

***EAST KOOTENAY ADOLESCENT  
DRUG USE SURVEY***

**2009  
Summary Report**

**Prepared by:  
Dean Nicholson, Administrator  
East Kootenay Addiction Services Society**

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# EAST KOOTENAY ADOLESCENT DRUG USE SURVEY – 2009

## 1. Introduction

In February 2009 East Kootenay Addiction Services Society (EKASS) conducted the fourth region-wide Adolescent Drug Use Survey. The region-wide survey, first undertaken by the Agency in 2002, includes all students in Grades 7 – 12 in the East Kootenay area. The survey is conducted every two years and helps monitor changes over time in drug use patterns and attitudes amongst East Kootenay adolescents. The data gathered also allows patterns of adolescent substance use in the East Kootenay to be compared with substance use patterns in other jurisdictions.

The survey provides more information than can be presented in a brief document. This summary report highlights some of the findings of the 2009 East Kootenay Adolescent Drug Use Survey.

## 2. Methodology

The 2009 East Kootenay Adolescent Drug Use Survey was designed to be completed by all Grade 7 to 12 students in the East Kootenay area of south-eastern British Columbia. The intent of the survey was to assess substance use patterns, substance use behaviours, attitudes around substance use, and related risk behaviours amongst the target group. The 2009 Survey was modified somewhat from the 2007 survey to include some new questions and instruments. In order to ensure that the Survey was not too long, a number of questions that were in the 2007 Survey were not included. These included questions regarding Age of First Use, Poly-substance Use, and specific questions regarding usage patterns of substances other than alcohol and marijuana. These questions were replaced by the Substance Use Risk Profile scale, the Drinking Motives Questionnaire and the Marijuana Motives Questionnaire. These tools have been developed and validated to assess adolescent personality types associated with differing patterns of substance use, and the reasons that adolescents use either alcohol or marijuana.

The survey region is a large rural area with a population of roughly 80,000 people and is composed of three separate school districts. Twenty seven public schools and one private Christian school participated in the survey. As well, a small number of youth who were not in school also completed the survey.

Permission was obtained from School District No. 5 (Southeast Kootenay) and No. 6 (Rocky Mountain) to administer the survey in all schools, and from School District No. 8 (Kootenay Lake) to administer the survey in the Creston area. In addition, Kootenay Christian Academy, a private Christian school in Cranbrook, also took part in the survey.

Copies of the survey were provided for the school boards to review prior to giving their approval. Once approval was given school administrators were advised of the survey and the time it was to take place. Passive consent was obtained by providing an explanatory letter to school administrators which could be sent home to parents or guardians. The letter advised parents or guardians of the intent of the survey. It further advised parents that participation was voluntary and parents were encouraged to contact the principal researcher if they had any concerns.

The survey was designed to be easily administered and took approximately 20 to 25 minutes to complete. Each survey came in a separate manila envelope to ensure confidentiality. The cover page of each survey had instructions for the student on completing the survey. A similar set of instructions were provided for the teacher of each classroom. The instructions explicitly told the students not to put their names on the survey. Further, it defined a number of terms, such as 'use of alcohol', 'mushrooms', and 'prescription or over the counter drug use'. 'Alcohol Use' was defined as having at least one drink of alcohol (beer, cooler, wine, hard liquor), and not just having a taste or a sip.

The survey was administered between February 16 and 20, 2009. One school was unable to complete the survey until the first week of May. Each school selected a given day within the week, in which all students would receive the survey at the same time. Students were not advised ahead of time that they would be completing a survey. In most schools the school counselling staff took on the responsibility of arranging for distribution of surveys to the classrooms. School staff was provided with an instruction sheet describing how the surveys were to be handed out and collected. Students completed the surveys and placed them in the manila envelopes the surveys came in. The envelopes were then collected and returned to the EKASS office.

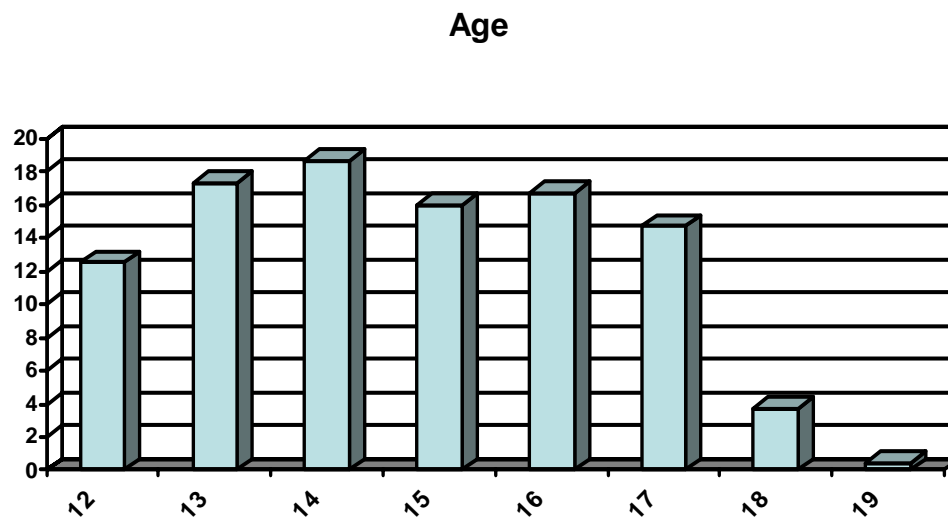
### **3. Results**

According to 2008-09 school enrollment data for the survey catchment area, there were 5260 registered students in the three school districts and the one private school. This is a drop of about 5.5% from the enrollment numbers for 2007. A total of 5263 surveys were distributed, including three to students who were not in school. 4126 completed surveys were returned, of which 95 surveys (2.3%) were deemed to be spoiled or unreliable and were not used in the analysis. 4031 surveys, representing 76.6% of registered students in the East Kootenay, were used in the analysis. This is an increase in both number of surveys used and overall percentage compared to the 2007 survey when 3992 surveys representing 71.8% of registered students were used.

The following tables and graphs show the basic demographic information obtained.

### 3.1 Age

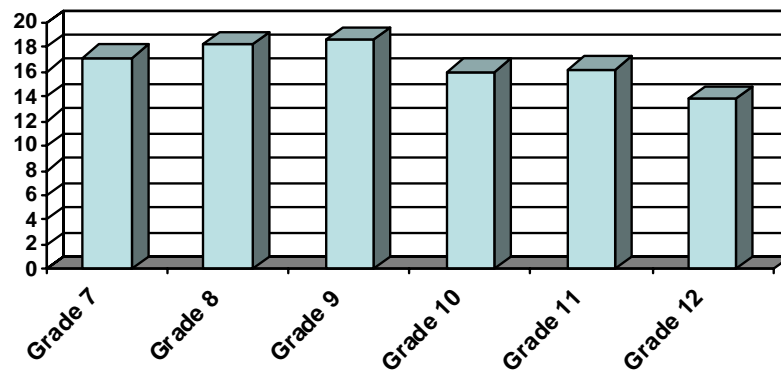
Age	% of Respondents
12	12.5
13	17.3
14	18.6
15	16.0
16	16.7
17	14.7
18	3.7
19	0.5



### 3.2 Grade

Grade	% of Respondents
7	17.2
8	18.2
9	18.7
10	16.0
11	16.2
12	13.8

**Grade**

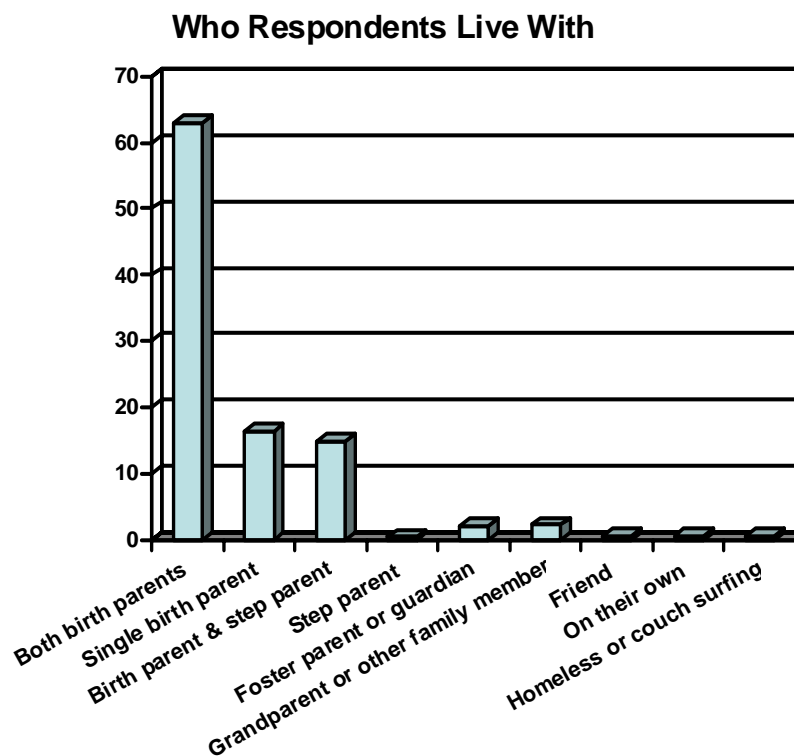


### 3.3 Gender

<b>Male</b>	<b>49.2%</b>
<b>Female</b>	<b>50.8%</b>

### 3.4 Who Respondents Live With

Who respondents live with	% of Respondents
Both birth parents	62.9
Single birth parent	16.3
Birth parent & step parent	15.0
Step parent	0.4
Foster parent or guardian	2.0
Grandparent or family member	2.2
Friend	0.7
On my own	0.7
Homeless or couch surfing	0.5

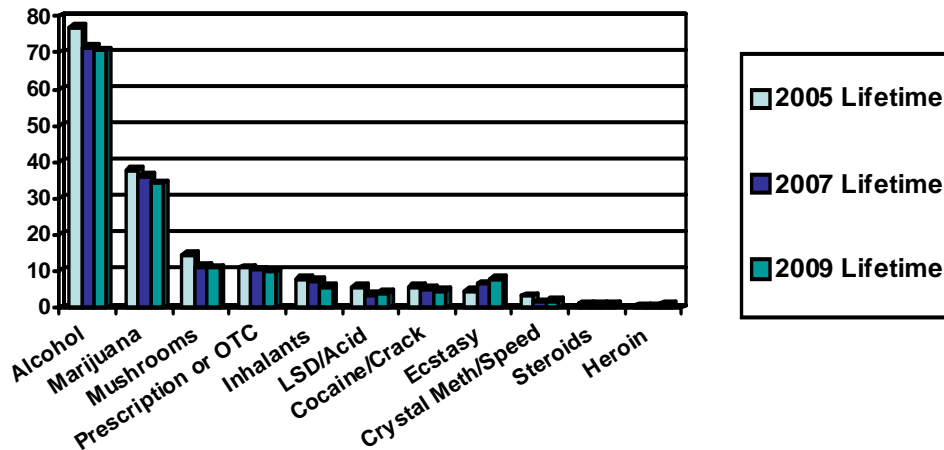


### 3.5 Rates of Substance Use

The following table and graph show the percentage of students in 2009 who reported ever having used the following substances, and the percentage who reported having used within the past year and past month. The lifetime usage rates from the 2007 and 2005 surveys are included for comparison. Overall, the 2009 data shows a continued overall trend towards less substance use. Ecstasy is the only substance which has shown a steady increase since 2005.

	% of Respondents				
	Ever Used 2009	Used in Past Year 2009	Used in Past Month 2009	Ever Used 2007	Ever Used 2005
Alcohol	70.6	63.8	38.0	71.3	76.8
Marijuana	34.1	30.1	16.0	36.2	37.9
Mushrooms	11.1	9.0	3.6	11.2	14.5
Prescription or over the counter drugs (OTC)	9.9	7.5	3.0	10.4	11.1
Inhalants	5.8	3.5	1.2	7.3	8.0
LSD/Acid	4.0	3.4	1.2	3.5	5.7
Cocaine/Crack	4.7	3.4	1.2	5.2	5.7
Ecstasy	7.9	6.7	2.6	6.6	4.7
Crystal Meth/Speed	1.9	1.4	0.4	1.6	3.2
Steroids	1.0	0.7	0.4	0.8	1.0
Heroin	1.0	0.6	0.3	0.6	0.5

**Lifetime Substance Use Rates 2005 to 2009**



### 3.6 Number of Times Used in Life

The following table shows the number of times respondents report having used a given substance. Percentages are only for the respondents who reported using a given substance.

	Number of times used in life (% of Respondents who use)			
	1-3	4-10	11-40	40+
Alcohol	22.7	22.1	29.3	25.9
Marijuana	25.6	19.9	21.5	33.0
Mushrooms	61.1	24.5	10.6	3.7
Prescription or over the counter drugs (OTC)	58.2	21.2	13.7	7.0
Inhalants	73.7	14.3	6.5	5.5
LSD/Acid	69.6	12.7	8.9	8.9
Cocaine/Crack	48.9	16.5	19.7	14.9
Ecstasy	44.6	20.8	18.2	16.3
Crystal Meth/Speed	64.6	15.2	10.1	10.1
Steroids*	54.8	19.0	7.1	19.0
Heroin*	66.6	7.7	17.9	7.7

\* Reported numbers should be interpreted with caution due to the low number of respondents

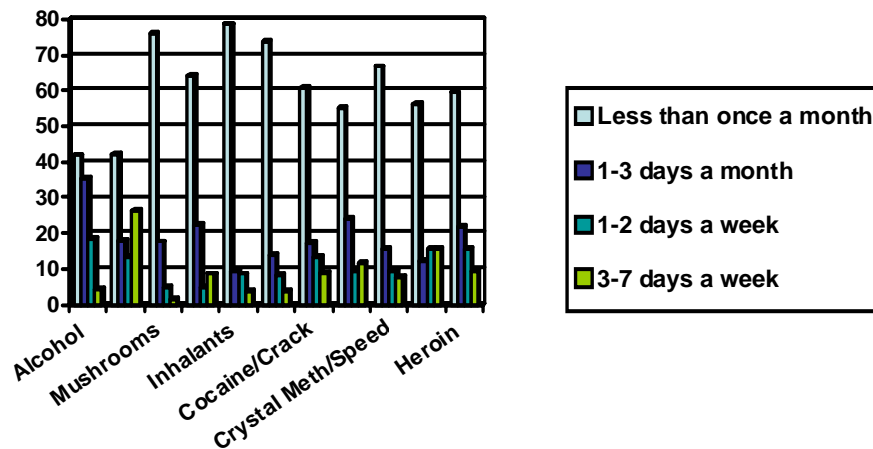
### 3.7 Frequency of Use

The following table and graph shows the frequency of use of each substance. Percentages are only for the respondents who reported using a given substance. For all substances, except marijuana and steroids, over 75% of youth that use say they use less than once a week. Other than alcohol and marijuana, well over half of youth who use any other substance say they do so less than once a month. Ecstasy, marijuana and prescription or over the counter drugs are the only substances where more youth report using 3-7 days a week than 1-2 days a week.

	% of Respondents who indicated using the substance in the past year			
	Less than 1/month	1-3 days a month	1-2 days a week	3-7 days a week
Alcohol	41.9	35.3	18.6	4.2
Marijuana	42.3	17.9	13.4	26.4
Mushrooms	76.0	17.6	4.8	1.3
Prescription or over the counter drugs (OTC)	64.4	22.3	4.7	8.6
Inhalants	78.6	9.3	8.6	3.6
LSD/Acid	73.8	13.8	8.5	3.8
Cocaine/Crack	60.7	17.3	13.3	8.7
Ecstasy	55.2	24.3	9.3	11.5
Crystal Meth/Speed	66.7	15.9	9.5	7.9
Steroids*	56.3	12.5	15.6	15.6
Heroin*	59.4	21.9	9.4	9.4

\* Reported numbers should be interpreted with caution due to the low number of respondents

Frequency of Use

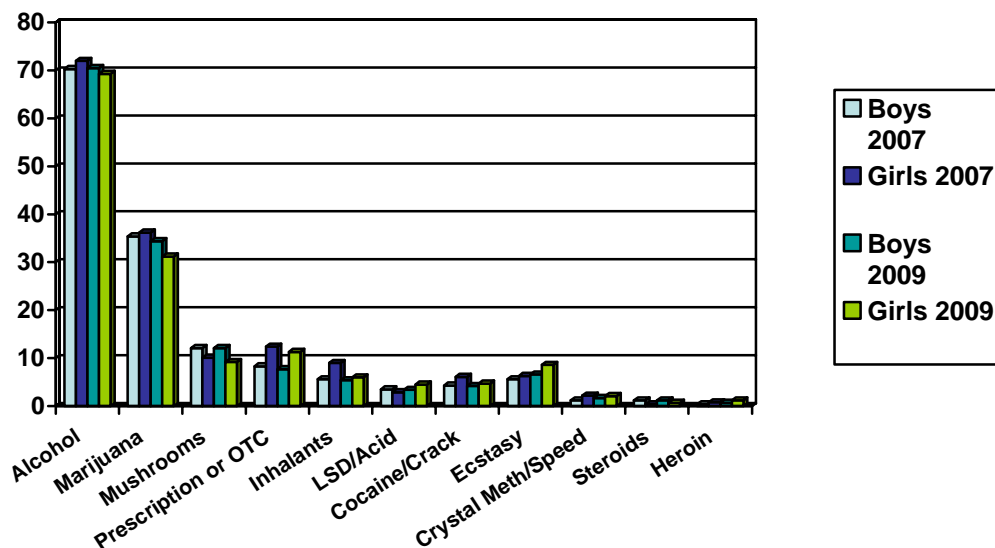


### 3.8 Gender Differences

The following table and graph shows the lifetime usage rates for boys and girls from the 2009 and 2007 surveys. Overall, the gender differences between lifetime usage rates are relatively small. Girls are more likely to have used ecstasy and prescription or over the counter drugs than boys. Boys are more likely to have used steroids. Compared to 2007 girls show a larger decline than boys for usage of drugs such as alcohol, marijuana, mushrooms, inhalants, and cocaine, and a bigger increase than boys for use of ecstasy.

	Boys 2009	Boys 2007	Girls 2009	Girls 2007
Alcohol	70.5	70.3	69.3	72.0
Marijuana	34.4	35.4	31.2	36.2
Mushrooms	12.1	12.1	9.2	10.1
Prescription or over the counter drugs (OTC)	7.7	8.3	11.3	12.4
Inhalants	5.4	5.6	6.0	9.0
LSD/Acid	3.4	3.5	4.5	2.9
Cocaine/Crack	4.2	4.3	4.7	6.1
Ecstasy	6.6	5.6	8.6	6.3
Crystal Meth/Speed	1.7	1.2	2.1	2.2
Steroids	1.2	1.2	0.7	.4
Heroin	0.7	.4	1.2	.8

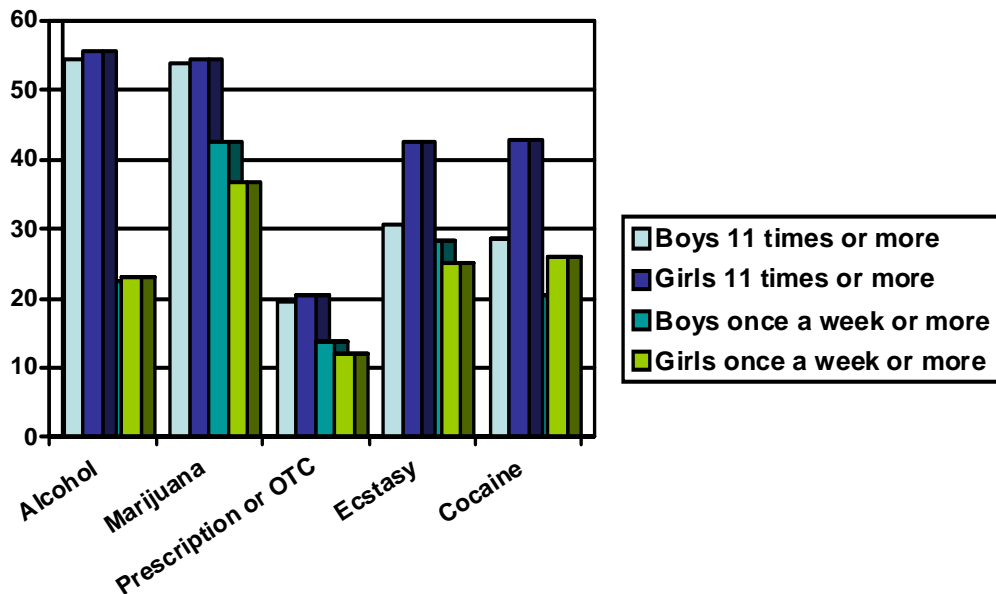
Lifetime Substance Use Rate for Boys and Girls



The following table and graph shows the number of times used and the frequency of use for boys and girls for given substances. Roughly the same percentages of boys and girls have used alcohol, marijuana and prescription or over the counter drugs eleven times or more. A significantly higher percentage of girls have used ecstasy and cocaine eleven times or more. Boys are more likely to use marijuana, prescription or over the counter drugs and ecstasy on a weekly basis while girls are more likely to use cocaine on a weekly basis.

	Boys		Girls	
	Used 11 time or more	Used once a week or more	Used 11 time or more	Used once a week or more
<b>Alcohol</b>	54.5	22.4	55.7	23.0
<b>Marijuana</b>	53.8	42.4	54.4	36.8
<b>Pres./OTC</b>	19.7	13.6	20.5	12.0
<b>Ecstasy</b>	30.7	28.4	42.5	25.2
<b>Cocaine</b>	28.6	20.3	42.9	26.0

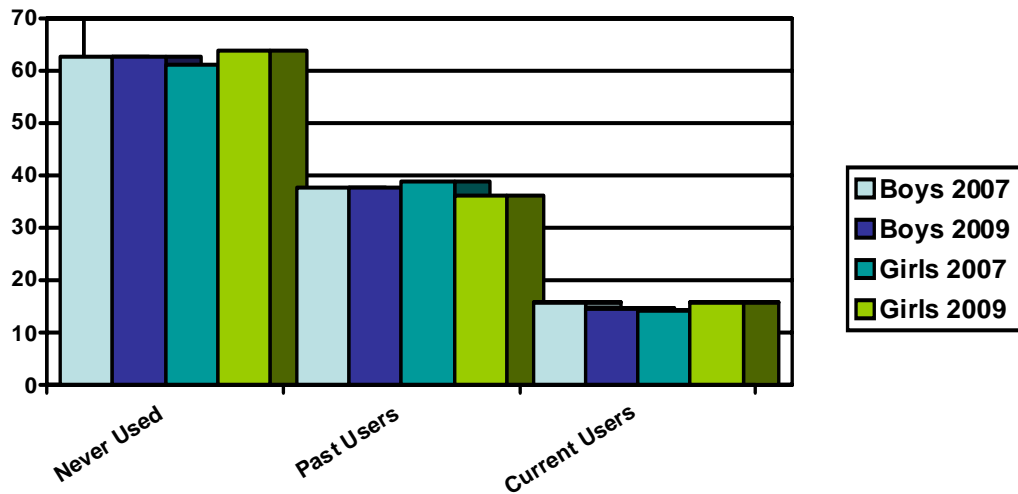
**Times Used and Frequency of Use Rates for Boys and Girls**



The following table and graph shows the tobacco use rates for boys and girls from 2009 and 2007. Compared to 2007, more girls report not having used tobacco products while the number of boys who have not used has remained steady. Compared to 2007 the number of boys who are current users has decreased by 1.6% while the number of girls who are current users has increased by 1.4%.

	Boys			Girls		
	Never used	Past users	Current users	Never used	Past users	Current users
<b>2009</b>	62.5	37.5	14.6	63.7	36.3	15.9
<b>2007</b>	62.4	37.6	16.0	61.0	39.0	14.5

**Tobacco Use Rates by Gender**

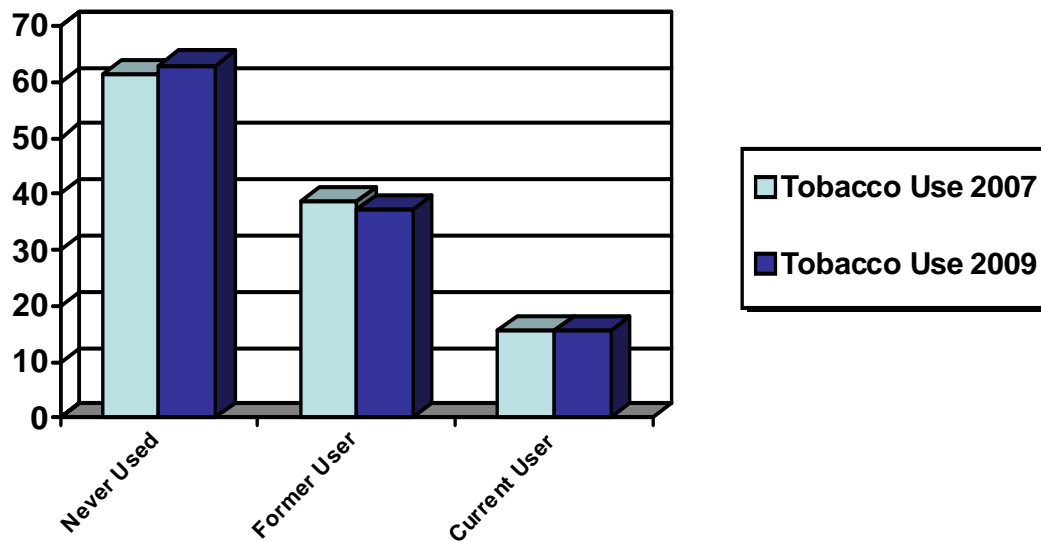


### 3.09 Tobacco Use

The following table and graph shows the percentage of students who report never having used cigarettes or other tobacco products, the percentage who are former users but not current users, and the percentage who are current tobacco users. There is a slight increase in the number of youth who have never used tobacco but the percentage of current users has remained constant.

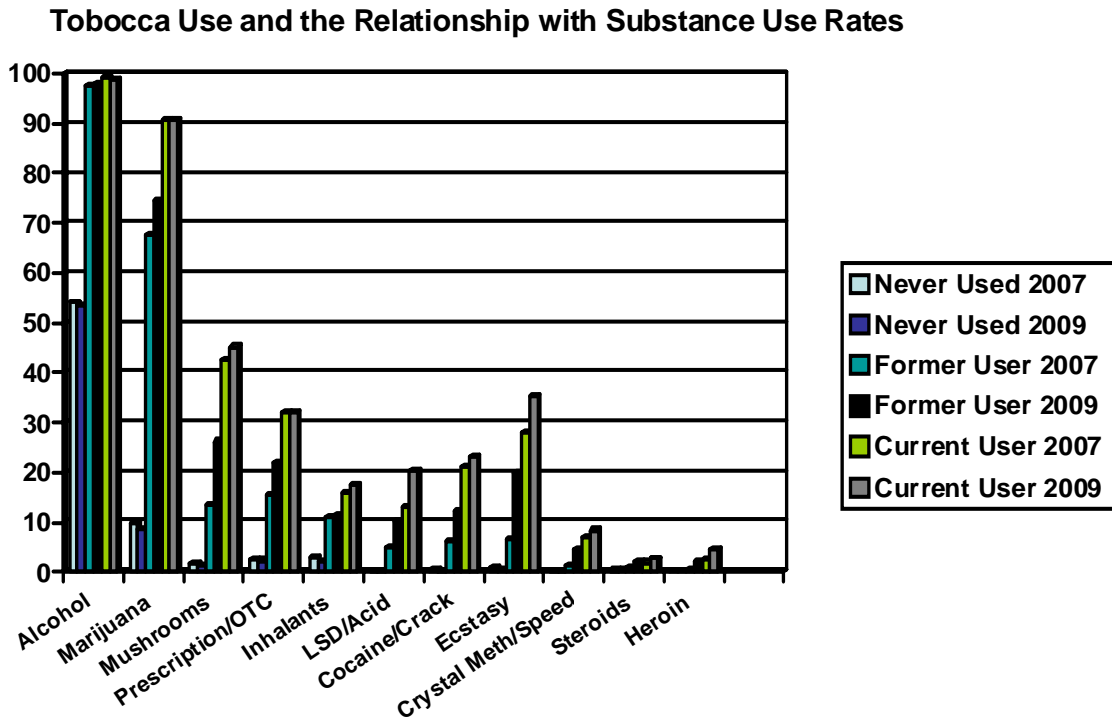
	Never used	Former User	Current User
2009	62.9%	37.1%	15.6%
2007	61.3%	38.7%	15.5%

Tobacco Use



### 3.10 Substance Use Rates and Tobacco Use

The following graph shows the relationship between reported lifetime use of substances and tobacco use. As with the 2007 survey, the data shows that tobacco use is strongly correlated with substance use, and that current tobacco users have the highest rates of substance use.

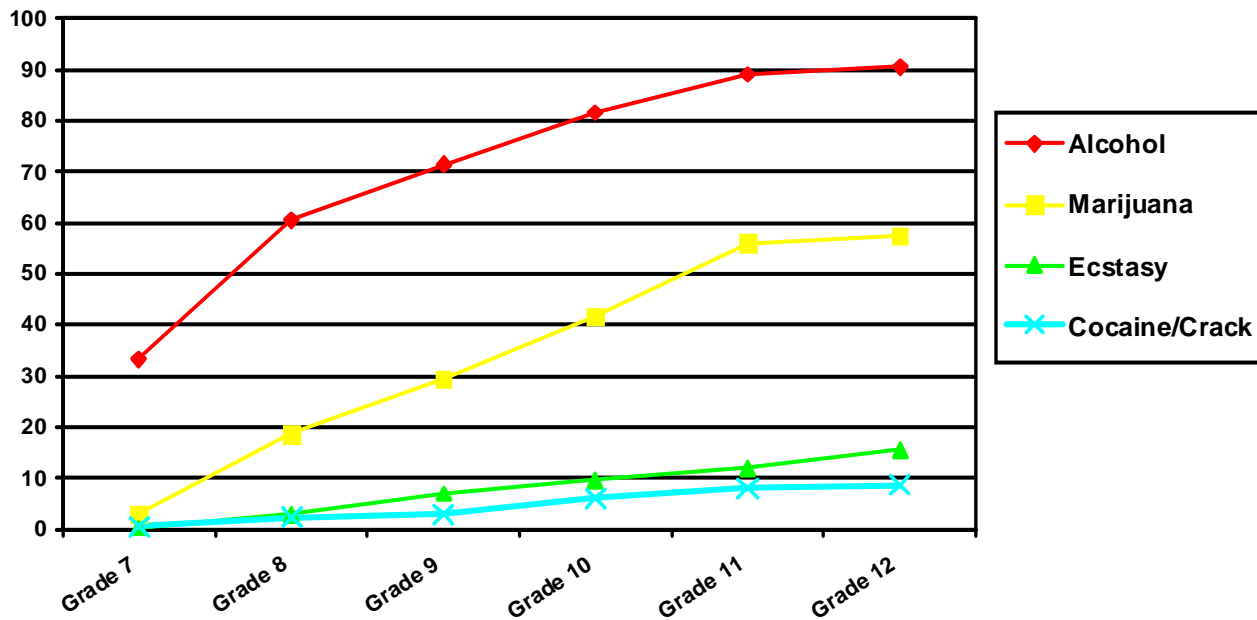


### 3.11 Substance Use and Grade

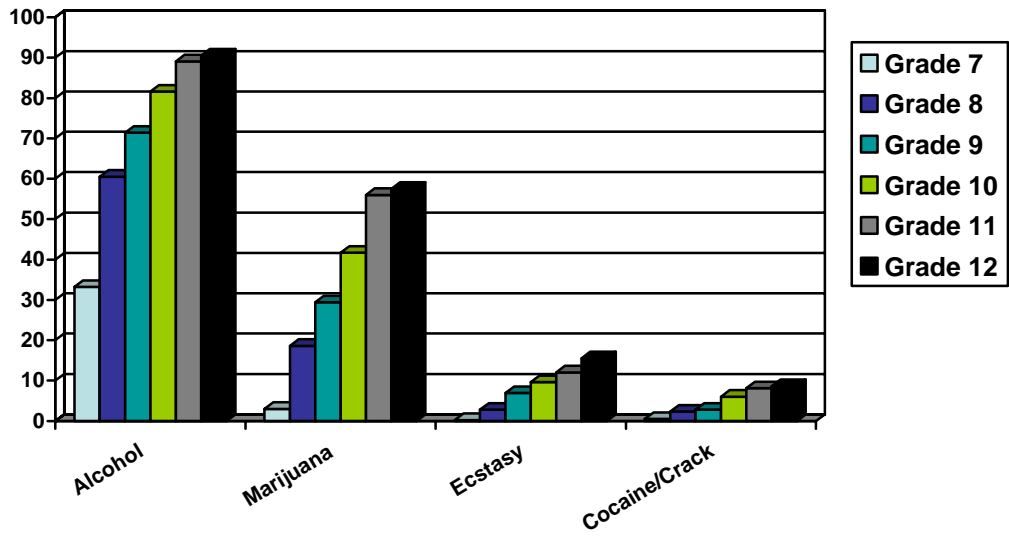
Substance use increases with age and grade. The following table and graphs shows the change in lifetime usage levels for selected substances as the grade of the respondent increases. For most substances the rate of increase in use is greatest between grades 8 and 10 and then slows down from grade 10 to grade 12. With ecstasy the use continues to increase at a more constant rate.

Use of Selected Substances by Grade						
	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
<b>Alcohol</b>	33.2	60.5	71.4	81.6	89.1	90.5
<b>Marijuana</b>	3.0	18.6	29.4	41.7	56.0	57.5
<b>Ecstasy</b>	0.2	2.8	6.9	9.6	12.0	15.5
<b>Cocaine</b>	0.5	2.3	2.8	6.0	8.1	8.6

Selected Lifetime Substance Use Levels and Grade



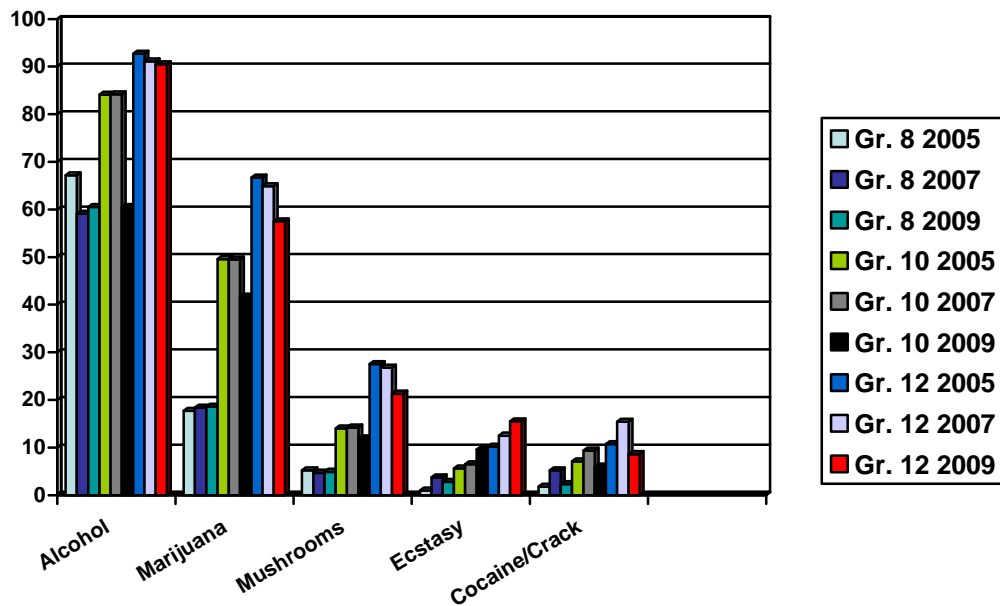
### Selected Lifetime Substance Use Levels and Grade



The following table and chart show the change in lifetime use rates by selected grades for selected substances across the past three surveys.

	Grade 8			Grade 10			Grade 12		
	2005	2007	2009	2005	2007	2009	2005	2007	2009
<b>Alcohol</b>	67.2	59.1	60.5	84.1	84.2	81.6	92.7	91.1	90.5
<b>Marijuana</b>	17.7	18.4	18.6	49.6	49.5	41.7	66.7	64.9	57.5
<b>Mushrooms</b>	5.2	4.7	4.9	14.0	14.2	11.9	27.5	26.8	21.3
<b>Ecstasy</b>	1.0	3.7	2.8	5.6	6.5	9.6	10.2	12.5	15.5
<b>Cocaine</b>	1.8	5.2	2.3	7.1	9.4	6.0	10.7	15.4	8.6

**Selected Lifetime Substance Use Levels and Grade**

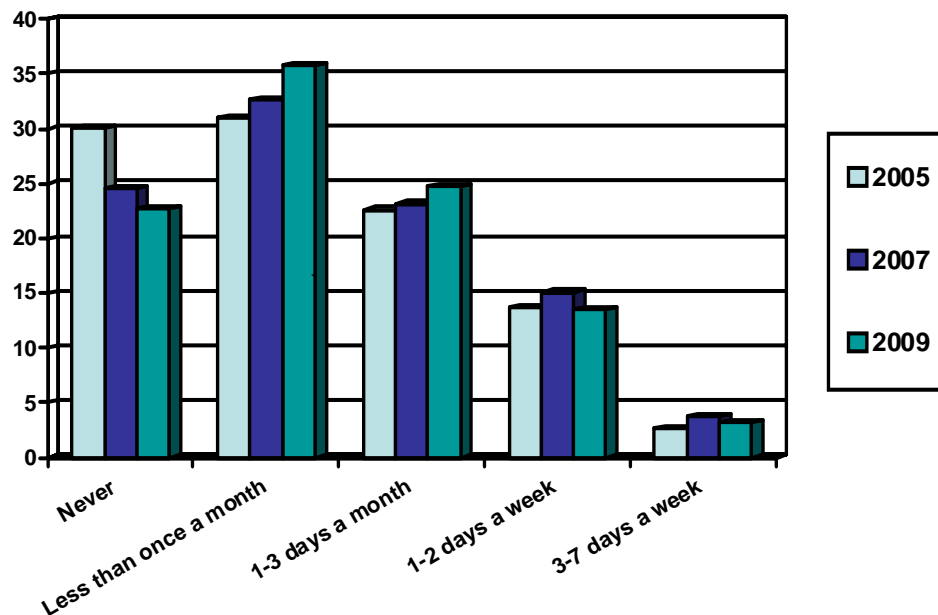


### 3.12 Binge Drinking

The following table and graph shows the frequency of binge drinking for the 2009, 2007 and 2005 surveys. Heavy episodic alcohol use, or binge drinking, is defined as having 5 or more drinks during one drinking episode. The number of youth who report never binge drinking has declined steadily since 2005. The number of youth who report binge drinking at least once a month has been relatively stable at between 39 and 42% of youth who drink.

	2009	2007	2005
<b>Never</b>	22.7	24.6	30.1
<b>Less than once a month</b>	35.8	32.6	31.0
<b>1-3 days a month</b>	24.8	23.2	22.6
<b>1-2 days a week</b>	13.5	15.1	13.7
<b>3-7 days a week</b>	3.2	3.7	2.6

**Binge Drinking - 5 Or More Drinks On One Occasion**

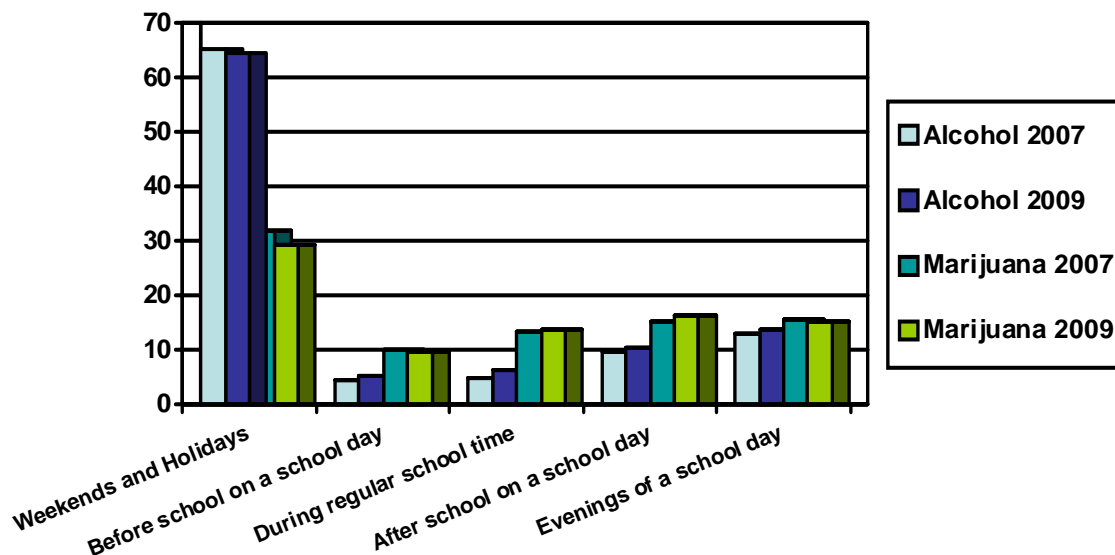


### 3.13 When Youth Use Substances

The following table and graph shows when students report having used alcohol and marijuana. The percentages include all youth, even those who do not use substances, in order to show the absolute percentage of students who report having used during school time. The main time that youth will use any substances is on the weekend or holidays. Of concern, however is the relatively high number of students who will use marijuana on school days and more importantly, during regular school hours. 13.5% of all students in the East Kootenay report that they have used marijuana during regular school hours, with nearly 10% saying they have used before school. Over 42% of youth who have used marijuana report having used during regular school hours. Students who regularly use marijuana (3-7 days/week) are the most likely to use during school time. The acute and cumulative effects of marijuana use have a negative impact on short-term memory, motivation, attention and problem solving ability. This can only be assumed to be having a negative impact on school performance.

	Alcohol		Marijuana	
	2009	2007	2009	2007
Weekends and holidays	64.5	65.1	29.2	31.8
Before school on a school day	5.1	4.3	9.6	9.9
During regular school time	6.2	4.6	13.5	13.0
After school on a school day	10.2	9.6	16.2	15.2
Evening of a school day	13.7	12.8	15.2	15.5

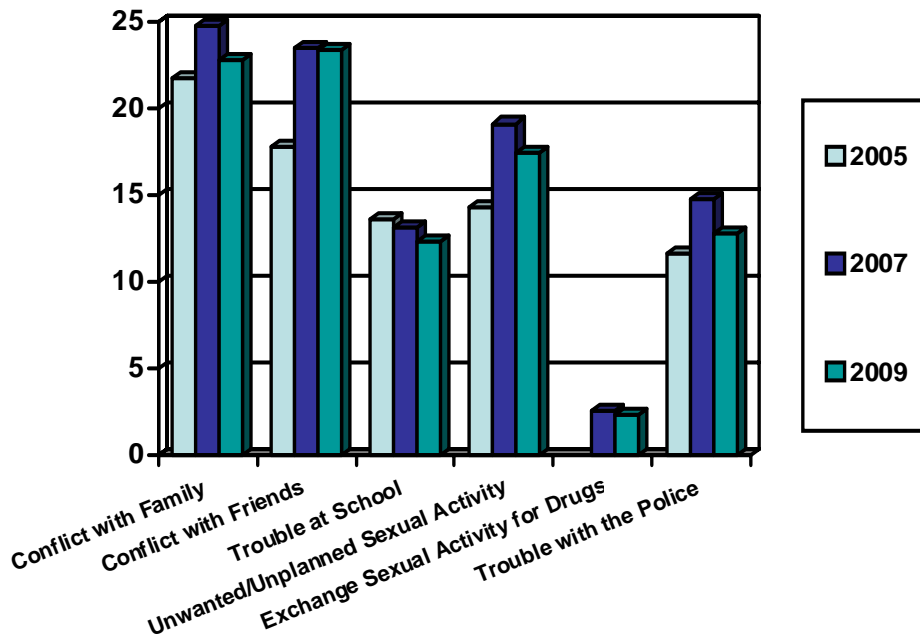
**When Youth Use Substances**



### 3.14 Repercussions of Substance Use

The survey examined the impact that substance use has on a variety of adolescent relationships and behaviours. The data demonstrates that as the number of substances used increases, and as the frequency of use increases, the likelihood that youth will experience negative consequences or engage in risky behaviours also increases. Reported consequences increased from 2005 to 2007 and then declined in 2009.

Repercussions: Parents, Friends, School, Sexual Activity

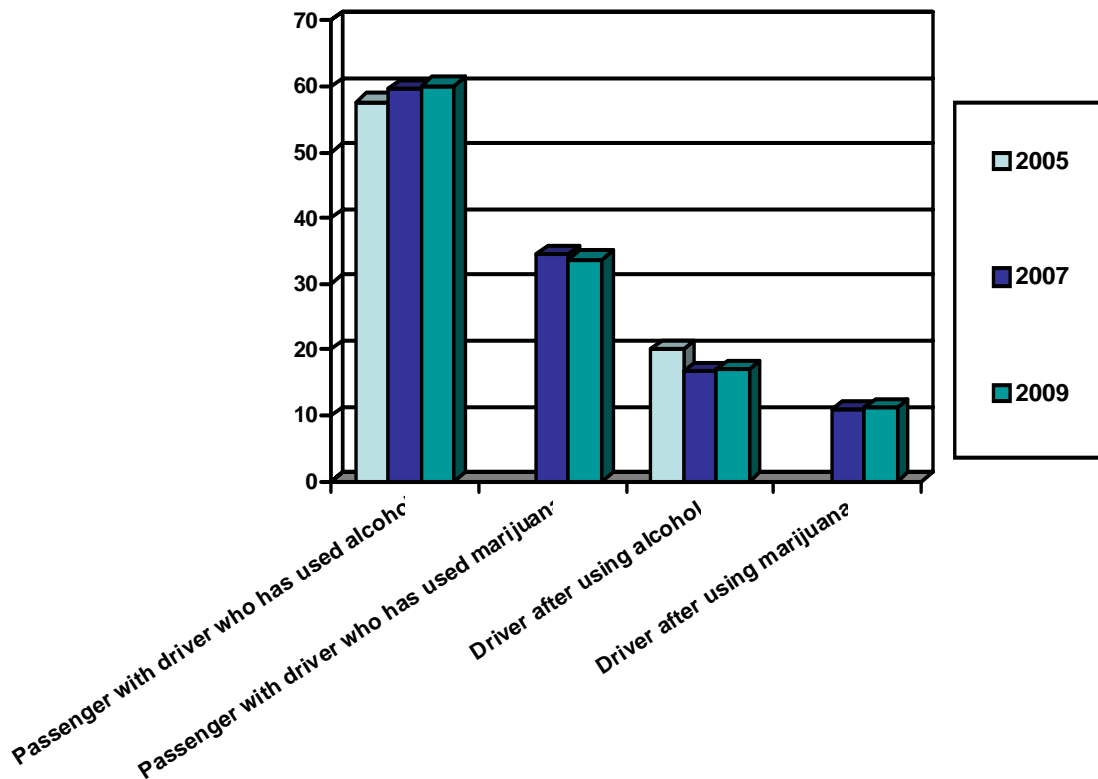


### 3.15 Substance Use and Driving

The following table and graph shows the percentage of youth who report having been a passenger in a vehicle with a driver who was under the influence of alcohol or marijuana, and the percentage who reported having operated a vehicle after using alcohol or marijuana.

	Passenger with Driver using Alcohol	Passenger with Driver using Marijuana	Driver using Alcohol	Driver using Marijuana
<b>2009</b>	60.1	33.7	16.9	11.1
<b>2007</b>	59.6	34.5	16.8	11.0
<b>2005</b>	57.6	n/a	20.1	n/a

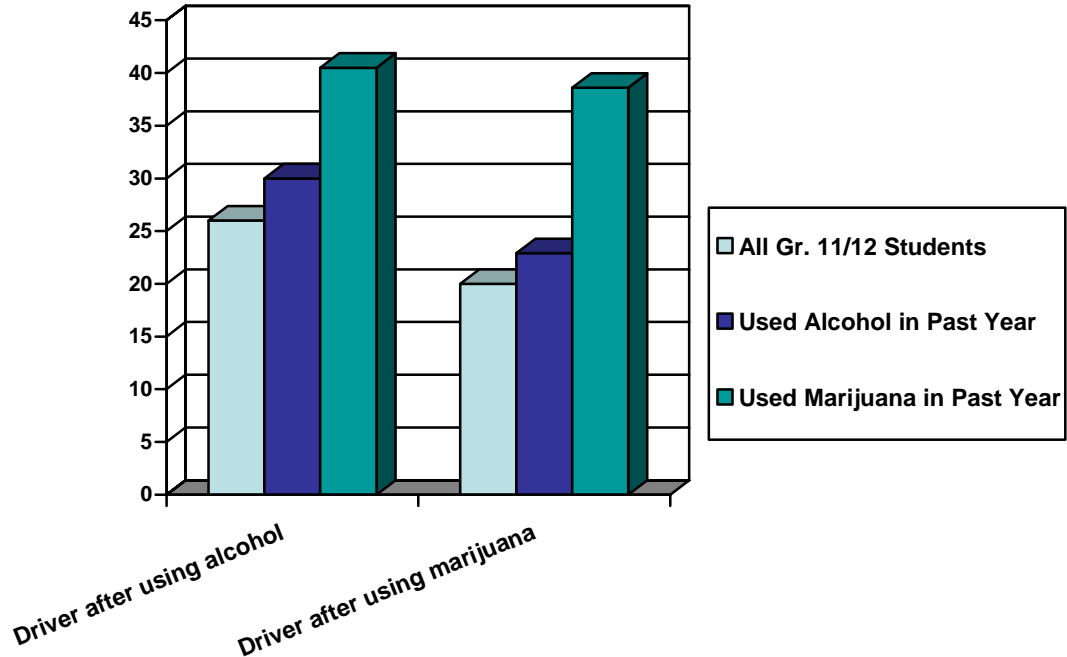
**Substance Use and Vehicles**



The following table and graph shows the percentage of Grade 11 and 12 students who report driving after using alcohol or marijuana, and the percentage who reported driving who had used alcohol in the past year, and alcohol and marijuana in the past year. Clearly students who had used marijuana in the past year were far more likely to have driven after drinking or using marijuana than students who had only used alcohol in the past year.

	All Gr. 11 and 12 Students		Used Alcohol in Past Year		Used Alcohol and Marijuana in Past Year	
Driving with:	Alcohol	Marijuana	Alcohol	Marijuana	Alcohol	Marijuana
2009	26.0	20.0	30.0	22.9	40.5	38.6

**Substance Use and Driving**

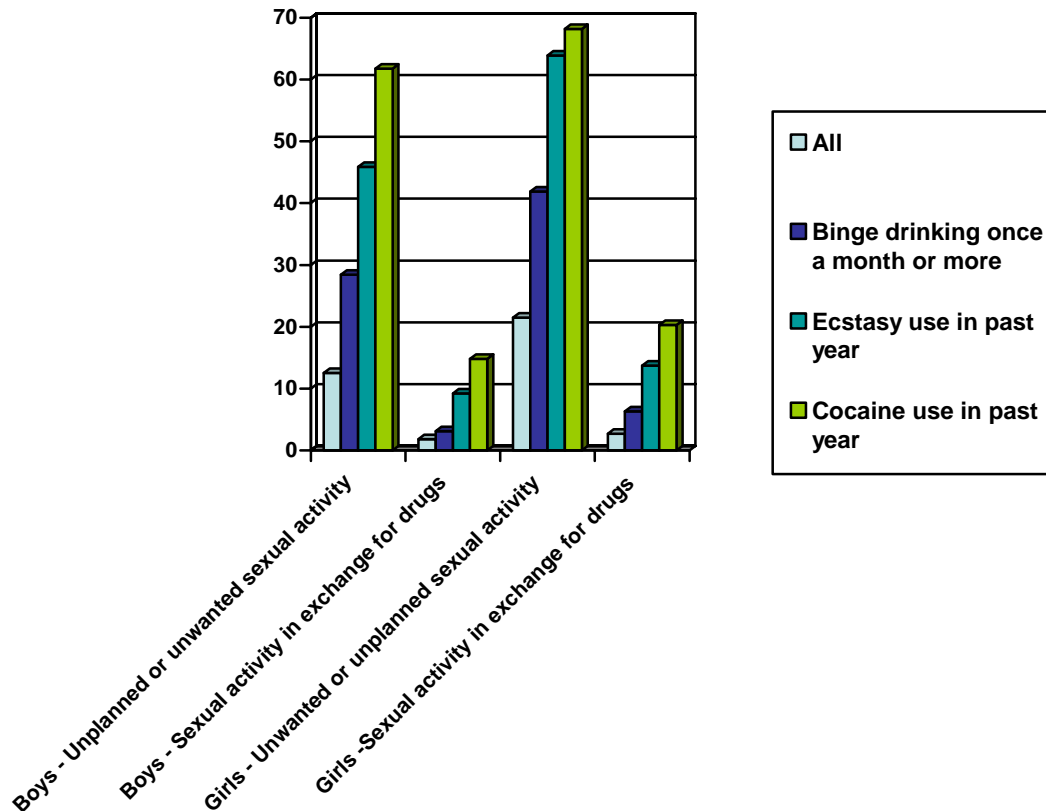


### 3.16 Substance Use and Sexual Behaviour

The following table and graph shows the impact of different substance use behaviour on sexual behaviour for boys and girls. The data clearly shows that high numbers of youth engage in unplanned or unwanted sexual behaviour as a result of their substance use. Roughly two thirds of boys and girls who have used cocaine in the past year report unwanted or unplanned sexual behaviour. Also of concern is the relatively high percentage of boys and girls who report having exchanged sexual activity for drugs. Youth who use cocaine or ecstasy were particularly at risk.

	Boys				Girls			
	All	Binge Drink at least once a month	Ecstasy Use in Past Year	Cocaine Use in Past Year	All	Binge Drink at least once a month	Ecstasy Use in Past Year	Cocaine Use in Past Year
<b>Unplanned/ Unwanted Sex</b>	12.5	28.4	45.9	61.8	21.5	41.9	63.9	68.2
<b>Sexual Activities in Exchange for Drugs</b>	1.8	3.1	9.2	14.8	2.7	6.3	13.7	20.3

**Substance Use and Sexual Behaviour**



## **4. Conclusions**

The findings of the 2009 East Kootenay Adolescent Drug Survey demonstrate a trend of continued overall reduction in lifetime usage rates by youth for most substances. Although this is encouraging, concern can be raised at the increasing use of ecstasy, the high number of youth who continue to binge drink, use marijuana during school time and the high number of youth who engage in risky behaviour such as driving while under the influence and engaging in sexual activity as a result of substance use.

As in the 2005 and 2007 surveys, the 2009 survey found that alcohol and marijuana continue to be the principle drugs of choice for youth. The surveys also show that a significant minority of youth have not used any substances. Most youth who use do so on an infrequent basis and, with the exception of alcohol and marijuana, most youth who have used other substances have only done so a small number of times.

As in the previous surveys, the 2009 survey also reaffirms that tobacco use is strongly correlated with much high levels of substance use. As well, marijuana use creates a greater risk of negative consequences than alcohol use alone. Although youth will typically downplay negatives consequences from marijuana use, the surveys suggest that marijuana use will dramatically increase risky behaviours and negative consequences. The fact that over 40% of youth who have used marijuana report having used during regular school time suggests a lack of awareness or a lack of concern at the inappropriateness of this behaviour and the negative impact on school performance. It also is of concern as newer studies demonstrate clear physical, mental and emotional health risks from regular marijuana use.

Nonetheless, it is encouraging that more youth are choosing not to use substances. Preliminary analysis suggests that some of the prevention and education programming that East Kootenay Addiction Services has implemented over the past 5 years may be playing a role in the reduced use. It is not possible for one Agency alone, however, to tackle an issue as broad and pervasive as substance use. Research clearly shows a wide variety of factors affect the decisions by youths to engage in substance use. These factors include parental attitudes and modeling, community standards, cost and availability and negative consequences. In the past few years East Kootenay Addiction Services has been actively partnering with other youth service providers to develop and deliver a range of prevention, education and treatment programs. We intend to build on these partnerships, in order to expand successful programs and to involve more providers in program partnership. Our aim is to gradually develop a cohesive community response with the goal of changing the broader community culture towards youth substance youth. Out of this we hope to create communities where youth will be encouraged to make healthy and responsible choices about substance use based on accurate information, clear role modeling, and a community attitude that demonstrates that youth are valued, included and responsible for the decisions.

## **5. Acknowledgements and Contact Information**

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**EKASS has offices at the following locations:**

<p><b><i>Cranbrook/Kimberley</i></b></p>	<p>202-1617 Baker Street                  Cranbrook, BC V1C 1B4                  Ph: 250-489-4344                  1-877-489-4344                  Fax: 250-489-1020  <a href="mailto:info@ekass.com">info@ekass.com</a>  <a href="http://www.ekass.com">www.ekass.com</a></p>
<p><b><i>Columbia Valley</i></b></p>	<p>625 Fourth Street                  Box 2289                  Invermere, BC V0A 1K0                  Ph: 250-342-3868                  Fax: 250-342-3850  <a href="mailto:amorin@ekass.com">amorin@ekass.com</a>  <a href="mailto:mjones@ekass.com">mjones@ekass.com</a></p>
<p><b><i>Elk Valley</i></b></p>	<p>802 Second Avenue                  Box 2049                  Fernie, BC V0B 1M0                  Ph: 250-423-4423                  Fax: 250-423-6698  <a href="mailto:evadcs@elkvalley.net">evadcs@elkvalley.net</a></p>
<p><b><i>Creston</i></b></p>	<p>223 16<sup>th</sup> Ave N                  Bag 187                  Creston BC V0B 1G0                  Ph: 250-428-5547                  Fax: 250-428-5175  <a href="mailto:jmiller@ekass.com">jmiller@ekass.com</a></p>
<p><b><i>Golden</i></b></p>	<p>421 Ninth Avenue N                  Box 415                  Golden BC V0A 1H0                  Ph: 250-344-2000                  Fax: 250-344-5225  <a href="mailto:jtelfer@uniserve.com">jtelfer@uniserve.com</a></p>

For further information on the survey, or to obtain a copy, contact Dean Nicholson, Administrator, at 250-489-4344.