



ADDICTIONS FOUNDATION OF MANITOBA

Alcohol and Other Drugs: Students in Manitoba - 2007

**Krista Friesen, B.A. (hons) &
Jackie Lemaire, M. Sc. &
David Patton, Ph. D.**

November 2008

*Building
hope for over
50 years*

www.afm.mb.ca



Addictions Foundation of Manitoba

The Addictions Foundation of Manitoba is responsible for providing rehabilitation and prevention services for Manitoba citizens relating to substance use and problem gambling.

VISION:

Manitobans living free from the harms of alcohol, other drugs and gambling.

MISSION:

To enhance the health of Manitobans by reducing the harm of alcohol, other drugs and gambling through leadership in education, prevention, and rehabilitation.

VALUES:

We believe our greatest asset is our staff, and acknowledge their contribution and passion in supporting the following organizational values:

- *The dignity and diversity of each individual;*
- *The capacity of clients and communities for change;*
- *Collaborative relationships with stakeholders, partners and the self-help community;*
- *Continuous improvement and best practices;*
- *A continuum of services and programs; and*
- *A safe and respectful work environment.*

ACKNOWLEDGEMENT

The authors of this report would like to thank Brian Broszeit for assisting with the development of the scannable form and so many other tasks. Special thanks to the school staff and students for their time and participation. Without their assistance, this report would not have been possible. If you would like to see a copy of the survey, please call 944-7067.

Suggested citation:

Friesen, K., Lemaire, J., & Patton, D. (2008). *Alcohol and other drugs: Students in Manitoba 2007*. Report prepared for the Addictions Foundation of Manitoba.



TABLE OF CONTENTS

LIST OF TABLES AND FIGURES.....	4
TERMS AND DEFINITIONS.....	6
EXECUTIVE SUMMARY	7
Alcohol, cannabis and drug use prevalence.....	7
More highlights.....	8
A note about changes in substance use over time.....	9
INTRODUCTION.....	10
METHODOLOGY	11
Random selection.....	11
Administration	11
The sample.....	11
The questionnaire.....	12
Validity check and exclusionary factors	13
The students	14
RESULTS	15
Prevalence of alcohol use.....	15
Underage drinking	16
Frequency and amount of drinking.....	18
Risk of alcohol dependence and related problems.....	22
Impaired driving – alcohol.....	25
Indicators and correlations.....	26
Changes in alcohol use over time	27
Prevalence of cannabis use.....	28
Frequency of cannabis use.....	30
Risk of cannabis dependence and related problems	33
Indicators and related problems.....	36
Impaired driving – cannabis.....	37
Changed in cannabis use over time.....	38
Other substances	39
Tobacco	42
Concern for parental substance use	44
Attitudes about substance use.....	45
SUMMARY AND CONCLUSIONS.....	47
REFERENCES.....	50
APPENDICES A-E.....	52-57



LIST OF TABLES AND FIGURES

Table 1.	Percentages of males and females who report using alcohol, cannabis and other drugs.	7
Table 2.	Percentage of <u>senior 1</u> to <u>senior 4</u> students who report past year alcohol and cannabis use by study year.....	9
Table 3.	Distribution of gender and grade before and after statistical weighting.....	12
Table 4.	Average marks as a function of gender and grade level (%).....	14
Table 5.	Students who have ever consumed alcohol by grade and gender (%).....	15
Table 6.	Students who have drunk alcohol in the past year by gender and grade (%).....	15
Table 7.	Male and female past-year drinkers by age (%).....	16
Table 8.	How underage drinkers obtain alcohol by gender and grade (%).....	17
Table 9.	Past year drinkers who have used fake identification to buy alcohol (%).....	18
Table 10.	Frequency of alcohol consumption by grade (%).....	18
Figure 1.	Percent of males and females who consume alcohol at least once per week by grade level.....	19
Table 11.	Number of alcoholic drinks on a typical day of drinking, by grade (%).....	19
Figure 2.	Frequency of past year drinkers consuming alcohol as a function of number of drinks consumed on a typical day of drinking (%).....	20
Figure 3.	Past year drinkers by gender and grade who had at least 5 alcoholic drinks on one occasion (%).....	21
Figure 4.	Past year drinkers by gender and grade who had at least 8 alcoholic drinks on one occasion (%).....	21
Table 12.	Males and females who said ‘yes’ to individual AARC questions (%).....	23
Table 13.	AARC classifications for males and females in <u>grades 7 and 8</u> (%).....	23
Table 14.	AARC classifications for males and females in <u>seniors 1 through 4</u> (%).....	24
Figure 5.	Percentage of male and female high risk drinkers in each grade.....	24
Table 15.	Comparison of students who started drinking before or after age 15 (%).....	26
Table 16.	Males and females who drink more or less than monthly, and their usual grades (%).....	27
Figure 6.	Past-year alcohol use in <u>senior 1</u> to <u>senior 4</u> students, since 1995 (%).....	28
Table 17.	Males and females in each grade who have ever used cannabis (%).....	29
Table 18.	Males and females in each grade who used cannabis in the past year (%).....	29
Table 19.	Frequency of cannabis use in the past year, by gender (%).....	30
Figure 7.	Males and females in each grade who use cannabis at least twice a week (%).....	31
Table 20.	Frequency of cannabis use in the past 30 days by gender (%).....	32
Figure 8.	Males and females who have used cannabis every day for a month (%).....	32
Figure 9.	Males and females who spend over \$20 each month on cannabis (%).....	33
Table 21.	Males and females who said ‘yes’ to individual ADRC questions (%).....	34
Table 22.	ADRC classifications for males and females in <u>grades 7 and 8</u> (%).....	35
Table 23.	ADRC classifications for males and females in <u>seniors 1 through 4</u> (%).....	36
Table 24.	Males and females who report secondary problems associated with cannabis use (%).....	37
Figure 10.	Comparison of 2004 and 2007 past-year cannabis use by grade (%).....	38



LIST OF TABLES AND FIGURES (con't)

Figure 11. Males and females who have used one or more illicit substances (other than alcohol or cannabis) in the past year (%)..... 40

Table 25. Males and females in each grade who used various drugs in the past year (%)..... 41

Table 26. Lifetime, past year, and past month tobacco use as a function of grade and gender (%)..... 42

Table 27. Number of cigarettes smoked per day by past month smokers, as a function of grade (%)..... 43

Table 28. Male and female lifetime smokers and the age they first smoked (%)..... 43

Table 29. Reported parental alcohol and drug use as a function of grade and gender of student (%)..... 44

Table 30. Percentage of students who agreed with statements about alcohol and drug use. 45



TERMS AND DEFINITIONS

The definitions presented below are consistent with the terminology that was used in the 2007 survey and, as such, are not necessarily indicative of AFM's current philosophy.

Binge Drinking – having five or more drinks (for male and for female students) on ONE OCCASION in the past year. One occasion refers to a typical sitting where one would engage in drinking behaviours. This does not refer to a 'day of drinking'.

Cannabis User – this term refers to a student who has reported some form of cannabis use in the past year. This term is used interchangeably throughout the report with past year cannabis user.

Current Drinker (or “drinker”) – this term is also referring to past year use of alcohol. This term is used interchangeably throughout the report with past year drinker.

Current Smoker (or “smoker”) – this term is also referring to past year use of tobacco.

Impaired (alcohol) - this term refers to driving within an hour of drinking two or more drinks.

Impaired (cannabis) – this term refers to driving within an hour or two after using cannabis.

Senior Students – this term refers to students in grades 9-12 (seniors 1-4). Previously, the education system in Manitoba used the 'senior' terminology but in the past couple of years the system has reverted back to the use of 'grades'. As the terminology from the 2005 report used “senior” we have decided to keep the language consistent.



EXECUTIVE SUMMARY

In the fall of 2007 the Addictions Foundation of Manitoba conducted a prevalence survey of alcohol and other drug use with Manitoban middle and high school students. The study was designed to provide insight into substance use in school-aged youth, prevalence of impaired driving, perceived parental use, and attitudes towards substance use and abuse. The information may be useful in policy making, program evaluation and development and program planning.

A total of 55 randomly selected schools in Manitoba agreed to participate in the study. Overall, surveys were collected from 4992 students in the province who provided information about their use of tobacco, alcohol, and various drugs and their opinions about the dangers of drugs and alcohol. A nearly equal number of males and females completed the survey, which was stratified across grades¹ to ensure that each grade was properly represented in proportion to the actual number of students in each grade, province-wide. Public, private and independent schools were all eligible to participate, and though most participating schools were considered public, several private and independent schools are included here as well.

Alcohol, cannabis and other drug use prevalence

Alcohol and other drug use in the Manitoba student population is common. Table 1 below shows the percentage of males and females in each grade who have used alcohol, cannabis and other drugs in their lifetime and in the past year.

Table 1. Percentages of males and females² who report using alcohol, cannabis and other drugs.

	<u>Alcohol</u>		<u>Cannabis</u>		<u>Other Drugs</u>
	<u>lifetime</u>	<u>past year</u>	<u>lifetime</u>	<u>past year</u>	<u>past year</u>
males					
grade 7	35.7	20.6	6.6	4.6	6.1
grade 8	48.4	35.6	13.7	10.8	9.7
senior 1	63.9	51.5	24.9	17.7	11
senior 2	71.2	60.5	32.6	26.3	17.7
senior 3	82.4	73.8	47.4	40.4	29.1
senior 4	84.6	82	42.4	33.5	24.6
females					
grade 7	25.9	16.5	5.5	3.8	8
grade 8	41.1	27.9	8.8	7.2	9.4
senior 1	65.4	55.1	28.8	20.3	20.5
senior 2	77.1	68.4	35.2	28.9	22
senior 3	84.7	76	45.3	35.9	26
senior 4	88.5	82	46.2	31.9	17.7

¹ It should be noted that the provincial department of education in Manitoba recently reverted back to the use of “grades” in their terminology of the senior years (versus seniors 1-4).

² All students.



Over 80% of senior 4 students have used alcohol in the past year. The numbers for the early grades are lower with approximately 30% of grade 7 students and over 40% of grade 8 students reporting lifetime use of alcohol. Male students are generally more likely to use alcohol, cannabis and other drugs compared to females. However, in this study females in seniors 1 and 2 used alcohol and cannabis at a higher frequency than their male counterparts in the past year.

Cannabis is the most commonly used substance excluding alcohol. Just over 6% of grade 7 students have used cannabis and the number grows steeply from there each year; by senior 3 nearly half of all students have used it in their lifetime.

More Highlights

Alcohol

- Over half (54.8%) of all students report past year drinking.
- 69% of all senior grade students report past year drinking.
- Almost one half of all past year drinkers have had 5 or more drinks on one occasion of drinking. Approximately a quarter have had 8 or more drinks within the same time period.
- According to the Atlantic Alcohol Risk Continuum, 11.5% of grade 7 and 8 students and 17% of senior students meet the criteria of being high risk - alcohol dependency.
- Approximately 25% of senior 4 students meet the criteria for alcohol dependency.
- A significant proportion (27%) of senior students meet the criteria for medium risk for alcohol dependency.
- There is a consistent steep increase in alcohol use (and other substances) from grade 8 to senior 1. This highlights the importance of prevention efforts in the middle year grades.

Impaired Driving

- Nearly 7% of all students have driven within an hour of having two or more drinks of alcohol.
- Nearly 40% of all students have been in a car with a driver who has been drinking.
- 5.5% of students have driven within an hour or two of using cannabis.
- 22% of students have been in a car with a driver who has been using cannabis.
-

Cannabis

- 22% of all students report past year cannabis use.
- 29% of all senior grade students report past year cannabis use.
- Of cannabis users, approximately 67% first used the drug before the age of 15.
- Over 10% of cannabis users smoke daily or more than once a day.
- By their final year of high school, 10% of all students are smoking cannabis at least twice a week.
- Males are more likely to spend their own money on cannabis than females – for senior 3 and senior 4 students they are almost twice as likely.
- Nearly 10% of cannabis users have tried to cut down or quit but failed.

Tobacco

- Approximately 20% of all students smoked cigarettes in the past year.
- Over 13% of all students smoked in the past month.
- Just over 40% of smokers had their first cigarette by age 12.

Attitudes

- 12.4% of past year drinkers reported using alcohol to cope with problems.



- 30% of all students think using alcohol is an acceptable way to relax.
- Nearly 4% of all students do not see a problem with drinking and driving.
- Almost 20% do not see a problem with using cannabis and driving.
- Two-thirds of all students consider alcohol as dangerous as other drugs.

A note about changes in substance use over time

School-based prevalence studies are conducted every few years in Manitoba. Studies were done in the 1990's and then in 2001 and most recently in 2004. Information collected from these studies is useful for monitoring substance use among students and the results can lead to changes and improvements to prevention and intervention services in schools. However, comparisons across surveys can be very difficult or unreliable due to methodological and administrative differences. Most significantly, are the sampling differences between the studies with the last two surveys (2004 and 2007) based on random selection and the previous studies (in the 1990's and 2001) on purposive sampling (due to their involvement with AFM's School-Based services). Therefore, please use caution when interpreting Table 2 at the end of this section.

Some important changes were made to the 2004 survey in addition to the continued improvement of questions and processes. Most importantly, this survey was developed in conjunction with a national planning committee. This committee was formed to ensure that school surveys across the country would be similar in key areas, allowing for cross-provincial and territorial prevalence comparisons. Although effort was put into maintaining consistency with previous surveys in Manitoba, many substantial changes were made which increases the difficulty in making provincial year-to-year comparisons.

The most significant change that was made in consideration of the national committee's recommendation was the altering of the questions on the Alcohol Use Disorders Identification Test (AUDIT). This means that the AUDIT cannot be scored on this survey. Instead, the Atlantic Alcohol Risk Continuum (AARC) and the Atlantic Drug Risk Continuum (ADRC) were used. These measures were used in the 2007 school surveys in Nova Scotia and Newfoundland and they are seen as improvements over the AUDIT as they allow for a broader range of categories for identifying problem use. The AARC and ADRC categorize substance use into levels of risk, dependent on a number of yes/no responses, meaning that problem drinking rates in the current report will not be compared to previous rates.

Table 2. Percentage of senior 1 to senior 4 students who report past year alcohol and cannabis use by study year.

	<u>1995</u>	<u>1997</u>	<u>2001</u>	<u>2004</u>	<u>2007</u>
Alcohol	79.7	77.8	80.4	73.0	68.7
Cannabis	37.4	38.8	37.9	33.3	29.2

Note: Only 2004 and 2007 studies were based on random selection methodology.



INTRODUCTION

The Addictions Foundation of Manitoba (AFM) conducts regular provincial prevalence studies with the student population in order to better understand what substances students are using and with what frequency they are engaging in these behaviours. Information gathered from these studies can be used by school boards and individual schools to improve available resources, as well as by public health and community agencies in the development and maintenance of services. AFM and the school-based staff can use this information in their youth programs. School-based staff can use it in educating students about substances, consequences of alcohol and drug use, and healthy and meaningful activities.

This survey builds on a foundation of data already gathered by similar studies conducted in previous years - beginning in 1993. Originally a smaller survey consisting of 18 schools, most of which were included because they had implemented substance use prevention and intervention programs that required evaluation, it has now grown into a large-scale study consisting of over 50 schools and 5000 students. As research suggests that students are exposed to opportunities to use substances at an early age, this study and the most recent study in 2004 have included grade 7 and grade 8 students. Prior to 2004 these surveys only included students in senior 1 through to senior 4.

Along with the continued addition of grades 7 and 8 students, this survey also maintains the inclusion of private and independent schools as well as French speaking schools. Surveys were translated and Francophone schools were able to administer the survey in French. Bilingual and immersion schools were given the option of administering the survey in the language of their choice.

Given the above, the results are as representative as possible of the student population in Manitoba. This is also a possible reason why the past year alcohol and cannabis use rates are slightly lower than in previous years (see Table 2 on the previous page). The surveys done in the past may have overestimated provincial substance use as some schools were excluded, including private religious schools and Francophone schools.

The following results are from randomly selected classrooms in randomly selected school across rural and urban areas. Most provincial schools were included in the random selection process and this provides an increased confidence in the ability of the sample to represent the province. Of the 65 schools that were originally selected, 10 declined to participate³. This was partially due to administrative processes causing the survey to be pushed back past December and into exam time; several schools noted that they were too busy to participate.

³ A higher proportion of schools declined participation in the current study compared to 2004 (15.4% versus 6.5%). This may impact on the results as there may have been something distinct about the schools that declined.



METHODOLOGY

Random selection

Over 600 schools made up the original database from which schools were selected. Schools with fewer than 100 students were excluded as there was concern over the capacity for the surveys to be anonymous where there were only a handful of students in each grade. Using this method, this left a total of 377 schools from which the random selection could be made. These included public, private, and independent, as well as English, French and bilingual schools. From this list, 65 schools were chosen using a random number generator on a statistical computer program. Every school on the list had an equal chance of being selected. Within selected schools, random classes stratified by grade were chosen to participate. In schools with fewer than 400 students, two classes per grade were selected. Three classes per grade were selected from schools with 400 to 800 students, and four classes per grade were selected from schools with more than 800 students. In schools that had fewer than 200 total students, all students were permitted to participate, provided the administration agreed. This was done so that participants from each school would represent the sample to the same extent that the school represents the provincial student population.

Administration

Once the selections had been made, letters were sent to schools boards indicating which school(s) in their district had been selected and requesting permission to conduct the research (Appendix A). Letters were also sent to the principals of the selected schools (Appendix B). The letters were followed up by phone calls in which principals had opportunities to ask questions and consent to or decline participation. Altogether ten schools declined due to administration issues, recently completing a different survey through another public health agency or simply feeling that the questions were too sensitive for their population.

Participating schools were then sent letters for the parents, informing them of the project and allowing them to decline their child's involvement (Appendix C). Survey administrators were given clear and standardized instructions and a short paragraph of instruction to read to the students prior to passing out the surveys (Appendix D). Each student received written instructions (Appendix E), a survey and an envelope. Students were specifically instructed not to put their name on the survey. They were asked to place the survey in the envelope upon completion and seal it, to ensure anonymity.

The sample

In total, 5173 students from 55 schools across the province completed the survey. A number of schools declined participation as there were some administrative setbacks and the survey was considerably delayed. This delay led to a number of large high schools to decline participation as the timing was inconvenient. As a result, the sample from older



grades was diminished and the total raw sample consisted of more grade 7 and 8 students compared to the seniors 1 through 4. To correct this inconsistency, the data was weighted to reflect the true provincial student population. Weights were calculated according to the actual percentage of students from each grade in the province. The Manitoba education website provided total numbers of enrolment per grade and the ratio of each grade to total enrolment. Table 3 shows the actual numbers and percentage of students surveyed, as well as the numbers and percentages after the weights were applied.

Table 3. Distribution of gender and grade before and after statistical weighting.

	before weights		after weights	
	%	N	%	N
Gender				
males	50.8	2534	50.4	2515
females	49.2	2458	49.6	2475
Grade				
grade 7	21	1047	15.9	792
grade 8	20.8	1040	16.2	810
senior 1	16.7	832	16.9	842
senior 2	14.1	704	16.8	838
senior 3	14.8	740	16.4	819
senior 4	12.6	629	17.8	889
Total	100	4992	100	4990

The reason this weighting is important is because prevalence rates differ substantially in different grades, particularly, younger grades invariably use less alcohol and drugs than older grades. So if more grade 7 and 8 students complete the survey than the senior grades, prevalence rates will most likely appear lower than if the sample was representative of the student population. The weights correct this problem. The numbers used for the rest of the analysis are those in the “after weights’ columns in Table 3.

The questionnaire

Questions were selected based on two major factors: 1) questions used in previous Manitoba reports (for provincial comparisons across time) and 2) questions and measurement instruments used by other provinces/territories (to facilitate interprovincial comparisons). Due to significant changes that occurred in survey construction for this report, the ability to compare with previous Manitoban studies is more limited compared to previous surveys. The benefit is that within the next few years, as other provinces start implementing these questions, more detailed comparisons of the data can be made.



The survey was made up of several questions about alcohol use, cannabis and other drug use, in addition to many others. Basic questions included frequency of use, age of first use, and amount of a given substance typically used at one time. Students were also asked if they were concerned about a family member's use of alcohol or other drugs and how they view substance use in general.

Risk of alcohol and drug dependence. Harmful behaviour and risk of substance dependency or abuse were assessed using the The Atlantic Alcohol Risk Continuum (AARC) and the Atlantic Drug Risk Continuum (ADRC). The AARC consists of 12 questions⁴, most requiring only a yes or no response. Some examples of AARC questions are: “*Has your use of the substance caused tension with friends or family?*”; “*Has your use of the substance affected your schoolwork so that you didn't do as well as you could?*”; and “*Has your use of the substance caused you to injure yourself?*”. The scales are based on the Stages of Change theory (Prochaska, DiClemente & Norcorss, 1992) and allow participants to be rated on a continuum of risk which provides a better picture of the levels of harmful drug and alcohol use behaviour in the sample compared to a measure such as the Alcohol Use Disorders Identification Test (AUDIT). This scale has been used in schools surveys in New Brunswick and Nova Scotia.

Criminal and/or problem behaviour. Criminal and/or problem behaviour was measured with a brief tool founded on work by Richard Jessor (Jessor, Donovan & Costa, 1991; Jessor & Jessor, 1977). This scale measures frequency of involvement in various problem behaviours including physical fights, stealing cars, failing or skipping classes, and carrying weapons. Students were also asked if they had ever used fake identification to purchase alcohol or cigarettes. The scale is used to identify possible relationships between risky behaviour and substance use.

Validity check and exclusionary factors

There are many problems associated with school-based surveys including that some students may not take the survey seriously and be dishonest in their responses. In an effort to increase the validity of the study, a fictitious drug called quabaline was included in a list of substances. Students were asked if they had used the substances on the list and how often they had used these drugs. If any participant endorsed using this fictitious drug they were excluded from analysis as the reliability of their responses was compromised. A total of 95 students reported using quabaline and they were excluded from further analysis.

As nearly all the analysis in this report is expressed as a function of gender and grade, students who failed to disclose this information were also excluded from analysis as their

⁴ Due to potential ethical issues with school-based research, only 10 indicators of the AARC were asked of the senior grade students (compared to a total of 12) and for the ADRC we exchanged one question that may have posed a problem with “*In the past 12 months, have you used drugs (other than alcohol) before or instead of breakfast?*”. It should be noted that these factors should be considered when making comparisons with other provinces.



responses could not be interpreted with any precision. Gender was unreported by 48 students. Another 38 participants who did not report their grade level were also excluded. In total, 181 students were rejected from the final analysis. Therefore, at the end of all of the validity filters, the final sample size was found to be 4992 students. As 181 represents a small proportion (3.5%) of the total study sample, it was not considered significant enough to skew the results.

The students

A total of 4992 students completed the survey and provided data that was considered valid. Table 3 on page 12 shows the number of students from each grade that completed the survey. Table 4 below shows the average grades achieved by the students, separated by grade and gender. Most students report doing quite well in school with the majority scoring A's and B's as self-reported average marks. Similar to the 2005 report, females are more likely to score A's compared to males, with 51% of females and 36% of males reporting A's as their average mark in senior 4. Students in lower grades were also more likely to report A's compared to students in higher grades.

Table 4. Average marks as a function of gender and grade level (%).

	A (80%-100%)	B (70%-79%)	C (60%-69%)	D (50%-59%)	F (<50%)
Males					
grade 7	48.1	30.6	14.8	5.6	0.8
grade 8	49.4	32.0	14.3	3.5	0.8
senior 1	37.2	32.7	18.7	8.8	2.7
senior 2	38.4	29.8	22.4	8.8	0.6
senior 3	35.6	30.9	23.7	8.3	1.5
senior 4	35.6	34.2	21.4	8.2	0.7
Females					
grade 7	64.5	22.6	8.7	2.8	1.4
grade 8	62.6	24.0	10.2	2.4	0.8
senior 1	51.3	24.8	15.3	5.8	2.8
senior 2	50.6	30.1	12.3	5.5	1.5
senior 3	47.8	32.8	14.2	4.9	0.3
senior 4	50.6	29.1	14.4	5.9	0.0

* All students



RESULTS

Prevalence of alcohol use

A large portion of the survey focused on alcohol use as we know that alcohol is the drug of choice among students. Table 5 shows the percentage of males and females in each grade that have consumed alcohol in their lifetime, not including taking a sip of their parent's alcohol or consuming wine for religious ceremonies (e.g., communion).

Table 5. Students who have ever consumed alcohol by grade and gender (%).

	males	females	total
grade 7	35.7	25.9	31.0
grade 8	48.4	41.1	44.8
senior 1	63.9	65.4	64.5
senior 2	71.2	77.1	74.0
senior 3	82.4	84.7	83.6
senior 4	84.6	88.5	86.7
total	64.3	63.5	64.8

*All students

Approximately 85% of senior 3 and 4 students have consumed alcohol in their lifetime. The percentage of students who have used alcohol increases by approximately 10% per grade. The fact that one in three grade 7 students have used alcohol is alarming although these numbers are comparable to those collected in 2004, in which 33.1% of grade 7 students had tried drinking alcohol and 68.9% of all students had consumed alcohol in their lifetime.

Some of these students have used alcohol a few times and then never again, or have stopped using alcohol, so the percentage of students who have consumed alcohol in the past year is lower than the percentages in the above table. Overall, 55% of all students have consumed alcohol in the past year.

Table 6. Students who have drunk alcohol in the past year by gender and grade (%).

	males	females	total
grade 7	20.6	16.5	18.6
grade 8	35.6	27.9	31.8
senior 1	51.5	55.1	53.1
senior 2	60.5	68.4	64.2
senior 3	73.8	76.0	75.0
senior 4	82.0	82.0	82.0
total	53.7	55.9	54.8

*All students



There is a very large increase in past year alcohol consumption from grade 8 to senior 1 (including a significant increase from grade 7 to grade 8) and this may be because in many cases, this is the jump from an elementary/junior school to a high school, where the students are no longer the seniors in the school, but the freshmen, and may find themselves subject to peer pressure in an attempt to “belong”, or like many teenagers they may be trying to create a certain image for themselves in the presence of older students. Certainly more research would be needed to determine why there is such an increase between the two grades. Regardless of the reasons for this steep increase between grade 8 and senior 1, the results highlight and confirm the important of targeted prevention efforts for middle years students.

Underage drinking

A large majority of senior 4 students have consumed alcohol in the past year, and it should be recognized that many of these students have reached 18 years of age and are legally entitled to drink alcohol. After excluding senior 4 students, over half have consumed alcohol in the past year. The following table shows the percentage of students in each age group that have consumed alcohol in the past year.

Table 7. Male and female past-year drinkers by age (%).

	males	females	total
14 or younger	35.0	32.2	33.7**
15	59.1	66.0	62.4**
16	69.9	74.8	72.6**
17	80.8	81.9	81.4**
total underage drinkers	53.7	56.0	53.6***
18 or older	85.5	83.3	84.5*

*Past year drinkers; **Percent of past year drinkers is based out of all students in the age group;

***Percent = number of past year drinkers out of those 17 or under.

The percentage of past year drinkers does not change significantly when the 18 year-old students are excluded from the analysis. Although these findings are interesting they do not provide any detail about the social context of underage drinking behaviour. Table 8 provides more detail of how underage drinkers obtain alcohol. It should be noted here that 18 year-olds were excluded from the analysis in the following table (on the next page).

**Table 8. How underage drinkers obtain alcohol by gender and grade (%)⁵.**

	buy it themselves	friends buy	friends get it for them	parents get it for them	siblings get it for them	steal it from home
Males						
grade 7	1.8	9.1	18.9	19.8	10.9	27.3
grade 8	1.6	17.5	34.9	21.3	10.3	38.2
senior 1	5.1	36.6	42.6	18.4	21.6	38.0
senior 2	12.4	41.4	55.1	22.1	28.1	26.7
senior 3	20.1	55.6	55.4	29.6	25.7	19.9
senior 4	51.4	53.6	55.4	26.1	18.2	13.0
Females						
grade 7	1.2	14.6	20.7	16.0	12.3	39.0
grade 8	0.7	22.7	41.1	20.7	13.5	44.3
senior 1	2.0	53.3	57.7	17.6	28.8	47.2
senior 2	6.9	55.7	69.4	24.6	31.6	30.5
senior 3	10.6	65.5	69.0	32.5	34.4	31.3
senior 4	28.3	62.1	59.0	31.9	30.9	17.8

*Past year under age drinkers

Parents play a large role in the development of their children's drinking behaviours; our results found that one in four students report that their parents get alcohol for them. This is approximately the same rate as researchers found in the 2004 school survey (Patton, Mackay & Broszeit, 2005). This remains a large concern as parents may be unknowingly contributing to a pattern of behaviour which may lead to problematic substance use in their child. The number of students who steal alcohol from home appears to be quite high with females being more likely to steal alcohol from home compared to males. As students enter more senior grades, females are more likely to have friends that buy or in some other way get alcohol for them. This is likely just a case of students having friends who are older than them; especially younger females spending time with older males, as young females are likely to have friends supply them with alcohol, while older males are very likely to purchase their own.

One of the more significant gender differences concerns females purchasing their own alcohol at approximately half the rate compared to males. Over half of senior 4 males and only 28% of females reported that they purchase their own alcohol. Manitoba law requires liquor vendors to ask young people for identification, and considering that 17% of students reported using fake identification, there appears to be some gaps in our results. This may mean that some underage students are purchasing alcohol without being asked to provide identification.

⁵ 18 year olds were excluded from this analysis.

**Table 9. Past year drinkers who have used fake identification to buy alcohol (%).**

	Males	Females	Total
grade 7 ⁶	2.0	12.3	6.3
grade 8	4.1	6.9	5.3
senior 1	10.0	8.1	9.1
senior 2	12.3	12.4	12.4
senior 3	20.3	19.4	19.8
senior 4	30.9	28.6	29.6
Total	16.5	17.8	17.2

*Past year drinkers

Assuming that students were honest in responding to having purchased their own alcohol, the results of Table 9 above only account for approximately half of students buying alcohol. At face value, this means that half of students who purchase their own alcohol are not being asked for identification at the point of purchase. At younger ages, females are more likely to use fake identification than are males, and this number evens out in the senior years. One thing to note is the small number of students in grades 7 and 8 that confirmed using false identification. Since the numbers are very low, the percentages must be interpreted with caution as fewer than 10 students make up the 12.3% of females using fake identification in grade 7.

Frequency and amount of drinking

Students who reported drinking alcohol in the past year were asked how often they did so, and how many drinks they had in a typical sitting. These results are summarized and explained in the section below.

Table 10. Frequency of alcohol consumption by grade (%).

	Grade 7	Grade 8	Sr. 1	Sr. 2	Sr. 3	Sr. 4
just a sip	51.2	39.4	23.4	13.2	7.8	6.9
less than once a month	29.0	35.3	37.2	39.3	32.2	31.2
1-3 times a month	11.6	18.1	27.1	32.8	34.2	33.2
once a week	3.4	4.0	8.5	9.8	13.4	16.9
2-3 times a week	2.4	1.4	2.1	3.1	9.8	8.3
4-5 times a week	0.0	0.9	0.5	0.7	1.3	2.2
6-7 times a week	2.4	0.9	1.1	1.1	1.3	1.4

*Past year drinkers

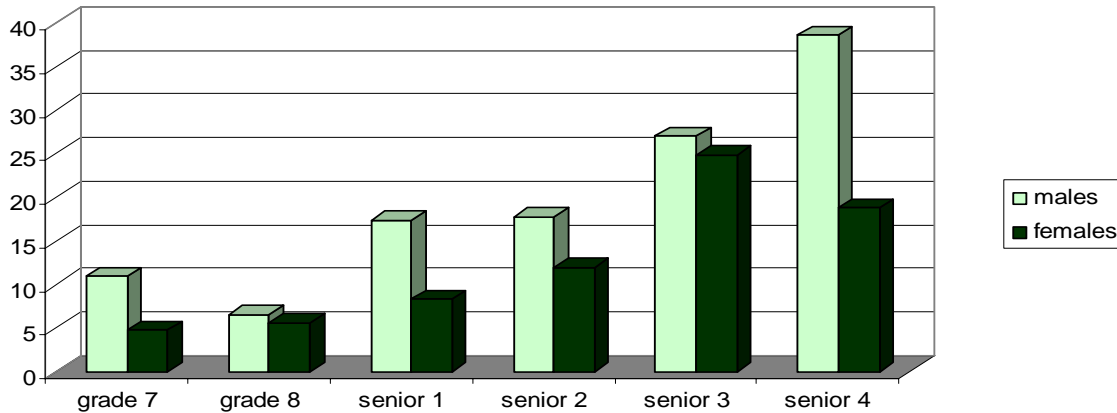
Less than 2% of all students are drinking alcohol on a daily basis. For the younger grades, grades 7 and 8 particularly, the $\frac{3}{4}$ of students who drank alcohol in the past year did so less often than once per month. Only a very small percentage of students at this age are

⁶ Please interpret with caution due to low numbers for grade 7 and grade 8.



drinking as often or more than once per week (approximately 7%). In senior 3 and 4 the students report drinking more frequently, with one in three reporting a frequency of 1-3 times a month. At this age group, approximately 15% of students are drinking at least once per week. In the oldest group, the senior 3 and 4 students, just over ¼ drink alcohol once a week or more. The following figure shows the percentage of students who drank at least once a week in the past year.

Figure 1. Percent of males and females⁷ who consume alcohol at least once per week by grade level.



Females are less likely than males to drink as frequently in every grade though the difference is most noticeable in senior 4, and less noticeable in senior 3. Similar to other studies, as students get older they are more likely to drink alcohol more frequently. In senior 1 and 2 over 10% of students drink alcohol once a week or more. Over one-third of senior 4 males consume alcohol at least once a week, and data collected from this survey shows that students who drink more often are also consuming more drinks in a sitting. Table 11 below shows the typical number of alcoholic drinks students are consuming in a typical day when they are drinking. The table only includes people who have consumed alcohol in the past year.

Table 11. Number of alcoholic drinks on a typical day of drinking, by grade (%).

	Grade 7	Grade 8	Sr. 1	Sr. 2	Sr. 3	Sr. 4
1-2 drinks	63.7	61.9	41.0	32.2	22.0	23.3
3-4 drinks	14.8	21.0	20.3	19.6	19.6	19.9
5-6 drinks	10.4	8.2	14.4	17.7	21.9	20.7
7-9 drinks	3.7	5.4	11.4	18.4	19.1	16.3
10 or more	7.4	3.5	12.9	12.6	17.4	19.7

*Past year drinkers

The results from Table 11 show that nearly 60% of students who have consumed alcohol in the past year in seniors 3 and 4 are drinking at least 5 alcoholic beverages on a typical day when they are drinking. More than 10% of senior 1 and 2 students and nearly 20% of

⁷ All students.



senior 3 and 4 students consume 10 drinks or more in a typical day of drinking. Males are approximately twice as likely as females to drink this amount. These results suggest that a significant number of students (especially those in the older grades) in Manitoba are drinking at a level beyond the recommended safe drinking guidelines (e.g., almost one in five past year drinkers in senior 4 report consuming 10 or more drinks in a typical day when they are drinking).

Further analysis exploring the number of drinks consumed in a typical day of drinking by frequency of alcohol use for past year drinkers was completed in order to provide more detail around this behaviour. Figure 2 summarizes frequency of drinking by past year drinkers below.

Figure 2. Frequency of past year drinkers consuming alcohol as a function of number of drinks consumed in a typical day of drinking (%).

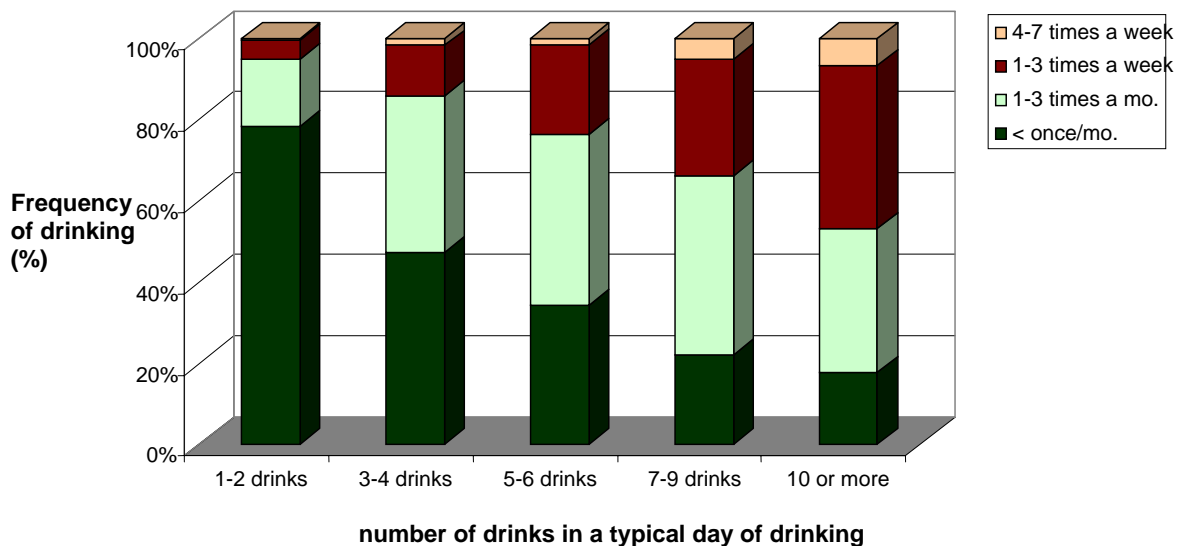


Figure 2 demonstrates that those who are drinking only 1 or 2 drinks in a typical day of drinking are the most likely to drink alcohol less frequently. It also shows that students who are drinking 10 or more drinks in a typical day of drinking are likely to be drinking more frequently. For example, the greatest proportion of students who drink 10 or more drinks in a typical day are more likely to be drinking 1 to 3 times a week or more, and least likely to drink alcohol less than once a month. Clearly, the findings from Figure 2 suggest a relationship between frequency of alcohol use and the number of drinks consumed in a typical day of drinking. The following Figures (3 and 4) on page 22 explore binge drinking (defined as having five or more drinks on one occasion in the past year) by gender.



Figure 3. Past year drinkers by gender and grade who had at least 5 alcoholic drinks on one occasion (%).

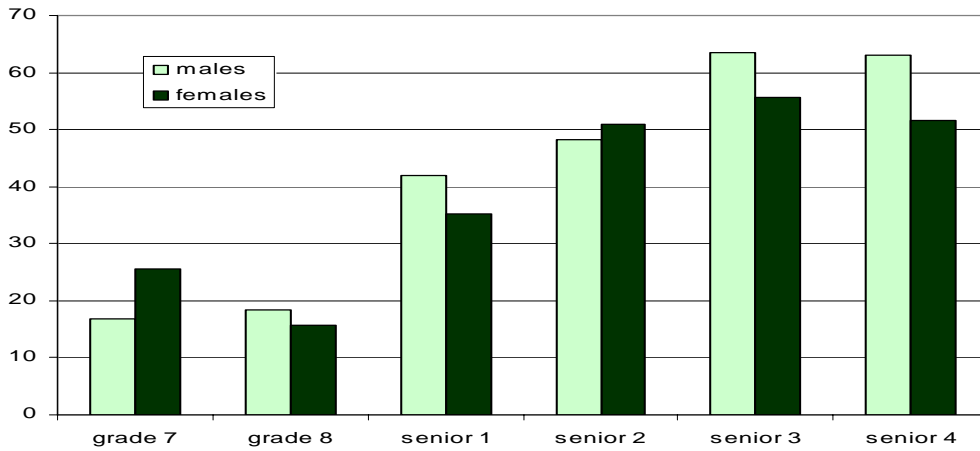
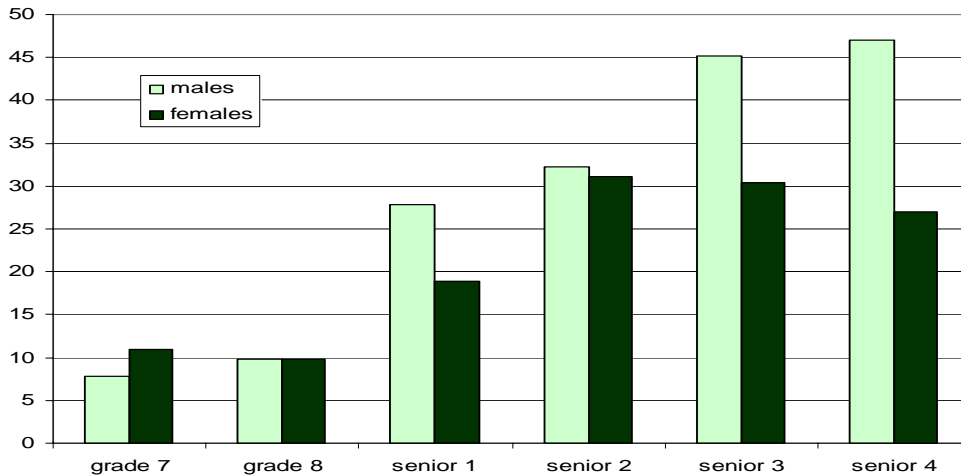


Figure 4. Past year drinkers by gender and grade who had at least 8 alcoholic drinks on one occasion (%).



The pattern here remains typical of the rest of the data; a sharp increase in binge drinking in senior 1 and steady increases each grade after that, nearly levelling out from senior 3 to senior 4. Both figures appear similar, except that the percentages are all somewhat greater for students drinking at least 5 drinks than for students drinking at least 8 drinks in one occasion. These results indicate that most of these students have reached their peak of alcohol use by senior 3, meaning that even those students who currently drink and were 18 years old at the time of this survey likely were drinking prior to reaching the age of majority.



Risk of alcohol dependence and related problems

Thus far we have acknowledged that alcohol use is common within the student population. More significantly, we have identified that some students in Manitoba (in particular those in high school) are drinking frequently and, of these, some appear to be exceeding safe levels of drinking (e.g., some students are drinking at least five drinks on one occasion).

This next section explains the seriousness with which students are involved in drinking and the consequences that are associated with harmful drinking behaviour. Over half of students in the province have consumed alcohol in the past year and many are doing so with high frequency and consuming more than 5 or even 8 drinks on one occasion. Interestingly, while the majority of current drinkers claim that they drink for fun (68% of males and 69% of females), the remaining 30% either did not know if they consumed alcohol for fun, and some even disagreed. This next section will explore indicators of potential alcohol dependence among this group of students.

This year, the AFM included a new measure of alcohol and drug dependence in the survey package, used in other school surveys in Canada (Poulin and Elliot, 2007), but never before in Manitoba. This set of measures is called the Atlantic Risk Continua and has versions to assess both alcohol and drug dependency on a continuum of 'no risk', 'low risk', 'medium risk' and 'high risk', identified by a positive response to 0, 1, 2 and 3 or more problem indicators, respectively. The Atlantic Alcohol and Drug Risk Continua (AARC and ADRC, respectively) underwent validation using data from the 1998 and 2002 "Student Drug Use Survey in the Atlantic Provinces" (Poulin, Van Til & Elliot, 2007) and established that this set of cut-offs was appropriate for students in seniors 1 through 4. In the younger grades one problem indicator was enough to meet the criteria for high risk substance use. This report employs the cut-offs that were used in the Atlantic Provinces. For more information on this tool please see page 13.

We asked a total of 10 AARC questions, 8 of which are listed in Table 12 on the next page, along with the percentage of males and females (in all grades) that said 'yes' to each. It is important to note that the results are based on self-reports from the students. The other two questions asked were the following" "been in a motor vehicle accident with you as the driver within an hour of drinking two or more drinks of alcohol" and "driven within an hour of drinking two or more drinks of alcohol".

**Table 12. Males and females who said ‘yes’ to individual AARC questions (%).**

In the past 12 months...	Males	Females	Total
drank in a bar (before 18)	16.1	18.4	17.3
drinking alcohol affected schoolwork	3.5	6.0	4.7
tension with family or friends due to drinking	6.6	13.9	10.2
been in trouble with police because of drinking	4.3	3.7	4.0
gave up buying other things because of cost of alcohol	6.4	7.4	6.9
consumed alcohol before breakfast	5.1	5.0	5.0
damaged things after drinking alcohol	12.9	11.9	12.4
injured yourself as a result of drinking alcohol	9.9	12.5	11.2

*All students

The first question (‘drank in a bar – before 18’) in Table 12 suggests that students, when under the age of 18, are not being asked for identification when purchasing liquor or they are providing false identification. Just over 17% of students report drinking in a bar before the age of 18. Over 10% of all students report having tension or disagreements with family or friends over their alcohol use; notably, females endorsed this question twice as frequently as males (13.9% compared to 6.6%). Over 10% of males and females reported damaging things or injuring themselves after drinking. Close to 200 youth reported that their drinking caused some involvement with the police. Although this is only 4% of all students it is still a substantial number who are involved with the police because of their drinking.

Using responses to these questions, a score was calculated for each student ranging from 0 (did not endorse any problem indicators) to 10 (endorsed all 10 problem indicators). Once these scores were created, each student was placed in a category: non-drinkers, low risk, medium risk or high risk. Following the appropriate guidelines, the results for grades 7-8 and the high school/senior years are presented in separate tables due to the differences in classification criterion.

Table 13. AARC classifications for males and females in grades 7 and 8 (%).

	non-drinker	low risk (0)	high risk (1 or more indicators)
Males			
Grade 7	66.4	24.6	9.0
Grade 8	52.8	31.6	11.2
Total males	59.6	28.1	12.3
Females			
Grade 7	75.5	16.3	8.2
Grade 8	62.3	24.6	13.1
Total females	68.8	20.6	10.7
Total males and females in gr. 7/8	64.1	24.4	11.5

*All students



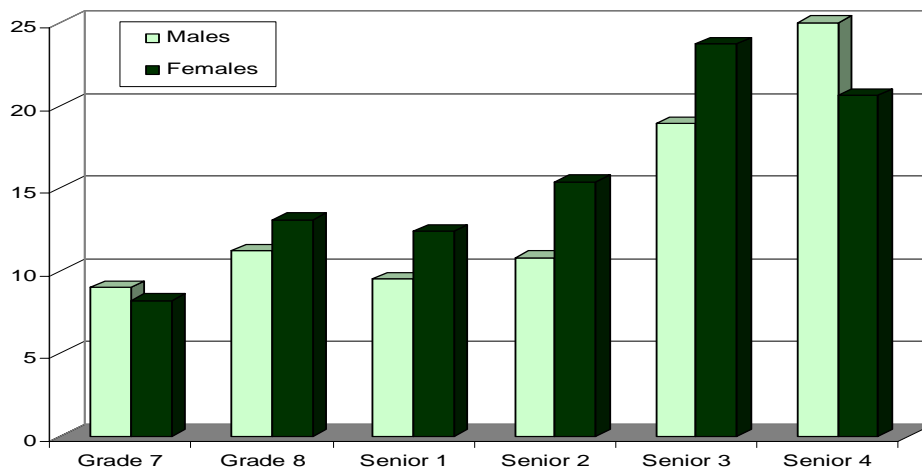
Table 14. AARC classifications for males and females in seniors 1 through 4 (%).

	non-drinker	low risk (0)	med risk (1 or 2 indicators)	high risk (3 or more indicators)
Males				
Senior 1	42.6	30.5	17.3	9.5
Senior 2	32.3	36.0	21.0	10.8
Senior 3	22.1	30.2	28.8	18.9
Senior 4	16.9	26.4	31.7	25.0
Total males	29.2	30.9	24.3	15.6
Females				
Senior 1	37.6	29.7	20.3	12.4
Senior 2	27.7	31.9	25.0	15.4
Senior 3	20.2	27.5	28.5	23.7
Senior 4	15.1	23.8	40.6	20.6
Total females	24.3	28.0	29.3	18.4
Total males and females in s1-4	26.8	29.4	26.8	17.0

*All students

Even with higher cut-offs the high school students are still almost twice as likely as grades 7 and 8 students to be high risk drinkers. Almost 25% of senior 4 students are considered high risk drinkers according to the AARC. The following figure shows the percentage of males and females in each grade who are considered high risk drinkers, according to the criterion identified by the AARC. Contrary to the literature, females are more likely to be represented in each group except for grade 7 and senior 4.

Figure 5. Percentage of male and female⁸ high risk drinkers in each grade.



⁸ All students.



Although 17% of senior students and 11.5% of younger students are considered high risk, it is also important to note the medium risk drinkers (27% of senior students). Almost one half of students in the senior grades are considered medium/high risk and would likely benefit from learning more about their use and understanding the risks of alcohol consumption. It is important that if they are going to drink, that they understand the risks and consequences fully and have opportunities to learn how they can reduce risks.

Impaired driving - alcohol⁹

Impaired driving is one of the more serious consequences of alcohol use, and as such, AFM is concerned about how many students in Manitoba have driven after drinking. The remaining two questions that were included in the AARC and are not listed above are the following: “*Have you driven a vehicle within an hour of drinking two or more drinks of alcohol?*” and “*Have you been in a motor vehicle accident with you as the driver within an hour of drinking two or more drinks of alcohol?*”. Students were also asked “*if they had ever ridden in a car with a driver who had been drinking?*”. This question was not included in scoring of the AARC as it was answered by both non-drinkers and drinkers.

According to Solomon and Chamberlain (2006)’s report on “Youth and Impaired Driving in Canada: Opportunities for Progress”, youth have the highest reported rates of drug use, and weekly, monthly and total binge drinking in addition to high rates of driving after drinking/drug use. Although 16-25 year olds made up 13.7% of Canada’s population in 2003, they accounted for 32.1% of alcohol-related traffic fatalities. Unfortunately, in 2005, 33% of known alcohol-related accidents in Manitoba ended in a fatality (Traffic Injury Research Foundation, 2008).

That being said, the results from this study are a cause for concern. Over 8% of males and 5% of females admit to driving within an hour of having two or more drinks and 2.6% of students had been in a motor vehicle accident after driving under the influence. Of course, many students in this study do not have a driver’s license and these numbers, overall, do not reflect the true prevalence of this dangerous behaviour in later grades. For example, approximately 30% of senior 4 males and 16% of senior 4 females have driven a vehicle after drinking. In senior 3, 13% of males and 10% of females have driven after consuming alcohol. The numbers drop substantially after this as younger students do not drive.

However, 27% of grades 7 and 8 students reported having ridden in a car with a driver who had been drinking¹⁰. Approximately 38% of seniors 1 and 2 students had done this, and nearly half of seniors 3 and 4 students have been a passenger with a driver who had

⁹ Later in this report there is a separate section on impaired driving – cannabis.

¹⁰ It should be noted there that students were asked if they “ridden in a car with a driver who had been drinking” and the “drinking” was not defined as drinks per hour. Therefore, technically, some students could respond “yes” to this question in reference to a friend or family member who had one drink and then drove after several hours. We did not ask if the person was perceived to be “impaired”. In this sense, some of the percentages may be overestimating being in a car with someone who has been drinking to the point of impairment.



consumed alcohol within an hour of driving. Nearly 40% of the entire sample reported this dangerous behaviour and this is an indication that students may be less likely to drink and drive, but they do ride with a friend or family member who has been drinking. Clearly, at the very least, students in Manitoba need more education in understanding the consequences of impaired driving.

Indicators and correlations

Past research (including the AFM 2004 school survey) has shown that drinking before the age of 15 is a risk factor for alcohol dependence, and that early drinking is associated with other types of high risk behaviour. Consistent with previous research, the current study found that students who drank before 15 are more likely to binge drink, they are more likely to drink more frequently and they are more likely to have higher alcohol risk scores. Table 15 below summarizes the results.

Table 15. Comparison of students who started drinking before or after age 15 (%).

	Males		Females	
	Before 15	15 or later	Before 15	15 or later
Drinking Indicators				
Percent drinking more than 5 drinks	67.7	62.4	71.4	56.6
Percent drinking more than 8 drinks	53.8	43.8	48.0	33.3
Percent drinking weekly or more	26.6	13.4	18.7	10.5
Mean AARC score	1.53	.91	1.67	1.10
Academic Indicators				
Percent failing school	1.7	0.7	1.5	0.3
Percent skipping class	7.1	5.5	8.2	4.9
Other Indicators				
Percent skipping work	6.2	5.3	10.7	6.7
Mean ADRC score (cannabis risk)	1.36	.79	1.34	0.82
Average # of criminal/problem behaviours	4.7	2.9	3.7	2.4

*Past year drinkers

Students who begin drinking before 15 are somewhat more likely to skip work or school and are more likely to display high cannabis scores in association with high alcohol risk scores. Both males and females who drink before the age of 15 are more likely to engage in criminal/problem behaviours than their counterparts who began drinking at age 15 or older. Criminal/problem behaviours include getting into physical fights, shoplifting, injuring others, stealing cars, failing class, breaking windows, being arrested and several other offences.

Students who drink prior to age 15 are also less likely to do well in school. Males who begin drinking early are more than twice as likely as later drinkers to be failing in school.



Females who start drinking before 15 are four times more likely to be failing a grade than those who start drinking later in their adolescence. The significance of this finding means that, on average, higher alcohol risk scores are correlated with lower grades and that this result is highly unlikely to have occurred by chance alone.

There is a clear relationship between frequency of drinking and grades achieved at school. The table below shows that nearly 40% of males drinking less than once a month are scoring in the A range in school, while less than 30% of males who drink more frequently are scoring this high. The trend is very similar for females. Over 10% of all students who drink monthly or more reported their average grade as a D or F while only half that many occasional drinkers score this low (approximately 6%).

Table 16. Males and females who drink more or less than monthly, and their usual grades (%).

	Males		Females	
	Less than once a month	Once a month or more	Less than once a month	Once a month or more
Usual Grades				
A	39.7	27.6	53.4	39.9
B	32.7	33.1	28.5	34.1
C	20.3	25.7	12.7	16.8
D	6.3	11.4	4.9	7.3
F	0.9	2.2	0.4	1.9

*Past year drinkers

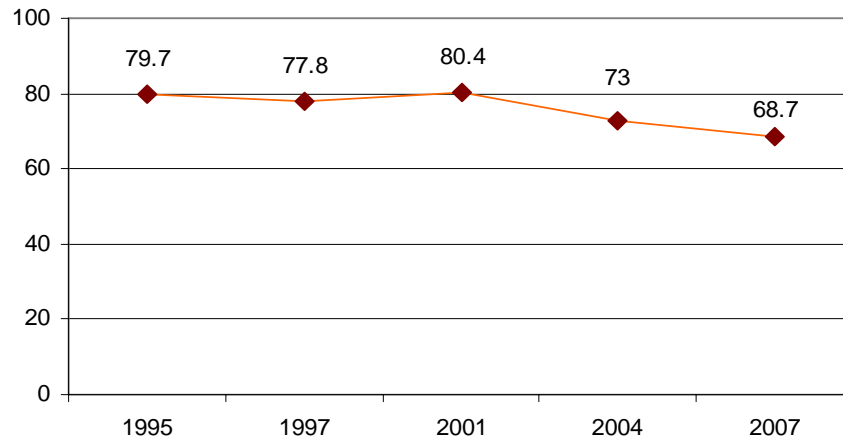
Changes in alcohol use over time

Results from surveys such as this one are often compared to previous studies to monitor the prevalence of alcohol use and abuse over time. As mentioned earlier, there are several challenges with making comparisons after a three year gap, including: we are not necessarily following the same students, methodological differences in survey construction and administration, and differences in questions/response options, to name a few.

Nonetheless, where questions were asked similarly from year to year, some comparisons can be made, although should be cautiously interpreted. Firstly, the following figure shows the percentage of students in seniors 1 through 4 who are past-year drinkers at various survey points (1995, 1997, 2001, 2004, and 2007, the current study). Only the senior grades are included in this figure as these were the only grades surveyed from 1995 through 2001.



Figure 6. Past-year alcohol use in senior 1 to senior 4 students, since 1995 (%).



In the past two surveys, the percentage of students drinking in the past year seems to have declined; especially between the years 2001 and 2004. This may be, but it also might be a result of methodological differences in the survey (see page 9). The number of students who report past year drinking has dropped by 4% since 2004, but this is not a very large difference, and studies done in future years might help to determine if the differences are significant or if they are occurring by chance. The decrease may also indicate a slow, positive downward trend in past year drinking. Ongoing monitoring is required.

Prevalence of cannabis use

Among students in Manitoba the most frequently used drug, excluding alcohol, is cannabis. At the time of this survey, over one-quarter of all students in grades 7 through senior 4 had tried this drug in their lifetime. Most of these (22% of the total sample) had used it within the past year and 35% said they could find it easily. On the next page the breakdown of the percentage of males and females in each grade who have used cannabis in their lifetime (Table 17) is presented, and those who have used it in the past year (Table 18) is also presented.

**Table 17. Males and females in each grade who have ever used cannabis (%).**

	males	females	Total
grade 7	6.6	5.5	6.1
grade 8	13.7	8.8	11.3
senior 1	24.9	28.8	26.6
senior 2	32.6	35.2	33.8
senior 3	47.4	45.3	46.2
senior 4	42.4	46.2	44.5
Total	27	29	28

*All students

The percentage of students who have ever used cannabis increases substantially in each subsequent grade until senior 3, where it levels out at just below half of all students. Approximately 67% of cannabis users started smoking before age 15 and the remaining 33% started smoking the drug later than the age of 15. The difference between use in males and females is negligible in almost every grade except for in grade 8 where almost 14% of males have used the drug compared to 9% of females.

Table 18. Males and females in each grade who used cannabis in the past year (%).

	males	females	Total
grade 7	4.6	3.8	4.2
grade 8	10.8	7.2	9.0
senior 1	17.7	20.3	18.9
senior 2	26.3	28.9	27.6
senior 3	40.4	35.9	38.0
senior 4	33.5	31.9	32.6
Total	21.9	22.1	22.0

*All students

In the past year, just over 4% of grade 7 students had used cannabis. Two years later, at senior 1, almost 20% had used cannabis in the past year. By seniors 3 and 4, 35% of students had used cannabis in the past year. For the most part, gender differences within each grade are quite small except for in senior 3 where males are slightly more likely to report cannabis use in the past year compared to females.



Frequency of cannabis use

The numbers above do not tell us if these students have tried cannabis once and never again or if they are regular users; the next set of questions considers the frequency with which students are using cannabis. The following table reports on the frequency of cannabis use in the past year by gender.

Table 19. Frequency of cannabis use in the past year, by gender (%).

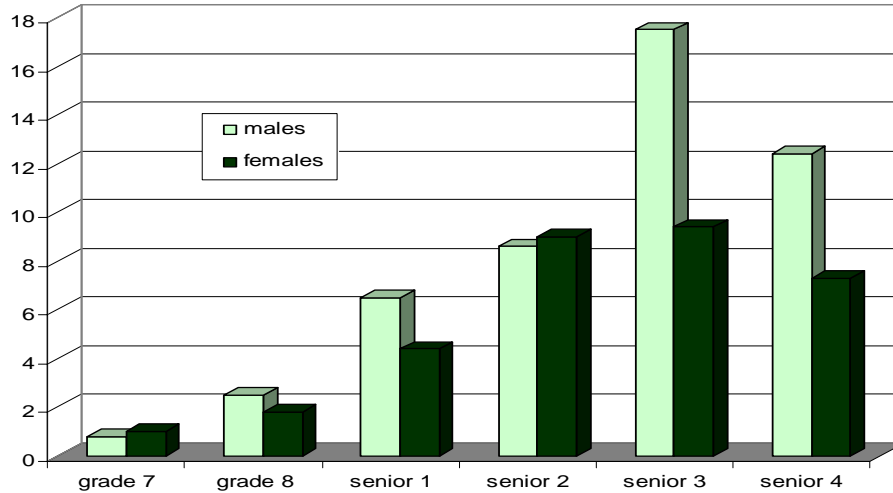
	males	females	Total
tried only once	13.0	10.4	11.7
less than monthly	29.0	35.8	32.6
1-4 times a month	25.9	31.4	28.7
2-5 times a week	15.8	13.9	14.8
every day or a few times a day	15.9	8.7	12.2

*Past year cannabis users

The majority of past year cannabis users smoke a few times a month or less (over 70%). The remaining users are smoking cannabis at least twice a week (27%), with more than 10% using on a daily basis (including a few times a day). Of all students (not just cannabis users) approximately 7% smoke cannabis at least twice a week; 7.9% of males and 5.8% of females. Approximately 15% of all seniors 3 and 4 males smoke more than once week. Figure 7 on the following page shows the males and females in each grade who smoke cannabis at least twice a week. Students in grades 7 and 8 do not use this drug frequently. It should be noted that this figure represents proportions of all students.

By their final year of high school, 10% of all students are smoking cannabis more than once a week, with 4.3% of females and 6% of males smoking on a daily basis. Approximately 3% of all students (4% of males and 2.2% of females) use cannabis every day.

Figure 7. Males and females¹¹ in each grade who use cannabis at least twice a week (%).



There is a large spike of cannabis use in the senior 3 males (approximately 17% smoking at least twice a week) and this may be due to some unaccounted for bias in the sample or it may suggest that males in older grades are more likely to use cannabis on a frequent basis. This finding is similar to the research in Nova Scotia (Poulin & McDonald, 2007) where they found that daily cannabis use was more common among males and among older students.

Table 20 on page 32 presents the frequency with which males and females use cannabis in the past month. Nearly 3% of all students reported smoking cannabis almost every day, once a day, or more than once per day in the 30 days prior to completing the survey.

¹¹ All students.



Table 20. Frequency of cannabis use in the past 30 days by gender (%).

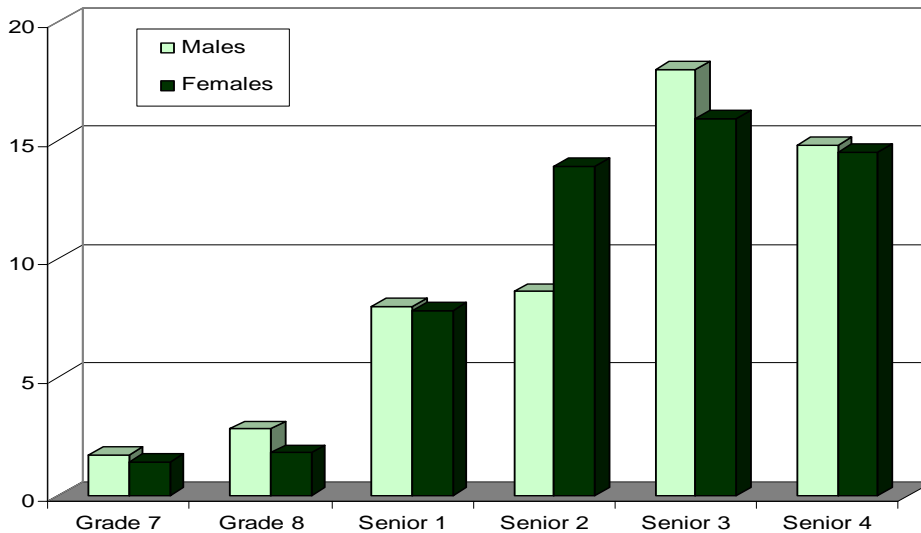
	Males	Females	Total
did not use in past 30 days	8.1	9.6	8.9
only once	2.9	3.9	3.4
2-3 times a month	1.8	2.0	1.9
once a week	1.7	1.3	1.5
2-3 times a week	2.1	1.7	1.9
4-5 times a week	1.4	1.5	1.5
6-7 times a week	0.9	0.7	0.8
more than once a day	2.3	1.1	1.7

*percentages are based on all students and comprise the group that smoked cannabis in the past year (22%)

Almost half of the students who smoked cannabis in the past year did not smoke in the 30 days prior to the survey (8.9%). The remaining frequencies are fairly equally distributed, ranging from just under 1% to 3.4%. The remaining students (approximately 80%) are the students who did not use cannabis in the year prior to the study but may have in their lifetime. When these proportions are applied to past year cannabis users only, over 10% smoke daily or more than once a day.

Though over 10% of cannabis users reported daily or more use in the past 30 days, 36% report having used every day for 30 days in a row at least once in their life. The next figure shows the percentage of all students who reported having used cannabis every day for an entire month at least one time in their life.

Figure 8. Males and females¹² who have used cannabis every day for a month (%).

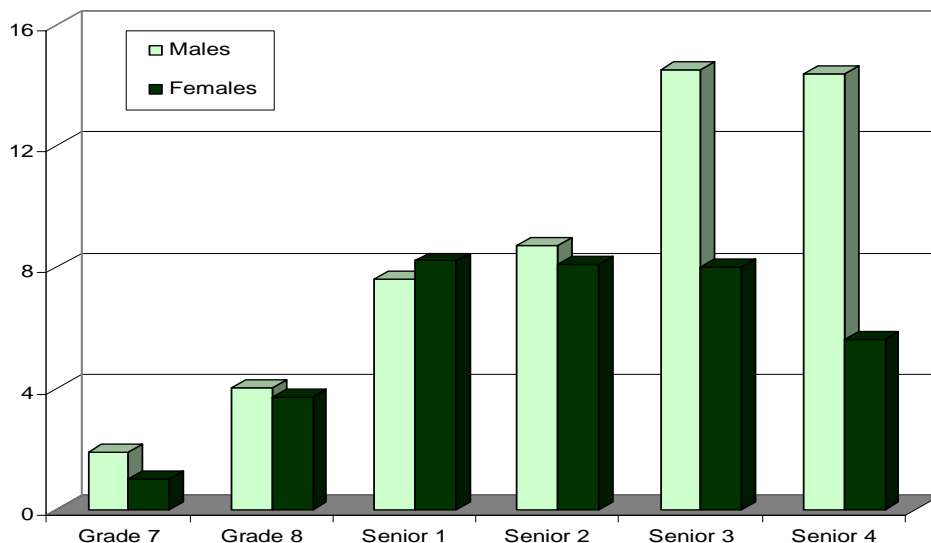


¹² All students.

A small percentage of grades 7 and 8 students have used cannabis on a frequent basis, but a very large jump in daily use occurs from grade 8 to senior 1; likely the result of both the transition into adolescence and moving into a high school where drugs are used more often and are more accessible compared to junior/middle schools. Almost twice as many senior 2 females than senior 1 females have used cannabis every day for a month and the same trend occurs in male students from senior 2 to senior 3. By senior 3 the rate of daily use among males and females levels out.

Since amount of cannabis used in a sitting can not be measured in the same way as can alcohol, students were asked how much money they spent on cannabis in a month. The figure below shows the percentage of all males and female students who spend more than \$20 a month on cannabis. The first noticeable point on the graph is that in the older grades, males are much more likely to spend money on cannabis than females. Prior to senior 3, males and females report spending that is relatively equal.

Figure 9. Males and females¹³ who spend over \$20 each month on cannabis (%).



Looking back to Figure 7 on page 31, it is clear that in senior 3 and 4, males are also much more likely than females to use cannabis twice a week or more. So these large differences in spending between males and females in the oldest grades can likely be accounted for by males simply smoking much more regularly than females.

Risk of cannabis dependence and related problems

The AARC used for analyzing alcohol risk behaviour has a counter-part for drug risk; the ADRC. This scale was used with the Manitoba students to see how frequently cannabis use causes problems in the home, at school, or on a criminal level, and how frequently

¹³ All students.



the use is dangerous or harmful. The same risk cut-offs used for the AARC have also been used for the ADRC. Similar to the AARC, for grades 7 and 8, a risk score of only 1 is indicative of high risk for cannabis dependence. For seniors 1 through 4 the cut-off score for high risk use is 3. Information on the use and validity of this measure are presented in the alcohol dependence and related problems section earlier in this report.

Since not all the AARC questions have matching questions for the drug continuum, only 8 questions were used to assess risk. These 8 questions and the percentage of students in each grade who endorsed each one are presented in the table below. One thing to note is that while these questions were only answered by students who reported using cannabis (and within the cannabis section), the questions themselves do not specifically identify cannabis as the drug in question, but rather refer to “drugs other than alcohol”. The only exception to this is in the question regarding driving after using drugs; in this question cannabis is specifically identified.

Table 21. Males and females who said ‘yes’ to individual ADRC questions (%).

In the past 12 months....	Male	Female	Total
driven within an hour or two of smoking cannabis	6.6	4.5	5.5
drug use affected school work	3.7	4.8	4.2
tension with family or friends due to drug use	4.9	6.4	5.6
been in trouble with police because of drug use	2.3	1.4	1.9
gave up buying other things because of cost of drugs	4.2	4.2	4.2
used drugs before breakfast	3.7	4.5	4.1
damaged things after using drugs	3.6	2.7	3.2
injured yourself as a result of using drugs	2.9	3.7	3.3

*Percent is out of all students

Very few students endorsed the ADRC questions. School work is affected approximately equally by cannabis as it is by alcohol. In the AARC, 4.7% of students reported that their alcohol use had affected their schoolwork, so that they did not do as well as they could have. Here, on the ADRC 4.2% of students reported that same problem. Less than 2% of all students have found themselves having trouble with the police as a result of their drug use. Overall, most students did not endorse any of the ADRC questions relating to cannabis.

Using a substance ‘first thing in the morning’ has been found, over and over again, to be a good indicator of potential dependence. This is often referred to as an ‘eye-opener’ and is one of only 4 questions used to determine dependence on the CAGE-AID, a measure that has been used by the AFM in many prevalence studies (school surveys and others) in past years. Just over 4% of study participants reported having done this in the past year. It is a particularly risky behaviour as using first thing in the morning means that the person likely spends a very great deal of time thinking about using the drug; a behaviour recognized by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) as a symptom of drug dependence (American Psychiatric Association, 1994).



The most frequently endorsed item on the ADRC is that drug use has caused tension with family or friends. While 5.6% of all students have had arguments or experienced tension due to use of substances other than alcohol, 10.2% have experienced this as a result of their alcohol use alone.

Each student's endorsement of any of the ADRC questions was then totalled and the student was given a score out of 8 to determine their risk category according to the cut-offs described in previous sections. Like the AARD, the cut-offs for seniors 1 through 4 are "non-drinker", 'low risk' (drinks but endorsed no risk indicators), 'medium risk' (endorsed one or two indicators), and 'high risk' (endorsed three or more indicators). For grades 7 and 8 the only categories are 'non-drinker', 'low risk' (drinks, but endorsed no indicators) and 'high risk' (endorsed one or more indicators). Again, the results are listed here in two separate tables, the first for the younger grades (Table 22), and the second for the senior years (Table 23). Even with the very strict cut-offs for the younger grades, only 3.5% of students fall into the high risk category. This is indicative of the scale having an appropriate cut-off as grade 7 and 8 students are expected to display fewer risky behaviours in terms of their substance use, and according to the results, most are not using very frequently.

While most students are non-users, 16.9% of substance-users are experiencing at least some negative consequences or social problems as a result of their use. Just over 7% of senior students are considered high risk according to the parameters of the ADRC. The percentage of students who meet the criteria for the low, medium or high risk categories in Tables 22 and 23 are much lower than the results for alcohol use.

Table 22. ADRC classifications for males and females in grades 7 and 8 (%).

	non-user	low risk (0)	high risk (1 or more)
Males			
Grade 7	86.9	9.9	3.1
Grade 8	82.4	14.4	3.2
Total males	84.7	12.2	3.2
Females			
Grade 7	88.7	8.5	2.8
Grade 8	88.7	6.6	4.7
Total females	88.7	7.6	3.8
Total males and females in gr. 7/8	86.6	9.9	3.5

*All students

**Table 23. ADRC classifications for males and females in seniors 1 through 4 (%).**

	non-user	low risk (0)	med risk (1 or 2)	high risk (3 or more)
Males				
Senior 1	74.0	15.2	5.2	5.6
Senior 2	65.6	23.9	5.9	4.6
Senior 3	52.3	23.8	12.8	11.0
Senior 4	60.9	16.5	15.5	7.0
Total males	63.8	19.7	9.5	6.9
Females				
Senior 1	72.7	13.5	7.6	6.2
Senior 2	63.0	19.9	7.8	9.3
Senior 3	58.8	17.7	14.1	9.3
Senior 4	60.9	24.9	9.9	4.3
Total females	63.4	19.4	10.0	7.2
Total males and females in sr. 1-4	63.6	19.5	9.8	7.1

*All students

Indicators and related problems

Students who had used cannabis in the past year were asked if they had ever been unable to stop smoking once they had started, and if they had ever been unable to cut down or quit using having tried. Both of these items are criteria of substance dependence according to the DSM-IV (American Psychiatric Association, 1994). These items show a very different pattern than do the ADRC questions. Here, grade 7 students were more likely than senior year students to endorse having experienced this problem. Of past year cannabis users, 18.9% of grade 7 students reported that they were unable to quit or decrease their use once they tried compared to approximately 5% of senior 4 students. The same trend emerges when students were asked if they had ever been unable to stop smoking once they started. Nearly 20% of grade 7 students and only 4.5% of seniors 3 and 4 students say that they could not quit smoking once they started. In regards to gender differences, females were more likely than males to say they smoke more than they had planned (except in senior 4).

Finally, students were asked if they had ever neglected responsibilities at home, in school, socially or at work. The following table on the next page shows the percentage of males and females in each grade who report having these problems in association with their cannabis use.



Table 24. Males and females who report secondary problems associated with cannabis use (%).

Has your use of cannabis caused you to miss the following:			
	Males	Females	Total
going to school	4	4.2	4.1
a family commitment	2.1	2.5	2.3
a commitment to friend	2.6	3.7	3.1
school deadline or assignment	5	5.8	5.5
going to work	1.3	0.9	1.1

*Percent is out of all students

Just over 4% of all students have missed school as a result of cannabis use, and nearly 6% are failing to complete assignments on time. When the same questions were analysed by past year cannabis users alone, 15% reported missing school due to cannabis use.

Impaired driving - cannabis

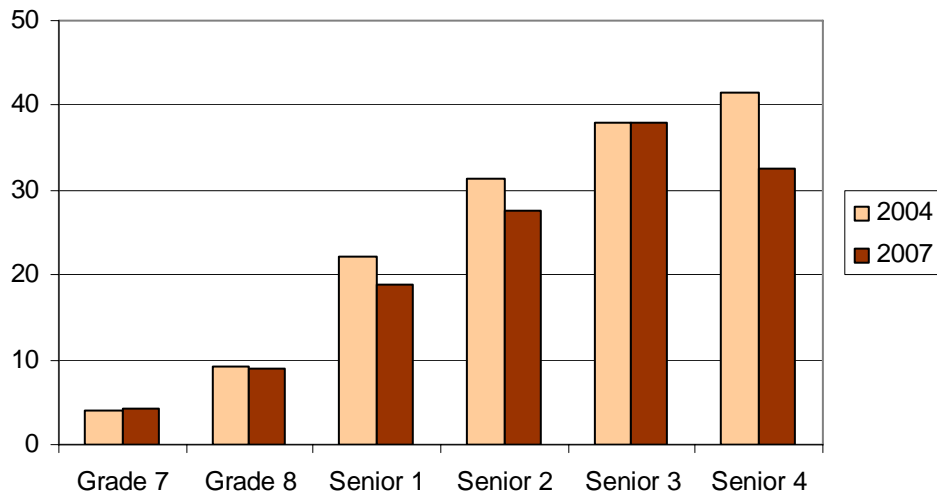
Most messages about impaired driving concern the harm due to drinking and driving, however, more and more people have become concerned about impaired driving due to cannabis. Considering the high prevalence of cannabis use with youth, this issue is definitely a cause for concern. Cannabis users were asked if they had ever driven after using cannabis or if they had ever been a passenger with a driver who had used the substance. Altogether, 5.5% of students claimed to have driven after using cannabis (in 2004 the rate was 7.5%). This is only slightly less than the percentage that have driven after drinking alcohol (6.8%) even though more than twice as many students have used alcohol in the past year compared to cannabis (54.8% compared to 22% respectively). The same percentage of students who have used cannabis in the past year also endorsed having been a passenger with a driver who had been using cannabis (22.2%). In 2004, the percentage was slightly higher at 25.6%. Although this proportion is slightly less than being a passenger with a driver who used alcohol, it still shows that a significant number of students are riding as passengers in cars where the driver had been using cannabis.

Changes in cannabis use over time

As Table 2 on page 9 shows, past year cannabis use among students appears to be declining slightly since the 2001 prevalence study. This may be due to an actual decrease in use, sampling (bias or changes throughout the years making the samples more representative of the province¹⁴), or several other factors. As this decrease is relatively small, further studies over the years will be important to determine if the prevalence of cannabis is actually on the decrease.

Since the last school survey, cannabis use has remained at a high rate among senior 3 students but has decreased in all other high school grades. Again, further monitoring will be needed to confirm these findings.

Figure 10. Comparison of 2004 and 2007 past-year cannabis use by grade (%).



¹⁴ Due to several changes in methodologies, the 2005 report recommended that the data from 2004 be considered the baseline measure for future studies as comparisons with the past would be difficult to make with confidence.



Other substances

Although alcohol and cannabis are the more commonly used drugs, AFM is also interested in student's use of other substances. All students were asked about their past year use of several substances excluding alcohol, cannabis and tobacco. Table 25 (page 41) shows the percentage of males and females in each grade that used different substances such as inhalants, cocaine, crystal meth and crack. Most of the drugs included in this table are illegal, but some, such as aerosol products and inhalants, jimson weed, salvia and over-the-counter drugs are legal and easy to obtain.

This year the cannabis derivative 'hash' was included on the list and turned out to be one of the more frequently used substances with just over 8% of all students having used this drug in the past 12 months. Consistent with many other years, another commonly used substance was Psilocybin (magic mushrooms) with 6% of males and females reporting its use. Hallucinogens such as LSD (also known as 'acid') are used less often than other substances with less than 3% of males and only 1.9% of females report to use these types of drugs.

Also much like other years, very few students reported having used drugs such as heroin, cocaine, crack and methamphetamine ('crystal meth'). Approximately 3% have used cocaine, 1.5% have used crack, and less than 1% of students have used heroin in the past year. In the 2004 study 3% of students used methamphetamine in the past year. This year that number has dropped significantly to less than 1% of students having used crystal methamphetamine.

On the other hand, the use of ecstasy appears to have increased since the 2004 survey (from 2% to 4%). Nearly 7% of students in seniors 3 and 4 have used ecstasy in the past year compared to 3% in 2004. This may be due to increased accessibility or decreased fear of consequences, or several other factors outside the scope of this study. In other provincial student drug use reports the use of ecstasy also appears to be on the increase (see Balram et al., 2007 and Ryan & Poulin, 2007 for more details). Almost 4% of students have used opiates in the past year with 6.7% of males and 6.2% of females in senior 3.

Females are more likely than males to report having used prescription drugs to get high, either their own (2.4% compared to 1.8%) or someone else's (4.4% compared to 2.4%). These numbers are slightly lower than in 2004 when 7.7% of females and 5.4% of males reported using other people's prescriptions to get high. Students were asked specifically about the use of the drug Ritalin, a commonly prescribed medical stimulant used to treat the symptoms of Attention Deficit Disorder (ADD). Just over 1% of all students have used this drug to get high in the past year.

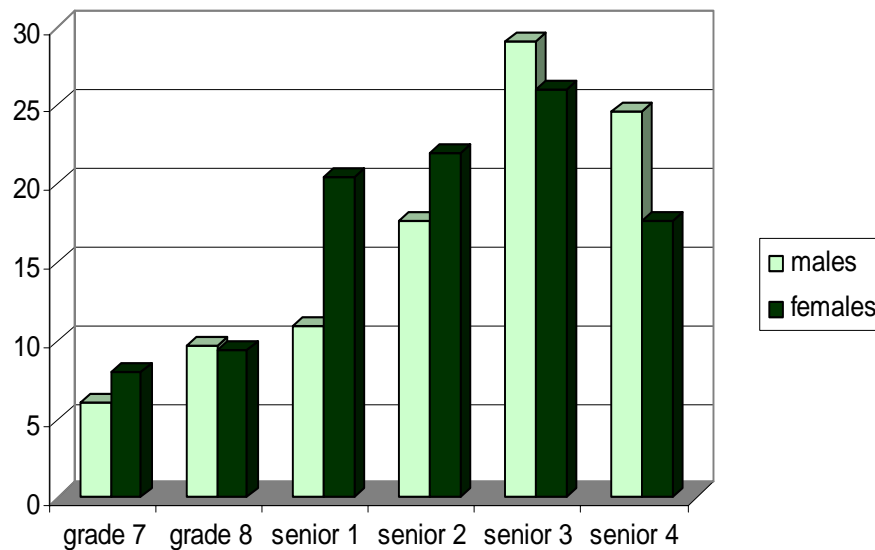
Salvia, jimson weed, and over-the-counter (OTC) drugs are legal and can become a problem if they are misused or abused. Although only a few students report using salvia and jimson weed, OTC drugs seem to be more of a problem. Nearly 20% of all students report having used these substances in the past year. As this question was not asked in



2004 we have no baseline reflecting use of this drug nor do we know if the students understood that the question was referring to the use of OTC drugs to improve their mood/get high and not for legitimate symptoms (e.g. to feel better from a cold). Therefore, the results of this question should be interpreted with caution.

The following summary figure shows the percentage of males and females in each grade who reported using at least one of these substances in the past year. Again, senior 3 students appear to be using substances at a higher rate compared to the other grades. Although females were more likely to be using one or more illicit substances in senior 1 and 2, the males in senior 3 and 4 surpass the females in this regard. Overall, the patterns of use of the various substances in Table 25 are similar for males and females. In many cases, the male rate is slightly higher and this is especially true with magic mushrooms and hash (and especially in the older grades). Females are more likely than males to use OTC drugs, other people's prescriptions and their own prescription to get high.

Figure 11. Males and females¹⁵ who have used one or more illicit substances (other than alcohol or cannabis) in the past year (%).



¹⁵ All students.



Table 25. Males and females in each grade who used various drugs in the past year (%).

	Grade 7	Grade 8	Senior 1	Senior 2	Senior 3	Senior 4	Total
Males							
Magic Mushrooms	0.8	2.9	4.5	6.7	10.3	11.4	6
Hash	0.6	3.7	5	9.2	16.2	15.8	8.2
Cocaine	0	2.1	2	1.4	6.1	5.9	2.8
Crack	1.3	1.7	1.6	1.7	3.6	1.5	1.9
Ecstasy	0.4	1.3	2.1	3.1	8.2	6.6	3.5
Other club drugs	0.2	0.6	1.4	0.8	2.1	2.6	1.3
Hallucinogens	0.4	1.2	1.4	3.6	6.4	4.1	2.8
Steroids	0.6	1.5	0.7	1.4	2.1	1.5	1.3
Stimulants	0.4	0.6	1.6	2.2	3.3	1.5	1.6
Crystal Meth	0	1	0	0.6	1.8	0	0.5
Inhalants	0.8	1	1.3	1.7	4.6	1.1	1.7
Aerosol products	1.9	2.7	2	1.1	2.1	0	2
Other people's prescriptions	0.4	1.4	2	1.1	4.2	3.3	2
Your own prescription to get high	0.6	0.8	1.1	1.4	3.3	3.7	1.8
Ritalin	0.2	1	1.4	0.8	2.7	1.5	1.2
Heroin	0	1.5	0.5	0.6	1.5	0.4	0.7
Opiates	0.6	1.4	2.7	3.1	6.7	7.1	3.5
Salvia	0.2	1	2	3.1	8.5	8.2	3.7
Jimson weed	1	1.6	2.5	1.7	4.3	1.8	2.1
Over-the-counter drugs	20.2	17.5	14.7	17	14.4	16.6	16.7
Females							
Magic Mushrooms	1	0.4	4.4	7.7	6.4	7.4	4.7
Hash	1	1.2	6.9	12.4	14.7	10.7	8.1
Cocaine	0.6	0.8	3.9	4.3	5.1	3	3
Crack	0.6	1.2	2.8	1.2	1.3	0.6	1.2
Ecstasy	0.8	0.2	5.5	5.6	9.8	3.8	4.4
Other club drugs	0	0.6	1.1	1.5	1	0.9	0.9
Hallucinogens	0.4	0.2	2.8	4.6	1.8	1.5	1.9
Steroids	1.2	1	1.1	0.9	0.8	0	0.8
Stimulants	0.8	1.6	4.2	3.7	3.3	1.8	2.6
Crystal Meth	0	0	0.8	1.2	0.3	0.6	0.5
Inhalants	1.2	1.6	2.5	3.4	2.3	0.9	2
Aerosol products	3.9	4.2	6.1	2.8	3.6	0.6	3.4
Other people's prescriptions	2.1	3.2	4.4	6.5	5.7	4.4	4.4
Your own prescription to get high	1.7	1	4.4	3.4	2.6	1.8	2.4
Ritalin	0.6	0.2	1.9	3.1	1.8	0.9	1.4
Heroin	0.6	0.8	1.1	1.5	0.5	0	0.7
Opiates	0.4	1.8	4.1	7.1	6.2	3.3	3.9
Salvia	0	0.6	1.4	3.4	4.1	3.3	2.2
Jimson weed	1	0.2	4.4	3.1	1.5	1.2	1.9
Over-the-counter drugs	24.9	21.8	25.6	25.6	18.2	18.8	22.2

*All students



Tobacco

Students were asked about their lifetime, past year and past month use of tobacco. Approximately 15% of males and females reported smoking cigarettes at least occasionally with only 4.8% of males and 6.1% of females smoking every day. Less than 1% of students in grade 7 and 1.5% of grade 8 students smoke every day. Approximately 20% of all students smoked cigarettes in the past year. The following table shows the percentages of males and females that have smoked in their lifetime, the past year, and in the past month by grade. Overall, these numbers are lower than the rates found in 2004 which is consistent with many prevalence studies on tobacco.

Table 26. Lifetime, past year, and past month tobacco use as a function of grade and gender (%).

	lifetime	past year	past month
males			
grade 7	6.6	4.8	2.4
grade 8	15.2	14	7.2
senior 1	24.1	18.4	13.6
senior 2	25.3	18	12.9
senior 3	35.4	29.1	23
senior 4	34.8	26.8	20.4
females			
grade 7	10.2	7	5
grade 8	14.8	10.7	6.3
senior 1	23.2	19.5	13.2
senior 2	33.6	28	18.4
senior 3	37.2	32.3	24
senior 4	38.4	30.1	20.3

*All students

Almost a quarter of grade 7 and 8 students who have smoked at least one whole cigarette in their lifetime had their first cigarette before age 10. Just over half of senior 1 students had their first cigarette by age 12, as had approximately a quarter of senior 4 students.

The following table on page 43 shows the frequency of tobacco use per day for students who have smoked cigarettes in the past month, in percentages. The results should be interpreted with caution for grade 7 and 8 students due to low numbers in each category. These results show a consistent distribution between grades, with over half of students in each grade falling in the first two categories.



Table 27. Number of cigarettes smoked per day by past month smokers, as a function of grade (%).

	less than 1	1 to 9	10 to 19	20 to 39	40 or more
grade 7	36.8	47.3	7.9	2.6	5.2
grade 8	39.4	39.4	13.9	4.5	3
senior 1	22.5	33.3	17.1	14.4	12.6
senior 2	17.8	27.1	11.2	20.6	23.3
senior 3	25.6	26.7	11.6	12.8	23.2
senior 4	24.8	29.6	11.2	18.4	16

*Past month smokers

On average, most students who have smoked in their lifetime had their first cigarette by the age of 13. Approximately a quarter of smokers had their first cigarette by age 11. Table 28 below shows the percentage of males and females and the age in which they started smoking.

Table 28. Male and female lifetime smokers and the age they first smoked (%).

	males	females	total
age 10 or younger	14.2	13	13.6
11	12.2	12.7	12.4
12	14.3	17.6	16.1
13	17	18.4	17.8
14	13.9	14.9	14.4
15	12.9	13.6	13.2
16	10.5	7.3	8.8
17	4.2	2.4	3.2
18 or older	0.8	0.2	0.5

*Lifetime smokers

The reason for the decline in people starting to smoke at later ages is most likely due to the fact that most of the students who completed the survey have not yet reached the older ages.



Concern for parental substance use

A continuing concern among adolescents is parental substance use. Questions were asked about whether students were worried about their parents' substance use. The table below shows the percentage of males and females by grade who expressed concern over their mother or their father's alcohol or drug use.

Table 29. Reported parental alcohol and drug use as a function of grade and gender of student (%).

	Alcohol Use		Drug Use	
	Mother	Father	Mother	Father
Males				
grade 7	7.6	13.4	4.7	4.3
grade 8	7.2	14.1	4.1	5.9
senior 1	7.1	12.0	3.2	4.8
senior 2	4.7	8.0	4.2	3.7
senior 3	3.8	5.9	1.2	2.4
senior 4	2.5	4.6	0.7	1.8
Total males	5.5	9.7	3.0	3.8
Females				
grade 7	8.2	14.5	4.9	5.6
grade 8	7.8	14.6	4.4	6.4
senior 1	9.0	19.9	5.5	5.5
senior 2	10.1	15.7	3.3	6.7
senior 3	8.7	15.5	2.8	6.1
senior 4	6.7	7.9	2.4	3.3
Total females	8.3	14.4	3.8	5.5

*All students

Twelve percent of all students are concerned about their father's alcohol use and 7% are concerned about their mother's use. Concern over parental drug use (excluding alcohol) was less so with 3.4% of all students reporting concern for their mother's drug use and 4.7% expressing concern for their father's use. Overall, females are more concerned about parental substance use than males. In senior 3, females are more than twice as likely as males to be concerned about their parent's alcohol use, and both genders are more concerned about alcohol and drug use with their fathers than with their mothers. For both males and females, concern over alcohol is a bigger concern than parental drug use. A pattern in the data that is less obvious in females than in males is that older students seem considerably less concerned over parental substance use compared to younger students.



Attitudes about substance use

A new section was added to the survey this year exploring student attitudes about alcohol and drug use. Students were asked if they had ever used alcohol to cope with their problems. In addition, they were asked a variety of questions about their attitudes towards alcohol and drugs including their thoughts on drinking and driving as an acceptable behaviour.

While the majority of students disagreed that this was acceptable, 12% of students used alcohol to cope with their problems. Females drinkers were more likely to use alcohol to cope with problems compared to male drinkers (15.1% compared to 9.7%; respectively). In males, senior 4 students were twice as likely as grade 7 students to admit using alcohol to cope.

The following table show student responses to each of the alcohol and drug attitude questions by gender.

Table 30. Percentage of students who agreed with statements about alcohol and drug use.

	Males	Females	Total
Alcohol is an acceptable way to relax	32.8	25.9	29.4
People should not use alcohol under any circumstance	17.0	19.9	18.5
I'm afraid to use alcohol because I might get addicted	22.1	23.7	22.9
There's nothing wrong with drinking and driving	5.0	2.6	3.8
Alcohol is as dangerous as other drugs	63.3	71.1	67.2
I'm afraid to use alcohol because I might get caught	22.3	24.2	23.2
Using drugs is an acceptable way to relax	5.2	4.3	4.7
People should not use drugs under any circumstance	8.5	6.0	7.3
I'm afraid to use drugs because I might get addicted	15.3	16.4	15.8
There's nothing wrong with smoking cannabis and driving	19.4	15.9	17.7
Using alcohol is more acceptable than using other drugs	27.3	18.7	22.7
I'm afraid to use drugs because I might get caught	26.0	16.0	20.5

*All students

Nearly a third of all students think that using alcohol to relax is acceptable, while fewer than 5% think that drug use is an acceptable way to relax. Of interest is the fact that just over two-thirds of all students consider alcohol to be as dangerous as other drugs, yet students do not seem to be taking their own advice in light of the high number of binge drinkers and those meeting the criteria for potential alcohol dependence. Also, almost one in four students are afraid to use alcohol because they 'might get addicted' and this number is slightly higher than those who are afraid to use drugs. More students agree that people should abstain from alcohol than drugs (18.5% compared to 7.3% respectively) although it is difficult to ascertain what students thought when they saw the word "drugs"; it may be that they answered that question with OTC or prescription drugs in



mind. These numbers appear to suggest that most students are well aware of the dangers of alcohol (67.2% agreeing with the statement “alcohol is as dangerous as other drugs”) and it appears that this fear is stronger than their fear of other drugs (23% of students agreed with the statement “I’m afraid to use alcohol because I might get addicted” compared to 16% of students who agreed with the same statement on drugs).

A very positive finding in this section is the small number of students (3.8%) who agreed with the statement “there’s nothing wrong with drinking and driving”. On the other hand, significantly more students (17.7%) agreed with the statement “there's nothing wrong with smoking cannabis and driving”. There are several reasons for this, many which are under-researched and beyond the scope of this report. Regardless, we now have data that suggests Manitoba students have not gotten the message about the dangers of cannabis use and driving. Although we have seen some advances in this area, there is a definite need to provide more messages to youth about the dangers of driving after using cannabis. Less students agreed with the statement that “there’s nothing wrong with drinking and driving” compared to driving after cannabis, and this difference may be due to the significant efforts taken to provide consistent messaging from the government, community, parents, and teachers about drinking and driving. It will be interesting to monitor these attitudes as our youth become more informed about the dangers of impaired driving due to cannabis.

The information about student attitudes on alcohol and drug use will hopefully help adults to connect with students about the real issues they are having with drugs and alcohol. Program developers and educators should find this information useful as they can build on the areas (e.g. there's nothing wrong with smoking cannabis and driving) in which students seem to be under-informed.



SUMMARY AND CONCLUSIONS

Alcohol, cannabis and other drug use in students

Overall we found that alcohol and cannabis use is quite common by students with 55% consuming alcohol and 22% using cannabis in the past year. By the time students are in senior 4, they are 82% likely to have consumed alcohol and 33% likely to have smoked cannabis in the preceding year. The rates for students in less senior years, such as grade eight, indicate that 32% have consumed alcohol and 9% cannabis in the past year. Overall, past year alcohol and tobacco use among Manitoba students tends to be slightly higher than other recent provincial student drug use reports¹⁶. The only exception to this would be the 2005 Alberta Youth Experience Survey (Lane, 2005) where more students reported past year alcohol use compared to Manitoba students. Past year cannabis rates among Manitoba students are slightly lower compared to the Maritime Provinces.

The majority of cannabis users started using before age 15. Underage drinkers started at an even earlier age, with 20% of grade 7 students and more than 30% of grade 8 students having consumed alcohol in the past year. Approximately 25% of underage drinkers report that their parents get alcohol for them. Our results also suggest that some underage drinkers appear to be purchasing alcohol without being asked to provide identification while 17% of past year drinkers have used fake identification to make their alcohol purchase.

There appear to be slightly fewer students drinking and smoking cannabis in the current report compared to 2004; although there could be several factors impacting this besides actual decreases in past year use. As mentioned in earlier sections, further studies over the long-term will be required to validate this trend. Recent reports on student drug use in other provinces (Balram et al., 2007; Ryan & Poulin, 2007) also show decreases in past year alcohol, cannabis and tobacco use.

Excluding alcohol and cannabis, the more commonly used drugs include magic mushrooms, ecstasy, opiates and over-the-counter drugs. Similar to other years, very few students use heroin, cocaine, crack and stimulants. Consistent with other provincial reports, ecstasy use appears to be on the increase. Females are more likely to use over-the-counter drugs, prescription drugs, and stimulants compared to males.

Binge drinking & frequent cannabis use among senior students

One key concern from this report is the prevalence of binge drinking among our students. Binge drinking was defined as consuming at least five drinks on one occasion in the past year. According to that definition, almost one half of the student drinkers have 5 or more drinks on one occasion and approximately one quarter have 8 or more drinks within the same time period. Clearly, binge drinking is a common activity among our past year

¹⁶ It should be noted that many of the more recent student drug use reports have come from the Maritime provinces where the study sample is comprised of grade 7 and 9 and senior 2 and 4 students.



drinking students. We also explored the numbers of drinks consumed in a typical day of drinking. Nearly 60% of past year drinkers in senior 3 and 4 are drinking at least 5 alcoholic beverages on a typical day of drinking and nearly 20% of the same students report 10 drinks at one time. Male drinkers are approximately twice as likely as females to drink this amount; therefore, males in the senior grades are definitely putting themselves at risk for several harms and consequences associated with binge drinking. According to the AARC, approximately 25% of senior 4 students meet the criteria of being high risk for alcohol dependence. Regarding cannabis use, males in older grades are using this drug on a more frequent basis compared to females and those in younger grades. Fifteen percent of all senior 3 and 4 male students smoke cannabis more than once a week. Of the past year cannabis users, 16% of males use cannabis every day or a few times a day. As several studies have shown the frequency of substance use to be related to the risk of dependence, these high rates of heavy and frequent drinking and cannabis use suggest that many of our senior students are at risk for problems later in life.

Impaired driving (alcohol and cannabis) and attitudes

Overall, 8% of males and 5% of females have driven within an hour of consuming two or more drinks and 2.6% of students have been in a motor vehicle accident after drinking. However, when these figures were analysed by grade level, the prevalence of impaired driving increased for senior students. For example, over 30% of senior 4 males and 16% of senior 4 females have driven a vehicle after drinking. More students are likely to have been a passenger in a car with a driver who had been drinking; with almost half of senior 4, 38% of seniors 1 and 2 and 27% of grade 7 and 8 students reporting this behaviour. These results are surprising, considering that only a handful of students think drinking and driving is acceptable. On the other hand, one in five students agreed with the statement “there’s nothing wrong with smoking cannabis and driving” and 22% report to have been a passenger in a car with a driver who had been using cannabis. There appears to be a number of students in Manitoba that are under-informed about the dangers of driving after consuming alcohol or using cannabis. These results are not unique to Manitoba and several students in other provinces (Balram et al., 2007; Ryan & Poulin, 2007) are engaging in risky behaviours such as driving after using cannabis and/or after drinking.

When comparing the current results to 2004, it appears that impaired (alcohol and cannabis use) driving rates have remained relatively stable. However, we did find that male drivers in the more senior years were slightly more likely this year to report impaired driving (alcohol). Students in grade 7 and senior 3 were also slightly more likely to report riding in a car with a driver who had been drinking compared to the 2004 survey. Overall, the differences are quite small between the two surveys.

Final thoughts

In closing, the current report provided timely information on the state of substance use among students in Manitoba. Overall, there appears to be slight decreases in past year substance use, but more monitoring over time is required to be more confident in making



this statement. Some areas of concern involve the rate of binge drinking and frequent cannabis use among students (specifically older students) and attitudes towards impaired driving. Among many things, this report highlights the need for more education and targeted interventions taking into consideration gender differences (females more at risk for tobacco use, prescription drug use, stimulant and over-the-counter drug use; males more at risk for frequent alcohol and cannabis use & impaired driving in the senior years), age differences (with more concern for older students) and transitional stages (e.g., from grade 8 to senior 1). The AFM looks forward to continuing its work in this area and to work with other interested researchers, community-based program providers, policy and decision makers, clinicians, school and parents/guardians in partnerships and collaborative efforts in improving the health of our students through drug health promotion, prevention and intervention services.



REFERENCES

- American Psychiatric Association (1994). *The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*.
- Balram, B., et al. (2007). *New Brunswick 2007 Student Drug Use Survey: Highlights report*. Report funded through the New Brunswick Department of Health.
- Jessor, R., Donovan, J., & Costa, F. (1991). *Beyond adolescence: Problem behaviour and young adult development*. New York: Cambridge University Press.
- Jessor, R., & Jessor, S. (1977). *Problem behaviour and psychological development: A longitudinal study of youth*. New York: Academic Press.
- Lane, J. (2005). *The Alberta Youth Experience Survey (TAYES) 2005: Summary Report*. Prepared by the Alberta Alcohol and Drug Abuse Commission (AADAC).
- Patton, D., Mackay, T., & Broszeit, B. (2005). *Alcohol and other Drug use: Manitoba Students*. Report prepared for the Addictions Foundation of Manitoba.
- Poulin, C., & Elliot, D. (2007). *Student drug use survey in the Atlantic provinces 2007: Atlantic technical report*: Halifax, NS.
- Poulin, C., & McDonald, W. (2007). *Nova Scotia Student Drug Use 2007: Highlights Report*. Report funded through Addiction Services, Department of Health Promotion and Protection, and Dalhousie University.
- Poulin C, Van Til, L., & Elliott, D. (2007, June). *A practical approach to the measurement of substance-related risk in Canada: The Atlantic Alcohol & Drug Risk Continua*. Canadian Public Health Association Annual Conference: Ottawa, ON.
- Prochaska, J., DiClemente, C., & Norcross, J. (1992). In search of how people change: applications to addictive behaviours. *American Psychologist*, 47: 1102-1114.
- Ryan, R., & Poulin, C. (2007, November). *Newfoundland and Labrador Student Drug Use Survey 2007: Summary Report*. Reported prepared by the Newfoundland and Labrador Department of Health and and Dalhousie University.
- Solomon, R., & Chamberlain, E. (2006). *Youth and impaired driving in Canada: Opportunities for progress*. Report prepared for MADD and Allstate by the Faculty of Law; University of Western Ontario.



Traffic Injury Research Foundation of Canada (2008). *Alcohol crash problem in Canada: 2005*. Prepared for Canadian Council of Motor Transport Administrators Standing Committee on Road Safety Research and Policies.



Appendix A: Letter to Superintendents

Dear (name of Superintendent),

Subject: Fall High School Survey

This letter is to inform you that through a process of electronic random selection, the following school (or schools) from your division have been selected to participate in the 2007 Alcohol and Drug Use Survey being conducted by the Addictions Foundation of Manitoba.

Methodologically, this random selection process follows that of several other provinces, which will enable us to better compare current trends. We will also be able to compare with information collected in 2004. In addition, classes within each school will be randomly selected to complete the survey (i.e., not all students from each school will be requested to complete the survey). The result of this method will be a random sample that will be highly representative of students in the province, providing comparability with other jurisdictions and accurate estimates of use.

The survey consists of questions about substance use, gambling behaviour, and other problem behaviour. A copy is attached. As per our 2004 survey process, we will ask the principals to select two classes from each grade from 7 through Senior 4 to participate. The time required to complete the survey should be about half an hour, including distribution and collection. Detailed administration instructions will be provided for survey administration to ensure consistency across all schools. We have also sent a copy of this letter to the school principals involved in order to alert them to the contact that will occur in the near future.

The information provided by the students is completely confidential and anonymous, and individuals will never be identified by name. Students will be asked to complete the questionnaire and place it in a sealed envelope and return it to the individual administering the survey. In the past, to maintain confidentiality, we have requested that the survey be administered by a guidance counsellor or equally impartial individual, if this is possible. The AFM will be responsible for all other costs associated with the survey including printing, distribution and postage.

The AFM would like your assistance in carrying out this important research project. The information will be used to identify problems that are currently facing Manitoba youth and in planning future prevention strategies across the province. AFM Research is also willing to provide summary reports to participating schools and is willing to make school-specific or division-specific presentations once all of the data has been analysed. These reports will never identify specific schools or school divisions, however, large



groups comparisons may be made (e.g., Winnipeg compared with the Northern or Western Regions of Manitoba).

Ideally, we would like to have the survey completed by the end of November, and would therefore appreciate any information regarding the process you would like us to follow as soon as possible. If you have any questions or specific concerns about how this survey will be implemented, please feel free to contact me at (phone number), otherwise AFM Research will contact the school principals directly.

Thank you, in advance, for your cooperation,

Director of Research
Addictions Foundation of Manitoba
1031 Portage Ave.
Winnipeg, MB R3G0R8



Appendix B: Letter to Principals

Dear (Principal name),

Subject: Fall High School Survey

This letter is to inform you that your school has been selected to participate in the 2007 Fall Alcohol and Drug Use Survey being conducted by the Addictions Foundation of Manitoba. The survey is a brief questionnaire consisting of questions about substance use, gambling behaviour, and problem behaviour. A copy of the questionnaire is attached.

Also attached is a copy of the letter sent to the Superintendent of your division. This letter more thoroughly outlines the specific details of the survey. We will be contacting you in the near future to request your permission to include your school in this project.

If you have any question or concerns please feel free to contact me at (phone number).

Thank you, in advance, for your cooperation,

Director of Research
Addictions Foundation of Manitoba
1031 Portage Ave.
Winnipeg, MB R3G0R8



Appendix C: Letter to Parents

Dear Parent,

Subject: Fall School Survey

This letter is to inform you that the Addictions Foundation of Manitoba is conducting a province-wide survey about adolescent substance use, gambling behaviour, family relationships and problem behaviour. We do this every few years in order to get an accurate picture of substance use in Manitoba, so that we can plan services based on needs. Your child's class has been randomly selected to take part in the survey. The information provided by each student is completely confidential and anonymous, and your child will never be identified by name. Students will be instructed to refrain from writing their name anywhere on the questionnaire and will be asked to place completed questionnaires in a sealed envelope. Students will have the option to leave questions blank if they feel uncomfortable or may choose to exclude themselves from the survey altogether. You may take a look at the survey by contacting your son/daughter's teacher.

If you do NOT wish your child to participate in this survey please complete the form below and return it to the school.

Thank you for your cooperation,

Director of Research
Addictions Foundation of Manitoba
1031 Portage Ave.
Winnipeg, Manitoba
R3G 0R8

I do NOT wish my child to complete the AFM school survey.

Student Name: _____

Parent Name (please print): _____

Parent Signature: _____

Date: _____



Appendix D: Instructions to Staff Administering the AFM Survey

The students are to answer the survey by filling in the bubble that corresponds to their answer. They can use a pen or pencil, although a pencil is preferred, in case they need to change an answer. There are 11 pages to the survey, they should try to work quickly and not think too much about each answer. Once they have completed the survey they should put it in the envelope that has been provided, and seal it.

Please ask the students to not talk with each other and not to look at each other's survey. This is an anonymous survey, and the information is confidential. If they have any questions about the meaning of a question, the teacher/counselor may help, although we would prefer that teachers not circulate in the classroom, again to promote honest responding and maintain confidentiality.

If a student does not wish to complete the survey they can do some other quiet activity, such as read.

The teacher should read the following script out loud to the students to help explain why we are conducting this research:

“Every few years the Addictions Foundation of Manitoba conducts surveys of schools to see what students are doing. Your class has been selected for the 2007 year. This survey has a lot of questions about alcohol, drug use and gambling. The information that you provide will be used to help AFM plan services in the future. If you do not wish to answer the survey could you please indicate this at the top of the survey and sit quietly until the rest of the class is finished.

All of your responses and those of your classmates will be entered into a computer by machine, and summarized with all of the other schools that are participating in this survey. There are over 55 participating schools and over 8,000 students providing AFM with information. NO ONE will see your individual data, and no information about any student could ever be shared with your teachers or the school principal. Please be truthful in your responses.

You are asked to use a pencil or pen to complete the questionnaire. Please make your marks on the survey clear. Once you have completed the survey put it in the envelope provided and seal it. Your teacher will return all of the school data to the Addictions Foundation.

Thank you very much for helping us.”



Appendix E: Instructions to Students

ADDICTIONS FOUNDATION OF MANITOBA
1031 Portage Avenue
Winnipeg, MB
R3G 0R8

Instructions to complete the AFM school survey

This survey is designed to measure student alcohol, drug and gambling behaviour. There are no right or wrong answers. You are to complete the survey by filling in the bubble next to the choice in DARK PENCIL, or BLACK OR BLUE PEN. If you have made a mistake, simply fill in the bubble beside the correct answer and put a large X through the incorrect answer. If you do not wish to answer a question just leave it blank. If you do not wish to answer all of the questions please read quietly until everyone else is finished.

This survey is confidential. No one will see your individual responses.

DO NOT WRITE YOUR NAME IN THE BOOKLET

Please make sure that the bubbles are filled in completely, and place the finished survey in the envelope provided. Seal it and return it to the person administering the survey.

Thank you very much for your help with this important project.



Addictions Foundation of Manitoba

**1031 Portage Avenue
Winnipeg, Manitoba R3G 0R8
Phone: (204) 944-6200
Toll free: 1-866-638-2561
Fax: (204) 786-7768
www.afm.mb.ca**