Adolescents and Drug Use in Cape Breton:

A Focus on Risk Factors and Prevention.

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For prevention programs to be effective, they must support those most at risk to be able to see a future when they close their eyes and dream.

(D'Emidio-Caston & Brown, 1998, p.115).

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Executive Summary

Recent reports in Cape Breton of an increase in the non-medical use of prescription drugs, especially OxyContin, impelled this examination of patterns of drug use among junior and senior high school students. Although to date the abuse of OxyContin has been most often reported among adults, adolescents can and do become addicted to the drug. In addition, the media emphasis on widespread availability and misuse of prescription drugs, in the context of economically depressed communities, suggests adolescents in the area are at risk for substance abuse.

To examine patterns of drug use and determine whether OxyContin use is a problem in the area, we surveyed students and teachers about their beliefs and experiences with a variety of drugs. About half the sample came from schools in Glace Bay, an area that has become associated with OxyContin abuse, and half from Sydney River/Coxheath as a comparison neighborhood. A total of 813 student surveys, 89 teacher surveys, and discussions from three focus groups comprising 53 Glace Bay junior high school students were analyzed.

As expected, as well as some differences by age and sex of student, there were differences in responses between Glace Bay students and those in Sydney River/Coxheath. Overall, there were age increases in exposure to drugs, in beliefs about how easily available drugs are, and in self-reported use of drugs. Males were more likely than females to report having seen drugs over the past 30 days, having used drugs and experienced subsequent legal consequences such as being in trouble with the police. Compared with students in Sydney River/Coxheath, the students in Glace Bay were significantly more likely to report that they had seen OxyContin, opiates, stimulants, anti-

anxiety drugs and cocaine over the past 30 days. Glace Bay students also were significantly more likely to believe drugs were easily available in the community and school, with the exception of alcohol, which Sydney River/Coxheath students reported more available in their schools. Finally, Glace Bay students were significantly more likely than Sydney River/Coxheath students to report that their friends were using drugs, and to report more use of drugs themselves.

Content analyses of the Glace Bay student focus group comments indicated significant frustration about drug use among these students. They commented on the easy availability of drugs in schools and in the community, they expressed concern at the lack of action to change the current situation, and the negative stereotyped image of their community. Themes of alienation from the community and depression were evident both in the focus group comments, and in comments added to surveys.

Teachers in Glace Bay were more likely than those in the comparison school area to report their belief that drugs were being used by their students, and that drugs, including OxyContin, were readily available in the community and the school. Teachers in both areas reported that their school had no drug policy, that there was little teaching of drug-related issues, few relevant resources, and that they had received no relevant training.

Despite the statistically significant differences between the two neighborhoods, it is important to note that overall drug usage was low when compared with previous surveys in Nova Scotia and British Columbia. Nonetheless, numbers preclude complacency (almost half the students reported using alcohol, and almost one quarter report using marijuana, and even the 3 percent of Glace Bay students who reported

having used OxyContin are cause for concern). The students who responded to the survey reported regular and consistent school attendance. Those abusing drugs are more likely to have sporadic attendance or leave school.

A number of recommendations are made to prevent further drug use. Overall, a multi-domain strategy is suggested that includes interventions in the school, family and community. To prevent drug abuse among Cape Breton adolescents, it is necessary to change the balance between their risk and protective factors. Such efforts must involve students, school administrators, staff, parents, and community leaders.

1. *Background*

Concerns about adolescents' use of drugs are not new. However, recent reports of an increase in the non-medical use of prescription drugs, in particular, OxyContin, have impelled this examination of the prevalence and type of drug use among junior and senior high school students.

Over the past year there have been increasing reports not only in the local media but also nationally of a problem of OxyContin use in parts of industrial Cape Breton. As well as numerous articles in the *Cape Breton Post* and interviews on Cape Breton radio and television stations, reports of an OxyContin crisis in Cape Breton have been described on national CBC radio (Budd, 2004), and the CTV news (2004), and in articles in the *Globe & Mail* (Richer, 2003), *Maclean's* (Gillis, 2004) and the *Toronto Star* (Toughill, 2004). After describing OxyContin, this report will summarize current knowledge about adolescents' drug usage patterns, describe the research conducted, and discuss evidenced-based approaches to preventing drug abuse.

What is OxyContin?

The drug, oxycodone (OxyContin is its trade name), initially hailed as a breakthrough in pain management, was introduced in 1995 by Purdue Pharmaceuticals. OxyContin is a frequently prescribed narcotic drug for adults who have chronic pain due to injury or cancers. It is supplied in controlled-release form and, when taken appropriately, can provide pain-relief for up to 12 hours. However, like morphine, OxyContin has a high potential for abuse. Over the past few months, there have been

many reports from the Federal Drug Agency in the U.S. about OxyContin diversion and abuse. OxyContin has now become a popular alternative to other street drugs such as heroin. Illicit users can achieve an immediate euphoria by crushing the tablet to disable the sustained release coating, and then swallowing or snorting the powder, or by dissolving it in water and injecting it. However, when the controlled release mechanism is defeated in this way, the release of a lethal dose is also possible, and a number of related deaths have been reported in Cape Breton and elsewhere.

Research has identified communities in which OxyContin abuse is more likely. Such communities tend to be relatively rural and isolated from major cities. Youth in these communities tend to complain about a lack of amenities and entertainment facilities. They tend to be communities in which many adults suffer from chronic illnesses, cancer, and pain syndromes associated with a history of difficult manual labor such as fishing, coal-mining, or steel-making that often results in serious or debilitating injuries (Inciardi & Goode, 2003). OxyContin is often the prescribed painkiller for these conditions. Other identified characteristics of a community that is high-risk for drug abuse are impoverished neighborhoods, a high rate of neighborhood instability, and a sense of alienation from the community (Alberta Alcohol and Drug Abuse Commission, 2003; Houston & Wiener, 1997). Finally, there is some evidence that when economic depression is also present, some of those legitimately prescribed OxyContin are tempted to sell it for profit (Center for Substance Abuse Treatment, 2001).

Adolescents who are living in such disadvantaged communities typically lack the developmental assets, or protective factors, that are associated with drug abuse prevention (Arthur & Blitz, 2000; Scales et al, 2001). They tend to be marginalized,

alienated from their communities, and have higher than average rates of depression. These are key risk factors for adolescents engaging in high risk behavior such as drug abuse (O'Leary & Covell, 2002; Scales et al, 2001). In addition, some will have parents who depend on opioids such as OxyContin thereby inadvertently providing a role-model for the acceptance of and reliance on pain medications to "feel better", what Katz and Hays (2004) describe as the impact of living in a "pain culture" (p. 233). These risk factors are additive in effect (U.S. Department of Health and Human Services, 2003).

Another component of community that is an important predictor of substance abuse in adolescence is the extent to which adolescents anticipate a positive future. As D'Emidio-Caston and Brown (1998) pointed out, the abuse of substances among adolescents is primarily among those with little vision for the future. In particular, perceptions of local labor market opportunities are an important predictor of adolescents' investment in their futures (Bellair, Roscigno & McNulty, 2003). When adolescents see future prospects as poor, they realize that they cannot count on legitimate upward social mobility; they become disinterested in education, and seek alternative sources of status.

Cape Breton is in a state of economic difficulty and transition from traditional economies. In recent years, unemployment rates have fluctuated between 13 and 23 percent, and the population has been steadily decreasing. Census data show a 13 percent decline in population between 1981 and 2001, 7 percent of which was after 1996. The local media, community organizations, and political representatives have, in response, perpetuated an ambient sense of doom. There are almost daily reports of how communities are being destroyed, how little there is for "our youth" and how sad it is that

most must leave the island. Such media messages must be expected to have a negative impact on the well-being of local adolescents (cf. O'Leary & Covell, 2001).

Media reports of social decay and limited futures, together with reports of widespread OxyContin use and availability, may well function to actually increase OxyContin and other drug abuses. Patterns of drug abuse vary with social connectedness, perceived availability, levels of social disapproval, and the perception of peer usage (Pentz, Bonnie & Shopland, 1996; US Department of Health & Human Services, 2003). Adolescents usually overestimate the drug use of their friends and peers (Tobler, 1997). Media reports that suggest ready availability and pervasive use may reinforce existing beliefs, provide indirect exposure to drug use modeling and social norms to use drugs, and thereby promote additional usage.

OxyContin and adolescents

Although at this time it would appear that the incidence of addiction to OxyContin is more prevalent among adults than adolescents, there are a number of reasons to be concerned about its abuse by adolescents.

There is evidence that adolescents can and do develop addiction to OxyContin very rapidly, even those adolescents who have no history of prior drug use, and there have been a number of reports of overdose-related deaths in adolescents (Katz & Hays, 2004). Adolescents typically begin using OxyContin at mid-adolescence, which is an age range that is normally considered to be low risk for heroin or other opioid use (National Institute on Drug Abuse, 2002). The relatively early age of initiation and the rapidity of transition from exposure to abuse is assumed related in part to the widespread availability

of the drug, and to its capacity to provide an immediate and powerful sense of euphoria (Katz & Hays, 2004). Behaviors to obtain OxyContin tend to become high risk. There is involvement in crime, either to steal the drug directly or to obtain the resources needed to purchase the drug, and there tends to be a progression toward academic failure and school drop out (Katz & Hays, 2004). This pattern of behavior is found also among those addicted to other illicit drugs.

Patterns of drug use among adolescents

Because the use of drugs and alcohol during adolescence may exact a high price on the personal and social development of the adolescent (Gullotta, Adams & Montemayor, 1995; Spoth, Redmond, Shin & Azevedo, 2004), there has been considerable monitoring of the amount and type of drug use among adolescents. After peaking in the late 1970s, patterns of drug use among North American adolescents showed a steady decrease through the 1980s (Johnston, O'Malley & Bachman, 2001). However, an upward trend is clear in the 1990s in adolescents' use of a variety of illicit drugs. This has been particularly evident in studies of the use of marijuana where increases in its use have been associated with its increased social acceptance (Johnston, O'Malley & Bachman, 1999). More recently, there are suggestions in the literature that the positive attitudes toward the use of marijuana may have generalized to other substances.

Data from the Canadian National Longitudinal Study demonstrated that during the 1990s, Canadian adolescents' attitudes toward drug use in general became increasingly positive (Haans & Hotton, 2004). The changing attitudes were reflected in

higher usage rates among 12 to 15 year-olds of alcohol and marijuana, and in the non-medical use of prescription drugs (Haans & Hotton, 2004). An assessment of youth drug use in the lower mainland of British Columbia (Pacific Community Resources, 2002) also indicated rising use of alcohol and various illicit drugs. Somewhat different patterns of use were obtained in a survey of drug use among Nova Scotia adolescents. Some decreases from 1998 to 2002 in the prevalence of alcohol and tobacco use were noted, and there was stability, rather than increase, in the rates of marijuana use (Poulin, 2002). Where the data among these surveys converge is in showing that alcohol remains the most commonly used substance among Canadian adolescents, with marijuana the second most common. In addition, a common and troubling finding is that there continues to be an upward trend in the prevalence of the use of harder drugs and non-medical use of prescription drugs, and there are indications in the data of a downward trend in the age at which experimentation with, or use of such drugs begins.

2. The Research[1]

To examine adolescents' patterns of drug use and determine whether OxyContin abuse is a problem in the area, during May and June of 2004, we surveyed students and teachers in two areas of industrial Cape Breton. One area, Glace Bay (GB), was one of the places that had been identified in media reports as having high rates of OxyContin availability and abuse. The other area, Sydney River/Coxheath (SRC), was used for comparisons.

[1] This research would not have been possible without the commitment and effort of Marcie Smith and Wayne McKay, researchers at the Children's Rights Centre, and the cooperation of the Cape Breton Victoria Regional School Board, teachers and students. I gratefully acknowledge funding from the Community Partnership on Prescription Drug Abuse

Participants

Surveys were completed by students from three junior high schools and one senior high school in the GB neighborhood (n=415), and from one junior and one senior high school in SRC neighborhood (n=419). A total of 21 surveys (10 from GB and 11 from SRC) were discarded due to incomplete responses, leaving a total N of 813.

Students were categorized into three age groups: (1) 12-13 years, (2) 14-16 years, and (3) 17 years and over, to represent early, mid and late adolescence. In the youngest age group, there were 104 students in GB, and 96 in SRC, with an average age of 13 years in both communities. In the middle age group, there were 203 students in GB, and 186 in SRC, with an average age of 15 years in both areas. The oldest age group consisted of 91 GB students, and 124 SRC students, with an average age of 17 years. Other demographic data showed the GB students consisted of 218 males and 207 females, of whom 95.6 percent were Caucasian, 2.0 percent were African Canadian, 0.2 percent were Aboriginal, and 2.2 percent were unspecified 'other.' Participants in SRC comprised 207 males and 201 females, of whom 94.9 percent were Caucasian, 0.2 percent were African Canadian, and 4.9 percent were unspecified other. Within each age group and within each neighborhood were approximately equal numbers of males and females. Ninety-four percent of respondents in each area reported attending school regularly. There were some differences in students' living arrangements by community. Of those in GB, 67 percent reported living with both parents, in SRC, 75 percent reported living with both parents. The remainder in both areas was, in order, mother only, father only, and foster care, with similar percentages in each area. There were some differences between the two areas in the reported level of parental education. In GB, 30 percent of

parents had graduated from university, 14 percent from college, and 5 percent had not finished high school. In SRC, 40 percent of parents had graduated from university, 18 percent from high school, and 2 percent had not finished high school. Over five percent of the GB sample and four percent of the SRC sample reported that they had used mental health services for depression.

A subset of the student respondents from GB junior high schools also participated in follow-up focus group discussions. There were three separate groups with student participation being, 21, 20, and 12 (N =53).

Teacher participants in GB schools (n =52) included 30 males and 22 females. Teacher participants in SRC schools (n=41) included 15 males and 26 females. The teachers surveyed were all secondary-level teachers with 42 teaching junior high and 45 teaching senior high school. All were fully certified. All teachers in both school areas were Caucasian. Surveys from four of the teachers were discarded since they taught at multiple schools and the survey required a focus on one school (N= 89).

Materials and Procedure

Students in the GB and SRC neighborhoods who wished to participate in the research were distributed the *Youth Drug Investigation Survey (see Appendix 2).* The survey was based on questions drawn from the *Nova Scotia Student Drug Use Survey* (2002) and the *British Columbia Lower Mainland Youth Drug Use Survey* (2002). Following the latter, we asked about drug usage in the past 30 days since our interest was, in part, on the possible link between media reports and youth beliefs about and experiences with drugs, and current drug usage patterns. The *Youth Drug Investigation Survey* comprised demographics, and experiences with and beliefs about the following

drugs: nicotine, alcohol, marijuana, OxyContin, other opiates (Demerol, Percocet, morphine), painkillers (Tylenol 3 and Codeine), stimulants (Ritalin and Dexedrine), anti-anxiety drugs (Valium, Xanax, Ativan), cocaine, and ecstasy. The drugs selected for inclusion were those that had been identified locally as area problems. OxyContin was examined separately from other opiates because it had been identified as a severe problem in the GB community, and was the focus of interest.

For each of these drugs students were asked whether over the past 30 days they had seen them (Yes/No), had friends who had used them (Yes/No), what percentage (hardly any, 25%, 50%, 75%, almost all) of their classmates they thought had used them, whether they had used these drugs themselves for non-medical reasons (Yes/No), and how old they were when they first tried each of the drugs, if ever tried. In addition, students were asked to state whether each drug was easy to obtain in their community and at their school (Yes/No). Easy was defined as "If you had money, you could buy some within 24 hours". Other questions included responding to whether they experienced nine drug-related outcomes (Yes/No). These were categorized into social effects (e.g., disagreements with friends or family), legal effects (e.g., trouble with police), and physical effects (e.g., vomiting). The numbers of Yes responses were added to provide a score for each category of outcomes. Students were also asked whether they had experienced each of negative (e.g., feeling sad, tired, depressed) and positive feelings (e.g., enjoying life, hopeful for the future, happy) over the past seven days (Yes/No). These latter were summed to provide an overall score for positive and for negative feelings. Following the surveys on which the present one was based, where answers were dichotomized into Yes or No, for purposes of analyses these were dummy-coded into 1

(No), and 2 (Yes). The other section of the survey asked whether they thought drugs were a problem in their community or school, for their experiences with selling or buying prescription medication, and their experiences with drug-related services and services for depression.

The surveys were distributed during regular class time with the classroom teacher present. Student representatives returned completed surveys to the researchers who remained at a central office in the school. The surveys took 15 to 20 minutes to complete.

Teachers at each of the schools were asked to complete a teacher's version of the survey. The teacher version consisted of a subset of questions adapted from the student version to assess teacher perceptions and experiences in education with regard to student drug use. Teachers were provided the same list of drugs that were presented in the student survey and asked to check Yes or No in response to whether they believed their students were using each of them, and whether they were easily available in the community and in the school. Teachers also were asked whether their school had a drug policy, whether they had taught drug-related classes, how they believed their students learned about drugs, what resources they had to teach about drugs and what training they had in responding to drug addicted students or in teaching drug prevention.

Focus Groups

Over a two week period after the surveys were completed, three separate focus groups were held with junior high school aged students from Glace Bay to assess further their thoughts about their community and its reputation of having a drug crisis. (High school students were unavailable for focus groups due to it being their exam period.) The focus group discussions took place at the students' school; two research assistants

facilitated and recorded the discussion. No teachers or other school authorities were present. Questions were asked to explore the following themes: drug sources/costs, common drugs used/abused, drug availability in their school/community, drug dealing, patterns of usage, experiences with drugs and peer pressure, reasons youth use drugs, drug effects and lifestyle interference, perceptions of their community, reality and nature of the drug problem, community resources and services for youth, input on community improvement, drug education currently received and education wanted.

Summary of results

Statistical analyses are presented in Appendix 1. A preliminary survey of the data indicated that some students had reported the use of pain killers but had then added information that suggested their use was legitimate. We therefore removed this category of drugs from analyses. It is important to note here that the evidence shows that self-report data on substance use and related problems are valid (Spoth et al, 2004).

Analysis of the student survey data showed that patterns of drug use among this sample varied somewhat by sex of student, by age group, and by whether the student was in Glace Bay or Sydney River/Coxheath. First, there were no differences by sex, age, or area in reported age at which students had tried the listed drugs. The youngest reported average age, age 12, was for nicotine, age 13 years was the average for first trying alcohol, 14 years for first trying marijuana, opiates, and stimulants, and 15 years for first trying anti-anxiety pills, cocaine, ecstasy and OxyContin.

Males across age and school area, significantly more than females, reported that they had seen OxyContin, stimulants, cocaine and ecstasy over the past 30 days. Males

also reported more use of marijuana and cocaine than did females, and reported experiencing more legal outcomes of drug abuse (e.g., being in trouble with the police) than did females.

Age differences generally showed that with increasing age there was more awareness and more use of drugs. An age increase was found for exposure to most of the drugs listed as well as in students' belief that friends had used the drug in the past 30 days. There was an increase with age in students' perceptions that their classmates had used nicotine, alcohol, marijuana and stimulants over the past 30 days. Older students reported more availability of each of the drugs in their community, and more availability of alcohol, opiates, stimulants, anti-anxiety drugs and ecstasy in their schools. The data also indicated age differences in the students' reported experiences with drug effects and with their feelings. There was an age increase in reported experience with physical outcomes of drug abuse (e.g., vomiting); the oldest group of students (17 years and over) were most likely to report experiencing legal outcomes of drug abuse (e.g., trouble with police), and the youngest group reported the fewest social outcomes (e.g., disagreements with parents or friends). The youngest age group also reported the fewest negative feelings. Overall, however, SRC students reported significantly more positive feelings than did students in GB.

There were a number of differences in the patterns of use as a function of whether students were in Glace Bay or Sydney River/Coxheath. Compared with SRC students, GB students, across age and sex, reported being more exposed to OxyContin, opiates, stimulants, anti-anxiety drugs and cocaine. Glace Bay students were more likely to perceive that their friends used nicotine, OxyContin, opiates, anti-anxiety drugs and

cocaine over the past 30 days. When reporting their own use of substances over the past 30 days, GB students were more likely than SRC to report using nicotine, OxyContin, and opiates. With regard to the easy availability of drugs, GB students reported more easy availability in the community of OxyContin, opiates, stimulants, anti-anxiety drugs and cocaine, and in their school of nicotine, OxyContin, opiates, stimulants and anti-anxiety drugs. SRC students reported more availability of alcohol in their schools.

When asked if they thought there was a problem of substance abuse in their community or school, 79 percent of GB students said there was; 50 percent of those in SRC thought there was a problem. Similarly when asked if the community should take action to reduce substance abuse, 68 percent of GB students and 42 percent of SRC students thought this was necessary. GB students reported that they had received more classes on drug use than did those in SRC. Almost half the GB students reported that they had received three or more classes about drugs, whereas half the SRC students reported one or two classes about drugs had been received.

An examination of the predictors of drug use among the students showed that the most significant predictor of each of the drugs was the perception that it was used by friends. However, it is important to note that perceived availability of the drug in the community was also related significantly to its use.

Approximately one third of students added information to the surveys. Some students added information to specific questions and others added comments at the end of the survey. This pattern of comments and the few numbers who provided them precluded statistical analysis. However, in a content analysis of their comments, three themes clearly emerged. One was that of depression. For example, one GB student explained his

reason for taking drugs was to "effectively decrease my motor skills (and) escape the reality of how horrible life is." Another GB student said, "I think that depression amongst teens is a subject which needs to be looked at more closely, not just drugs." A second theme was that of alienation from the community. Students' comments (GB) included "the boredom in this shithole", "it crushes kids to be treated like this" (as trouble-makers). The third theme was around action – why nothing is being done or what should be done. Sample comments included, " Everyone complains about the problem, but won't do anything about it." , and "If the police and government were actually serious about ending drug abuse they wouldn't be so lenient toward people who deal." Finally, there were a few more philosophical or perhaps pragmatic comments. The following examples are from SRC students: "Fill the potholes with oxyheads.", and "Kids do it, you can try to stop them but you won't. Drinking is like having sex with a hyperactive hooker, it's tiring and expensive, but it's just too pleasurable to stop."

Focus Groups

The focus groups began by asking students what drugs came to mind. It is noteworthy that in each group, OxyContin and marijuana were among the first three named, although focus group participants said they did not use OxyContin. The students reported that money was obtained to purchase illicit drugs either through illegal activities such as dealing drugs or stealing, or by asking parents for money. Drugs were readily obtainable from their friends, their parents, or from local area businesses. With regard to the latter, it is noteworthy that many students, both participants in the focus groups and respondents to the surveys, identified the same Glace Bay business as the major source of

illicit drugs. The students also reported that other than acid, ecstasy and heroin, drugs were obtainable at school, and were used during school hours, although for the most part drugs were used evenings and weekends.

When asked why drugs were used, the students were consistent in talking about the lack of activities or recreational facilities in the area. They also explained the need to fit in as a motivating force behind experimentation with drugs, although as one student explained "the peer pressure comes from inside you, you're scared you won't fit in, it's not forced from the outside." (This comment is totally consistent with the literature indicating that perceived use among peers and community is a more important predictor of use than is actual use.) Students were, nonetheless, aware of the negative effects of drug use saying that drugs "make you do stupid things" and "ruin friendships".

Consistent across all three groups also were concerns about the stereotyping of youth in the community and the state and reputation of Glace Bay as "Cottonland" (although one student thought "It will bring tourists."). The negative publicity their community was receiving across the country was upsetting. One student noted "I went to B.C. and I heard about OxyContin in Cape Breton while I was there." The state of disrepair of parts of the community and the lack of facilities where they are welcome were emphasized by these students. Sample descriptors of the community were as follows: "Everything gets broken." "Our sign (the school) sucks, it's missing letters." "There's no park, no skateboarding place". When asked what they would like to see in their community, the response reflected a wish for acceptance, inclusion and opportunity. For example, "Not to get kicked out of places." "We're kicked off the streets" "We're ignored by our parents and teachers." "We need a youth centre."

The questions and comments that ended the focus groups were of particular interest. Each group concluded with asking the students if there were any concerns or issues they had that had not been discussed. Two major themes emerged. One was confusion about the differences between legal and illegal drugs, in particular why certain drugs could be legal if they are bad for you. The second was why the continued reporting of an OxyContin crisis with no concomitant action. They commented on the ease of obtaining drugs, and asked "Everyone knows, even police, where the drugs are coming from. Why is no one doing anything?"

Teacher Surveys

Analysis of teacher data showed the following. High school teachers were more likely to believe that their students were using alcohol, marijuana and OxyContin than were junior high school teachers. Teachers in Glace Bay were more likely to believe that all opiates, including OxyContin, and Valium were easily obtained in the community. In addition, Glace Bay high school teachers were more likely than those in Sydney River to believe that alcohol, marijuana, OxyContin, other opiates, cocaine and ecstasy were available in their schools. In both areas, most teachers (78.5%) reported that their school did not have a drug policy. Few teachers reported teaching drug-related issues (33%), and most expressed a belief, consistent with their students, that students learn about drugs from their friends (96%) or from the popular media (67%). Few resources were reported in schools. Sixty three percent of teachers reported that there had been some usage of posters about drug abuse, 53 percent said there had been lectures about drugs and 21.5 percent reported there had been some peer education about drugs. Only 10 percent of

teachers reported that there were drug related curricula available for their use. Almost all (94 %) reported that they had not received any training either during their university studies nor in post-graduate workshops on how to respond to drug addicted youth, and most (72%) stated that they had not experienced any training in teaching drug prevention.

It is important to emphasize that although there were differences between the two areas, as well as by age and sex, in patterns of drug use and in student and teacher beliefs about drug use, overall reported rates of usage were low. In fact a comparison between usage among these students and the Nova Scotia and British Columbia drug use surveys shows Cape Breton usage to be notably lower, as indicated in the table below.

Table 1: Comparison of reported frequency of drug use among adolescents.

Drug Type	**B. C. Survey 2002** *Percent reporting use in past 30 days*	**N.S. Survey 2002** *Percent reporting use in past 12 months*	**Cape Breton** *(overall)* *Percent reporting use in past 30 days*	**Glace Bay** *Percent reporting use in past 30 days*	**Sydney River/ Coxheath** *Percent reporting use in past 30 days*
Alcohol	58.3	51.7	41.0	40.6	41.5
Marijauna	41.7	36.5	23.3	25.1	21.6
Nicotine	**	23.2	20.7	23.1	18.4
Stimulants (e.g.,Ritalin)	**	7.5	4.5	4.5	4.5
Ecstasy	8.4	4.4	1.8	1.5	2.0
Cocaine	7.4	3.9	3.1	4.3	2.0
Heroin	3.3	1.6	**	**	**
OxyContin	**	**	1.9	2.8	1.0
Opiates (Demerol, Percocet, Morphine)	**	**	1.5	2.5	0.5
Anti-Anxiety Prescriptions (Valium, Xanax, Ativan)	**	**	1.5	2.3	0.8

** not measured

It is important, nonetheless, to avoid complacency and assume there is no problem. It may be that the low rates of usage in the Cape Breton data reflect the consistent school attendance of the sample. Moreover, although drug use rates are less than those reported in earlier studies, the rates of substance use (particularly alcohol and marijuana) reported among these students must be of concern. Most adolescents who use drugs do not attend school regularly or they drop-out. Nonetheless, the current low usage patterns suggest that this may be the ideal time for the systematic implementation of drug prevention programs. The importance of school and community interventions is underscored by the Glace Bay students' negative perceptions of their community, and by the relatively high reported rates of depressive feelings in both communities. As reported in O'Leary and Covell (2002), studies generally find around 3 percent of adolescents experience depressive symptoms. In this study, 4 percent of those in Sydney River/Coxheath and 5 percent of those in Glace Bay reported having sought treatment for depression; actual depression rates are likely higher. Their negative affect could well be related, at least in part, to the pervasive message of hopelessness in the community.

3. Preventing drug abuse among adolescents

The literature suggests that there are three fundamental characteristics of effective programming for the prevention of drug use or abuse among adolescents. These are taking a developmental approach, adoption of only evidence-based programs and policies, and adopting a multi-domain strategy. Each will be discussed below.

A developmental approach

Attempting to prevent substance abuse among adolescents through programming during adolescence is unlikely to be effective. What has been demonstrated to be most effective is to help the child develop the requisite skills for drug refusal by starting early and by focusing on building or strengthening protective factors whilst reducing risk factors. At the preschool level, risk factors for later drug abuse include aggressive behaviors, poor social skills, and academic difficulties (Webster-Stratton, Reid & Hammond, 2001). Programs that help the preschool child with impulse control will reduce aggression and thereby improve the child's social skills and peer relationships. In turn, there is less likelihood that the child will experience social rejection or academic failure, two key risk factors for substance abuse. Programs at the elementary level should continue to target improving self-control, social skills, social problem solving, and where necessary, support the child to experience academic success, particularly in reading (Ialongo, Poduska, Werthamer, & Kellam, 2001). Prevention programs for junior high and high school students should continue to focus on building general social and academic competence, but should add building drug resistance skills and attitudes (Scheier, Botvin, Diaz, & Griffin,1999).

A second consideration of a developmental approach is the need to pay special attention to the balance of risk and protective factors at key developmental transition points. The transitions of early adolescence, in physical development and social situations such as moving, a new school, or parental divorce, place the adolescent at increased risk for drug use. Of particular relevance is the move from elementary to junior high school. At this time, the adolescent is at heightened risk for substance abuse because the new

psychological, educational and social challenges of the period tend to be accompanied by increased exposure to drugs, and more opportunity to experiment with them (U.S. Department of Health & Human Services, 2003). Moreover, the data indicate that initiation into drug use in early adolescence, ages 12 – 13 years, is predictive of greater and more intense involvement than is later initiation (U.S. Department of Health & Human Services, 2003), and is associated with a broad range of problems including less competent adult social behavior, lower levels of educational and occupational attainment, high risk sexual practices, and impaired mental health functioning (Spoth, Redmond, Shin, & Azevedo, 2004).

Evidenced- based programs.

The effectiveness of programs designed to prevent youth drug use vary with the extent to which the programs are evidenced-based (Pentz, 2000). Unfortunately there generally tends to be a gap between prevention research and prevention practice (Arthur & Blitz, 2000). For example, as Arthur and Blitz (2000) note, the DARE drug prevention program has been widely adopted despite a body of research demonstrating that it is ineffective. The adoption of ineffective programming not only diverts attention and resources, it can do more harm than no programming (Petrosino, Turpin-Petrosino, & Finckenauer, 2000). Sometimes programs are adopted because of media attention, or because they fit with the ideological climate, or because they promise a quick and simple solution and the political climate demands action (Petrosino et al, 2000). It is particularly important to avoid the “panacea phenomenon” – the adoption of programs for short periods replacing each ineffective one with one equally or more ineffective in the hope

that something will provide a quick fix (Petrosino et al, 2000). Often such programs are knowledge-based and designed on the assumption that teaching children about the serious impact of substance abuse will deter them from drug usage. Programs that provide knowledge about substances are singularly ineffective in changing substance-related behaviors or attitudes (Sigelman et al, 2003). In fact, there is some evidence that programs that rely solely on the provision of drug information can actually increase drug experimentation (Hawkins, 1999; Mohai, 1991).

Overall, the evaluation research indicates that a variety of school-based prevention programming is effective. What effective programs have in common is their evidenced-based focus on starting early (as indicated above) and improving students' social skills, social problem solving skills, academic performance, and sense of belonging to school and community (Arthur & Blitz, 2000). In essence, such programs are building youth's developmental assets. These assets are both internal and external. The internal assets that can be built in students are a commitment to learning, the development of positive values, social competence, and positive identity. The external assets comprise the provision of support, opportunities to experience empowerment, the explication of boundaries and expectations, and the teaching and reinforcement of the constructive use of time (Arthur & Blitz, 2000). It is the pervasive presence of these developmental assets that prevent substance abuse. The more developmental assets youth possess, the less likely it is that they will become involved in drug use and related problem behaviors (Arthur & Blitz, 2000). Programs that do not focus on building developmental assets and resilience in children and youth are not effective in preventing substance abuse (D'Emidio-Caston, & Brown, 2000).

It is very important, therefore, that practitioners and educators take into account the evaluation research evidence when planning prevention programming. It is equally important that prevention efforts not be restricted to schools. Programs that target and involve the community are significantly more effective in reducing drug use than are school-based only programs (Pentz et al, 1996).

Multi-domain strategies

Building developmental assets in young people requires the involvement of the child's community, family, and school (Becker, 1997; Farrer, 2003; Hawkins, 1999; Pentz, 2000). It is important also that there be a cooperative and coordinated, rather than fragmentary, response to local risk factors (Mohai, 1991). And if drug use is to be the target of prevention programs, then it is important that all forms of drug abuse be addressed, the underage use of legal drugs (e.g., alcohol, tobacco), the use of illegal drugs (e.g., marijuana, cocaine) and the use of prescription medication for non-medical purposes (e.g., OxyContin) (U.S. Department of Health and Human Services). It may be particularly important at this time to ensure the inclusion of marijuana in programs. Discussions regarding the de-criminalization of marijuana send a message of social approval to young people (Pentz et al, 1996). Its use has been steadily increasing, as noted earlier, and marijuana, like alcohol, is believed to be a "gateway drug" (Pentz, Bonnie & Shopland, 1996; Perry & Murray, 1985). The following interventions are those most frequently demonstrated to be effective.

Interventions in the community

There are few communities in North America that are adequately supportive to their youth. Yet there are over 800 studies clearly showing the benefits of positive contact between youth and non-familial adults (Scales et al, 2001). A case example is illustrative. A large scale evaluation of the Big Brothers/Big Sisters program with 10 – 16 year-olds from low income households and high risk households was undertaken in the mid-1990s. After 18 months in the program, compared with a control group, those in the program, among other positive outcomes, were 46 percent less likely to use drugs and alcohol (Skinner, 2002). Informal contacts also show many benefits. Such benefits include improved social skills, greater engagement with school and academic achievement, and reduced incidents of delinquencies and drug abuse (Scales et al, 2001). Surveys conducted in many U.S. communities (and there is no reason to anticipate differences in Canada) show that whereas adults generally express strong belief in the importance of socializing children well as in the concept of “it takes a village”, they do not themselves become involved with any children other than their own (Scales et al., 2001). Rather, youth in communities tend to be marginalized and noticed only when acting in a way that adults are uncomfortable with. Skate-boarding in a parking lot is but one example.

It is particularly difficult for youth living in areas with poor reputations and lack of facilities and opportunities (Skinner, 2002b). Youth, such as those in Glace Bay, must deal with the consequences of stereotyping, prejudice from outsiders, and unequal opportunities for education, employment, and recreation. As Alison Skinner (2002b) notes, community recreational facilities tend to be designed for very young children or for seniors. Where facilities for older children or adolescents do exist, they tend to be in

places that are psychologically uncomfortable (such as close to a police station), or hard to access in the absence of efficient public transportation. Youth often attempt to gather on streets, but there they typically experience rejecting or hostile adults who feel intimidated or aggravated by the presence of young people. Youth tend to become perceived as the problem, rather than the problem being the lack of recreational facilities for them. Adults respond with interventions designed to stop youth from doing things (e.g., skateboarding) rather than to promote positive community involvement (Skinner, 2002b). There may be complaints to police, police ask youth to move along, residents alarm their homes, and in some communities curfews are adopted.

Community interventions that include rather than exclude youth are much more likely to be successful. Success depends on knowing and responding to the concerns of young people, their values and their concerns, and it requires acknowledging their rights as citizens of their communities (Skinner, 2002b). It is particularly important to include youth in the design and implementation of community renovation projects. Repairs to a poor physical environment have the greatest impact when they are accompanied by efforts to improve the psychological environment (Lane & Henry, 2001). The psychological well-being of youth is significantly enhanced when they are involved in the enhancement of their neighborhoods, and there is recognition for their efforts (Hawkins, 1999).

Interventions in the family

Evaluation studies and meta-analyses of family-based interventions demonstrate that the most effective interventions are those that target the known risk factors of poor

child-rearing, inconsistent or harsh discipline, and poor supervision (Farrington & Welsh, 2003). Programs evidencing the greatest success in long-term child outcomes are behavioral parent training for parents whose children are very young. Positive changes in parenting behaviors specifically have been shown to reduce later risks of drug abuse (Spoth et al, 2002). Also shown to be beneficial are the provision of quality child-care, home visiting programs, and preschool parent training programs (Farrington & Welsh, 2003; Mohai, 1991).What is important in family interventions is that they effect an improvement in the parent-child relationship and in parental monitoring and supervision (Kosterman, Hawkins, Spoth, Haggerty, & Zhu, 1997). These skills can be enhanced through training on the appropriate use of discipline and reward, on communication, and on parental involvement. Finally, it is important that parents have educational aspirations for their children (Becker, 1997). The common assumption among many parents in Cape Breton, reinforced through media reports, that there is and will be nothing for their children, is an added risk factor for their children.

Interventions in the school

As noted above, the goal of school interventions is twofold. One is to promote in the student the attitudes and motivations that advance and support learning, academic success, and bonding to the school. The other is to enhance social skills, social problem solving skills, drug refusal skills and to provide specific information about all forms of drug abuse (U.S. Department of Health & Human Services, 2003). When asked, a high school student articulated well what the goal of a drug education program should be.

> To know what your limitations are, to make yourself aware enough so that you know – personally I've never felt very worried that I would ever become a substance

abuser. When I was like (in) elementary school it was crammed down my throat: Just Say No, it's the most awful thing in the world and so when it first came, like in ninth grade, I remember this girl was trying to get me to do pot I'm like "No that's evil". It was that kind of thing, but I think the goal of education should be you're going to be in the situation, you're going to see this, that and the other thing, it's not evil if you've got a good enough sense of self worth, if you know what your boundaries are, if you know what you feel comfortable with and if you know what it's going to do to you and you know what the consequences may be. (D'Emidio-Caston & Brown, 1998, p. 113).

Nancy Tobler has conducted a number of meta-analyses on school-based drug prevention programs (e.g., Tobler, 1997, Tobler & Stratton, 1997). These have allowed the identification of the essential components for success. First, as noted earlier, programs that focus solely on the provision of drug-related information are not effective in altering drug attitudes or behaviors. In addition, Tobler's analyses, like others (e.g., Pentz et al, 1996), demonstrate that teacher delivered didactic instruction is ineffective in changing either drug-related attitudes or behaviors, as are teacher-led discussions, or experiential activities that focus on the individual rather than the peer group interactions. In contrast, evaluation data consistently show that interactive peer programs which stimulate the active participation of all students in classroom activities such as brainstorming, discussion and role-play, are very effective (Tobler, 1997; Pentz, et al, 1996; U.S. Department of Health & Human Services, 2003).

Tobler recommends that interactive programs focus on drug refusal skills and normative education. For the former, students can learn through discussion and role-play how to negotiate refusal of a drug offer while remaining accepted by the peer group. It is important that every student participate since skills such as drug refusal require considerable practice to generalize across situations. Normative education is recommended because adolescents tend to overestimate the drug use of friends and peers.

Media reports of widespread availability and usage will, of course, reinforce such overestimates and make the provision of normative education particularly important. The assumption is that if students, through group discussion, come to realize that few, rather than many, of their peers are actually using drugs, their anxieties related to peer pressure will be reduced, and their likelihood of drug experimentation to fit with the group will be significantly reduced.

The emphasis on using interactive learning, role-play, and group discussion suggest a need for increased teacher training since at this point few teachers have sufficient training to be comfortable with group learning processes (Howe & Covell, 2004; Tobler, 1997; U.S. Department of Health & Human Services, 2003). In addition, there is little evidence that teachers have sufficient training in classroom management to foster school engagement, appropriate attitudes to school, motivation for learning, and educational aspirations (Becker, 1997; Howe & Covell, 2004; Tobler, 1997).

4. Recommendations

The following recommendations are made based on the research data and the literature, with the realization that they will take time both to effect and to show positive outcomes. On an immediate basis, particular programs may be implemented in the community and in schools that target at-risk populations. However, it is important that prevention efforts be long term, sustained and target all children and adolescents, and that they be implemented with full support from all stakeholders including youth.

1. Implement a drug prevention program that has the characteristics associated with success as described above. One example that has been found successful with high-risk students in Ontario is the "Opening Doors" Program (Addiction Research Foundation, 1995). It is oriented toward general antisocial behaviors including drug use and has been evaluated with junior high school students. The program comprises 17 one-hour sessions in school, and also has a parent training component. In the Ontario schools' evaluation, the program was successful in altering both drug-related attitudes and behaviors (DeWit et al, 2000). A program such as this may be a useful first step with junior high school students.

2. Have a clearly articulated and well-publicized drug policy in all schools that is consistently enforced. The policy should be non-punitive in focus.

3. Expand school-based health centers such that students with drug use problems and students suffering depression can obtain support, counseling and therapy as needed on-site.

4. Provide professional development to enable teachers to recognize and respond to students with drug-related difficulties, and to effectively teach drug prevention programs. In particular, provide workshops for teachers that emphasize the skills necessary for successful interactive teaching, group processes for teaching content, and the importance of their use.

5. Provide workshops for teachers that emphasize the skills necessary for positive classroom management and positive attitudes toward the inclusion of students in classroom functioning. (It may be helpful here to also include the lessening of stereotypes about young people.)

6. Use Children's Rights Curricula[2] where possible. The activities within them are demonstrated to improve classroom environment and raise children's self-esteem and social skills. Also note that in the Grade 8 curriculum are role-play and discussion activities that deal with drug, alcohol and tobacco use, and that are consistent with activities recommended by evaluators as most likely to effect changed attitudes and behaviors.

7. Continue to provide breakfast programs, and expand them to include all schools, since these programs increase the likelihood of academic achievement and school bonding.

8. Provide extra-curricular activities across grade levels that are free of cost so that no students are restricted from participating. Ensure youth participate in the determination of which activities shall be offered. Involvement in extra-curricular activities is a predictor of self-esteem, school bonding and lowered likelihood of drug abuse (U.S. Department of Health and Human Services, 2003). The

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[2] Copies of Children's Rights curricula are available on request in English or French from the UCCB Children's Rights Centre.

involvement of community adults in these activities would be particularly helpful for youth to feel a sense of being valued by their communities.

9. Promote multi-generational activities in the community - these build trust, shared expectations and interpersonal knowledge. They may be block parties, seasonal celebrations, neighborhood or school improvement projects and so forth (Scales et al, 2001).

10. Promote the acquisition of mentors such as Big Brothers or Big Sisters for those youth who are known to be at-risk and in need of supports (Skinner, 2002).

11. Provide opportunities for students to engage in community activities in ways that are meaningful for them. These may include apprenticing with community businesses, designing and building skateboard parks, researching issues of interest to them with residents, serving a term on municipal council, writing columns in newspapers, and so forth. What is important is that such activities be youth directed and reflect youth's citizenship status (Skinner, 2002)

12. Provide parenting support and education groups. These can be led by community or university personnel, and should include the importance of positive parenting, communication, boundaries, monitoring and supervision, and expectations for educational success. If necessary, literacy classes for parents should also be held – these may be taught or facilitated by students.

13. Promote workshops or other forms of public education to decrease the negative stereotyping of adolescents. Adults' negative responses to youth increase youth's sense of alienation from the community and increase the likelihood of antisocial behaviors (Scales et al, 2001).

14. Use the media for normative education. Children and adolescents are not able to differentiate reports that are motivated by political agendas from accuracy (cf. O'Leary & Covell, 2002). Fewer reports of hopelessness and despair in the community and less exaggerated reports of drug abuse would do much to reduce the "doom" factor and the misperception and important predictor of drug use, that "everyone is doing it".

15. Evaluate any new program implemented. If possible, use a control group and keep track of any potential intervening variables. Keep detailed information on program implementation and ensure that delivery is consistent and over a long enough period to allow for measurable effect. Identify relevant outcome measures. Employ rigorous evaluation procedures that include students, school administrators and staff, and community leaders.

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Appendix 1: Statistical Analysis of Student Surveys

Due to the multiple comparisons, we set our alpha level at .03. All post-hocs were Tukey's HSD and have an alpha of $< .01$. All significant main effects and interactions are reported below. A preliminary survey of the data indicated that some students had reported the use of pain killers but had then added information that suggested their use was legitimate. We therefore removed this category of drugs from analyses. All MANOVAs were 2(sex) x 2 (neighborhood) x 3 (age group).

Observations of drugs during past 30 days. A MANOVA was conducted to investigate the effects of age level, sex, and neighborhood (school area), on which drugs had been seen during the 30 days previous to completing the survey. Three significant main effects were obtained.

Multivariate tests revealed a significant effect of age, Pillais = .19, F (18, 1538) = 8.99, $p < .001$, a significant effect of neighborhood, Pillais = .060, F(9, 768) = 5.49, $p < .001$, and a significant interaction between age and gender, Pillais = .041, F(18, 1538) = 1.78, $p < .02$. Univariate analyses indicated an increase in age in exposure to each of the drugs listed (nicotine, F (2,776) = 5.33, $p < .01$; alcohol, F (2, 776) = 14.45, $p < .001$, marijuana, F (2, 776) = 69.71, $p < .001$, OxyContin, F(2, 776) = 6.42, $p < .01$, opiates, F (2,776) = 4.62, $p < .01$, stimulants, F (2, 776) = 3.83, $p < .02$, anti-anxiety drugs, F (2,776) = 4.36, $p < .01$, cocaine, F (2, 776) = 6.64, $p < .001$, and ecstasy, F (2, 776) = 10. 72, $p < .001$). For nicotine alcohol and stimulants, the difference was between the youngest and oldest age groups (q (2,1540) = 4.66, 7.63, 3.67 respectively). There was a increase

between each age group for marijuana (groups 1 and 2, q (2,1540)= 12.74, groups 2 and 3, q (2,1540) = 5.93, groups 1 and 3, q (2, 1540) = 16.41).

There was also a significant effect of neighborhood at the multivariate level, Pillais = .060, F (9, 768) = 5.49, p <.001. Univariate tests showed significant differences in reported exposure to OxyContin, opiates, stimulants, anti-anxiety drugs and cocaine. In each case, GB students were significantly more likely to have been exposed to these drugs (OxyContin, F(1, 776) = 39.65, p <.001, opiates, F(1,776) = 10.09, p <.01, stimulants, F(1,776) = 4.85, p <.03, anti-anxiety drugs, F(1, 776) = 12.34, p < .001, cocaine, F (1, 776) = 13.27, p <.001).

The multivariate analysis revealed also a main effect of gender, Pillais = .034, F(9, 768) = 3.04, p <.001. Univariate analyses indicated that males were more likely than were females to have been exposed to OxyContin, F(1, 776) = 5.05, p <.03, stimulants, F (1, 776) = 9.32, p <.01, cocaine, F(1,776) = 9.26, p <.01, and ecstasy, F (1, 776) = 11.68, p <.001.

Perceived drug use by friends during past 30 days. A MANOVA was conducted to investigate the effects of age level, sex, and neighborhood on which drugs students believed their friends had used. At the multivariate level there was a main effect of age (Pillais = .319, F(18, 1526) = 16.06, p <.001), and a main effect of neighborhood (Pillais = .08, F(9, 762) = 7.34, p <.001).

Univariate analyses indicated that age affected the perceived use of drugs by friends for each of the drugs listed (nicotine, F(2,770) = 67.96, p <.001; alcohol, F (2, 770) = 144.30, p <.001, marijuana, F(2, 770) = 92.91, p <.001, OxyContin, F(2, 770) = 6.20, p <.01, opiates, F(2,770) = 7.05, p <.001, stimulants, F(2, 770) = 8.21, p <.001,

anti-anxiety pills, $F(2,770) = 5.73$, $p < .01$, cocaine, $F(2, 770) = 7.44$, $p < .001$, and ecstasy, $F(2, 770) = 13.21$, $p < .001$). Post hocs indicated an increase in perceived friend's use among each age group for nicotine (groups 1 and 2, $q(2,1540) = 7.73$, groups 2 and 3, $q(2, 1540) = 11.14$, groups 1 and 3, $q(2,1540) = 16.54$), alcohol (groups 1 and 2, $q(2,1540) = 16.97$, groups 2 and 3, $q(2,1540) = 10.35$, groups 1 and 3, $q(2,1540) = 24.02$), marijuana (groups 1 and 2, $q(2,1540) = 13.04$, groups 2 and 3, $q(2,1540) = 8.93$, groups 1 and 3, $q(2,1540) = 19.30$), and between the youngest and both other groups for stimulants (groups 1 and 2, $q(2,1540) = 3.69$, groups 1 and 3, $q(2,1540) = 5.78$).

A univariate analysis revealed a main effect of neighborhood on perceived friend's use of nicotine ($F(1, 770) = 14.28$, p .<.001), OxyContin ($F(1, 770) = 25.97$, $p < .001$), opiates ($F(1,770) = 22.66$, $p < .001$), anti-anxiety pills ($F(1,770) = 25.21$, $p < .001$), and cocaine ($F(1, 770) = 13.04$, $p < .001$. In each case, GB students were more likely than those in SRC to report their friends had used the drug during the previous 30 days.

Perceived drug use by classmates during past 30 days. A MANOVA was conducted to investigate the effects of age level, sex, and neighborhood on which drugs students believed their classmates had used. At the multivariate level there was a main effect only of age, Pillais = .292, $F(18,1442) = 13.67$, $p < .001$.

Univariate analysis showed there to be significant differences by age on perceived classmate's use of nicotine ($F(2, 728) = 27.02$, $p < .001$), alcohol ($F(2, 728) = 133.16$, $p < .001$), marijuana ($F(2, 728) = 69.55$, $p < .001$), and stimulants ($F(2, 728) = 7.05$, $p < .001$). Post hocs indicated a significant increase among each age group on all but the

stimulants (nicotine, groups 1 and 2, q (2, 1456) = 7.73, groups 2 and 3, q(2, 1456) = 3.96, groups 1 and 3, q (2, 1456) = 10.28), alcohol (groups 1 and 2, q (2, 1456) = 16.46, groups 2 and 3, q(2, 1456) = 9.73, groups 1 and 3, q (2, 1456) = 23.30), marijuana (groups 1 and 2, q (2, 1456) = 11.63, groups 2 and 3, q(2, 1456) = 7.36, groups 1 and 3, q (2, 1456) = 16.69), for stimulants the difference was between the youngest age group and the two other groups (groups 1 and 2, q (2, 1456) = 5.03, groups 1 and 3, q (2, 1456) = 4.37.

Own drug use during past 30 days. A MANOVA was conducted to investigate the effects of age level, sex, and neighborhood on which drugs students reported they had used themselves. The multivariate analysis revealed a main effect for age (Pillais=.191, F (18, 1536) = 9.03, p <.001), neighborhood (Pillais = .023, F. (9, 767) = 2.05, p <.03), and gender (Pillais = .034, F(9, 767) = 3.03, p <.001).

Univariate analyses showed age increases in the reported use of nicotine (F(2, 775) = 24.81, p <.001), alcohol (F(2, 775) = 72.34, p <.001), marijuana (F(2,775) = 25.47, p <.001), OxyContin (F, 2,775) = 5.14, p <.01) and cocaine (F(2, 775) = 4.31, p <.01). For nicotine, there was a difference between groups 1 and 3, q (2, 1550) = 9.16, and between groups 2 and 3, q(2, 1550) = 8.70. For alcohol and marijuana there were differences between each age group; alcohol, groups 1 and 2, q (2, 1550) = 9.49, groups 2 and 3, q(2, 1550) = 10.16, groups 1 and 3, q (2, 1550) = 17.20; marijuana, groups 1 and 2, q (2, 1550) = 6.02, groups 2 and 3, q(2, 1550) = 5.59, groups 1 and 3, q (2, 1550) = 10.17.

Univariate analysis also revealed a significant main effect of neighborhood on the use of nicotine (F(1,775) = 8.65, p <.01), OxyContin (F (1,775) = 4.73, p <.03), and

opiates ($F(1,775) = 5.75$, $p <.02$. In each case, it was the GB students who reported greater use of the substances.

Univariate analysis also showed an effect of gender on reported drug use. Males were more likely that females to report use of marijuana ($F\ (1, 775) = 6.90$, $p <.01$), and cocaine ($F(1,775) = 6.60$, $p <.01$).

Perceived availability of drugs in the community. A MANOVA was conducted to determine the effects of age, gender and neighborhood on perception of drug availability in the local community. Multivariate analysis revealed significant effects of age (Pillais = .218, $F(18, 1502) = 10.2$, $p <.001$), and neighborhood (Pillais = .192, $F(9,750) = 19.83$, $p <.001$).

The univariate analyses revealed a significant main effect of age on perceived availability of nicotine ($F(2, 758) = 21.13$, $p <.001$), alcohol ($F,(2, 758) = 27.40$, $p <.001$), marijuana ($F(2, 758 = 81.28$, $p <.001$), OxyContin ($F(2, 758 = 33.86$, $p <.001$), opiates ($F(2, 758 = 14.63$, $p < .001$), stimulants ($F(2, 758 = 33.55$, $p <.001$), anti-anxiety drugs, ($F(2, 758 = 23.66$, $p <.001$), cocaine ($F(2, 758 = 14.74$, $p <.001$) and ecstasy ($F(2, 758 =27.32$, $p <.001$). Post-hocs indicated that the youngest age group was significantly less likely than were the other two to report the availability of OxyContin (groups 1 and 2,$q\ (2, 1516) = 8.64$; groups 1 and 3, $q\ (2, 1516) = 11.54$), opiates (groups 1 and 2, $q\ (2, 1516) =6.96$, groups 1 and 3, $q\ (2, 1516) = 6.74$), and anti-anxiety drugs (groups 1 and 2, $q\ (2, 1516) = 7.27$, groups 1 and 3, $q\ (2, 1516) = 9.62$). There was a significant increase among each age category for the perceived availability of nicotine (groups 1 and 2 ,$q\ (2, 1516) = 8.64$, groups 2 and 3, $q(2, 1516) = 4.45$, groups 1 and 3, $q\ (2, 1516) = 11.54$), alcohol (groups 1 and 2 ,$q\ (2, 1516) = 7.30$, groups 2 and 3, $q(2, 1516) = 4.58$, groups 1

and 3, q (2, 1516) = 10.44), marijuana (groups 1 and 2 ,q (2, 1516) = 14.49, groups 2 and 3, q(2, 1516) = 5.33, groups 1 and 3, q (2, 1516) = 17.47), stimulants (groups 1 and 2 ,q (2, 1516) = 8.23, groups 2 and 3, q(2, 1516) = 4.97, groups 1 and 3, q (2, 1516) = 11.60), cocaine (groups 1 and 2 ,q (2, 1516) = 4.50, groups 2 and 3, q(2, 1516) = 4.38, groups 1 and 3, q (2, 1516) = 7.76), and ecstasy (groups 1 and 2, q (2, 1516) = 6.77, groups 2 and 3, q(2, 1516) = 5.27, groups 1 and 3, q (2, 1516) = 10.55).

The univariate tests showed that neighborhood significantly affected the perceived availability of OxyContin (F (1, 758) = 125.17, p <.001), opiates (F (1, 758) = 55.87, p <.001), stimulants (F (1, 758) = 17.26, p <.001), anti-anxiety drugs (F (1, 758) =61.33, p <.001), and cocaine (F (1, 758) = 17.53, p.<.001. In each case, it was the GB students who were significantly more likely to report availability of the substance in their local community.

Perceived availability of drugs at school. A MANOVA was conducted to determine the effects of age, gender and neighborhood on perception of drug availability at the students' school. Multivariate analysis revealed significant effects of age (Pillais = .217, F(18, 1500) = 10.17, p <.001), and neighborhood (Pillais = .169, F(9,749) = 16.88, p <.001).

The univariate analyses showed a significant effect of age on the perceived availability at school of nicotine (F (2, 757) = 26.78, p <.001), alcohol (F (2, 757) = 20.36, p <.001), marijuana (F (2, 757) = 76.84, p <.001), OxyContin (F (2, 757) = 20.37, p <.001), opiates (F (2, 757) = 11.49, p <.001), stimulants, (F (2, 757) =20.78, p <.001), anti-anxiety drugs (F (2, 757) = 13.44, p <.001), and ecstasy (F (2, 757) = 6.5, p <.001). Post-hocs revealed that there was a significant increase among each age group in the

perceived availability at school of, marijuana (groups 1 and 2 ,q (2, 1514) = 13.24; groups 2 and 3, q(2, 1514) = 6.48, groups 1 and 3, q (2, 1514) = 17.37) and OxyContin (groups 1 and 2 ,q (2, 1514) = 5.45, groups 2 and 3, q(2, 1514) = 4.98, groups 1 and 3, (q (2, 1514) = 9.14). There was an increase between the youngest age group and the other two groups on the perceived availability of opiates (groups 1 and 2 ,q (2, 1514) = 6.15; groups 1 and 3, q (2, 1514) = 6.03), stimulants (groups 1 and 2 ,q (2, 1514) = 7.01; groups 1 and 3, q (2, 1514) = 8.95), anti-anxiety drugs (groups 1 and 2 ,q (2, 1514) = 4.74, groups 1 and 3, q (2, 1514) = 7.39). For alcohol, the age difference was between the youngest and the oldest age groups (q(2, 1514)= 8.80), and between the middle age group and the oldest age group (q(2, 1514) = 6.94). Ecstasy was different between groups 1 and 3, q(2, 1514) = 5.15.

There was also a main effect of neighborhood on perceived availability in school of nicotine (F (1, 757) = 8.04, p <.01), alcohol (F (1, 757) = 15.30, p <.001), OxyContin (F (1, 757) = 66.00, p <.001), opiates (F (1, 757) = 17.29 p <.001), stimulants (F (1, 757) = 10.40, p <.001), and anti-anxiety drugs (F (1, 757) = 20.9, p <.001). Students in schools in GB were significantly more likely than those in SRC to perceive availability of nicotine, OxyContin, opiates, stimulants, and anti-anxiety drugs in their schools. Students in SRC were more likely to report availability of alcohol than those in GB.

Positive and Negative Feelings. A MANOVA was conducted to identify any effects of age, gender or neighborhood on feelings experienced in the past seven days. There was a significant effect for age (Pillais = .043, F(4, 1538) = 8.50, p <.001), gender (Pillais = .034, F (2,768) = 13.55, p <.001), and neighborhood (Pillais = .014, F(2, 768) = 5.5, p <.01.

Univariate analyses and post hocs showed that the youngest group reported significantly fewer negative feelings than either of the other two age-groups (F (2, 769) = 10.33, p <.001, groups 1 and 2, q(2, 1538) = 4.58, groups 1 and 3, q(2, 1538) = 6.42). The oldest group also reported significantly more positive feelings than either of the other two age groups (F (2, 769) = 8.46 p < .001, groups 1 and 3, q(2, 1538) = 5.62, groups 2 and 3, q(2, 1538) = 4.57). Females reported more positive and negative feelings than did males (F(1,769) = 12.91, p <.001, F (1,769) = 16.88, p <.001 respectively,).

The univariate analysis also revealed a significant effect of neighborhood, F (1, 769) = 7.89, p <.01. SRC students were significantly more likely to report positive feelings than were the GB students.

Experience with drug abuse effects. The MANOVA revealed significant effects of age (Pillais =.133, F(6, 1560) = 18.49, p <.001), and gender (Pillais = .021, F(3, 779) = 5.44, p <.001). Univariate analysis showed an effect of age on reported social effects, F(2, 781) = 8.76, p <.001, with the youngest age group being the least likely to report experiencing social effects from drug abuse (groups 1 and 2, q (2, 1562) = 4.61, groups 1 and 3, q (2, 1562) = 5.78). More experienced physical effects of drug abuse were reported as age increased (F (2, 781) = 48.86, p <.001, groups 1 and 2, q (2, 1562) = 7.79, groups 2 and 3, q (2, 1562) = 8.34, groups 1 and 3, q (2, 1562) = 14.15). More legal effects were reported by the oldest group, (F (2, 781) = 48.86, p <.001, groups 2 and 3, q (2, 1562) = 6.17, groups 1 and 3 q (2, 1562) = 7.33. Univariate analyses also indicated that males reported experiencing more legal effects of drug abuse (F(1,781) = 10.74, p <.001) than did females.

To determine if the reported use of substances varied with their perceived availability in the community and school, or with the perceived use by friends or classmates a Pearson correlation was performed. Data are presented below, each is significant at <.001.

DRUG	**Availability in community**	**Availability at school**	**Perceived use by friends**	**Perceived use by classmates**
Nicotine	.165	.147	.425	.158
Alcohol	.268	.163	.534	.419
marijuana	.292	.232	.510	.316
OxyContin	.098	n.s.*	.390	.163
Opiates	.115	n.s.	.298	n.s.
stimulants	.204	.206	.424	.227
Anti-anxiety	.106	n.s.	.231	.249
Cocaine	.167	n.s.	.467	.169
Ecstasy	.140	.179	.363	.210

- non-significant relation

Teacher Surveys. Since preliminary analyses indicated no effect of teacher sex, it was dropped as a variable. Three separate 2 (school area) x 2 (student grade level/junior high or senior high) MANOVAs were performed to determine (1) teacher perceptions of student drug use, (2) drug accessibility in the community, and (3) drug accessibility in the school in which they taught.

For perception of student drug use, there was a significant effect of grade level taught at the multivariate level, Pillais = .53, F (9, 59) =7. 25, p <.001. Univariate analysis indicated that high school teachers were significantly more likely than were junior high school teachers to perceive their students were using alcohol (F(1,71) = 16.66, p <.001), marijuana (F (1,71) = 11.69, p <.001), and OxyContin (F(1,71) = 4.65, p <.03).

Perceptions of drug accessibility in the community showed a significant multivariate effect for school area, Pillais = .25, F (8,57) = 2.34, p = .03. Univariate tests showed that teachers in GB were more likely to perceive easy availability in the community of OxyContin (F(1, 68) = 5.90, p <.02), opiates (F(1, 68) = 7.96, p <.01), anti anxiety drugs (F(1,68) = 5.59, p <.02), and cocaine (F (1,68) = 5.69, p <.02).

For perceived drug accessibility in the school, the multivariate test showed significant main effects for school area (Pillais = .473, F (9, 58) = 5.78, p < .001, and grade level (Pillais = .383, F (9,58) = 4.01, p <.001), and an area by grade level interaction (Pillais = .384, F (9.58) = 4.02, p < .001.). Univariate tests showed the following. OxyContin, opiates and cocaine were perceived to be significantly more available in GB schools, (F (1, 66) = 25.09, 14.64, 13.86 respectively, all ps <.001). Nicotine, alcohol, marijuana, OxyContin, opiates, cocaine and ecstasy were perceived to be significantly more available at high schools (F(1,66) = 5.22, p <.03, F(1,66) =4.46, p

$<.04$, $F(1,66) = 5.62$, $p < .02$; $F(1,66) = 18.90$, $p < .001$; $F(1,66) = 8.98$, $p .< 001$; $F(1,66) = 9.38$, $p < .01$; $F(1,66) = 4.91$, $p < .03$ respectively). There was an area by grade level interaction on perceived availability of OxyContin, opiates and cocaine ($F(1,66) = 22.33$, $p < .001$; $F(1,66) = 10.15$, $p = .01$, $F(1,66) = 9.38$, $p <. 01$ respectively). Examination of means indicated that in GB, the perceived availability of each of these drugs increases from junior to high school. In SRC, OxyContin and opiates are perceived to be more available at the junior high level, but the availability of cocaine does not vary from junior to high school.

Appendix 2: Surveys Used

Student Survey

Your participation in this study is completely voluntary. Your participation will have no negative impact on your academic standing or course marks in junior high or high school. You may quit this study at any time or refuse to answer any question that makes you feel uncomfortable. This research is part of a community study on drug abuse, conducted by researchers at the Children's Rights Centre, UCCB. The names of the researchers are listed below in case you require additional information.

The purpose of this study is to examine the attitudes, beliefs, and experiences of Junior High and High School students surrounding drug use/abuse in their own lives and within their community. This study will require you to answer a survey about your own experiences with drugs in your school, social life, and community, as well as your concerns and opinions on the issue. If you would like to make any comments on this study, there is a space provided at the end of the survey that you may use, or you may contact the researchers below.

All of your responses are anonymous and confidential: You will not be asked to provide your name or the name(s) of any other individuals and only the researchers listed below will have access to the responses that you provide. In this study, we are surveying several schools and no individual answers will be reported.

If you agree to participate in this study please check the box below.

You may contact the researchers at any time to advise them of your reactions and/or comments. A summary of the results will be written in a brief report and handed out to students in September. For those of you not returning to school in the fall, please contact the researchers below to obtain a copy of the results.

☐ ***I have read the above information carefully, and volunteer to participate in this study.***

Researchers:

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YOUTH DRUG INVESTIGATION SURVEY

The purpose of this study is to examine the attitudes, beliefs, and experiences of Junior High and High School students surrounding drug use/abuse in their own lives and within their community.

You will be asked 53 questions about yourself, your friends, your school, and the community in which you live. You will have opportunity to make comments regarding this study in the space provided at the end of the survey. The survey will take 15-20 minutes to complete, and your answers will not be shown to your parents or teachers.

Please read each question carefully and answer as *honestly* and *accurately* as you can in the space provided.
This is NOT a test – there are no right or wrong answers.

Your answers will help make suggestions for changes in your community, and will help improve drug education and services for youth.

<u>Remember</u>: Your participation is completely voluntary and you may quit the study at any time or refuse to answer any of the questions that make you feel uncomfortable. Please do not provide your name or the names of any other people. Nobody will know who you are and only the researchers will see your answers.

1. What is your gender?

_____ Male _____ Female

2. What is your ethnicity?

_____ Caucasian (White) _____ African Canadian

_____ Aboriginal _____ Other

3. How old are you today? _____________

4. **In what neighborhood do you live? ____________________________**

5. What grade are you in? ______________

6. Are you currently attending school?

_____ Regularly

_____ Usually

_____ Rarely

_____ Not attending

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

_____ 80% or higher _____ 70% - 79%

_____ 60% - 69% _____ 50% - 59%

_____ Below 50% _____ I do not know

8. Who are you living with now?

_____ Mother and father

_____ Mother

_____ Father

_____ Mother and step-father

_____ Father and step-mother

_____ Grandparents or other adult relatives

_____ Foster parents

_____ I live alone or with friends (independent living)

_____ Other (please state) ____

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

_____ Graduated university

_____ Attended university

_____ Graduated college or trade school

_____ Attended college or trade school

_____ Graduated high school

_____ Attended high school

_____ Did not attend high school

_____ Don’t know

_____ No mother

10. What is the highest level of education that your father has attained?

_____ Graduated university

_____ Attended university

_____ Graduated college or trade school

_____ Attended college or trade school

_____ Graduated high school

_____ Attended high school

_____ Did not attend high school

_____ Don't know

_____ No father

11. How well off (wealthy) do you think your family is?

_____ Very well off _____ Quite well off

_____ Average _____ Not very well off

_____ Not at all well off

12. Do you have your own bedroom for yourself?

_____ Yes _____ No

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

_____ Yes _____ No

_____ No computer

14. How likely is it that you will stay in school until you graduate?

_____ Not at all likely _____ Not very likely

_____ Fairly likely _____ Very likely

15. In general, how would you describe your health?

_____ Excellent _____ Very good

_____ Good _____ Fair

_____ Poor

16. Have you seen the following drugs in the last 30 days?

Drug	Yes	No
Nicotine (cigarettes)		
Alcohol		
Marijuana		
OxyContin		
Opiates, such as Demerol, Percocet, and Morphine		
Other painkillers, such as Tylenol 3 and Codeine		
Stimulants, such as Ritalin and Dexedrin		
Anti-anxiety drugs, such as Valium, Xanax and Ativan		
Cocaine		
Ecstasy		

17. Have your closest friends used the following drugs in the last 30 days for non-medical reasons?

Drug	Yes	No
Nicotine (cigarettes)		
Alcohol		
Marijuana		
OxyContin		
Opiates, such as Demerol, Percocet, and Morphine		
Other painkillers, such as Tylenol 3 and Codeine		
Stimulants, such as Ritalin and Dexedrin		
Anti-anxiety drugs, such as Valium, Xanax and Ativan		
Cocaine		
Ecstasy		

18. How many of the students in your class have used the following drugs in the last 30 days?

Drug	Hardly Any	25%	50%	75%	Almost All
Nicotine (cigarettes)					
Alcohol					
Marijuana					
OxyContin					
Opiates, such as Demerol, Percocet, and Morphine					
Other painkillers, such as Tylenol 3 and Codeine					
Stimulants, such as Ritalin and Dexedrin					
Anti-anxiety drugs, such as Valium, Xanax and Ativan					
Cocaine					
Ecstasy					

19. Have you used the following drugs in the last 30 days for non-medical reasons?

Drug	Yes	No
Nicotine (cigarettes)		
Alcohol		
Marijuana		
OxyContin		
Opiates, such as Demerol, Percocet, and Morphine		
Other painkillers, such as Tylenol 3 and Codeine		
Stimulants, such as Ritalin and Dexedrin		
Anti-anxiety drugs, such as Valium, Xanax and Ativan		
Cocaine		
Ecstasy		

20. If yes, why?

____

____

____

____

____

21. How old were you when you first tried the following drugs for non-medical reasons?

Drug	Age	Never Used
Nicotine (cigarettes)		
Alcohol		
Marijuana		
OxyContin		
Opiates, such as Demerol, Percocet, and Morphine		
Other painkillers, such as Tylenol 3 and Codeine		
Stimulants, such as Ritalin and Dexedrin		
Anti-anxiety drugs, such as Valium, Xanax and Ativan		
Cocaine		
Ecstasy		

22. Are the following drugs easy to get in the community? (If you had money, could you buy some in 24 hours?)

Drug	Yes	No
Nicotine (cigarettes)		
Alcohol		
Marijuana		
OxyContin		
Opiates, such as Demerol, Percocet, and Morphine		
Other painkillers, such as Tylenol 3 and Codeine		
Stimulants, such as Ritalin and Dexedrin		
Anti-anxiety drugs, such as Valium, Xanax and Ativan		
Cocaine		
Ecstasy		

23. Are the following drugs easy to get at school? (If you had money, could you buy some in 24 hours?)

Drug	Yes	No
Nicotine (cigarettes)		
Alcohol		
Marijuana		
OxyContin		
Opiates, such as Demerol, Percocet, and Morphine		
Other painkillers, such as Tylenol 3 and Codeine		
Stimulants, such as Ritalin and Dexedrin		
Anti-anxiety drugs, such as Valium, Xanax and Ativan		
Cocaine		
Ecstasy		

24. Do you think there is a "problem" with drug / alcohol use by youth in your community / school?

_____ Yes _____ No

25. If yes, what makes you think there is a problem?

____
____
____
____
____

26. Do you know who deals drugs in your community / school?

_____ Yes _____ No

27. Do you think that your teachers know who deals drugs in your community / school?

_____ Yes _____ No

28. In the past 30 days, did you give any of your prescription medication to friends?

_____ Yes _____ No _____ No prescriptions

29. In the past 30 days, did you give any of your family members' prescription medication to friends?

_____ Yes _____ No _____ No prescriptions

30. In the past 30 days, did you sell any of your prescription medication?

_____ Yes _____ No _____ No prescriptions

31. In the past 30 days, did you sell any of your family members' prescription medication?

_____ Yes _____ No _____ No prescriptions

32. In the past 30 days, were any of your or your family members' prescribed pills taken away by force or threats?

_____ Yes _____ No _____ No prescriptions

33. In the past 30 days, were any prescribed pills stolen from you or your family members?

_____ Yes _____ No _____ No prescriptions

34. In the past 12 months, has drug use affected you in any of the following ways?

Caused by Drug Use	Yes	No
Poor performance in school		
Tension or disagreements with family or friends		
Trouble with the police		
Unable to afford other things		
Acts of vandalism (damage to property)		
Self-injury		
Lying or using fake documents		
Impaired driving		
Impaired driving by friends		
Hangover		
Fights		
Vomiting		
Memory loss		
Taken advantage of		

35. In the past 7 days have you experienced any of the following feelings or behaviors?

Feeling or Behavior	Yes	No
Loss of appetite / poor appetite		
Couldn’t get rid of sadness		
Trouble focusing		
Depression		
Too tired to do things		
Hopeful about the future		
Restless sleep		
Happy		
Lonely		
Enjoyed life		
Crying spells		
Felt that people disliked you		

36. In the past 12 months, have you ever thought that you have a drinking / drug addiction problem?

_____ Yes _____ No

37. In the past 12 months, have you felt you needed help for drug / alcohol use?

_____ Yes _____ No _____ Don't use

38. In the past 12 months, have you quit using drugs / alcohol?

_____ Yes _____ No _____ Don't use

39. In the past 12 months, have you tried, unsuccessfully to quit using drugs / alcohol?

_____ Yes _____ No _____ Don't use

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

_____ Yes _____ No _____ Don't use

41. If yes, what services have you used?

____
____
____
____
____

42. In the past 12 months, have you used any services or received help to deal with depression?

_____ Yes _____ No _____ Not depressed

43. If yes, what services have you used?

____
____
____
____
____

44. Do you think your community *needs* to do something about drug / alcohol use by youth?

_____ Yes _____ No

45. If yes, what do you think *needs* to be done about drug / alcohol use?

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46. Do you think your community *is* doing something about drug / alcohol use by youth?

_____ Yes _____ No

47. If yes, what *is* being done about drug / alcohol use?

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____

48. Does your school have a drug policy?

_____ Yes _____ No _____ Not sure

49. Do you think your school's drug policy is effective?

_____ Yes _____ No

50. How many classes have you had this school year that talked about drugs / alcohol?

_____ None _____ One or two _____ Three or more

51. How many classes have you had this school year that talked about decision-making, peer pressure, assertiveness or refusal skills?

_____ None _____ One or two _____ Three or more

52. Since the beginning of the school year, have you attended any of the following programs or seen any of the following materials dealing with drug / alcohol use?

_____ Announcements or articles in school newspapers

_____ Classroom lectures

_____ Guest speakers (police, addiction services, former addicts, etc.)

53. Where do you receive most of your information about drugs / alcohol? Please check one option only.

_____ Friends

_____ School

_____ Parents / relatives / guardians

_____ Articles / pamphlets

_____ Internet

_____ Movies / TV

_____ Other (please specify)

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Please provide any additional information that you feel is important to this survey.

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Thank you for participating in this survey!

Teacher Survey

What is your gender?

_____ Male _____ Female

What is your ethnicity?

_____ Caucasian (White) _____ African Canadian

_____ Aboriginal _____ Other

In what neighborhood do you live? ____________________________

Where did you receive your B.Ed, M.Ed, or other teacher certification?

____
____
____

What grade levels do you teach? ______________________________

Which courses do you teach?

____
____
____
____
____

In your opinion, how many of the students in your class have used the following drugs in the last 30 days?

Drug	Hardly Any	25%	50%	75%	Almost All
Nicotine (cigarettes)					
Alcohol					
Marijuana					
OxyContin					
Opiates, such as Demerol, Percocet, and Morphine					
Other painkillers, such as Tylenol 3 and Codeine					
Stimulants, such as Ritalin and Dexedrin					
Anti-anxiety drugs, such as Valium, Xanax and Ativan					
Cocaine					
Ecstasy					

In your opinion, are the following drugs easy to get in the community?

Drug	Yes	No
Nicotine (cigarettes)		
Alcohol		
Marijuana		
OxyContin		
Opiates, such as Demerol, Percocet, and Morphine		
Other painkillers, such as Tylenol 3 and Codeine		
Stimulants, such as Ritalin and Dexedrin		
Anti-anxiety drugs, such as Valium, Xanax and Ativan		
Cocaine		
Ecstasy		

Do you feel that the following drugs are easy to get at the school in which you teach?

Drug	Yes	No
Nicotine (cigarettes)		
Alcohol		
Marijuana		
OxyContin		
Opiates, such as Demerol, Percocet, and Morphine		
Other painkillers, such as Tylenol 3 and Codeine		
Stimulants, such as Ritalin and Dexedrin		
Anti-anxiety drugs, such as Valium, Xanax and Ativan		
Cocaine		
Ecstasy		

Do you think there is a "problem" with drug / alcohol use by youth in your community / school?

_____ Yes _____ No

If yes, what makes you think there is a problem?

____
____
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____
____

Do you know who deals drugs in your community / school?

_____ Yes _____ No

Do you think that other teachers are aware of who deals drugs in your community / school?

_____ Yes _____ No

Do you think your community *needs* to do something about drug / alcohol use by youth?

_____ Yes _____ No

If yes, what do you think *needs* to be done about drug / alcohol use?

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____

Do you think your community *is* doing something about drug / alcohol use by youth?

_____ Yes _____ No

If yes, what *is* being done about drug / alcohol use?

____
____
____
____
____

Does your school have a drug policy?

_____ Yes _____ No _____ Not sure

Do you think your school's drug policy is effective?

_____ Yes _____ No

How many classes have you given this school year that talked about drugs / alcohol?

_____ None
_____ One or two
_____ Three or more
_____ Not applicable / not my subject area

How many classes have you given this school year that talked about decision-making, peer pressure, assertiveness or refusal skills?

_____ None
_____ One or two
_____ Three or more
_____ Not applicable / not my subject area

Since the beginning of the school year, have you provided, used, or observed any of the following initiatives or materials dealing with drug / alcohol use at your school? (check all that apply)

_____ Announcements or articles in school newspapers

_____ Posters, pamphlets, booklets

_____ Classroom lectures

_____ New curriculum

_____ Student assemblies

_____ Peer Education

_____ Guest speakers (police, addiction services, former addicts, etc.)

_____ Other (please specify) ____

23. Where do you think the students in your school are receiving most of their information about drugs / alcohol?

_____ Friends

_____ School

_____ Parents / relatives / guardians

_____ Articles / pamphlets

_____ Internet

_____ Movies / TV

_____ Other (please specify) ____

During your B.Ed/M.Ed Program were you given any specific training for working with drug addicted youth or teaching drug awareness classes?

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Are you provided with any workshops, sessions, tools, or professional development training to teach drug awareness units/classes, or to learn to deal properly with drug addicted youth?

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Please provide any additional information that you feel is important to this survey.

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Thank you for taking the time to participate in this survey!