regarding MPH, smaller proportions of students in grade 7 than in the older grades reported the non-medical use of that stimulant. The

proportions of students who reported the non-medical use of these two stimulants were essentially the same in the four shared service areas.

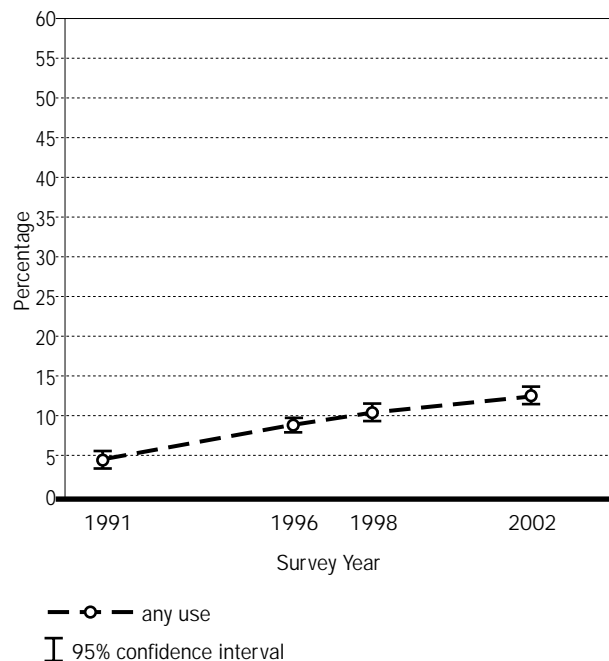
Figure 5 shows an upward trend in the prevalence of non-medical use of stimulants from 1991 to 2002. Note that the 1991, 1996 and 1998 surveys asked about the non-medical use of various stimulants in one question only. The 2002 survey asked about the use of non-medical amphetamines and methylphenidate in separate questions. In order to compare the estimates through time, the 2002 estimate was calculated as the non-medical use of either amphetamines or methylphenidate (Ritalin).

Table 22. Non-medical use of amphetamines or methylphenidate, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Non-medical use of amphetamines (n=4247) %	Non-medical use of MPH (Ritalin) (n=4247) %	Non-medical use of either amphetamines or MPH (n=4247) %
Overall		9.3	7.5	12.8
Gender	Male	9.4	8.4	13.6
	Female	9.2	6.6	12.1
Grade	7	2.2	2.3	3.9
	9	9.2 **	10.7 **	14.5 **
	10	10.7 **	8.8 **	15.1 **
	12	16.0 **	8.3 **	18.8 **
Shared service area	DHA 9	7.6	6.6	11.1
	DHA 1, 2 & 3	9.9	7.0	13.1
	DHA 4, 5 & 6	11.4	6.0	13.6
	DHA 7 & 8	9.2	10.3	14.4

* p< 0.01; ** p< 0.001

Figure 5: Prevalence of any use of non-medical stimulants* among students in grades 7, 9, 10 & 12 in the 12 months prior to the survey



* Questions regarding the use of stimulants for non-medical purposes were asked in 1991, 199 and 1998. Questions in the 2002 survey were specific to amphetamine or MPH (Ritalin) use in the last year. The number shown above for 2002 was obtained statistically by including respondents who reported using either amphetamines, MPH or both substances.

MDMA (Ecstasy)

MDMA is a synthetic, psychoactive drug with both stimulant (amphetamine-like) and hallucinogenic (LSD-like) properties. One of the street names for MDMA is Ecstasy. MDMA possession, manufacture and distribution are prohibited by law. The chemical structure of MDMA (3-4 methylenedioxymethamphetamine) is similar to

methamphetamine and mescaline. MDMA can cause brain damage. In high doses it can cause a sharp increase in body temperature which can then lead to muscle breakdown and kidney and cardiovascular failure.

In 2002, for the first time, the *Nova Scotia Student Drug Use Survey* inquired about students' use of MDMA. Table 23 shows that 4.4% of students in grades 7, 9, 10 and 12 reported having used MDMA at least once in the 12 months prior to the survey. The proportions of males and females who reported MDMA use were essentially the same. The proportions of students who reported MDMA use increased with increasing grade, from 2.1% in grade 7 to 6.7% in grade 12. The prevalence of MDMA use was essentially the same in the four shared service areas of Nova Scotia.

Table 23. MDMA (Ecstasy) use among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Any use of MDMA (n=4247) %
Overall		4.4
Gender	Male	4.6
	Female	4.3
Grade	7	2.1
	9	4.0
	10	5.1 *
	12	6.7 **
Shared service area	DHA 9	4.4
	DHA 1, 2 & 3	4.6
	DHA 4, 5 & 6	5.3
	DHA 7 & 8	3.4

* p < 0.01; ** p < 0.001

Psilocybin and Mescaline

Psilocybin and mescaline are hallucinogenic drugs. Psilocybin comes from some types of *Psilocybe* and *Conocybe* mushrooms and mescaline comes from the peyote cactus. Possession, manufacture or cultivation, and distribution of these substances are prohibited by law. LSD and PCP, which are synthetic hallucinogenic drugs, are sometimes sold as mescaline.

In 2002, 12.2% of students in grades 7, 9, 10 and 12 reported having used psilocybin or mescaline at least once in the 12 months prior to the survey. Figure 6 shows an upward trend in the prevalence of use of these hallucinogens from 1991 to 2002.

Figure 6: Prevalence of any use of psilocybin or mescaline among students in grades 7, 9, 10 & 12 in the 12 months prior to the survey

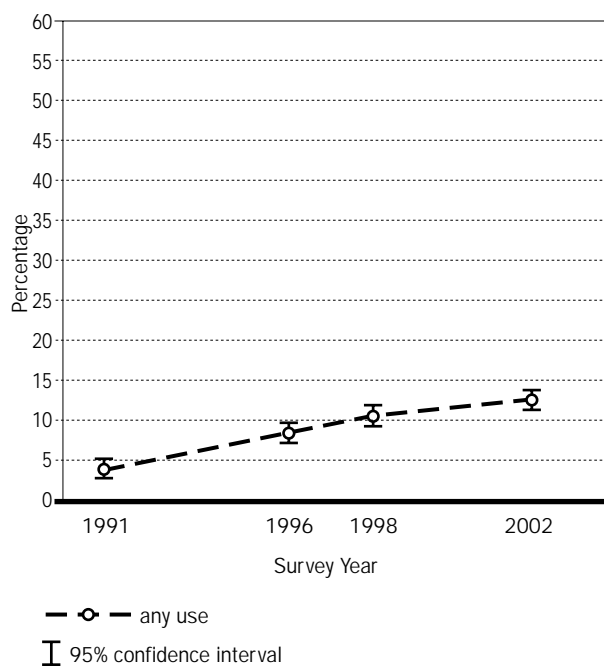


Table 24 shows that more males than females reported having used psilocybin or mescaline. The use of psilocybin or mescaline is increasingly common as students progress through the grades, ranging from 3% among students in grade 7 to 19.1% among those in grade 12. The proportion of students who reported having used these hallucinogens was essentially the same in the four shared service areas of Nova Scotia.

Table 24. Psilocybin or mescaline use, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Any use of Psilocybin or Mescaline (n=4247) %
Overall		12.2
Gender	Male	14.6
	Female	10.0 **
Grade	7	3.0
	9	10.8 **
	10	17.4 **
	12	19.1 **
Shared service area	DHA 9	12.4
	DHA 1, 2 & 3	14.4
	DHA 4, 5 & 6	13.1
	DHA 7 & 8	9.1

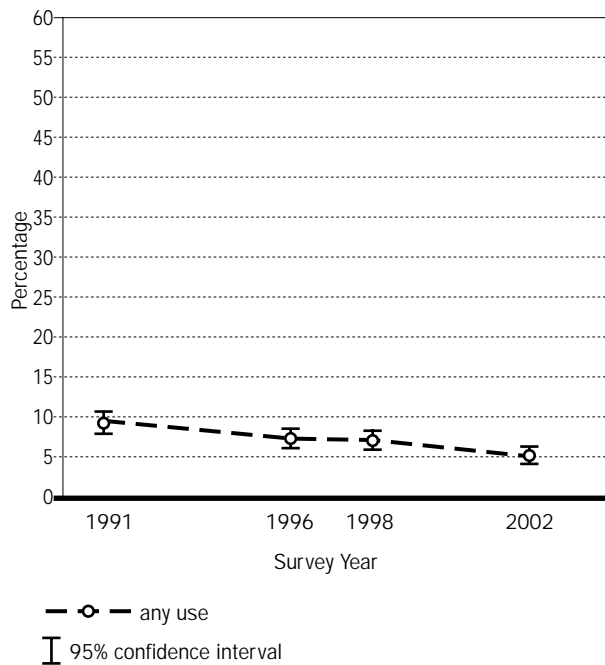
* p < 0.01; ** p < 0.001

Inhalants

Inhalants are volatile chemicals such as solvents, gasoline or glue. In 2002, 4.9% of students in grades 7, 9, 10 and 12 reported having sniffed inhalants in the 12 months prior to the survey. Figure 7 reveals a downward trend from 1991 to 2002 in the proportions of students who reported inhalant use.

Inhalant sniffing is associated with younger grade. For example, about 7% of students in grades 7 or 9 reported having used inhalants, whereas only 2.2% of students in grade 12 reported having done so. The proportion of students who reported having used inhalants was essentially the same in the four shared service areas of Nova Scotia. Detailed findings are presented in Table 5 of Appendix 2.

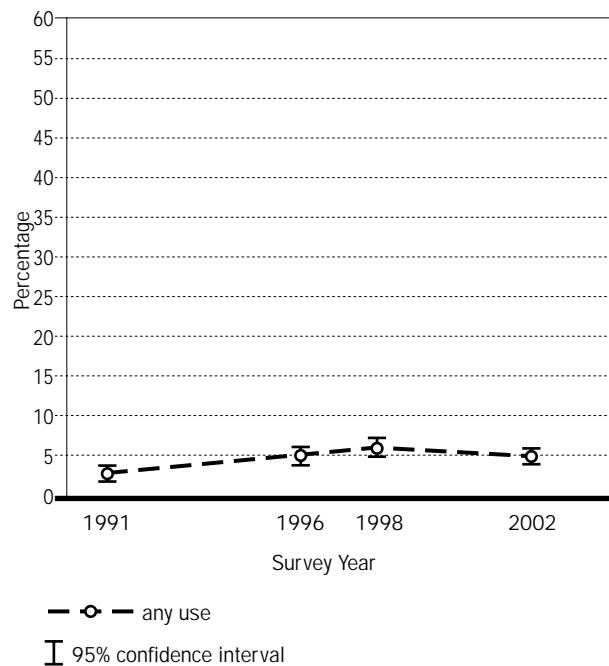
Figure 7: Prevalence of any inhalant use among students in grades 7, 9, 10 & 12 in the 12 months prior to the survey



Tranquilizers

In 2002, about 4.7% of students in grades 7, 9, 10 and 12 reported the non-medical use of tranquilizers in the 12 months prior to the survey. Figure 8 reveals an upward trend in the prevalence of non-medical tranquilizer use from 1991 to 1998. The prevalence in 2002 is not significantly different from that observed in 1998. Detailed findings concerning this substance are presented in Table 5 of Appendix 2.

Figure 8: Prevalence of any non-prescribed tranquilizer use among students in grades 7, 9, 10 & 12 in the 12 months prior to the survey

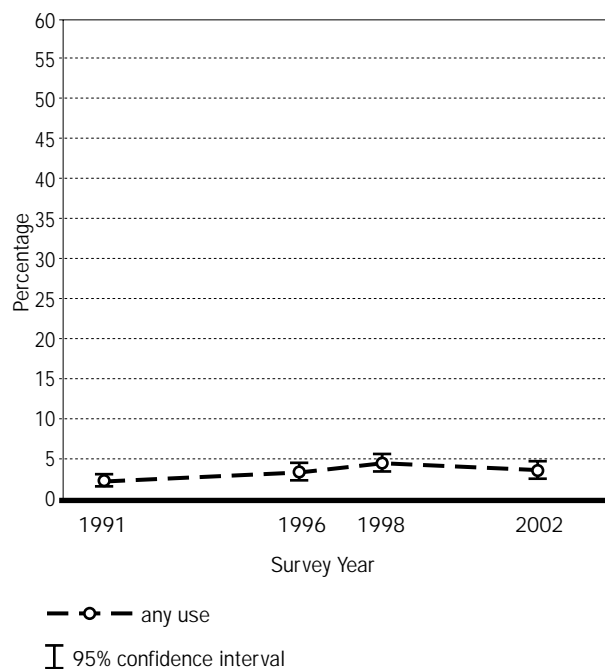


Cocaine and Crack Cocaine

Cocaine and crack cocaine are illegal drugs for which possession, manufacture and distribution are prohibited by law.

In 2002, about 3.9% of students in grades 7, 9, 10 and 12 reported having used cocaine or crack cocaine at least once in the 12 months prior to the survey. Figure 9 reveals an upward trend in the prevalence of use of this substance from 1991 to 1998. The prevalence in 2002 is not significantly different from that observed in 1998. Detailed findings concerning this substance are presented in Table 5 of Appendix 2.

Figure 9: Prevalence of any use of cocaine or crack cocaine among students in grades 7, 9, 10 & 12 in the 12 months prior to the survey



Anabolic Steroids

Anabolic steroids such as testosterone, dianabol or growth hormones can be used to increase performance in a sport or activity or to change one's physical appearance. In 2002, 2.7% of students in grades 7, 9, 10 and 12 reported having used anabolic steroids for those reasons in the 12 months before the survey. That proportion is essentially the same as observed in 1998. More males than females reported having used anabolic steroids (4.1% vs. 1.4%). Detailed findings are presented in Table 5 of Appendix 2. These findings should be interpreted cautiously due to small numbers.

PCP

PCP, or phencyclidine, is a hallucinogenic drug. In 2002, 3.2% of students in grades 7, 9, 10 and 12 reported PCP use in the 12 months prior to the survey. Detailed findings are presented in Table 5 of Appendix 2. These findings should be interpreted cautiously due to small numbers.

Heroin

In 2002, about 1.6% of students in grades 7, 9, 10 and 12 reported having used heroin at least once in the 12 months prior to the survey in 2002. Detailed findings are presented in Table 5 of Appendix 2. These findings should be interpreted cautiously due to small numbers.

Multiple Substance Use

Overall, 41.2% of students in grades 7, 9, 10 and 12 reported having used on at least one occasion in the 12 months prior to the survey, one or more of the following substances: cannabis, LSD, amphetamines, MPH, MDMA, psilocybin or mescaline, inhalants, tranquilizers, cocaine or crack cocaine, anabolic steroids, PCP and heroin. That percentage is relatively stable compared with the 1998 survey.

students reported not having used any substance whatsoever in the 12 months before the survey, a proportion that is similar to that observed in the three previous surveys. The most common pattern of use reported by students was use of alcohol and tobacco and cannabis. The marked decrease in this pattern of substance use from 24.9% in 1998 to 17.3% in 2002 was due primarily to a lower prevalence of cigarette smoking.

Table 25 presents the proportions of students who reported various substance use patterns in 1991, 1996, 1998 and 2002. About 40.3% of

More detailed results pertaining to multiple drug use are presented in Table 6 of Appendix 2.

Table 25. Multiple substance use involving alcohol, tobacco and cannabis, among students in grades 7, 9, 10 and 12, as percentages, 1991 to 2002

Substance	1991	1996	1998	2002
	%	%	%	%
No substance use whatsoever	38.6	36.8	35.0	40.3
No Alcohol, No tobacco, No Cannabis, but some other substance use	5.3	2.9	1.5	1.7
Alcohol No Tobacco No Cannabis	24.9	16.8	15.1	15.7
Alcohol & Tobacco & Cannabis	12.4	21.9	24.9	17.3
Alcohol & Tobacco No Cannabis	10.1	7.7	6.6	3.2
Alcohol & Cannabis No Tobacco	4.5	7.9	10.1	15.3
Tobacco No Alcohol No Cannabis	3.3	3.7	3.3	1.3
Tobacco & Cannabis No Alcohol	<1.0	1.5	1.4	1.2
Cannabis No Alcohol No Tobacco	<1.0	<1.0	1.3	2.6

I only smoke when I get hi [sic] or drink.

– Female, grade 10

Me and most of my friends all drink, we drink to get drunk, we drink to have fun, but its never been a problem. In recent years especially there's been a huge decline in smokers as well.

– Male, grade 12

I have drank twice in a 4 month time period, one time just a little bit, second time more and got caught and haven't touched it since. I've smoked weed 4 times in a 3 month period, the first 3 times it was fine, (it was only a bit) then the last time it was a lot and it scared me a lot and I got really depressed and I haven't done it since and I really, really don't plan to do it again. I just like it or see a point. (I haven't got caught.)

– Female, grade 11

Injection Drug Use

The questionnaire asked about injection use of heroin, cocaine, speed or LSD, and anabolic steroids. In 2002, less than 1% of students in grades 7, 9, 10 and 12 reported having injected substances for non-medical purposes in the 12 months prior to the survey. No further analyses were performed due to small numbers.

Raves

A rave is a dance party characterized by a very large number of persons attending, specific kinds of youth-centred, fast-paced music, high-energy dancing, and a prolonged duration of the event. Raves can be promoted openly as for-profit entertainment or be organized and held in a clandestine manner. Raves can be held in commercial venues such as warehouses or in private out-of-the-way places such as fields. Some raves are attended mostly by persons who are using substances at the time; other raves are promoted as not tolerating substance use. While various types of substances might be found at a rave, drugs such as amphetamines and MDMA might be especially favoured because of their stimulant effect which would allow for prolonged high-energy dancing.

In 2002, for the first time, the *Nova Scotia Student Drug Use Survey* inquired about students' attendance at raves (Table 26). About 9.7% of students reported having attended a rave in the 12 months prior to the survey. Males and females, and students in the various shared service areas of Nova Scotia were equally likely to have reported this behaviour. Regarding grade, the largest proportion of attendance at a rave was reported by students in grade 10.

Table 26. Attendance at one or more raves in the 12 months prior to the survey, among students in grades 7, 9, 10 & 12 as percentages according to gender, grade and shared service area, 2002

		Attendance at a rave (n=4247) %
Overall		9.7
Gender	Male	10.8
	Female	8.6
Grade	7	7.3
	9	10.3
	10	11.3 *
	12	10.1
Shared service area	DHA 9	9.8
	DHA 1, 2 & 3	10.4
	DHA 4, 5 & 6	11.5
	DHA 7 & 8	7.4

* p< 0.01; ** p< 0.001

Problem and Risky Use

Students were asked about alcohol- and drug-related problems and risks. Table 27 shows the proportions of students reporting alcohol-related problems and risks, as proportions of all students and as proportions of students who reported having consumed alcohol. The three most common alcohol-related problems were having damaged things when drinking, injuring oneself as a result of drinking, and having unplanned sexual intercourse under the influence of a substance.

In 2002, 30.5% of students in grades 7, 9, 10 and 12 reported having had at least one of the ten alcohol-related problems and risks listed above, in the 12 months prior to the survey. About 11% reported having had three or more problems or risks in that time frame.

Table 27. Alcohol-related problems or risks, as percentages, 2002

Alcohol-related problem	Among all students	Among students who used alcohol in the previous 12 months
	(n=4247) %	(n=2270) %
Damaged things when drinking	12.8	24.3
Drinking caused one to injure oneself	11.6	21.8
Unplanned sex under the influence of alcohol/drugs	10.5	18.9
Drinking caused tensions or disagreement with family or friends	8.6	16.0
Cost of alcohol prevented buying other things	7.5	14.3
Consumed alcohol before or instead of breakfast	6.8	12.9
Driving under the influence of alcohol	6.6	12.4
Trouble with the police as a result of drinking	3.6	6.6
School work or exams affected by drinking	2.6	4.9
Motor vehicle accident as driver after drinking in the previous 2 hr	<1.0	1.0

Table 28 shows that about as many males as females reported having one or more alcohol-related problems. Students were more likely to have reported one or more alcohol-related problems as they progressed from grade 7 to 12. Students in the four shared service areas of Nova Scotia did not differ as to the proportions who reported one or more alcohol-related problems.

Students were also asked about whether or not they had experienced any of eight drug-related problems or risks (Table 29). The two most common drug-related problems were driving after having used cannabis, and having unplanned sex under the influence of a substance.

Table 28. One or more alcohol-related problems and risks, among students grade 7, 9, 10 & 12, as percentages, according to gender, grade and shared service area, 2002

		Among all students (n=4247) %	Among students who consumed alcohol in the past 12 months (n=2270) %
Overall		30.5	56.0
Gender	Male	30.4	55.2
	Female	30.8	56.8
Grade	7	8.7	39.3
	9	28.4 **	53.0 *
	10	37.9 **	56.9 **
	12	50.6 **	61.2 **
Shared service area	DHA 9	28.9	55.7
	DHA 1, 2 & 3	31.0	57.4
	DHA 4, 5 & 6	30.9	55.4
	DHA 7 & 8	32.0	55.6

* p< 0.01; ** p<.0.001

Table 29. Drug-related problems and risks (not alcohol or tobacco) as percentages, 2002

	Among all students (n=4247) %	Among students who used drugs (n=1797) %
Driving under the influence of cannabis	9.7	23.2
Unplanned sex under the influence of alcohol/drugs	10.5	22.7
Drug use caused tensions or disagreement with family or friends	8.3	19.3
Cost of drugs prevented buying other things	7.1	16.9
School work or exams affected by drug use	6.7	15.9
Damaged things when using drugs	4.3	10.2
Drug use caused one to injure oneself	4.2	9.9
Trouble with the police as a result of drug use	2.4	5.7

In 2002, 23.4% of students in grades 7, 9, 10 and 12 reported having had one or more drug-related problems, and 7.9% of students reported having had three or more drug-related problems (Table 30). The proportions of males and females who reported

having one or more drug-related problems were essentially the same. The proportions of students who reported one or more drug-related problems increased from grade 7 to 12.

Table 30. One or more drug-related problems or risks, as percentages according to gender, grade and shared service area, 2002

		Among all students (n=4247) %	Among students who used drugs in the past 12 months (n=1797) %
Overall		23.4	53.0
Gender	Male	24.9	54.3
	Female	22.1	51.6
Grade	7	7.4	34.2
	9	21.6 **	48.3 *
	10	26.5 **	50.2 *
	12	41.2 **	66.0 **
Shared service area	DHA 9	21.7	50.0
	DHA 1, 2 & 3	25.9	58.9
	DHA 4, 5 & 6	24.9	53.5
	DHA 7 & 8	22.2	50.8

*p < 0.01; **p < 0.001

A few years ago I was unsure about life and didn't care about choices I made. Because of my actions I failed a grade twice, and now I have to stay back with younger people whom are more immature than me. All of this was because of alcohol and marijuana. I have now cut back and do well in school. I still smoke and drink, but these things no longer affect my school work because of my self control.
– unstated

I am a border line alcoholic who drink a lot, and I smoke weed everyday...I also start fights with my girlfriend for no reason. P.S> I also do E and acid and pills a lot.
– Male, grade 12

In the survey it didn't ask if you felt pressured to do drugs or alcohol which sometimes happens. Also alcohol and drugs can cause a lot of problems in my house because of older brothers. Being a teenager and knowing that I do not want to do drugs but people I know do is very frustrating.
– Female, grade 9

Alcohol, Drugs & Sexual Behaviour

The 2002 survey included a section on sexual behaviour. About 29% of students in grades 7, 9, 10 and 12 reported having had sexual intercourse in the 12 months prior to the survey. The proportions of males and females who reported having done so were essentially the same (Table 31). Increasing proportions of students from grade 7 to 12 reported having had sexual intercourse. The proportions of students who reported having had sexual intercourse were essentially the same in the four shared service areas of Nova Scotia.

Table 31. Sexual intercourse in the past 12 months, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Had sexual intercourse (n=4247) %
Overall		29.0
Gender	Male	27.1
	Female	30.9
Grade	7	8.2
	9	20.9 **
	10	33.6 **
	12	57.9 **
Shared service area	DHA 9	25.9
	DHA 1, 2 & 3	30.7
	DHA 4, 5 & 6	32.7
	DHA 7 & 8	28.8

* p<.0.01; ** p<.0.001

Among students who reported having had sexual intercourse, 37.7% reported having had more than one partner in the 12 months prior to the survey.

Students were asked if they had engaged in sexual intercourse without having planned to, while under the influence of a substance (Table 32). About 30% of students who had sexual intercourse in the previous 12 months reported having had unplanned sexual intercourse but not while under the influence of a substance. About 34.8% of students who had sexual intercourse in the previous 12 months reported having had unplanned sexual intercourse while under the influence of a substance. These patterns of sexual intercourse did not differ according to students' gender or grade.

Table 32. Unplanned sexual intercourse under the influence of a substance, among students who had sexual intercourse in the past 12 months, as percentages, 2002

		No unplanned sex (n=1280) %	No unplanned sex under influence (n=1280) %	Any unplanned sex under influence (n=1280) %	p-value
Overall		34.2	30.0	34.8	
Gender	Male	32.4	30.1	36.3	n.s.
	Female	35.9	29.3	33.9	
Grade	7	37.2	32.3	28.2	n.s.
	9	32.1	31.6	35.5	
	10	37.4	27.5	35.1	
	12	32.5	30.5	35.4	
Shared service area	DHA 9	36.6	30.0	33.1	n.s.
	DHA 1, 2 & 3	34.2	28.5	36.6	
	DHA 4, 5 & 6	34.9	29.7	34.8	
	DHA 7 & 8	30.4	31.8	35.0	

*p<.0.01; **p< 0.001; n.s. not significant

About 64.2% of students who reported having had sexual intercourse also reported they had used a condom at the time of their last sexual intercourse (Table 33). A smaller proportion of females than males reported having done so. A lower proportion of students in grade 12 than in the lower grades reported having used a condom at the time of their last sexual intercourse.

Table 33. Condom use at the time of last sexual intercourse, among students who had sexual intercourse in the 12 months prior to the survey, as percentages according to gender, grade and shared service area, 2002

		Used a condom at last sexual intercourse (n=1280) %
Overall		64.2
Gender	Male	70.2
	Female	59.0 **
Grade	7	70.8
	9	66.9
	10	76.1
	12	54.5 *
Shared service area	DHA 9	64.9
	DHA 1, 2 & 3	58.7
	DHA 4, 5 & 6	63.1
	DHA 7 & 8	70.5

*p<.0.01; **p< 0.001

The survey inquired as to reasons for not having used a condom (Table 34). The two most commonly reported reasons were not having had a condom at the time of intercourse and feeling that condoms interfered with sex. Not using a condom

because either the student or their partner was under the influence of a substance were the third and fourth most commonly reported reasons for failing to use a condom.

Table 34. Reasons for not having used a condom, among students who had sexual intercourse in the 12 months prior to the survey, as percentages according to gender and grade, 2002

		Did not have a condom at the time	Condoms interfere with sex	Under the influence of alcohol or drugs	Partner was under the influence of alcohol or drugs	Did not have money to buy condoms	Partner would not use them	Embarrassed to buy condoms
		%	%	%	%	%	%	%
Overall (n=1280)		17.6	12.0	8.9	8.3	4.4	4.9	3.0
Gender	Male	15.6	12.2	9.4	7.4	4.5	4.2	3.4
	Female	19.2	11.8	8.7	9.3	4.3	5.6	2.6
Grade	7	16.1	16.9	6.3	9.8	11.0	11.4	11.0
	9	16.5	11.0	15.5	12.3	6.7	7.1	4.8
	10	13.4	8.7	7.0	6.4	3.4	2.4	2.1
	12	20.9	13.8	7.8	7.6	2.9	4.4	1.5

I have been forced to have sex due to my partner being on drugs also he was drinking, but he used a condom. I have also been beat by him when he was on drugs or drinking.

– Female, grade 10

I only drank alcohol once, I had a glass of cool and half of a beer. When I had sexual intercourse without a condom, I didn't think it was going to happen. It just did. When I gambled, it was for petty change with my friends. It was nothing serious.

– Male, grade 10

That I have had sex only once but I don't count it and many teenage girls do this.

– Female, grade 9

Even though I haven't had sex it's a big issue and is consently [sic] there.

– Female, grade 9

Gambling

Participation in Gambling Activities

The 2002 survey enquired about students' participation in eight gambling activities listed in Table 35. In 2002, 63.3% of students in grades 7, 9, 10 and 12 reported having participated in one or more of those eight activities in the 12 months prior to the survey. The game in which the largest proportion of students participated was scratch tab (42.6%); the least commonly reported was video lottery terminals (7.4%).

Table 35 shows that more males than females reported having played cards, bet on sports activities, played lotteries including Sports Select, and played video lottery terminals. More females than males reported having played bingo. Participation in scratch tabs and break opens was equally likely among male and female students.

Table 35 shows no clear relationship between participation in gambling activities and grade or shared service area.

Table 35. Participation in various gambling activities, 2002, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		Scratch tabs	Playing cards	Betting on sports activities	Break opens	Playing bingo	Lottery other than Sports Select	Sports Select lottery	Video lottery terminals	Any of these activities
		%	%	%	%	%	%	%	%	%
Overall (n=4247)		42.6	32.2	28.4	25.8	22.6	16.2	9.6	7.4	63.3
Gender	Male	42.1	42.6	43.1	25.9	20.6	19.7	15.7	10.1	68.6
	Female	42.9	21.8 **	13.5 **	25.9	24.6 *	12.8 **	3.3 **	4.6 **	58.1 **
Grade	7	34.0	22.0	23.1	22.0	23.8	8.9	5.7	6.7	49.9
	9	43.0 *	40.4 **	35.0 **	26.0	26.3	16.3 *	9.1	8.8	68.5 **
	10	43.6 *	35.5 **	29.0	27.5	22.5	17.8 **	11.9 *	5.4	65.6 **
	12	50.9 **	31.3 **	26.2	28.3	16.8 **	23.2 **	12.1	8.7	70.4 **
Shared service area	DHA 9	40.9	33.8	31.9	22.1	21.5	16.5	10.4	7.1	62.7
	DHA 1, 2 & 3	42.7	32.2	25.2 *	30.2 **	21.3	14.5	6.9	7.0	63.9
	DHA 4, 5 & 6	40.6	29.6	28.5	24.1	22.1	16.0	10.2	7.6	60.2
	DHA 7 & 8	46.3	32.1	26.6	28.2 *	25.7	17.8	10.6	8.0	66.0

* p< 0.01; ** p< 0.001

Problem Gambling

The 2002 survey included the South Oaks Gambling Scale Revised for Adolescents (SOGS-RA), which is a series of 12 questions designed to determine if a student's participation in gambling could be considered as problem gambling. (6) At-risk gambling is defined by a score of 2-3 positive responses on the scale. Four or more positive responses are considered to indicate problem gambling behaviour.

In 2002, about 3% of students met the definition of at-risk gambling and 2.1% met the definition of problem gambling (Table 36). These proportions are essentially the same as observed in 1998 when 4.1% and 2.7% met the definitions of at-risk and problem gambling, respectively.

As in 1998, in 2002, more males than females met the definitions of at-risk and problem gambling. As in 1998, at-risk and problem gambling were not associated with grade or shared service area. More detailed information about responses to the SOGS-RA items can be found in Table 9, Appendix 2.

Table 36. Problem gambling among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		No gambling, no at-risk or problem gambling	At risk gambling	Problem gambling	p-value
		%	%	%	
Overall		95.0	3.0	2.1	
Gender	Male	92.3	4.4	3.3	
	Female	97.7	1.4	<1.0	**
Grade	7	95.5	2.4	2.1	
	9	93.5	3.8	2.7	n.s.
	10	95.0	2.9	2.2	n.s.
	12	96.1	2.7	1.3	n.s.
Shared service area	DHA 9	94.5	3.4	2.1	
	DHA 1, 2 & 3	95.6	2.6	1.8	n.s.
	DHA 4, 5 & 6	94.5	2.3	3.2	n.s.
	DHA 7 & 8	95.4	3.1	1.5	n.s.

*p<0.01; ** p< 0.001; n.s. not significant

Deception about Age for Gambling

In Nova Scotia, access to lottery tickets, scratch tabs, break opens and video lottery terminals is legally limited to persons 19 years of age or older. In 2002, about 46% of students 18 years of age or younger reported having played lottery tickets, scratch tabs or break opens, and 7% of students 18 years of age or younger reported having played video lottery terminals.

Table 37 shows the proportions of students who reported having used fake identification or having lied about their age in order to gain access to gambling activities. Overall, 10% of students reported they had used deception in order to

obtain lottery tickets, scratch tabs or break opens, and 4% reported they had done so in order to play video lottery terminals.

More males than females reported having used deception for these purposes. Students 17 or 18 years of age, and students in grade 12, were more likely than younger students to report having used deception to obtain lottery tickets, scratch tabs or break opens. In the case of video lottery terminals, the use of deception was essentially the same across the different age groups or grades.

Finally, Table 37 shows that deception about age for gambling was essentially the same in all four shared service areas of Nova Scotia.

Table 37. Used fake identification or lied about age in order to gamble, among students in grades 7, 9, 10 & 12, as percentages according to gender, grade and shared service area, 2002

		<i>Used fake ID or lied about one's age in order to play...</i>	
		lottery tickets, scratch tabs or break opens (n=4247)	video lottery terminals (n=4247)
		%	%
Overall		10.0	4.0
Gender	Male	13.1	5.8
	Female	6.9 **	2.1 **
Grade	7	6.5	3.4
	9	6.5	4.2
	10	10.7	3.3
	12	17.7 **	5.1
Age	≤ 14	6.1	3.6
	15-16	8.6	3.6
	17-18	19.0 **	5.1
	≥ 19	10.6	3.9
Shared service area	DHA 9	10.2	3.7
	DHA 1, 2 & 3	9.2	3.3
	DHA 4, 5 & 6	9.4	3.9
	DHA 7 & 8	11.2	5.2

* p< 0.01; ** p< 0.001

Trends in Gambling 1996 to 2002

Table 38 shows the proportions of students who reported having participated at least once in the various gambling activities, as queried in the 1996, 1998 and 2002 surveys.

The proportions of students who reported having participated in scratch tabs, cards, bingo, Sports Select lottery and other lotteries, and video lottery terminals decreased from 1996 to 2002.

Furthermore, the overall proportion of students who reported having participated in one or more gambling activity also decreased. In particular, in 1998, 75% of students reported having participated in one or more of seven gambling activities. In 2002, about 62% of students reported having participated in one or more of the seven activities listed in the 1998 questionnaire.

Regarding the gambling section: although I do not gamble I do buy lotto tickets which may be classified as gambling.
– Female, grade 12

from question 79-91 I gamble only with my father and on scratch tickets.
– Male, grade 7

Making 2 dollar bets with friends isn't a big deal. That's the only betting I do.
– Male, grade 9

Table 38. Participation in various gambling activities, 1996 to 2002, among students in grades 7, 9, 10 & 12, as percentages

	1996	1998	2002
Any participation in . . .	%	%	%
Played scratch tabs	n/a	60.7	42.6
Cards for money	40.1	38.3	32.2
Bet on sports activities	29.1	28.8	28.4
Played break opens	n/a	n/a	25.8
Bingo for money	29.7	28.3	22.6
Lottery other than Sport Select	43.3	36.7	16.2
Sport Select lottery	19.5	15.4	9.6
Video lottery terminals	20.4	12.4	7.4

n/a not available

Help-Seeking Behaviour

The 2002 survey questionnaire included questions about help-seeking behaviour for alcohol, tobacco, and other substance use.

Regarding alcohol use, in 2002, 2.5% of students reported they needed help and 2% reported they had gotten help.

Regarding tobacco use, 7.3% of students reported they needed help and 3.1% indicated they had gotten help. A large proportion of students in grade 12 reported needing help (11%).

Regarding other substance use, 3.8% indicated they needed help and 2.7% indicated they had gotten help. Finally, 2.1% of students indicated they needed or had gotten help for gambling.

The proportions among males and females, and in the different shared service areas, were essentially the same.

I have recently quit smoking tobacco and using all drugs. I have been clean of both for 4 months. The biggest help came from someone that I love.

– Gender unknown, grade 12

A few years ago, I spent some time in rehab for my drug, (crystal meth, coke, heroin) alcohol addictions. I've been clean for two years.

– Female, grade 12

School Drug Education

Students were asked how many classes on alcohol, tobacco and drugs, and on decision-making they had during the 2001/2002 school year.

Larger proportions of students in grades 7 or 9 than those in grades 10 or 12 reported having received education on alcohol, tobacco, drugs and decision-making during the school year.

In the case of alcohol, 82% and 58% of students in junior and senior high, respectively, reported having received such education. About 73% and 48% of students in junior and senior high, respectively, reported having received education about tobacco. About 75% and 52% of students in junior and senior high, respectively, reported having received education about drugs. About 84% and 60% of students in junior and senior high, respectively, reported having received education about decision making.

I do not think that education on this will help kids actually stop doing these things. The more you tell us its bad the more we do it it is enevable [sic]. If an individual person needs help then they will get it or their family or friends will force it upon them. This was a waste of my valuable school time just like the classes about the education for these supposed 'Problems in society'!
– Female, grade 10

I think the schools should have a more depth on sex, drugs and Depression. I think they should have a class on just that kind of stuff like PDR.
– Female, grade 12

I think kids will do as they please no matter what school tells them. I think kids listen more to parent then teachers.
– Female, grade 9

Our grade 9 PDR has not taught us much. We have only had a few classes and all we talked about was gambling. A police officer came in to talk to us about drugs once. That's it. The teacher doesn't seem to understand what its like as a teenager faced with drugs and alcohol. It's hard to say no.
– Female, grade 9

I think that we should be taught more about things like this because we have only had one hour long class on it and that is not enough!
– Female, grade 7

The only drugs I was spoken to about were cocaine and heroin.
– Male, grade 11

Our school does not deal with drug and alcohol issues barely at all. Maybe once this year on drinking or drugs, one or the other, but not on both and not enough. Female,
– grade 10

I know that teachers talk about drugs/sex/alcohol in junior high and basically get you prepared for high school, but I think that they should talk about it in HS also.
– Female, grade 10

More time, money and effort should be spent showing children the problems related to tobacco in a context that applies to them at their current age. (Warnings of long-term problems may be too far off for children to grasp or pay attention to.)
– Male, grade 10

I feel that a lot of teen use drugs, alcohol and smoke. I have tried drinking and drugs but I don't use them. I have never tried a cigarette, I think they are disgusting. But a lot of teens do other sexual acts such as, oral sex etc. We should spend more time talking in school about this and what can happen etc.
– Female, grade 10

School Rules about Alcohol & Tobacco

Students were asked if their school has rules against alcohol use or smoking on school property. In 2002, about 85% of students in grades 7, 9, 10 and 12 indicated their school had a rule against alcohol use, 2% reported their school did not, and 13% did not know.

Regarding smoking on school property, 69% of students in grades 7, 9, 10 and 12 indicated their school had a policy against smoking, 17% reported their school did not, and 14% did not know.

I don't agree with the decision to let people smoke on school property. It's a gross habit and schools shouldn't encourage it. If people this age are so addicted to tobacco that they can't wait until after school (at home to smoke), then I think it's a real problem. Also, I'm allergic to cigarette smoke and I HATE when people come to class and smell bad from smoking!! I think classes (such as the ones listed in #97 and 98) should be implemented in younger grades (6-9) b/c/ by this age, people are set in their ways.

– Female, grade 12

Regarding question 100 from what I've seen the faculty doesn't care what we do on school grounds they just ignore it.

– Male, grade 9

I think our schools need smoking sections.

– Male, grade 9

Our school has rules about drinking, smoking, and doing drugs on school property/at school events, but it is not often reinforced. It's very easy to get away with.

– Female, grade 10

Substance Use by Adolescent Students in the Atlantic Provinces

The 2002 Student Drug Use Survey was conducted in Nova Scotia, New Brunswick and Prince Edward Island. Data collection did not take place in Newfoundland and Labrador in 2002.

Table 39 shows that the drugs most commonly used by adolescent students in the three provinces were alcohol, cannabis and tobacco. In 2002, students in Nova Scotia and New Brunswick did not differ significantly in terms of the proportions

who reported use of alcohol, cannabis, cigarettes and the other substances. Students in Prince Edward Island differed from their counterparts in Nova Scotia and New Brunswick in that smaller proportions reported having used cannabis, psilocybin or mescaline, non-medical amphetamines, LSD and PCP. Of note is that the proportions of students who reported cigarette smoking decreased markedly in all three provinces since the last survey in 1998.

Table 39. Substance use in Nova Scotia, New Brunswick and Prince Edward Island, among students in grades 7, 9, 10 & 12, as percentages, 2002

	NS (n=4247)		NB (n=3856)		PEI (n=2416)	
	%	95% CI	%	95% CI	%	95% CI
Any use of . . .						
Alcohol	51.7	49.8-53.6	53.2	51.1-55.3	48.2	45.2-52.2
Cannabis	36.5	34.7-38.3	34.9	32.8-37.0	23.7	21.4-26.0
Cigarettes	23.2	21.4-25.0	20.7	18.9-22.5	18.2	16.3-20.1
Psilocybin or mescaline	12.2	11.0-13.4	11.7	10.4-12.8	6.3	5.1-7.5
Non-medical amphetamines	9.3	8.2-10.4	11.0	9.8-12.1	6.2	5.0-7.4
Non-medical MPH (Ritalin)	7.5	6.5-8.5	5.8	4.9-6.7	6.3	5.1-7.5
LSD	5.5	4.7-6.3	5.2	4.3-6.1	3.5	2.7-4.3
Inhalants	4.9	4.1-5.7	5.3	4.5-6.1	5.8	4.8-6.8
Non-medical tranquilizers	4.7	4.1-5.3	5.0	4.3-5.7	3.7	2.8-4.6
MDMA (Ecstasy)	4.4	3.7-5.1	4.0	3.3-4.7	3.2	2.4-4.0
Cocaine or crack	3.9	3.2-4.6	3.6	2.9-4.3	2.4	1.8-3.0
PCP	3.2	2.6-3.8	3.9	3.2-4.6	1.5	1.0-2.0
Anabolic steroids	2.7	2.2-3.2	2.8	2.2-3.4	2.8	2.1-3.5
Heroin	1.6	1.2-2.0	1.9	1.5-2.3	1.7	1.1-2.3

Discussion

The 2002 *Nova Scotia Student Drug Use Survey* asked junior- and senior-high school students about their experiences relative to a large number of behaviours. The Discussion section of the Technical Report presents selected findings of the survey and their implications for the development of policy directions and programs. This year, the Discussion section focusses on: trends in the prevalence of use of cigarettes, alcohol, and cannabis; risk behaviours associated with substance use; and gambling.

Trends in cigarette smoking, alcohol and cannabis use

Substance use in the adolescent student population can vary greatly through time. In Nova Scotia, marked increases in the prevalence of use of many substances were noted from 1991 to 1998. In contrast, from 1998 to 2002, decreases were observed in the prevalence of use of alcohol, cigarettes, LSD and inhalants, and no change relative to the use of any of nine other substances.

The most marked change revealed by the 2002 survey was a decrease in the percentage of students who reported having smoked cigarettes over the course of a year, from 36% in 1998 to 23% in 2002. The percentage of students who reported smoking more than 10 cigarettes per day also decreased, from 7% in 1998 to 4% in 2002. The prevalence of cigarette smoking among adolescent students in Nova Scotia is now at the lowest level observed since the beginning of the province-wide survey in 1991.

Similar decreases in youth smoking have been observed elsewhere in Canada. Based on the standardized *Student Drug Use Survey* conducted in 1998 and 2002 in the Atlantic provinces, the 12-month prevalence of cigarette smoking decreased from 33% to 21% in New Brunswick and from 27% to 18% in Prince Edward Island.^{7, 9} In Ontario, the 2001 survey revealed the lowest smoking prevalence (24%) since the survey began in 1977.¹⁹ The Canadian Tobacco Use Monitoring Survey revealed that 22.5%

of Canadian youth 15 to 19 years of age were current smokers in 2001 and that almost all Canadian provinces had experienced a decrease in the prevalence of cigarette smoking from 1999 to 2001.^{20, 21} Similar declines in youth smoking have been reported in the United States.²²

The widespread decline in smoking is thought to be due to the implementation of many complementary measures including media awareness about the harm caused by smoking, restrictions in access to tobacco by minors, public smoking bans, increased advertising on cigarette packages about the harms associated with smoking, preventing tobacco companies from funding youth-orientated events and educational programs.^{20, 21}

In Nova Scotia, the tobacco control measures adopted at the provincial level since the 1998 provincial survey have included amendments to the Nova Scotia Tobacco Access Act in 1999 and increases in the provincial tax on tobacco in 1999, 2001 and 2002. The amendments focussed on restrictions to tobacco packaging, promotion and points of sale. In October 2001, the province announced a Comprehensive Tobacco Control Strategy.²³

Given the impact of smoking on our society, the decreased prevalence of smoking among Nova Scotia students represents a major success. However, in addition to ensuring that youth are not newly recruited to smoking, we must also endeavour to assist youth smokers in their attempts at quitting. The 2002 survey asked if students had needed or received help for smoking. Overall, 7% of students reported they needed help for their cigarette smoking; among grade 12 students, 11% felt they needed such help. Additional support for smokers trying to quit has been advocated in Ontario.²⁴ In Nova Scotia, the Comprehensive Tobacco Control Strategy targets cessation and youth prevention as key areas. The findings in present Report suggest that cessation programs for youth may be considered as a priority. Indeed, the recognition by youth of their need for help may increase the likelihood of success of such programs.

Tobacco now ranks as the third substance most commonly used by adolescent students in Nova Scotia. Alcohol and cannabis rank as the first and second substances most commonly used by adolescent students in Nova Scotia. On a positive note, the prevalence of any alcohol use among Nova Scotia students decreased significantly since the time of the last survey, from 57% in 1998 to 52% in 2002. However, a considerable proportion of adolescent students reported high-risk alcohol consumption patterns in 2002 such as drinking to the point of drunkenness (28%). The Nova Scotia rate was similar to that observed among adolescent students in Ontario in 2001 (27%).¹⁹

In 2002, 37% of Nova Scotia adolescent students reported they had used cannabis at least once, and 16% reported they had used cannabis more frequently than once per month, in the 12 months before the survey. Those rates were essentially the same as observed in 1998. The prevalence of cannabis use varies across Canada. The past-year prevalence of cannabis use in Nova Scotia is comparable to that in New Brunswick (35% in 2002) and Manitoba (38% in 2001).²⁵ Although the past-year prevalence of cannabis use was lower in Ontario (30% in 2001), the past month estimates in Ontario and Nova Scotia were similar (23% and 22%, respectively).¹⁹ The past-year prevalence of cannabis use in 2002 was significantly higher in Nova Scotia than in Prince Edward Island (23%).

Surveys in Ontario and the United States have monitored substance use since the 1970's. As in Nova Scotia, an upward trend in the prevalence of cannabis use by adolescent students was observed in Ontario and the United States, from the beginning to the end of the 1990s. These surveys all revealed that the prevalence of cannabis use in 2000 - 2002 was essentially the same as that observed in 1998 -1999. Thus, the upward trend in the prevalence of cannabis use appears to have ended. However, the prevalence of any cannabis use has not returned to the lower level observed a decade ago. It should also be noted

that the prevalence of frequent cannabis use (more often than once/month) also has not returned to the lower level observed a decade ago (16% in 2002 vs. 4% in 1991). Frequent cannabis use is important because it is associated with an increased risk of substance-related problems.²⁶

The decreased prevalence in cigarette smoking and alcohol use resulted in changes in the prevalence of various multiple substance use patterns. In particular, the prevalence of abstinence from all substances increased from 35% in 1998 to 40% in 2002. The prevalence of use of alcohol and cigarettes and cannabis decreased from 25% in 1998 to 17% in 2002. The use of all three substances is important since this multiple substance use pattern is associated with an increased risk of substance-related problems.²⁶

Finally, the 2002 survey revealed little difference between Nova Scotia and New Brunswick in terms of the prevalence of substance use. Students in Prince Edward Island differed from their counterparts in Nova Scotia and New Brunswick in that smaller proportions reported having used illicit substances. The proportions of students who reported cigarette smoking decreased markedly in all three provinces since the last survey in 1998.

Risk behaviours associated with substance use

Youth represent the subgroup of the population most at risk of motor vehicle accidents resulting in death or injury. Alcohol is involved in a large proportion of such accidents.²⁷ Although less data is available about the role of cannabis in motor vehicle accidents, cannabis is known to have physiological and psychological effects on driving.^{28, 29} Driving under the influence of cannabis can result in impaired lane control, reduced driving speed, impaired road tracking ability, and impaired cognition resulting in a decreased ability to organize and retrieve new information.^{28, 29}

In 2002, 15% and 26% of Nova Scotia students with a driver's license reported they had, on at least one occasion during the course of a year, driven a motor vehicle within an hour of having used alcohol or cannabis, respectively. In Ontario, the estimated prevalence of youth driving under the influence of cannabis was 20% in 2001.¹⁹ The lower prevalence of driving under the influence of alcohol is likely related to the many prevention measures acting in concert including graduated licensing regulations, the existence of a roadside test to determine intoxication, and consistency in public awareness campaigns. The high rate of adolescents' driving after cannabis use should be viewed as a priority for prevention efforts. Prevention of the latter may be enhanced by inter-sectoral collaboration and a clear consensus in the goal of prevention efforts.

Regarding unplanned sexual intercourse, the line between unplanned, unexpected, unintended, unwanted or coercive sex can be difficult to judge especially in instances involving substance use. Substance use can be a factor in unwanted sexual advances in both the victim and aggressor roles. Substance use can also be a factor in non-coercive unplanned sexual intercourse. Based on focus group research, male adolescents may believe intoxicated women are more sexually available and less discriminate, and that their inability to say no can be interpreted as consent.³⁰ Female adolescents may believe they are more likely to welcome sex or be coerced to have sex they would not have engaged in while sober.³⁰ Adolescents, especially females, may be too immature to deal with sexual intercourse and contraception and might use alcohol as an excuse for having engaged in unplanned or unprotected sexual intercourse.³¹ Unplanned sexual intercourse under the influence of a substance is associated with an increased risk of multiple sexual partners and inconsistent condom use, among both male and female adolescent students.³²

In 2002, about 29% of adolescent students engaged in sexual intercourse, and of those, 35% reported having had unplanned sexual intercourse while under the influence of alcohol or other substance, at least once during the course of the year. The findings of the 1998 and 2002 *Nova Scotia Student Drug Use Surveys* suggest that sex and drug education and interventions should provide information about the relationship between the two sets of behaviours.³² Interventions aimed at decreasing the prevalence of unplanned sexual intercourse under the influence of a substance might also decrease other high risk sexual behaviours.

Regarding raves, these events, which were originally part of an underground culture, have become mainstream in many places. The 2002 survey revealed that 10% of Nova Scotia students attended a rave during the course of the year. In comparison, 18% of adolescent students in Ontario attended a rave in 2001.¹⁹ Attendance at a rave does not necessarily imply substance use; however, MDMA (ecstasy) is one of the substances that can be available and might be used at a rave. The 2002 survey revealed that 4% of Nova Scotia students used MDMA in the course of the year. In comparison, 6% of adolescent students in Ontario used MDMA in 2001.¹⁹

The issue of the safety of raves has come to the forefront in Canada and elsewhere due to the death of several youths attending these events. Prolonged high-energy dancing in conjunction with the use of MDMA increases the risk of dehydration and elevated body temperature and, subsequently, death. Measures have been proposed to minimize the risk of harm at raves including requiring that rave promoters provide free water, adequate ventilation, and medical and security personnel at the events. Other proposed measures include requiring the organizers of raves to notify municipal staff of upcoming parties, and to adhere to building and fire codes, and occupancy rules.

Problem gambling

There is no consensus as to the definition of problem gambling as it applies to adolescents or adults.¹⁶ Pathological gambling is a clinical disorder defined as a “a persistent and recurrent maladaptive gambling behaviour that disrupts personal, family or vocational pursuits”.³³ To some experts, problem gambling includes all patterns of gambling behaviour that compromise, disrupt or damage family, personal or vocational pursuits, so that problem gambling includes pathological gambling.³⁴ Other experts reserve the term problem gambling for individuals who do not meet the criteria for pathological gambling but who experience some problems with their gambling activities.³⁵

Studies of adolescents in Canada have revealed great variability in the estimated prevalence of problem gambling.¹⁵ The different rates may reflect real differences in problem gambling in the underlying populations, or different methods, or problems with the validity of instruments used in surveys.¹⁶ For example, one study found that only 31% of high school students correctly understood all of the SOGS-RA items.³⁶ A meta-analysis of studies involving about 28000 adolescents in the United States and Canada estimated a past-year prevalence of 14.8% for “at-risk or in-transition gambling” and 5.8% for “serious problem or pathological gambling”.³⁷ How best to define and measure problem gambling among adolescents remains unresolved.

The *2002 Nova Scotia Student Drug Use Survey* revealed that adolescent students’ participation in almost all gambling activities has decreased since 1996. Generally, more males than females participated in gambling activities, and males were more likely than females to be at-risk and problem gamblers. Based on the SOGS-RA, 3% and 2% of adolescent students met the definitions for at-risk and problem gambling, respectively. The estimated rate of

problem gambling in Nova Scotia was essentially the same in 2002 as in 1998. The prevalence of problem gambling was essentially the same in Nova Scotia, New Brunswick and Prince Edward Island in both 1998 and 2002.¹⁵

Summary

The *2002 Nova Scotia Student Drug Use Survey* revealed a decrease in the prevalence of two substances commonly used by adolescents – cigarettes and alcohol. The upward trend observed from 1991 to 1998 in the prevalence of use of cannabis and many other substances appears to have ended although the rates are still much higher than in 1991. The improvement in the prevalence of cigarette smoking was likely the result of many interventions by many groups focussed on a common goal. This success may serve as a model for inter-sectoral collaboration addressing other adolescent substance use issues. In addition to targeting the prevalence of substance use itself, efforts are also needed to decrease the prevalence of high-risk behaviours such as driving under the influence of a substance, especially cannabis, and unplanned sexual intercourse under the influence of a substance. Regarding raves, attendance at these events may also be considered a high risk behaviour depending on the availability of substances. The risk associated with attendance at commercial raves may be decreased through regulations at appropriate government levels. Regarding gambling, despite decreases in the prevalence of participation in many gambling activities, the prevalence of problem gambling remained relatively stable. Efforts are needed to determine how best to define and measure problem gambling among adolescents.

Recommendations

Recommendation 1

Parents/guardians, teachers, schools, communities, and government should continue to support students to make healthy, less harmful decisions, about substance use and gambling.

Not all students are involved in substance use and/or gambling. More than 40% of students in Nova Scotia reported no substance use, including alcohol and tobacco, in the past year. However, students who do experience problems associated with substance use and gambling present a challenge to those responsible for assisting them to make healthy, less harmful decisions. A full continuum of services based on the needs of students is required. As well, schools and teachers should be supported to implement a school drug education curriculum that ensures sufficient program duration and intensity.

Recommendation 3

Strategies aimed at adolescent substance use and associated problems and risks are more likely to succeed with the support of the key stakeholders. Meaningful collaboration is needed among government sectors, schools, communities, students and parents to identify and implement appropriate strategies.

Policies related to the control of alcohol, tobacco, and other drugs and gambling are clearly required. However, effective prevention strategies, including the provision of accurate information about substance use and gambling and the associated risks, need to be in place to complement such policies. Strategies and policies that support the early identification and referral of adolescents experiencing problems associated with substance use and/or gambling must also be addressed.

Recommendation 2

Addiction Services in the District Health Authorities should enhance intersectoral collaboration with schools and communities to enhance prevention activities and to develop strategies to assist students who may be harmfully involved in substance use and/or gambling.

Partnerships between stakeholders in education, health and school communities that involve students, parents/guardians, community representatives, teachers, and school administrators can facilitate the assessment of school and community needs, the development of effective school policies, and implementation of effective drug education.

Recommendation 4

The findings from the 2002 Student Drug Use Survey should be communicated to key stakeholders throughout the province.

Students, parents/guardians, teachers, schools, communities, and policy makers, alike, should be informed about the trends in substance use among students, as well as drug education and prevention strategies. Understanding these trends will assist in the enhancement of adolescent-specific services spanning the continuum of care, which includes prevention, early identification and referral, and treatment.

Recommendation 5

The standardized Student Drug Use Survey should be repeated in the Atlantic Provinces in a three-to four-year cycle.

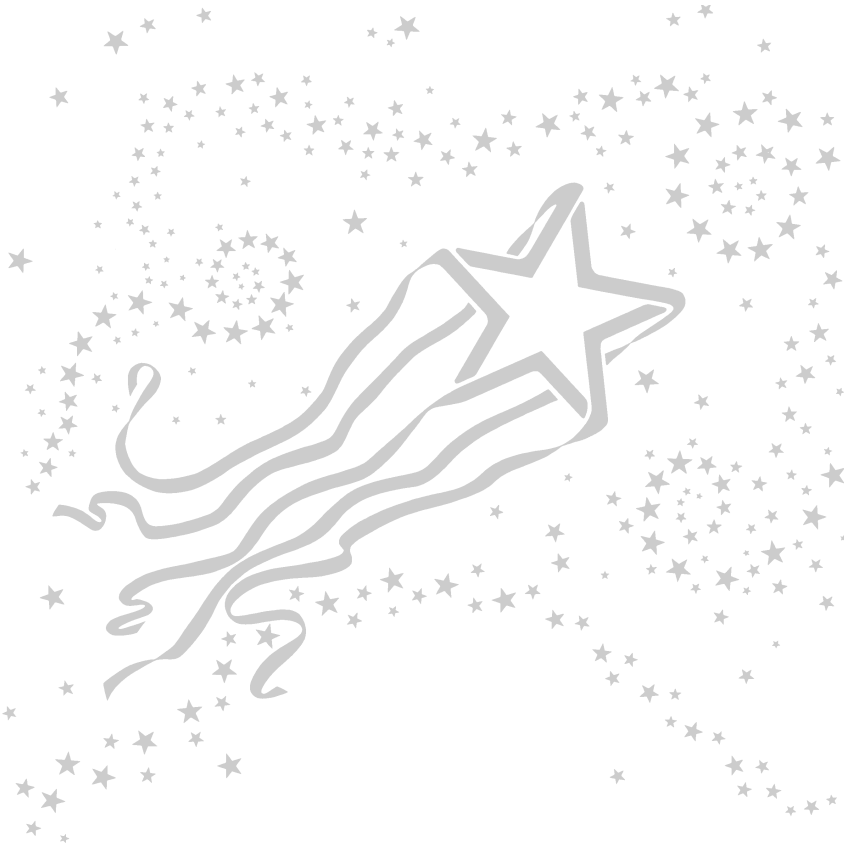
The standardized Student Drug Use Survey provides relevant monitoring data to evaluate the successes within the field of addictions-related health including goals, objectives, and strategies related to adolescent substance use and gambling. Collaboration with the other Atlantic provinces will enhance the ability to advance the field of addictions-related health as it pertains to adolescents.

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APPENDICES



1. What are the first three digits of the postal code where you live?
— — —

2. Are you male or female?

- male female

3. What grade are you in?

- grade 6 grade 10 / level I
 grade 7 grade 11 / level II
 grade 8 grade 12 / level III
 grade 9

4. How old are you?

- 10 years or younger 15 years
 11 years 16 years
 12 years 17 years
 13 years 18 years
 14 years 19 years or older

5. So far in this school year, what is your average on all your courses at school?

- 80% or higher 50% – 59%
 70% – 79% Below 50%
 60% – 69% I do not know

6. Who are you living with now?

- mother and father
 mother
 father
 mother and step-father
 father and step-mother
 I live alone or with friends (independent living)
 Other (please state) _____

7. What is the highest level of education that your mother has attained?

- Graduated university
 Attended university
 Graduated college or trade school
 Attended college or trade school
 Graduated high school
 Attended high school
 Did not attend high school
 Don't know
 No mother

8. How well off do you think your family is?

- Very well off Not very well off
 Quite well off Not at all well off
 Average

9. Do you have your own bedroom for yourself?

- Yes No

10. Does your family have an Internet connection at home?

- Yes, my family has an Internet connection at home.
 No, my family does not have an Internet connection but we do have a computer at home.
 No, my family does not have a computer at home.

11. Not everyone expects to stay in school as long as they would like. How likely is it that you will stay in school until you graduate?

- It is not at all likely that I will graduate
 It is not very likely that I will graduate
 It is fairly likely that I will graduate
 It is very likely that I will graduate

12. In general, would you say your health is...

- excellent? fair?
 very good? poor?
 good?

13. How long have you had a license to drive a car or a motorcycle?

- I do not have a license to drive
 I have a beginner's license or a temporary license
 I have had a license less than one year
 I have had a license one to two years
 Three years or more

14. In the past 12 months, have you been in a motor vehicle accident with YOU as the driver?

- Yes No

15. How many of your friends use TOBACCO?

- None More than half
 A few All
 About half

16. How many of your friends use ALCOHOL?

- None More than half
 A few All
 About half

17. How many of your friends use CANNABIS (Marijuana, grass, weed, pot, hash, hash oil)?

- None More than half
 A few All
 About half

18. In the past 12 months how often have you been to a rave?

- I do not know what a rave is 2 times
 Never 3 or more times
 Once

19. How old were you when you smoked your first whole cigarette?

I have never smoked a whole cigarette 14 years
 10 years or younger 15 years
 11 years 16 years
 12 years 17 years
 13 years 18 years
 19 years or older

20. In the past 12 months, how many cigarettes did you usually smoke per day?

I have never smoked
 I did not smoke cigarettes in the past 12 months
 I tried one cigarette in the past 12 months
 I had less than one cigarette a day
 I had 1 or 2 cigarettes a day
 3 to 5 cigarettes a day
 6 to 10 cigarettes a day
 11 to 15 cigarettes a day
 16 to 20 cigarettes a day
 More than 20 cigarettes a day

21. Have you smoked 100 or more cigarettes in your life?

Yes No I don't know

22. Have you tried to quit smoking in the past 6 months?

Yes No I have never smoked or I have only smoked a few times

23. In the past 12 months, have you smoked cigars, or tobacco in a pipe?

Yes No

24. In the past 12 months, have you used chewing tobacco?

Yes No

25. When (if ever) did you first drink alcohol?

grade 4 or before
 grade 5
 grade 6
 grade 7
 grade 8
 grade 9
 grade 10 / level I
 grade 11 / level II
 grade 12 / level III
 I have never drunk alcohol

26. In the past 12 months, how often did you drink alcohol - beer, wine, coolers, or hard liquor (rum, whisky, vodka, gin, etc.)?

Not at all
 Just a sip
 Once a month or less often
 Two or three times a month
 Once a week
 Twice a week
 Three times a week
 Four or five times a week
 Almost every day - six or more times a week

27. In the past 12 months, has drinking affected your school work or exams so that you did not do as well as you could?

Yes No I do not drink alcohol

28. In the past 12 months, has your drinking caused tension or disagreement with family or friends?

Yes No I do not drink alcohol

29. In the past 12 months, have you been in trouble with the police as a result of your drinking?

Yes No I do not drink alcohol

30. In the past 12 months, has the cost of alcohol caused you to give up buying other things?

Yes No I do not drink alcohol

31. In the past 12 months, have you consumed alcohol before or instead of breakfast?

Yes No I do not drink alcohol

32. In the past 12 months, when drinking, have you damaged things?

Yes No I do not drink alcohol

33. In the past 12 months, has your drinking caused you to injure yourself?

Yes No I do not drink alcohol

34. In the past 12 months, how often have you been drinking in a bar, tavern, beverage room or lounge?

Never
 Once
 Twice
 Three or more times
 I do not drink alcohol

◆ 4 ◆

35. In the past 12 months, have you used fake identification or lied about your age in order to get alcohol?

- Yes No I do not use alcohol

buy cigarettes?

- Yes No I do not smoke cigarettes

buy lottery tickets, scratch tabs or break-opens?

- Yes No I do not buy lottery tickets, scratch tabs or break-opens

play video gambling machines?

- Yes No I do not play video gambling machines

36. In the past 12 months, how often have YOU driven a motor vehicle within an hour of drinking two or more drinks of alcohol?

- Never
 Once
 Twice
 Three or more times
 I do not drink alcohol / I do not drive

37. In the past 12 months, have you been in a motor vehicle accident with YOU as the driver, after drinking in the two previous hours?

- Yes No I do not drink alcohol / I do not drive

38. In the past 12 months, how often were you a PASSENGER in a vehicle with a driver who had too much to drink?

- Never
 Once
 Twice
 Three or more times

39. In the past 12 months, how often did you use CANNABIS (marijuana, grass, weed, pot, hash, hash oil)?

- I do not know what cannabis is
 I have never used cannabis
 I did not use cannabis in the past 12 months
 One time
 Two times
 Three or four times
 Five to eight times
 Nine to 12 times (about once a month)
 Thirteen to 26 times (about twice a month)
 Twenty-seven or more times (more than twice a month)

40. In the past 12 months, did you sniff substances such as SOLVENTS or GLUE in order to get high?

- I do not know what these substances are
 Not at all
 One time
 Two times
 Three or four times
 Five to eight times
 Nine to 12 times (about once a month)
 Thirteen to 26 times (about twice a month)
 Twenty-seven or more times (more than twice a month)

41. In the past 12 months, have you taken TRANQUILIZERS (Valium®, Librium®, Serax®, Tranqs, 5s, 10s) without a prescription or without a doctor telling you to take them?

- I do not know what tranquilizers are
 Not at all
 One time
 Two times
 Three or four times
 Five to eight times
 Nine to 12 times (about once a month)
 Thirteen to 26 times (about twice a month)
 Twenty-seven or more times (more than twice a month)

42. In the past 12 months, have you used LSD (acid, cid)?

- I do not know what LSD is
 Not at all
 One time
 Two times
 Three or four times
 Five to eight times
 Nine to 12 times (about once a month)
 Thirteen to 26 times (about twice a month)
 Twenty-seven or more times (more than twice a month)

43. In the past 12 months, have you used PCP (Angel Dust, Dust, Horse Tranquilizer)?

- I do not know what PCP is
 Not at all
 One time
 Two times
 Three or four times
 Five to eight times
 Nine to 12 times (about once a month)
 Thirteen to 26 times (about twice a month)
 Twenty-seven or more times (more than twice a month)

44. In the past 12 months, have you used **PSILOCYBIN (Magic Mushrooms, Shrooms) or Mescaline (Mesc)?**

- I do not know what psilocybin and mescaline are
- Not at all
- One time
- Two times
- Three or four times
- Five to eight times
- Nine to 12 times (about once a month)
- Thirteen to 26 times (about twice a month)
- Twenty-seven or more times (more than twice a month)

45. In the past 12 months, have you taken **QUABALINE (quabs, zippers)?**

- I do not know what quabaline is
- Not at all
- One time
- Two times
- Three or four times
- Five to eight times
- Nine to 12 times (about once a month)
- Thirteen to 26 times (about twice a month)
- Twenty-seven or more times (more than twice a month)

46. In the past 12 months, have you taken **HEROIN (H, junk, or Smack)?**

- I do not know what heroin is
- Not at all
- One time
- Two times
- Three or four times
- Five to eight times
- Nine to 12 times (about once a month)
- Thirteen to 26 times (about twice a month)
- Twenty-seven or more times (more than twice a month)

47. In the past 12 months, have you used **COCAINE or CRACK COCAINE (snow, coke, rock)?**

- I do not know what cocaine is
- Not at all
- One time
- Two times
- Three or four times
- Five to eight times
- Nine to 12 times (about once a month)
- Thirteen to 26 times (about twice a month)
- Twenty-seven or more times (more than twice a month)

48. In the past 12 months, have you used **MDMA or ECSTASY?**

- I do not know what MDMA or Ecstasy are
- Not at all
- One time
- Two times
- Three or four times
- Five to eight times
- Nine to 12 times (about once a month)
- Thirteen to 26 times (about twice a month)
- Twenty-seven or more times (more than twice a month)

49. In the past 12 months, have you taken **AMPHETAMINE (Dexedrine®, bennies, pep pills, speed) without a prescription or without a doctor telling you to do so?**

- I do not know what amphetamine is
- Not at all
- One time
- Two times
- Three or four times
- Five to eight times
- Nine to 12 times (about once a month)
- Thirteen to 26 times (about twice a month)
- Twenty-seven or more times (more than twice a month)

50. In the past 12 months, have you taken **RITALIN® (methylphenidate) without a prescription or without a doctor telling you to do so?**

- I do not know what Ritalin is
- Not at all
- One time
- Two times
- Three or four times
- Five to eight times
- Nine to 12 times (about once a month)
- Thirteen to 26 times (about twice a month)
- Twenty-seven or more times (more than twice a month)

51. In the past 12 months, have you taken **STEROIDS (such as body builders, testosterone, dianabol, growth hormones, or "roids") to increase your performance in a sport or activity or to change your physical appearance?**

- I do not know what steroids are
- Not at all
- One time
- Two times
- Three or four times
- Five to eight times
- Nine to 12 times (about once a month)
- Thirteen to 26 times (about twice a month)
- Twenty-seven or more times (more than twice a month)

52. In the past 12 months, have you used a drug by injection or needles for a medical reason (for example, insulin for diabetes)?

- Yes No

53. In the past 12 months, have you used heroin, speed, cocaine or LSD, by injection or needles?

- I used one or more of these drugs by injection
 I used one or more of these drugs, but not by injection
 I did not use these drugs at all

54. In the past 12 months, have you injected steroids?

- Yes No

55. In the past 12 months, have you shared needles or syringes with others?

- Yes No

56. In the past 12 months, has your drug use (other than alcohol) affected your school work or exams so that you did not do as well as you could?

- Yes No I do not use drugs

57. In the past 12 months, has your drug use (other than alcohol) caused tension or disagreement with family or friends?

- Yes No I do not use drugs

58. In the past 12 months, have you been in trouble with the police as a result of your drug use (other than alcohol)?

- Yes No I do not use drugs

59. In the past 12 months, has the cost of drugs (other than alcohol) caused you to give up buying other things?

- Yes No I do not use drugs

60. In the past 12 months, have you damaged things as a result of your drug use (other than alcohol)?

- Yes No I do not use drugs

61. In the past 12 months, has your drug use (other than alcohol) caused you to injure yourself?

- Yes No I do not use drugs

62. In the past 12 months, how many times have YOU driven a motor vehicle within an hour of using cannabis?

- Never
 Once
 Twice
 Three or more times
 I do not use cannabis / I do not drive

Next, we would like to know about the **PAST 30 DAYS**. Please make sure you think about the **PAST 30 DAYS** when you answer the next 10 questions.

63. In the past 30 days, how many times has drinking alcohol made you drunk (that is, you had so much to drink that you threw up or you lost control of your actions)?

- I did not drink alcohol at all in the past 30 days
 I have not been drunk in the past 30 days
 I was drunk once in the past 30 days
 I was drunk twice in the past 30 days
 I was drunk three times in the past 30 days
 I was drunk four times in the past 30 days
 I was drunk five or more times in the past 30 days

For question #64, ONE DRINK means

1 bottle of beer (about 340 ml)

OR 1 glass of wine (about 120 ml)

OR 1 shot glass of liquor (about 40 ml)

64. In the past 30 days, how many times have you had five or more drinks of alcohol on the same occasion?

- I did not drink alcohol at all in the past 30 days
 I have not had five or more drinks of alcohol on the same occasion in the past 30 days
 Once, I had five or more drinks of alcohol on the same occasion in the past 30 days
 Twice
 Three times
 Four times
 Five or more times

65. In the past 30 days, on the days you smoked, how many CIGARETTES did you smoke per day?

- I did not smoke cigarettes in the past 30 days
 Less than one cigarette per day
 1 cigarette per day
 2 to 5 cigarettes per day
 6 to 10 cigarettes per day
 11 to 20 cigarettes per day
 More than 20 cigarettes per day

66. In the past 30 days, how often did you use CANNABIS (marijuana, grass, weed, pot, hash, hash oil)?

- Not at all during the month
- Less than every week
- Every week or almost every week
- Every day or almost every day

67. In the past 30 days, how often did you usually take Dexedrine® (amphetamine) as prescribed for you by your doctor?

- I am not on prescribed Dexedrine
- In the past 30 days, I took prescribed Dexedrine once a day
- In the past 30 days, I took prescribed Dexedrine twice a day
- In the past 30 days, I took prescribed Dexedrine three times a day
- In the past 30 days, I took prescribed Dexedrine four times a day

68. In the past 30 days, how often did you usually take Ritalin® (methylphenidate) as prescribed for you by your doctor?

- I am not on prescribed Ritalin
- In the past 30 days, I took prescribed Ritalin once a day
- In the past 30 days, I took prescribed Ritalin twice a day
- In the past 30 days, I took prescribed Ritalin three times a day
- In the past 30 days, I took prescribed Ritalin four times a day

69. In the past 30 days, did you give any of your prescribed Ritalin® pills to friends?

- I am not on prescribed Ritalin
- No, I did not give away any of my prescribed Ritalin pills
- Yes, I gave away 1 or 2 of my pills
- Yes, I gave away 3 or 4 of my pills
- Yes, I gave away 5 or more of my pills

70. In the past 30 days, did you sell any of your prescribed Ritalin® pills?

- I am not on prescribed Ritalin
- No, I did not sell any of my prescribed Ritalin pills
- Yes, I sold 1 or 2 of my pills
- Yes, I sold 3 or 4 of my pills
- Yes, I sold 5 or more of my pills

71. In the past 30 days, were any of your prescribed Ritalin® pills taken away from you against your will, by force or threats?

- Yes
- No
- I am not on prescribed Ritalin

72. In the past 30 days, were any of your prescribed Ritalin® pills stolen from you?

- Yes
- No
- I am not on prescribed Ritalin

The next section asks about some of your decisions concerning sexual behaviour and alcohol use. Sexual intercourse means either vaginal or anal sex. You may skip the questions with which you are not comfortable.

73. In the past 12 months, have you had sexual intercourse?

- Yes
- No

If you did NOT have sexual intercourse in the PAST 12 MONTHS, GO TO question #79.

If you DID have sexual intercourse in the PAST 12 MONTHS, we would like to know about some of your decisions, and ask that you answer #74 to #78 inclusive.

74. In the past 12 months, have you had sexual intercourse when you did not plan to?

- Yes
- No

IF YOU ANSWERED YES:

75. Was this when you were under the influence of alcohol or other drug?

- Never
- Twice
- Once
- Three or more times

76. In the past 12 months, with how many persons have you had sexual intercourse?

- One person
- Two persons
- Three or more persons

77. The LAST TIME you had sexual intercourse, did either you or your partner use a condom?

- Yes
- No

78. If you did NOT use a condom the LAST TIME you had sexual intercourse, what kept you from doing so?

I did not have a condom at the time

- Yes
- No
- I used a condom the last time I had intercourse

I was embarrassed to buy them

- Yes
- No
- I used a condom the last time I had intercourse

I did not have money to buy condoms

- Yes
- No
- I used a condom the last time I had intercourse

I was under the influence of alcohol or other drug

- Yes No I used a condom the last time I had intercourse

My sexual partner was under the influence of alcohol or other drug

- Yes No I used a condom the last time I had intercourse

My sexual partner would not use them

- Yes No I used a condom the last time I had intercourse

Condoms interfere with sex

- Yes No I used a condom the last time I had intercourse

Other reason (please state)

The next section asks about gambling.

79. In the past 12 months, how often have you done the following:

Played cards for money

- Never Monthly Daily
 Less than monthly Weekly

Played bingo for money

- Never Monthly Daily
 Less than monthly Weekly

Bet on sports activities

- Never Monthly Daily
 Less than monthly Weekly

Played Sports Select lottery

- Never Monthly Daily
 Less than monthly Weekly

Played a lottery other than Sports Select

- Never Monthly Daily
 Less than monthly Weekly

Played any video gambling machines

- Never Monthly Daily
 Less than monthly Weekly

Played scratch tabs

- Never Monthly Daily
 Less than monthly Weekly

Played break-opens

- Never Monthly Daily
 Less than monthly Weekly

80. In the past 12 months, how often have you gone back another day to try to win back the money you lost?

- Every time Never
 Most of the time I do not gamble
 Some of the time

81. In the past 12 months when you were betting, have you told others you were winning money when you really weren't winning?

- Yes No I do not gamble

82. In the past 12 months, has your betting money caused any problems for you such as arguments with family and friends, or problems at school or work?

- Yes No I do not gamble

83. In the past 12 months, have you gambled more than you had planned to?

- Yes No I do not gamble

84. In the past 12 months, has anyone criticized your betting or told you that you had a gambling problem, regardless of whether you thought it was true or not?

- Yes No I do not gamble

85. In the past 12 months, have you felt bad about the amount you bet, or about what happens when you bet money?

- Yes No I do not gamble

86. In the past 12 months, have you felt that you would like to stop betting money but didn't think you could?

- Yes No I do not gamble

87. In the past 12 months, have you hidden from family or friends any betting slips, I.O.U.s, lottery tickets, money that you've won, or other signs of gambling?

- Yes No I do not gamble

88. In the past 12 months, have you had money arguments with family or friends that centered on gambling?

- Yes No I do not gamble

89. In the past 12 months, have you borrowed money to bet and not paid it back?

- Yes No I do not gamble

90. In the past 12 months, have you skipped or been absent from school or work due to betting activities?

- Yes No I do not gamble

91. In the past 12 months, have you borrowed money or stolen something in order to bet or to cover gambling debts?

- Yes No I do not gamble

The next section asks about help-seeking.

92. In the past 12 months, have you felt you needed help for your alcohol use?

- Yes No I do not use alcohol

cigarette smoking?

- Yes No I do not smoke cigarettes

other drug use?

- Yes No I do not use other drugs

gambling?

- Yes No I do not gamble

93. In the past 12 months, have you used any services or received help to deal with your alcohol use?

- Yes No I do not use alcohol

cigarette smoking?

- Yes No I do not smoke cigarettes

other drug use?

- Yes No I do not use other drugs

gambling?

- Yes No I do not gamble

94. Below is a list of statements that describe some of the feelings and behaviour of young people.

For the next 7 statements, please mark the response that best describes you NOW or within the PAST 6 MONTHS. Please mark ONLY ONE of the 3 responses for each statement.

I can't sit still, I am restless.

- Never or Not true Often or Very true
 Sometimes or Somewhat true

I am easily distracted. I have trouble sticking to any activity.

- Never or Not true Often or Very true
 Sometimes or Somewhat true

I fidget.

- Never or Not true Often or Very true
 Sometimes or Somewhat true

I can't concentrate, I can't pay attention.

- Never or Not true Often or Very true
 Sometimes or Somewhat true

I am impulsive, I act without thinking.

- Never or Not true Often or Very true
 Sometimes or Somewhat true

I have difficulty waiting my turn in games or group activities.

- Never or Not true Often or Very true
 Sometimes or Somewhat true

I cannot settle to anything for more than a few moments.

- Never or Not true Often or Very true
 Sometimes or Somewhat true

95. For the next 12 statements, please think about the PAST 7 DAYS. How often have you felt or behaved this way in the PAST 7 DAYS?

I did not feel like eating; my appetite was poor.

- Never or rarely Often
 Sometimes Always

I felt like I could not shake off the blues even with help from my family or friends.

- Never or rarely Often
 Sometimes Always

I had trouble keeping my mind on what I was doing.

- Never or rarely Often
 Sometimes Always

I felt depressed.

- Never or rarely Often
 Sometimes Always

I felt like I was too tired to do things.

- Never or rarely Often
 Sometimes Always

I felt hopeful about the future.

- Never or rarely Often
 Sometimes Always

My sleep was restless.

- Never or rarely Often
 Sometimes Always

I was happy.

- Never or rarely Often
 Sometimes Always

Appendix 2

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Table 1. Census, sample and participation, 2002

Shared service area	Grade 7	Grade 9	Grade 10	Grade 12	Totals
DHA 9					
Total number of students based on census	4052	4010	3474	3077	14613
Number of students enrolled in selected classes	405	406	345	440	1596
Percentage of students absent/ not available on survey day	9.4	9.4	13.0	21.1	13.4
Number of students present on survey day	367	368	300	347	1382
Number of students participating	362	367	297	342	1368
Response rate as % of students present on survey day	98.6	99.7	99.0	98.6	99.0
DHA 1, 2 & 3					
Total number of students based on census	2878	2653	2709	2373	10613
Number of students enrolled in selected classes	276	298	409	211	1194
Percentage of students absent/ not available on survey day	8.3	13.4	20.5	15.2	15.0
Number of students present on survey day	253	258	325	179	1015
Number of students participating	252	257	323	177	1009
Response rate as % of students present on survey day	99.6	99.6	99.4	98.9	99.4
DHA 4, 5 & 6					
Total number of students based on census	2137	2173	2080	1906	8296
Number of students enrolled in selected classes	212	247	292	252	1003
Percentage of students absent/ not available on survey day	12.7	13.4	13.0	18.3	14.4
Number of students present on survey day	185	214	254	206	859
Number of students participating	185	212	252	206	855
Response rate as % of students present on survey day	100.0	99.1	99.2	100.0	99.5
DHA 7 & 8					
Total number of students based on census	2557	2662	2522	2559	10300
Number of students enrolled in selected classes	253	315	370	338	1276
Percentage of students absent/ not available on survey day	7.5	15.9	15.4	21.3	15.5
Number of students present on survey day	234	265	313	266	1078
Number of students participating	234	264	313	265	1076
Response rate as % of students present on survey day	100.0	99.6	100.0	99.6	99.8
Overall					
Total number of students based on census	11624	11498	10785	9915	43822
Total number of students enrolled in selected classes	1146	1266	1416	1241	5069
Percentage of students absent/ not available on survey day	9.5	13.0	15.5	19.0	14.2
Total number of students present on survey day	1039	1105	1192	998	4334
Total number of students participating	1033	1100	1185	990	4308
Response rate as % of students present on survey day	99.6	99.5	99.4	99.3	99.4

Table 2. Any use of various substances among students in grades 7, 9, 10 & 12, percentage reporting use at least once in the 12 months prior to survey, 1991, 1996, 1998 & 2002

Any use of...	1991 (n=3452)		1996 (n=3790)		1998 (n=3755)		2002 (n=4247)	
	%	95% C.I.	%	95% C.I.	%	95% C.I.	%	95% C.I.
Alcohol	50.6	48.3-52.8	54.1	52.1-56.1	56.7	54.6-58.7	51.7	49.8-53.6
Cannabis	17.2	15.4-19.0	32.1	30.1-34.1	37.7	35.7-39.7	36.5	34.7-38.3
Cigarettes	26.0	23.7-28.1	34.8	32.7-36.9	36.1	33.9-38.3	23.2	21.4-25.0
Psilocybin/Mescaline	4.0	2.9-5.1	8.3	7.3-9.3	10.7	9.5-11.9	12.2	11.0-13.4
Non-medical stimulants*	5.3	4.4-6.2	8.9	7.8-10.0	10.5	9.3-11.7	12.8	11.4-14.2
Non-medical amphetamines	n/a	n/a	n/a	n/a	n/a	n/a	9.3	8.2-10.4
Non-medical MPH	n/a	n/a	n/a	n/a	n/a	n/a	7.5	6.5-8.5
LSD	7.1	5.8-8.4	12.4	11.2-13.7	10.1	8.9-11.3	5.5	4.7-6.3
Inhalants	9.6	8.1-11.0	7.2	6.3-8.2	7.0	6.1-7.9	4.9	4.1-5.7
Non-medical tranquilizers	2.6	2.0-3.2	4.8	3.9-5.7	6.0	5.1-6.7	4.7	4.1-5.3
MDMA (Ecstasy)	n/a	n/a	n/a	n/a	n/a	n/a	4.4	3.7-5.1
Cocaine or crack	2.5	1.9-3.2	3.5	2.8-4.3	4.7	4.0-5.5	3.9	3.2-4.6
PCP	1.1	0.7-1.5	2.6	2.0-3.3	3.0	2.5-3.6	3.2	2.6-3.8
Anabolic steroids	n/a	n/a	2.8	2.3-3.4	2.5	2.0-3.0	2.7	2.2-3.2
Heroin	1.6	1.0-2.2	2.1	1.6-2.6	2.8	2.3-3.3	1.6	1.2-2.0
Non-medical barbiturates	2.3	1.7-2.9	1.8	1.3-2.2	2.3	1.8-2.8	n/a	n/a

n/a data not available

* The 1991, 1996 and 1998 surveys asked about the non-medical use of various stimulants in one question only. The 2002 survey asked about the use of non-medical amphetamines and methylphenidate in separate questions. In order to compare the estimates through time, the above 2002 estimate was calculated as the non-medical use of either amphetamines or methylphenidate (Ritalin).

Table 3. Frequent alcohol and other drug use among students in grades 7, 9, 10 & 12, as percentages, 1991, 1996, 1998 & 2002

Frequent use of...	1991 (n=3452)		1996 (n=3790)		1998 (n=3755)		2002 (n=4247)	
	%	95% C.I.	%	95% C.I.	%	95% C.I.	%	95% C.I.
Alcohol	25.4	23.6-27.2	30.3	27.5-33.2	33.0	31.1-34.8	30.3	28.5-32.1
Cigarettes	4.9	4.0-5.8	7.2	6.0-8.3	7.4	6.3-8.4	4.3	3.5-5.1
Cannabis	4.3	3.4-5.2	12.3	10.6-14.0	13.5	12.1-14.8	15.5	14.2-16.8

For alcohol and cannabis, *frequent use* is defined as use more frequently than once per month.

Frequent use of cigarettes is defined as more than 10 cigarettes per day.

Table 4. Any use of alcohol, tobacco and cannabis among students in grades 7, 9, 10 & 12 as percentages, according to friends' use and school performance, 2002

		Alcohol %	Tobacco %	Cannabis %
Overall (n=4247)		51.7	23.2	36.5
Friends' Use	none or a few	14.8	7.8	15.8
	almost half	54.6**	40.7**	65.1**
	most	79.9**	69.5**	79.8**
	all	93.7**	74.0**	92.4**
Grade Point Average	≥60%	51.8	20.3	35.4
	<60%	72.6**	53.8**	60.7**
	do not know	41.1**	25.7*	31.9

* p< 0.01; ** p< 0.001

Table 5 Substance use among students in grades 7, 9, 10 & 12 as percentages, according to demographic characteristics, 2002

Any use of...		alcohol	cannabis	cigarettes	psilocybin/ non-medical amphetamines	non-medical MPH	LSD	inhalants	non-medical tranquilizers	ecstasy	cocaine or crack	PCP	anabolic steroids	heroin	
(n=4247)		%	%	%	%	%	%	%	%	%	%	%	%	%	
Shared service area	DHA 9	49.7	36.1	20.3*	12.4	7.6	6.6	3.5	4.7	4.7	4.4	3.0	3.1	2.3	1.1
	DHA 1, 2 & 3	50.9	36.6	26.7	14.4	9.9	7.0	6.7*	5.3	4.5	4.6	4.1	3.6	2.5	1.8
	DHA 4, 5 & 6	47.4	36.6	23.4	13.1	11.4	6.0	6.9*	4.9	5.6	5.3	6.1*	3.6	3.3	1.8
	DHA 7 & 8	54.6	36.9	23.4	9.1	9.2	10.3	6.2*	5.0	4.1	3.4	3.4	2.7	3.1	1.9

Table 6. Multiple drug use involving alcohol, tobacco and cannabis among students in grades 7, 9, 10 & 12, as percentages, 1991, 1996, 1998 & 2002

Drug Use Pattern	1991		1996		1998		2002	
	%	95% C.I.	%	95% C.I.	%	95% C.I.	%	95% C.I.
No drug use whatsoever	38.6	35.1-42.1	36.8	33.6-40.0	35	33.0-37.0	40.3	38.4-42.2
No Alcohol, No Tobacco, No Cannabis, but other drug use	5.3	4.4-6.2	2.9	2.3-3.5	1.5	1.1-1.9	1.7	1.3-2.1
Alcohol, No Tobacco, No Cannabis	24.9	22.5-27.4	16.8	15.2-18.4	15.1	13.8-16.5	15.7	14.5-16.9
Alcohol & Tobacco & Cannabis	12.4	10.6-14.2	21.9	19.8-24.1	24.9	23.1-26.6	17.3	15.9-18.8
Alcohol & Tobacco, No Cannabis	10.1	8.7-11.4	7.7	6.8-8.6	6.6	5.6-7.5	3.2	2.7-3.8
Alcohol & Cannabis, No Tobacco	4.5	3.6-5.5	7.9	6.8-9.0	10.1	9.0-11.3	15.3	14.0-16.6
Tobacco, No Alcohol, No Cannabis	3.3	2.6-4.0	3.7	2.9-4.4	3.3	2.7-3.9	1.3	0.9-1.7
Tobacco & Cannabis, No Alcohol	<1.0	-	1.5	1.1-2.0	1.4	1.0-1.8	1.2	0.8-1.6
Cannabis, No Alcohol, No Tobacco	<1.0	-	<1.0	-	1.3	0.9-1.8	2.6	2.0-3.2

- cell size too small to be meaningful

Table 7. Number of alcohol-related problems resulting from respondents' own alcohol use, as percentages, 2002

	Among all students	Among students who used alcohol
	(n=4247)	(n=2270)
	%	%
No problem	69.5	44.0
1 problem	12.6	22.2
2 problems	7.1	13.4
3 problems	4.6	8.9
4+ problems	6.1	11.5

Table 8. Number of drug-related problems (not alcohol or tobacco), among students in grades 7, 9, 10 & 12, as percentages, 2002

	Among all students (n=4247) %	Among students who used drugs (n=1797) %
No problem	76.6	47.0
1 problem	10.0	21.1
2 problems	5.5	13.0
3 or more problems	7.9	19.0

Table 9. Positive responses to SOGS-RA items, among students in grades 7, 9, 10 & 12, as percentages, according to participation in gambling, 2002

	Among all students (n=4247) %	Among students who reported any gambling (n=2703) %
Tried to win back money	9.0	13.7
Lied about winning	2.6	3.8
Betting money caused problems	1.6	2.4
Gambled more than planned	3.5	5.4
Told that their gambling was a problem	1.6	2.4
Felt bad about amount of money bet	2.9	4.5
Would like to stop, but can't	1.9	2.9
Has hidden betting slips	1.5	2.2
Had arguments about money	1.8	2.8
Has borrowed money to bet and not paid it back	2.4	3.5
Skipped school/work due to betting activities	1.6	2.4
Borrowed money or stole something to bet	1.3	2.0

'Any gambling' is defined as a positive response to at least one gambling activity. The South Oaks Gambling Scale Revised for Adolescents (SOGS-RA) was used as a tool for measuring gambling-related problems and risks in adolescent populations.

Table 10. School drug education among students in grades 7, 9, 10 & 12, 2002

(n=4247)	Grade 7	Grade 9	Grade 10	Grade 12
	%	%	%	%
Classes on alcohol				
None	23.3	13.3	35.5	49.1
One or two	46.4	50.7	52.2	43.4
Three or more	30.3	36.0	12.3	7.5
Classes on tobacco				
None	31.5	22.3	42.3	62.2
One or two	44.3	53.5	49.2	33.3
Three or more	24.3	24.2	8.5	4.5
Classes on drugs other than alcohol or tobacco				
None	32.8	18.1	41.0	55.0
One or two	43.1	53.4	48.8	39.9
Three or more	24.1	28.5	10.2	5.2
Classes on decision making				
None	18.9	12.9	32.8	48.3
One or two	39.1	47.5	52.9	44.8
Three or more	42.0	39.6	14.3	6.9

**Errata and additional information pertaining to the
2002 Nova Scotia Student Drug Use Survey Technical Report**

Prepared by Christiane Poulin, Principal Investigator
26 February 2003

Table 4 (page 9) and Table 2 in Appendix 2 (page 71):

The *2002 Technical Report* shows prevalence estimates from 1991, 1996 and 1998 as re-calculated with the computer program used for the 2002 analysis, resulting in small differences in the tens-decimal place of several estimates.

Table 1 in Appendix 2 (page 70):

The census as shown in this table does not include about 1900 students from 5 schools involved in a drug intervention research project and about 2500 students from 4 high schools unable to participate due to extenuating circumstances. The 2002 survey results were calculated in two ways, first with weights excluding, then with weights including these groups of students. The estimated prevalence of substance use calculated in these two manners differed by less than 1% which was within the desired margin of error ($\pm 2.5\%$).

Table 5 in Appendix 2 (page 73):

The estimated prevalence of use of the various substances according to Shared Service Areas were incorrectly reported. This section of the table should be disregarded. The reader is referred to the tables reporting on each substance separately in the body of the report.

