Drug Use in Toronto

2004

Research Group on Drug Use

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A number of organizations participate in monthly meetings of the Research Group on Drug Use. These meetings are a vehicle for sharing drug-related information among appropriate agencies. The following representatives participate on the Research Group on Drug Use. In alphabetical order:

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The interpretation of the data in this document is that of the Research Group on Drug Use, and does not necessarily reflect the views of any participating individuals or agencies.

EXECUTIVE SUMMARY

SECTION ONE: DRUG USE BY POPULATION

A. Drug Use In the "Mainstream" Population

- **Drug Use Among Students**

Marijuana (a.k.a. cannabis) remains the most popular illicit recreational drug among Toronto students. Approximately 23% of respondents to the most recent Toronto student survey indicated recent (past year) cannabis use.

The high-risk practice of binge drinking, that is consuming more than five alcoholic drinks on one occasion, was reported by 18% of Toronto students.

Inhalant use among Toronto students was reported by nearly 8% . This potentially fatal practice is most popular among the youngest students surveyed.

Cocaine powder use among Toronto students has increased over the last decade, from 1.1% in 1993 to 4.0% in 2003.

With respect to designer drugs, less than 4% of students indicated past year use of ecstasy, while only 1% reported use of GHB.

- **Drug Use in the General Adult Population**

Fifteen percent of respondents to the 2003 CAMH Monitor survey reported past year use of marijuana.

Anecdotally, powdered cocaine is gaining popularity among mainstream adults.

For the past ten years, the number of infants born with Newborn Drug Withdrawal Syndrome has ranged between fifteen and thirty. The most recent report of twenty-four Toronto newborns diagnosed with this condition in the 2002/2003 reporting period lies within this range.

- **Update on Marijuana Legislation**

On November 1, 2004, the federal government introduced Bill C-17, legislation to decriminalize the possession of small quantities of marijuana. This bill replaced the former Bill C-38, which expired when Jean Chretien left office.

Companion legislation C-16 was also introduced to deal with the problem of driving under the influence of drugs other than alcohol.

- **Driving Under the Influence of Marijuana and Other Drugs**

According to the 2003 CAMH student survey, nearly fourteen percent of student drivers in Toronto have driven under the influence of marijuana.

There is evidence that the combination of marijuana and alcohol may be more detrimental to driving than the sum of the individual effects from each drug.

- **Use of Designer Drugs Among Adolescents and Young Adults**

Ecstasy remains the most popular designer drug, according to a 2002-03 study of local dance party participants by TRIP! Thirty-percent of over three hundred respondents named it as the drug they consumed most often, second only to marijuana.

Ketamine was a distant second among designer drugs, cited by just under 5% of respondents.

GHB appears to have lost much of its appeal among those attending large dance parties.

A variety of new designer drugs are used locally, including 2C-B and the tryptamines FOXY and AMT.

- **Emerging Issues in General Population Drug Use**

Oxycodone, a narcotic pain reliever, is gaining popularity as a drug of abuse. Twenty-seven deaths in Toronto were related to the use of this drug in 2002, compared to between one and seven deaths annually during the period 1991-2001.

Methamphetamine, a chemical stimulant produced in clandestine laboratories, is gaining popularity locally, according to numerous sources. This drug's high potential for addiction and serious physical injury or death, noted in many North American cities over the past decade, is a serious concern.

Poly-drug use, the combination of two or more drugs for recreational use, is currently widespread in Toronto. This practice is especially popular in the gay club scene.

The dangers of serious untoward drug effects substantially increase with poly-drug use.

Among particularly dangerous drug combinations are alcohol combined with either GHB, cocaine, or heroin; GHB and benzodiazepines; and methamphetamine with ecstasy.

B. DRUG USE IN "MARGINALIZED" POPULATIONS

- **Drug Use Among Street Youth**

Rates of drug use far greater than those of their housed counterparts are reported by street youth in recent Toronto surveys.

The lack of any residential treatment facilities for these youth renders effective treatment for homeless youth with serious addictions highly unlikely.

Methamphetamine appears to be popular within this population. The extreme popularity of methamphetamine among Vancouver street youth serves as a warning for Toronto.

Another factor which complicates drug abuse treatment for homeless youth is the high prevalence of concurrent disorders, that is mental illness along with problems of substance abuse.

- **Marginalized Adults and Crack Use**

Local studies confirm that crack is the drug of choice among homeless and otherwise disenfranchised populations in Toronto.

The low utilization rate of social and health social services by homeless individuals is a well-known, significant barrier with respect to prevention of disease transmission associated with crack use.

- **Marginalized Adults and Injection Drug Use**

The transmission of Hepatitis C and HIV are two of the most serious public health risks associated with this form of drug use.

While the rate of Hepatitis C observed among injection drug users in Toronto is high, estimated at 54%, it is the lowest observed among four Canadian cities recently studied by Health Canada.

The rate of 5.1% of HIV among injection drug users in Toronto is, again, relatively low when compared to several other Canadian cities.

- **Barriers to Drug Use Treatment for Marginalized Populations**

Large numbers of homeless, pregnant women in Toronto with drug-related problems underscore the need for outreach to this population.

The procedure for seeking treatment for problematic substance use is a source of confusion for clients and treatment providers. Among the common concerns are the need to clarify: the initial assessment process, the waiting times, and the need for detox.

- **Emerging Issues for Marginalized Users**

Reports of poisonings, potentially related to the contamination of illicit drugs, underscore the need for prompt information sharing in these cases.

SECTION TWO: FINDINGS BY INDIVIDUAL DRUGS

- **Cocaine**

While general population surveys are largely unchanged, there is much anecdotal evidence of the increased use of powdered cocaine.

Any increase in use, however, is not reflected in the cocaine-related death data through 2001. Following a period of increase in the late 1990s, cocaine-related deaths in the most recently available data have fallen to the lowest rates seen since the late 1980s.

- **Heroin**

Heroin use remains low in the general population.

Methadone treatment continues to increase throughout the province. There was an increase of more than 1000% in the number of methadone patients in Toronto between July, 1996 and July, 2004.

Although correctional facilities in Ontario currently maintain methadone clients who become incarcerated while on methadone medication, newly incarcerated individuals cannot request initiation of treatment that has not been previously prescribed.

The decrease in heroin-related deaths, since the peak of 67 in 1994, has continued through 2001. More recent data is not yet currently available.

- **Marijuana**

Fifteen percent of Toronto adults responding to the 2003 CAMH Monitor reported cannabis use within the past year. This finding is close to the highest reported level on record, 17%, observed in 1984.

The use of marijuana reported in the both the 2001 and 2003 Toronto student surveys is also relatively high. In fact the rates of 22% and 23%, noted respectively in these recent studies, are the highest since the late 1970s.

The quantity of marijuana seized in Toronto has increased substantially over the past five years.

- **Barbiturates, Sedative Hypnotics and Tranquilizers**

Past year use of drugs in this category appear to be relatively low in mainstream populations.

An increase in the non-medical use of prescription drugs in the United States serves as a potential warning for similar increases in Toronto in the future.

Barbiturates and benzodiazepines are frequently used by IDU in Toronto.[76] According to the recent TRACK survey of IDU, nearly 22%, indicated the non-injection use of barbiturates, while one-hundred-eight, or approximately 49%, indicated the non-injection use of benzodiazepines.

- **Hallucinogens**

Use of "traditional "hallucinogens such as LSD and PCP appears to be relatively uncommon in Toronto. However, these are distinguished from designer drugs fashioned as hallucinogens (e.g. ecstasy, tryptamines); these substances are categorized as designer drugs for this report.

- **Inhalants/Solvents**

According to the 2003 student survey, approximately 8% of students inhaled solvents other than glue in the year preceding their interview. This rate is higher than those found over a decade ago (1%-2%). It is also noted that glue and other solvents are most popular among the youngest students surveyed, unlike the general pattern seen for other drugs.

Inhalants appear to be particularly popular in gay clubs, among other venues.

- **Stimulants**

While anecdotal reports indicate methamphetamine is rapidly gaining popularity in Toronto, survey data regarding use of all stimulants in the general adult and student populations do not yet reflect this trend.

Methamphetamine use is more apparent in data from surveys of street youth

While the quantity of stimulants seized in Toronto peaked in 2001, the quantities seized in the subsequent years have returned to the low levels traditionally noted in the city.

- **MDMA – Ecstasy**

Less than 1% of Toronto adults reported using ecstasy in the past year. This rate is not significantly different from the 2% reporting use in 2002.

In 2003, past year use of ecstasy was reported by 3% of Toronto students. This rate is non-significantly lower than that found in 2001 (6%) and resembles the levels found in the mid-1990s.

Despite the low usage indicated by these surveys, ecstasy appears to be popular among attendees at dance clubs in both the gay and straight communities in Toronto.

There were eight ecstasy-related deaths in Toronto between January 1, 1999 and December 31, 2001.

- **GHB**

Use of GHB among Toronto students was reported at 1% in the 2003 OSDUS, unchanged from the results of 2001.

GHB appears to have lost the appeal it previously had among party-goers in Toronto, according to a recent TRIP! survey. It was not mentioned by any of over 300 respondents as the drug they most often used.

GHB does, however, reportedly remain popular in gay clubs in Toronto, among other venues.

Three GHB-related deaths occurred in Ontario between January, 1999 and December, 2002.

INTRODUCTION

"Drug Use in Toronto, 2004" is the 13th edition of the Drug Use in Toronto series. It was first compiled in 1990 by the newly formed (former Metro Toronto) Research Group on Drug Use, which included the (former) Addiction Research Foundation, the Office of the Chief Coroner of Ontario, the Toronto Police Force, and the Toronto Department of Public Health. These four agencies continue to collaborate on drug-related issues to the present time, recognizing the value in sharing information about this complex subject. In fact, the Research Group on Drug Use (RGDU) now includes members from a diverse set of organizations, including local hospitals, treatment agencies, community health centres and more. The list of current RGDU participants appears on the Acknowledgement pages.

The original mandate of the Research Group on Drug Use (RGDU) was to document statistics on illicit drug use in (then Metro) Toronto. While statistics on alcohol and tobacco use were widely available in 1989, information regarding illicit drugs was not. In this pre-information highway era, it was hard to find any information on illicit drugs outside of the tabloids; it was therefore difficult to separate rumors from the few reported "facts" that could be found. Thus, the first annual reports of "Drug Use In Toronto" compiled the relevant "official" statistics from the original four partners.

Over the past 14 years, the content and format of "Drug Use in Toronto" has evolved. The full data set now includes many indicators dating back one or more decades, affording a view of drug-related trends over time. In addition, information on emerging issues, quantitative as well as anecdotal, is routinely shared and discussed through monthly meetings of the RGDU participants.

Organizing this data for a diverse audience including members of the general public, academics, front line workers, clients and policy makers, is challenging. The agencies collecting drug-related information generally organize this data on a drug-by-drug basis; thus, it is relatively easy to find estimates of the number of users, the number in treatment, the number of seizures, or the number of deaths associated with any of a list of common illicit substances. The Findings section, previously the first part of each report, provides this drug-by-drug summary.

However, understanding drug use goes far beyond a knowledge of these statistics, no matter their sources. Effective prevention and treatment require an understanding of the various drugs available, the role they play in the user's life, the conditions under which they are used, and the consequences for both the users and those around them. The section Drug Use by Population is an effort to provide this context for the drug by drug Findings section, which follows it.

The description of the Toronto drug scene is divided into two parts: drug use in the so-called mainstream population versus that within more marginalized groups. This population division is commonly made in efforts to describe patterns of illicit drug use. No models, of course, hold without exception; each group is composed of individuals, no two of whom are identical. Therefore these broad generalizations are just that. However, there is some benefit to this framework for examining patterns of drug abuse, as finances and other resources are relevant; they generally play an important role in determining which drugs are used, how safely they are used, which treatment options are available, and the long-term consequences. In addition, a section on emerging issues is included for each of the two population groups. It is important to note, however, that many current and emerging trends transcend this division, given the common, illicit market of supply.

Delivering public health services and information which prevent or minimize serious drug-related problems is a serious challenge. The complexities grow with the constantly evolving nature of the drug scene and require continuing vigilance. This report is provided to assist in this process. Comments and inquiries about this report and the Research Group on Drug Use are welcomed.

SUMMARY OF DATA SOURCES

Data Sources for Section I – Drug Use by Population

The section entitled "Drug Use by Population" details several areas of significant concern with respect to local drug use. Descriptions of the data sources used for this section are included in each individual discussion.

Data Sources for Section II –Findings by Individual Drugs

The data used to describe the use of individual drugs rely on a number of sources described in previous editions of Drug Use in Toronto.

While this section divides drugs into specific groups, it must be noted that such classifications are not unique. For example, methamphetamine, considered a stimulant for the purposes of this report, is often classified as a designer drug. Likewise, some sources classify all prescription drugs together, while this report uses separate groups for barbiturates, opiates, stimulants, and others.

Updates for the current report are taken from the following sources:

DRUG USE

1. Data on use among students and adults are provided monitoring studies by the Centre for Addiction and Mental Health (CAMH). Updated for this report are the 2003 adult drug-use estimates derived from The CAMH Monitor, and the 2003 student drug use estimates based on CAMH's Ontario Student Drug Use Survey (OSDUS).

2. Updated estimates of drug use among street youth are from the 2004 report "Youthlink Inner City, Hepatitis C Support Program, Final report," by Dr. Deborah Goodman of the Toronto Children's Aid Society (CAS).

3. In addition, anecdotal data on drug use is provided by staff from several local community health centres and other agencies collaborating with the Research Group on Drug Use.

ENFORCEMENT

1. Data on drug seizures, which refer to the confiscation of illegal substances of any quantity made by a Toronto Police official, are provided by the Toronto Police Service. The most recent statistics reflect seizures for the 2003 calendar year. It is noted that seizures made at Pearson International Airport are not included in this report, as they are outside of the city of Toronto limits. However, it is noted by police sources that a high proportion of the drugs seized at the airport are intended for use in the city of Toronto.

2. Drug purity information is based upon Health Canada tests of seized substances. Updated purity data are not available for this report. This data is only available through December, 2000.

TREATMENT

1. Aggregate data which summarize all requests for substance abuse treatment information at provincially funded treatment centres in both Toronto, as well as for the rest of Ontario, are provided by The Drug and Alcohol Registry of Treatment (DART). A "treatment search" (a.k.a. treatment inquiry) is recorded when either (1) a professional calls DART, seeking drug treatment on behalf of an individual client; or (2) a member of the general public (substance user, family member or friend) requests such information. DART data describe all treatment searches between October 1, 1994 and September 30, 2003.

2. Annual updates on methadone treatment in the province are provided by the College of Physicians and Surgeons of Ontario(CPSO).

LETHALITY AND MORTALITY

1. Lethality and mortality data are provided by the Office of the Chief Coroner of Ontario. These data include data on all "drug-factor deaths" in Toronto between January 1, 1986 through December 31, 2001, that is all coroner cases in which drugs or other commonly used substances were determined to have directly caused death.

2. The presence of a given drug in a coroner's case does not mean that particular drug caused the death. For instance, between 1986 and 2001 there were 51 drug factor deaths in Toronto with positive findings for marijuana; each then was labeled a "marijuana-related death." However, the label is somewhat misleading; in none of these cases was the death caused by marijuana alone. Other drugs were present at lethal levels in each of these 51 cases. In summary, a drug is "related" to a death simply by being present in a victim at the time of death from one or more drugs.

3. The cases under various drug categories are NOT mutually exclusive. For example, in 2001, 19 individuals died with cocaine in their systems, resulting in 19 "cocaine-related deaths." Similarly, there were 36 individuals whose deaths were classified as "heroin-related" that same year. However, these two groups are NOT distinct; 7 individuals who died with BOTH drugs in their systems are counted in both sets of deaths. This is done to yield a count of the number of deceased who used each particular drug, an estimate of prevalence. It should be noted, therefore, that adding drug-related deaths of various categories will result in multiple counts of some individuals.

4. It is also noted that drug-factor deaths do not include individuals killed in crashes caused by driving under the influence of drugs unless the drug, and not injuries from the accident, was the direct cause of death.

"We have to disabuse ourselves of the notion that jail is the answer for users. Neither short sentences, long sentences, nor uniformity (consistency) of sentencing mean anything to the user. We have to establish alternatives to imprisonment. The cyclical process must end. It is simply ineffective, costly, and unjust. We must come up with more options for assistance and treatment and more accessibility. Removing threats and fears from users would allow them to "come out of the closet" and, with some outreach mechanisms, would provide a variety of programs for treatment and ultimate harm reduction. The money spent on policing, sentencing, and serving time would be much better spent on curing the causes, rather than labouring over the symptoms."

-quoting Vince Cain, (then) the chief coroner of the province of British Columbia, in "Report of the Task Force into Illicit Narcotic Overdose Deaths in British Columbia, September, 1994."

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- Use of Designer Drugs Among Adolescents and Young Adults
- Emerging Issues in General Population Drug Use

1. Drug Use Among Students

The vulnerability of young people to drug use is widely acknowledged. The results of the most recent CAMH Student Monitoring Survey indicates that many Toronto junior high and high school students experiment with (in order of popularity): alcohol, tobacco, marijuana, designer drugs, and in growing numbers, powdered cocaine.[17]

Fortunately, student experimentation with illicit drugs tends to be relatively short-lived and usually harmless. However, given the likelihood that students will be exposed to many illicit drugs, it is crucial to understand the potential dangers of these various substances.[4,7,17]

Alcohol continues as the substance of choice according to local student surveys conducted since 1977. The most recent report is based upon responses from 6,616 Toronto junior high and high school students from across the city in 2003. It indicates that alcohol use has grown among students over the past five years. In 2003, 61.5% of the students surveyed said they had used alcohol at least once in the 12 months preceding their interview. This compares to the 56% reported in both 2001 and 1999[17].

Binge drinking, defined as more than 5 drinks on one occasion was reported by approximately 18% of the Toronto students questioned. This high-risk behavior appears even more common in the province as a whole, with 26.5% of all Ontario students surveyed in 2003 admitting to past year binge drinking.[17]

Past year marijuana (a.k.a. cannabis, weed, grass) use was reported by 25% of all Toronto students.[17] This is the highest rate observed since 1979, when an identical rate was noted. This is a concern with respect to the statistics currently available pointing to a high prevalence of driving under the influence of marijuana.[32,33,34,35,36] Public service and school programs addressing these risks, however, are limited by current legislation.

Cocaine powder use among Toronto students has increased over the last decade, from 1.1% reported in 1993 to 4.0% in 2003. Currently elevated levels of cocaine use in Toronto are evidenced in multiple sources for this report.[14,15,17,47,54,57]

Reported crack use among Toronto students remains at a traditionally low level, with 2.2% reporting use.

With respect to designer drugs, the 2003 student survey indicates relatively low use of both ecstasy and GHB. According to this CAMH report, only 1% of Toronto students reported GHB use while less than 4% cited past year use of ecstasy.

However, signs of low, slightly decreasing levels of ecstasy and GHB among student respondents do not imply designer drug use has abated.[24,57,59] A large variety of chemicals and combinations have also taken a place in the club scene for adolescents and young adults. In addition to the risks associated with each of these individual substances, including lack of assurance regarding their ingredients, the dangerous, yet popular, practice of poly-drug use further heightens the risks .

While the designer drug category includes a large variety of new substances, the CAMH survey also indicates the use of a number of more "traditional" drugs among Toronto students. These include the non-medical use of stimulants reported by 3%, methamphetamine use by 3%, the non-medical use of barbiturates and sedatives by 2%, and LSD use by 2%. As reported over the past five years or more, only 1% of Toronto students reported past year use of heroin or non-medical tranquilizers.

Inhalant use among Toronto students is reported at relatively high levels in the most recent data. Approximately 3.0% of Toronto students report sniffing glue, while the use of other inhalants is reported by 8%. This potentially fatal practice was most popular among the youngest students surveyed.

The observed increases in inhalant use among Toronto students mirrors recently reported trends from the United States. Lifetime inhalant use for 12 to 17 year olds almost doubled between 1999 and 2002, from 5.4% to 10.5%.[4,83]

The 2003 PRIDE survey, covering grades six through twelve in the United States, "indicated that inhalant use rose at a statistically significant level for almost all grade levels, both yearly and monthly, the past year.[83] Monthly rates are equal to or higher than their highest [levels] since 1998."

Key findings of this U.S. student survey on solvent use included:

- **Use would most likely occur at school or at home**
- **Girls in the seventh and eighth grades use nearly as much as boys**
- **In all other grades, boys use more than girls**
- **Only about 56% of sixth grade students believe inhalants are harmful**

Increases in solvent use by youth are also seen in other jurisdictions; an excerpt from an article on use in the United Kingdom follows:

Volatile substance abuse is largely a teenage practice; it is estimated that in the UK 3.5-10% of young people have at least experimented and that 0.5-1% are current users. The products abused are many and varied but only about 20 chemical compounds, notably toluene, chlorinated solvents such as 1,1,1-trichloroethane, fuel gases such as butane and aerosol propellants, are commonly encountered. The acute hazard varies with the compound, product and mode of abuse. Mortality in the UK is now about 100 per year, from all social classes, 90% of whom are male.

Chronic toxicity is difficult to assess, partly because of the diversity of products abused. However it is clear that some long-term abusers suffer permanent damage to the central nervous system, heart, liver and kidney. Toxicological analysis may be relied upon for confirmation of diagnosis, providing attention is paid to the kinetics of excretion and stability in the sample.

Responses include codes of practice for the sale of products and educational strategies; legislation has also been enacted.

There is little evidence that any of these measures have made a significant impact on the problem.

Ramsey J, et al, (2002) "An Introduction to the Practice, Prevalence and Chemical Toxicology of Volatile Substance Abuse," in: Human Toxicology, vol. 8, number 4, pages 261-291.

For more information on Drug Use Among Students in this report, see:

- **Driving Under the Influence of Marijuana and Other Drugs**
- **Use of Designer Drugs Among Adolescents and Young Adults**
- **Emerging Issues in General Population Drug Use**
- **The Findings Section on Individual Drugs.**

2. Drug Use in the General Adult Population

As noted above for students, alcohol remains the most popular recreational drug for the general population of adults in Toronto. According to the 2003 CAMH monitor, 78% of the adults in Toronto indicated use of alcohol at least once in the year preceding their interview. [2]

In terms of illicit drug use, marijuana (a.k.a. cannabis, pot, weed) is the most popular among Toronto adults. In the most recent survey of Toronto adults by the Centre for Addiction and Mental Health, 15% of the respondents reported past year marijuana use.[2] This is consistent with reports from other North American cities. [3,4,29,48]

The most immediate concern with respect to the popularity of marijuana is evidence of the high prevlanece of individuals driving while under the influence of this drug.[32,33,34,35,36]

An increase in the use of cocaine powder over the past few years is evident in several of the local data sources.[15,24,57] The many physical problems associated with cocaine use, along with the risks of physical addiction, distinguish this stimulant from a "softer" recreational drug such as marijuana.

Two newer, potentially dangerous substances are also reportedly gaining popularity locally; these are the designer stimulant methamphetamine and the narcotic oxycodone.[24,44,57,94] These drugs also share a high potential for addiction and serious physical problems.

The popular chemical drugs (a.k.a. designer drugs, club drugs) among young adults attending dance parties pose unique dangers due to the lack of control over the contents of the millions of drug formulations sold.[9,10,27] The mainstream classification of this group of drug users is perhaps surprising, however, many of the young adults involved in the dance community are university students and graduates.[23]

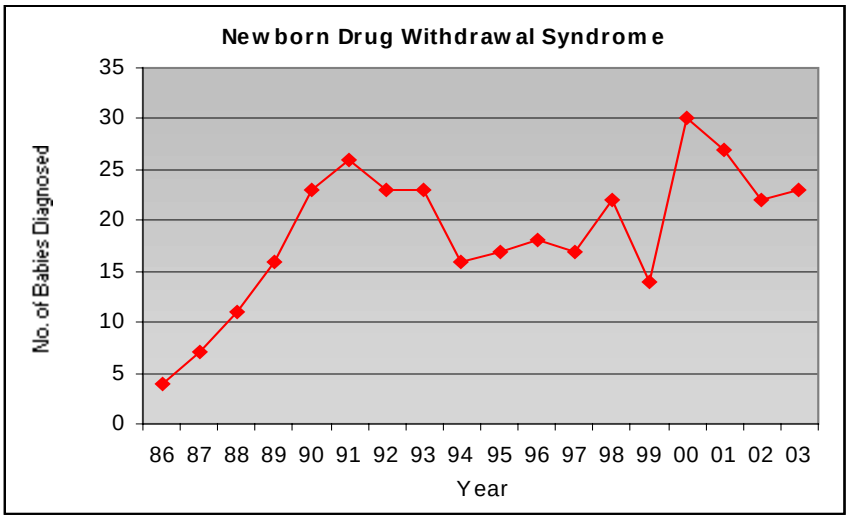
While the indicators of ecstasy and GHB use are currently stable or falling, the ever increasing array of designer chemicals available to those interested continues to pose unknown, potentially fatal risks. The dangers of these drugs are heightened through the popular practice of poly-drug use.[1,54]

When drugs are used by pregnant women, the associated dangers are enhanced. The thalidomide tragedies over forty years ago demonstrated how a seemingly "mild" drug taken by a pregnant woman could have devastating effects on the development of her baby. In fact, it was discovered in 1961 that taking only one dose of thalidomide early in pregnancy can severely affect the growth and development of fetal limbs, as well as the eyes, ears, heart, genitals, kidneys, digestive tract, and nervous system.[100]

A 2004 report from the United Nations Office on Drugs and Crime highlighted the special circumstances often encountered in the treatment of women with drug-related problems.[105]

> *"Women with substance use problems…experience significant barriers to accessing treatment and are believed to be under-represented in treatment settings. Cultural taboos and stigma mean their substance use problems are often not acknowledged by themselves, their families or helping professionals who could support them in seeking treatment. Pregnant and parenting women using substances face particular societal condemnation, and pregnant women often delay seeking services with serious implications for the mother and the fetus. Women who are parents usually have primary responsibility for childcare, as well as other household responsibilities. However, few treatment services provide childcare, and in some cultures it is very difficult for women to leave their homes and family responsibilities to seek treatment."*
>
> **United Nations Office on Drugs and Crime[105]**

The following graph illustrates the numbers of babies born in Toronto over the past eighteen years diagnosed with newborn drug withdrawal syndrome. The numbers of Toronto infants diagnosed with this syndrome were relatively low before 1990. The trends of the early 1990's likely reflect increased recognition of this condition by health practitioners as well as any increases in actual incidence of these conditions. For the past ten years, the number of infants born with this syndrome has fluctuated between 15 and 30.



The research on prevention and treatment indicates that pregnancy provides a unique window of opportunity to work with women on problems of addiction. The added incentive of protecting a new life will often help those who tend to neglect their own health and well-being.[53,81,88,105]

Breaking the Cycle, a Toronto program, was one of a handful cited by the authors of the recent U.N. report "Substance Abuse Treatment and Care for Women," as an exemplary model for addressing the complex issues surrounding maternal drug addiction among homeless women.

"The programme has been successful in achieving its objective of reaching and engaging a very high-risk population of women. As a result, women have improved access to services such as prenatal services and child welfare services, improved newborn outcomes and the mother-infant interactions, and improved sobriety. An evaluation of the pregnancy outreach programme found that it had been successful in reaching its target population of pregnant homeless women early in their pregnancies, resulting in improved birth outcome among those women reached in the first two trimesters of their pregnancies….

The financial efficacy of the partnership model has been demonstrated. The value of the in-kind contributions of the partner organizations exceeds the base funding amount from Health Canada, ensuring the richness and stability of programme services. The cross-sectoral, integrated partnership model to support pregnant substance-using women and their children has been replicated in a number of communities and there has been interest in the project across Canada and internationally."[105]

For more information on Drug Use in the General Adult Population in this report, see:
- **Driving Under the Influence of Marijuana and Other Drugs**
- **Use of Designer Drugs Among Adolescents and Young Adults**
- **Emerging Issues in Drug Use (including Oxycodone and Methamphetamine)**
- **The Findings section on Individual Drugs.**

3. Update on Marijuana Legislation

This is an update of the section, " Changes in the Regulation of Marijuana" from Drug Use in Toronto, 2001.[1]

Marijuana possession and use are illegal in Canada under the Controlled Drugs and Substances Act of 1996. However, there are exceptions to this law:

May, 1999 - Health Canada established an application procedure for individual Canadians, supported by a medical practitioner, to apply for permission to possess and cultivate marijuana for medical purposes.

June, 1999 - the document “Research Plan for Marijuana for Medical Purposes” was released by Health Canada. This report describes a five-year plan for the evaluation of the risks and benefits of the use of marijuana for medical purposes.

December, 2000 - Health Minister Alan Rock announced that Prairie Plan Systems Inc (PPS) of Saskatoon would provide Health Canada with a supply of affordable, standardized, high quality marijuana suitable for medical purposes.

July, 2001 - the regulations governing the possession and production of marijuana were announced.

> ***"Canada becomes the first country in the world to legalize the use of marijuana by people suffering from terminal illnesses and chronic conditions."*** **---www.ctv.ca ,**
> **July, 2001.**

September, 2002 - the Special Senate Committee on Illegal Drugs released its final report[37] which concludes that marijuana is less harmful than alcohol and should be governed by the same sort of regulations that control tobacco. The absence of cautions regarding driving under the influence of cannabis, a popular and highly risky practice, contradicts other known sources of information on this topic.[57,60,61,62]

December, 2002 – The House of Commons Special Committee on Non-Medical Use of Drugs released its final report, recommending decriminalization of possession of small amounts of marijuana, however, a “small amount” was not specifically defined.[95]

December, 2002 – Charges of possession and trafficking against two volunteers at a medical marijuana club were thrown out of a Quebec Court. Quebec court Judge Gilles Cadieuz cited a contradiction in allowing the ill to use marijuana while prohibiting a legal source of the drug.

January, 2003 - Ontario's Superior Court agreed with the December, 2002 decision in Quebec that the federal government’s Medical Marijuana Access Regulations were unconstitutional because they prevented those who needed the drug for medicinal purposes from acquiring it legally.

May, 2003 - the Cannabis Reform Bill, B C-38, was tabled in the House of Commons. Under the proposed legislation, marijuana possession remained illegal, however, possession of 15 grams or less was to be decriminalized; charges for small amounts of marijuana would be punishable by fine. This proposal also included tougher penalties for growers.

July, 2003 - Canadian and Ontario medical associations cautioned doctors that they were the legal distributors of the drug under the planned legislation.

October, 2003 - the Ontario Court of Appeals allowed that patients approved for use of medicinal marijuana must be insured a safe supply of the drug. At the same time, the court amended the bill's original proposal decriminalizing possession of 15 grams or less to 10 grams or less.

December 23, 2003 - the Supreme Court of Canada ruled that Canadian Parliament could prohibit the possession of cannabis to control it as a psycho-active drug under its broad 'criminal law power' given clear issues of public health and safety both for the user and those affected by the user's conduct.

June, 2004 - Bill C-38 died when the federal election was called.

November 1, 2004 – The federal government reintroduced legislation to decriminalize small quantities of marijuana. Under Bill C-17, individuals found with under 15 grams of the drug would face a fine instead of a criminal charge. It replaced the proposed C-38.

In order to stem criticism that decriminalization of marijuana would result in more people driving under the influence of this drug, the Liberals also introduced C-16, companion legislation meant to address drug-impaired driving. This bill sets out conditions under which a police officer may demand blood or urine from an individual believed to be driving while intoxicated.

" The Dutch government passed groundbreaking legislation in 1976 that distinguished cannabis-based soft drugs from "hard drugs" such as heroin or cocaine. Cannabis was still officially illegal but the possession of up to 30 grams was no longer to be prosecuted as a criminal offence.

Today, coffee shops sell marijuana and hash in five-gram bags without fear of penalty. Menus offer a vast selection, ranging from potent high-grade White Widow or Skunk varieties, grown in greenhouses, to milder outdoor strains such as Orange Bud. The liberal Dutch approach laid the foundation for a multibillion-dollar economy, attracting millions of visitors each year and generating substantial tax income for the Dutch government. Contrary to claims soft drugs open the way toward hard-drug addiction, Dutch advocates said coffee shops are a safe place for experimentation that keep potential users away from criminal pushers. The government insists while it tolerates soft drugs, it is tough on hard-drug dealers. A 2002 report from the European Monitoring Centre for Drugs and Drug Addiction, said so-called "problem drug use" in the Netherlands is the lowest among countries in the European Union and candidate states".

Globe and Mail, November 30, 2002

For more information on Marijuana in this report, see

- **The following section on Driving under the Influence of Marijuana and Other Drugs**
- **The Findings section on Marijuana (Cannabis).**

4. Driving Under the Influence of Marijuana and Other Drugs

The number of annual road fatalities in Ontario involving drinking and driving has been decreasing for more than 30 years.[35,36] Widespread public education and awareness campaigns appear to have been successful in reducing these tragedies.

However, despite the progress made to date, the deadly practice of drinking and driving continues.[31,32,3539] Based on the findings of the 2003 Ontario student survey, approximately 30% of Toronto junior high and high school students had, in the past year, been in a car whose driver was under the influence of alcohol.[17]

The problems of driving under the influence of drugs other than alcohol are often overlooked. Although it is a criminal offence to drive while impaired by any drug, with penalties running to life imprisonment, the police have neither the authority nor the ability to test for drug impairment and elicit evidence for prosecution, as they have for alcohol-related offenses.

The lack of a roadside test is particularly troubling in the case of marijuana, given the drug's popularity and evidence of its impact on driving. As is the case with alcohol, marijuana-related driving impairment is highly dependent upon level of consumption. At moderate levels of use, there is *"strong evidence from performance studies that THC has significant effects on the cognitive and psychomotor tasks associated with driving.*[32]*"* While THC induced effects are generally conceded to return to baseline within 3 - 4 hours, "some complex, divided attention tasks have indicated deficiencies in performance up to 24 hours after cannabis use.[34]" A further concern is the tendency for those who have consumed this drug to underestimate their own impairment.[33]

> ***" Young people are now more likely to toke and drive than they are to drink and drive."***
>
> **--The Globe and Mail, February 1, 2003, quoting [then] Deputy Chief Mike Boyd of the Toronto Police**

The self-reported rates regarding driving while intoxicated among Toronto students are alarming.[17] The following table displays the percentage of students in grades 10 to 12 with a driver's license who admitted to driving under the influence in the preceding year.

	Toronto	South West	Central West	Central East	East	North	All
Sample Size	288	343	403	236	315	369	1973
Drinking and Driving(%)	12.4	14.7	13.5	11.3	14.8	17.1	13.8
Cannabis Use and Driving(%)	13.8	24.7	18.8	22.8	19.1	24.4	20.1

The police believe the use of marijuana by drivers is dangerous and is increasing, but they have limited roadside tools to detect marijuana-related impairment.

Even more concerning is the potent combination of marijuana and alcohol. An interaction between these drugs can produce a combined effect greater than might be expected from the individual quantities consumed[32,333,34,39] In a 1987 Canadian study, 80% of the injured drivers who had used marijuana also had used alcohol prior to their crash.[39]

"Critical skills needed for the safe operation of motor vehicles and other forms of transport can be impaired following cannabis use…Closer examination of the combined use is warranted in those driving situations where [the drugs consumed] produce qualitatively different effects. It may well be so that alcohol reduced drivers' insight or motivation to the point where they would no longer attempt to compensate for the [relaxed] THC effect. As a result, the combined effects on drivers' performances could well be greater than the sum of either drug acting separately."

-H.W.J. Robbe, "Influence of Marijuana on Driving", Institute for Human Psycopharmacology[33]

Given the anticipated changes in the laws with respect to marijuana, Bill C-16, was introduced in Parliament in November of 2004 to give police broader powers in roadside investigations. The proposed legislative reforms would amend the criminal code of Canada and give police the authority to conduct: [43,46,52]

1. Standard Field Sobriety Tests (SFST), where there is a reasonable suspicion that a driver has consumed an impairing drug. SFSTs are 'divided-attention' tests, administered at the roadside, that evaluate a subject's ability to multi-task;

2. Drug Recognition Expert (DRE) evaluations administered at the police station in instances where the officer reasonably believes a drug impaired driving offence was committed. This includes a situation where the driver fails the SFST;

3. A saliva, urine or blood sample collection, should the DRE officer identify that impairment is caused by a specific family of drugs.

Drug Recognition Expert evaluations are currently in use in most U.S. states, Australia, New Zealand and some European countries. Police in Quebec, British, Columbia and Manitoba use DRE evaluations, but only if the suspect participates voluntarily. DRE evaluations have been recognized by Canadian courts and tested in U.S. courts up to the Supreme Court level.[46,52]

"Whether we like it our not, drugs are a part of modern life. Their use is more common and more insidious than we would like to admit. Aspirin, tranquilizers, caffeine, alcohol, and tobacco help many people get through the day. To deal with the increasing complexity of daily life, we have become a society of substance users. Children grow up in an environment where mood-altering, pain-reducing, sleep-inducing substances are widely marketed and accepted.

Those who use "hard" drugs do so for many of the same reasons. Some use drugs for pleasure. Many use drugs to relieve physical or psychological pain. The mentally ill often take drugs to achieve a higher level of functioning. For those who use drugs as a refuge, they see the harm they inflict upon themselves as the lesser of two – or several – evils..

Clearly there needs to be a greater understanding of the health issues of addiction in order to replace fear, apathy, and anger with empathy and action."

From "A Framework For Action, A Four Pillar Approach to Drug Problems in Vancouver," Donald MacPherson, City of Vancouver, April 24, 2001.

5. Use of Designer Drugs Among Adolescents and Young Adults

Designer drugs, also known as chemical drugs, club drugs, or rave drugs, are those produced by chemically altering and combining existing substances. Hundreds of designer drugs exist. Those most popular in Toronto have included ecstasy and GHB. Statistics regarding local use of these substances have been documented in previous editions of Drug Use in Toronto.[1]

Because designer drugs are produced in a variety of unregulated environments, including private basements, garages, and mobile homes, their inconsistency both in chemical composition and effects is a major concern. Unlike medications produced in pharmaceutical laboratories or licensed distilleries, the consumer, and often the distributor, have little knowledge regarding the ingredients, the strength or any possible adulterants contained in most designer drugs. A number of recent studies indicate that only a fraction of the drugs sold as ecstasy are pure MDMA.[9,10,12,13,14,15]

In general, the most recent indicators of student ecstasy use throughout Ontario have remained relatively stable or appear slightly lower throughout the province, as compared to the past five years. GHB use appears to be lower and decreasing in selected groups. Anecdotal reports confirm the swing away from GHB by many of those in the dance party scene.[24,27] However, GHB does remain popular in some gay clubs, as well as other venues.[54]

The Toronto Raver Info Project, or TRIP!, is a community-driven effort, dedicated to preventing harmful drug use and unsafe sex within the Toronto electronic music community. The TRIP! Booth operated by this group is a space within a party where people can come to "hang out" and talk with knowledgeable volunteers about staying healthy and safe while partying.

A 2002-3 TRIP! survey was undertaken to assess the patterns of drug use at local dance parties. Eleven parties in the Toronto area were used to recruit respondents by TRIP! outreach workers, who distribute harm reduction materials at local events. In total, 396 questionnaires were completed by individuals between the ages of 15 and 48.

The question "What drug do you take most often?" was answered by 329 of the respondents. Their answers were as follows:

Drugs Taken Most Often	Number of Responses	Percentage
Marijuana	179	54
Ecstasy	99	30
Ketamine	16	5
Alcohol	13	4
Crystal Methamphetamine	6	2
Cocaine	4	1
Acid(LSD)	3	1
Caffeine	3	1
Nicotine	3	1
Mushrooms	2	<1
Heroin	1	<1

Clearly, the most popular drug among these respondents was marijuana, cited by 54%.

The most popular designer drug selected was ecstasy, selected by 30% of respondents.

Ketamine was a distant second among designer drugs, sited by 4.8% of respondents.

> *Ketamine was first synthesized by the Parke-Davis company as a veterinary anesthetic in 1963. It is still produced for this purpose under the names Ketalan (Parke Davis), Ketajet, Ketaset (Fort Dodge) and Vetalan. It is available in both liquid and powder form. It can be taken orally, injected, smoked or snorted. In addition, joints or blunts can be dipped into the liquid form. Ketamine causes dream-like, or hallucinatory effect[s]. Users often describe "out of body" experiences. In addition, the drug can cause an inability to feel pain. At high doses, ketamine produces delirium, amnesia, impaired motor function, coma, and sometimes fatal respiratory effects. In addition to these reactions, the level of dissociation and loss of physical control makes accidents related to use a significant issue. Of further concern is the drug's high potential for inducing psychological addiction.*[43]
>
> **"Ketamine Fast Facts," U.S. Dept. of Justice, 2003.**

It should be noted that ketamine is, technically, not a designer drug, given its legal production. However, it is often used in combination with other drugs in this category, and is commonly categorized as such.

Of particular note in this survey is the absence of GHB from these responses. Previously one of the most popular club drugs in Toronto, GHB seems to have lost some of its appeal. This apparent drop in GHB use is likely related to the hundreds of GHB-related emergencies in Toronto hospitals over the past five years.[1,14,15.] Fortunately, these overdoses were generally acute, leaving no permanent effects.

In the period January 1, 1999 through December 31, 2002, 24 ecstasy-related deaths occurred in Ontario compared with 3 related to GHB. Thus, while GHB use is more likely to cause loss of consciousness, and thus a hospital visit, ecstasy has been far more deadly province-wide.

As noted in the discussion of dangerous drug combinations, GHB-related dangers increase significantly when combined with alcohol.

GHB is often confused with GBL, a chemical used in its production. [103]

> **"GBL is Gamma-Butyrlactone. This chemical has been used in the US in industrial solvents, and originally sold over the counter in the US as a dietary supplement targeting body builders. It has since been banned in the US, and is now being resold as a chemical cleaner. The problem in the US is that GBL is being sold as GHB in clubs, but it metabolizes in the body more slowly, as it has to be converted to GHB from GBL before having an effect. So people are taking a dose of what they think is GHB, waiting a period of time and feeling no effects, so taking more. Then, because they are in fact taking GBL, the original dose hits in combination with the second dose, and they OD."**
>
> **AIDS Committee of Toronto, Community worker**

Some decrease in the use of GHB and ecstasy, however, does not imply an overall decrease in chemical drug use locally. Along with the lasting popularity of ecstasy and GHB in several communities, the increasing assortment of designer drugs available is evidenced in a number of sources.[15,16,27]

As noted in previous reports, chemical compounds commonly sold as ecstasy are known as ecstasy analogues; one of the more dangerous of these "ecstasy imposters" is PMA (paramethoxyamphetamine). This drug was detailed in Drug Use in Toronto, 2001, due to a large

seizure in Peel in January, 2001[1]. PMA was also associated with a number of deaths in Ontario in the mid 1970s. No further information has been reported with respect to PMA in Toronto since 2001.

Another so-called "ecstasy imposter" is 2C-B, also known as Nexus, Bromo and a variety of other names. Unlike PMA, however, 2C-B has a market of its own, separate from that as an ecstasy analogue. 2C-B, along with the chemicals 2CI, 2CT7 and 2CT2, is often classified as a phenathylamine. The "grainy" appearance of these tablets is noted. The effects of these pills tend to last longer than ecstasy. For more information on these drugs, see Drug Use in Toronto, 2001.[1]

"Friends were considered to be the most accurate and most important source of information about ecstasy according to a study of young adult ecstasy users in central Ohio. More than one-third (40%) of the ecstasy users claimed that friends were their single most important source of information and 46% reported that they perceived their friends to be a very accurate source of information. Non-government websites such as DanceSafe and Erowid and MTV/VH1 specials were cited as very accurate sources of information on ecstasy by 25%, 23%, and 30%, respectively."

NIDA Notes, U.S. National Institute On Drug Abuse, Volume 16(5), December, 2001

Among the newer designer drugs currently used in Toronto are a class of substances known as tryptamines. Tryptamines make up a family of chemicals that serve many functions in animals, plants and fungi. Some examples of tryptamines present in the human body include serotonin and melatonin. Synthetic tryptamines are produced by mimicking these natural substances in a variety of forms. Among the tryptamines used in Toronto are: Foxy, DMT/5 Meo-DMT, and AMT. These drugs generally combine various types of hallucinogenic effects. Among many sources on these individual substances is the TRIP! Publication "Tryptamine".[16] The following is an excerpt.

Words of Caution:
Dose Measurements and Tryptamines

- *Recreational use of Trytamines requires only minute amounts of the substance, making it impossible to 'eyeball' out doses. The dosage range from 'mild' to 'full on' is a **very small range**, leaving little margin for error.*
- *For your safety, be sure that you or someone you know and trust has measured out the doses on a milligram-sensitive scale.*
- *If it's your first time with any of these substances, be sure to do a very small amount at fist, before diving in, as dose sensitivity varies greatly among individual users.*
- *Because AMTs effects can take over 2 hours to fully develop, a common error is to re-dose (add more) thinking that the initial dose was too low. This has led to a number of very unpleasant and potentially dangerous overdose experiences*
- *MAOIs are a class of anti-depressant drugs that, if taken with tryptamines, can seriously [increase] their effects, and should therefore be avoided when using tryptamines.*
- *Research has yet to be done on the short or long-term effects of foxy/5-meo DIPT, so be warned; in choosing to ingest it you are making yourself a psychonautic guinea pig.*

The risks associated with designer drugs are greatly increased by the mixing of multiple drugs.

6. Emerging Issues In General Population Drug Use

Three drugs that have become more popular in the past few years are cocaine powder, oxycodone, and methamphetamine. Although three distinct types of substances, i.e. a natural stimulant, a narcotic pain killer and a chemical stimulant, respectively, they share a high potential for addiction, as well as serious, often fatal, physical effects.

In addition to use of these three drugs, other current issues raised at meetings of the Research Group on Drug Use are presented in this section.* While largely anecdotal, these areas of concern are identified as trends to be watched in future reporting.

- **POWDERED COCAINE (a.k.a. blow, nose candy, powder, white powder)**

Powdered Cocaine (cocaine hydrochloride) is a stimulant extracted from the leaves of the cocoa plant. It produces behavioral, neurological, cardiovascular, respiratory and gastrointestinal changes. These may include feelings of euphoria, contemplation, increased energy and mental alertness. Physical side effects may include loss of appetite and increases in heart rate, blood pressure and respiration. At doses of several hundred milligrams, or less for some individuals, the symptoms listed above may be exaggerated, potentially resulting in agitation, anxiety, violent behaviour, and in some cases, paranoid psychosis. Serious physical symptoms may range from blurred vision, nausea and vomiting, seizures, lung damage, and death.

Sold in the form of a fine, white, crystalline powder, cocaine can be snorted, smoked with tobacco, or dissolved in water and injected. When snorted, the drug is absorbed into the blood stream through the nasal membranes. The drug reaches the brain - and produces its euphoric effect- within 3 to 5 minutes. When injected, the drug is released directly into the bloodstream and reaches the brain within 15 to 30 seconds.

Cocaine users who inject the drug expose themselves to the additional risks associated with injection drug use, including blood borne infections such as HIV and Hepatitis.

Statistics regarding local powder cocaine use have been tracked for several decades. A number of these indicators show significant increases over the past several years; these concur with anecdotal information of increased recreational use of powder cocaine among mainstream adults, students, party-goers, and other population groups.[14,15,17,54,57]

Powdered cocaine is also used to make crack. Crack is another highly addictive and powerful stimulant. It is produced by dissolving powdered cocaine in a mixture of water and ammonia or sodium bicarbonate (baking soda). It is easy and inexpensive to produce crack rocks, rendering the drug readily available and affordable. Thus, crack use is often associated with poor, disenfranchised populations.

Increased powdered cocaine use is also currently being observed in several cities in the United States. According to a recent report of the U. S Department of Health and Human Services, indicators of increasing cocaine use can be found in Atlanta, Chicago, Denver, New Orleans, New York and Texas.[4]

> "There are reports that use and abuse of powder cocaine are increasing, and that use is emerging in new populations.[4]"
> **National Institutes of Health, December, 2003, "Report from the Community Epdiemiology Work Group (CEWG) conference, June, 2003."**

***Organizations participating in the Research Group on Drug Use appear in the Acknowledgements**

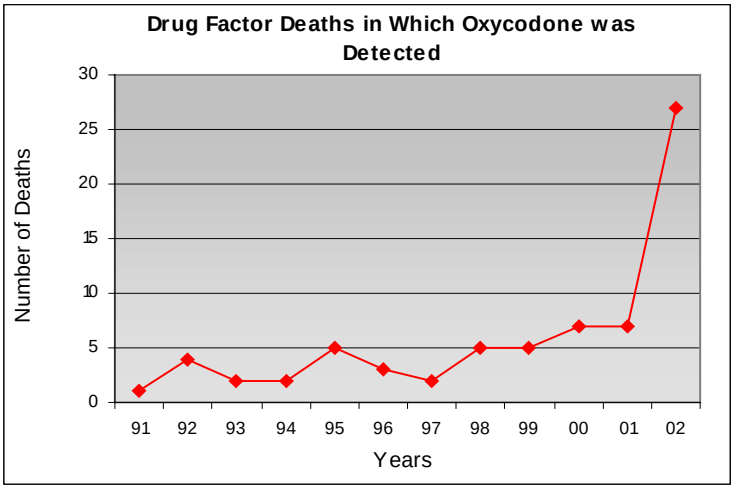
- **OXYCODONE, (oxycodone hydrochloride), is a narcotic pain reliever. It is frequently prescribed for the relief of moderate to severe pain resulting from injuries, bursitis, neuralgia, arthritis, and cancer.**

The longest lasting oxycodone pill currently on the market is Oxycontin, a time release version. The 160 mgs. of oxycodone hydrochloride available in the maximum dosage pill far exceed the strengths available in previous formulations of this drug; chewing these pills or crushing them for injection overrides the intended gradual release of each pill's active ingredients.

Reports of increased use and abuse of oxycodone and, in particular OxyContin, have been noted across North America over the past few years.[1,3,4,94] Those who abuse the drug on a long-term basis risk developing physical dependence. Withdrawal symptoms may include muscle and bone pain, insomnia, diarrhea, vomiting, chills and involuntary leg movements.

An oxycodone overdose can lead to severe respiratory depression that can result in death.

An increase in oxycodone use in Toronto is reflected in a number of local sources, including data available from the Office of the Chief Coroner of Ontario. Oxycodone-related deaths are displayed for the period 1991 to 2002.



Preliminary data for the year 2003 indicate that while these deaths continue at higher frequency than a few years ago, the 2002 data may be an isolated spike.

On December 15, 2003, the Government of Newfoundland and Labrador announced the establishment of a task force to assess the extent of the abuse of Oxycontin in the province and develop a plan to deal with the issue. The initial findings of the Task Force confirm growing use and abuse of OxyContin in the province and increased accessibility to the drug by youth and young adults. "The task force has confirmed that OxyContin abuse in our province is a growing problem we must continue to address".

Short and long term recommendations outlined in the report include a continuation and expansion of educational awareness campaigns for youth, the general public and health professionals.

www.gov.nl.ca/health/publications/oxycontin

- **METHAMPHETAMINE (a.k.a. meth, speed) is a powerful, chemical stimulant produced in underground laboratories in the United States and Canada.**

Methamphetamine was first synthesized in 1919 and introduced as therapeutic agent in the 1930's to combat nasal congestion. Other uses developed, included controlling attention span disorders in hyperactive children, narcolepsy (uncontrollable sleep) and obesity. Designed to produce amphetamine-like effects, the drug causes increased motor activity and initial euphoria; however, these effects are often followed by depression, mental confusion, aggressive behaviour, and anxiety.

Methamphetamine is extremely addictive. Users can develop a tolerance to the drug quickly, resulting in the need for higher doses to achieve the desired effect. Meth increases blood pressure, heart rate, and body temperature. Large doses can cause damage to the small blood vessels in the brain, associated with strokes. Chronic use of methamephetamine can result in inflammation of the lining of the heart.

Methamphetamine is sold in two forms:

1) **SPEED** is 60% to 80% pure methamphetamine. It is yellowish orange in color. SPEED is generally injected or snorted.

2) **ICE** is 90-95% pure methamphetamine. It appears as rock candy, rock salt or glass slivers. ICE is the smoke-able form of methamphetamine. This form of meth is considered more dangerous than snorted or injected powder.

Increases in methamphetamine use have been associated with serious health problems across North America over the past two decades. These problems originated in the western United States (including Hawaii) in the 1980s. The drug has slowly made its way east. As a result, the increasing use of methampehtamine in Toronto evidenced in this report has been long anticipated.

An increase in methamphetamine use in Vancouver has been the focus of workers in drug prevention since the Fall of 2002.[23] A recent report highlights the extensive problems experienced by homeless youth in Vancouver with respect to this powerful stimulant.[107]

U.S. and Canadian policies differ with respect to the sale of the alkaloids ephedrine and pseudoephedrine, ingredients of the ephedra plant used in the production of methamphetamine. Canada issued a recall order almost three years ago for products containing these substances that make claims of weight loss or increased energy. However, the January, 2002 recall allows the sale of traditional medicines containing less than 8 mgs. of ephedrine/pseudoephedrine to a maximum of 32 milligrams a day.

On December 30, 2003, the United States the Food and Drug Administration(FDA) issued a consumer advisory with respect to dietary supplements containing ephedra, stating that such products presented an unreasonable risk of illness or injury, and should not be consumed. The agency also notified firms manufacturing and marketing these products that it intended to issue a final rule prohibiting their sale, which would become effective 60 days after its publication.[100]

On April 12, 2004, the United States Food and Drug Administration prohibited the sale of dietary supplements containing ephedrine. The sale of these products had already plummeted in the U.S. because of publicity about the February, 2003 ephedra-related death of baseball pitcher Steve Belcher.[100]

- **POLY-DRUG USE, that is, the use of a combination of two or more drugs, is widespread in Toronto, following patterns seen in other jurisdictions.**[1, 3, 24,58] A variety of factors contribute to the popularity of poly-drug use; these include newly available chemical drugs, the production of drugs in different forms, various ways of consuming drugs (e.g. orally, snorting, smoking, and injecting), the club-drug culture in which an array of drugs are available, and the use of different substances with selected effects.[50]

Mixing two or more substances often results in drug interactions, i.e. effects beyond those anticipated from each drug individually.

Widespread poly-drug use in the gay dance club community has been documented in two recent reports from the AIDS Committee of Toronto.[14,54] The following excerpt from the November, 2004 publication indicates the degree of planning often used in this practice.

> *"Participants [men in ACT's 2004 gay dance club study] reported that they did a number of different drugs during a night of clubbing. They varied the type, timing, and sequence to achieve a particular effect at specific times during the night. For example, many participants take Ecstasy and other drugs in a sequence, over a period of several hours, either to complement or mitigate the effects of Ecstasy. In explaining their particular drug-drug regimes, participants claimed that GHB,m for example, supplements or precipitates "sexy" or "horny" feelings if consumed some time after taking a hit of Ecstasy. Ecstasy is an 'upper' and GHB is a 'downer.' Therefore, participants will use one, followed by the other, after an interval of one to several hours, to change their mood or energy level at different periods of a clubbing event. One participant also noted that marijuana imparts a mellow tone to the party mood derived from Ecstasy. And two participants stated that they sometimes use cocaine on the following day to counteract the feeling of depression associated with the "comedown" from Ecstasy.*
>
> **from "Party Drugs in Toronto's Gay Dance Club Scene," AIDS Committee of Toronto, 2004.**[54]

Given the frequency of poly-drug use, information on those combinations know to be especially dangerous must be promoted. Among the most hazardous:

Alcohol is especially dangerous when combined with other drugs such as cocaine, heroin, or designer drugs such as GHB, GBL, and Ketamine.

GHB or GBL should not be mixed with sleeping pills, or any prescription drugs in the benzodiazepine family; a number of deaths have been attributed to the mixing of these drugs[27,57]

Viagara combined with Ecstasy is sometimes referred to by club-goers as "Sex-tasy." But health authorities warn that the combination can cause cardiac problems as well as the increased risks of unprotected sex and, therefore, sexually transmitted infections.

Tryptamines should not be combined with MAOI antidepressants or other stimulants, due to potentially serious drug interactions. In addition, a number of foods should be avoided when tryptamines are consumed. These include including yeast, cheese and cream, bean curd and fermented soy products, nuts, and pickled herring.

Opiates and cocaine (a.k.a. speedballs) can be a lethal combination.

Methamphetamine and ecstasy can be particularly dangerous at dance parties, where over stimulation may result in hyperactivity, increased body temperature, and dehydration.

Trail-mix, a blend of methamphetamine, ecstasy, ketamine and Viagara is another dangerous combination. Anecdotal reports indicate trail mix is widely available in Toronto. Trail mix containing heroin is also found in Vancouver. The RCMP estimates that approximately twelve percent of the pills sold as ecstasy in Vancouver in 2002 were trail mix.[10]

> *"One of the most dangerous trends I have heard of revolves around the use of the salad bowl. From what I have heard, partygoers contribute pills they have collected individually in a large bowl. After mixing the contents, participants grab a handful of pills and swallow them, often with the help of a few gulps of alcohol. There's often no telling how this one ends."*
>
> **Treatment counselor speaking at Research Group on Drug Use in Toronto, 2004.[58]**

- **ADDITIONAL EMERGING DRUGS IN TORONTO:**

Salvia Divinorum is a perennial plant which resembles the herb sage. Salvia divinorum contains a chemical hallucinogen known as Salvinorin A. Specially bred leaves can cause dramatic, sometimes frightening hallucinogenic effects when smoked**.** This and other plant-based products, (e.g. opium seeds and poppy plants) are reportedly available both by mail order on the Internet as well as in some garden shops in Toronto.[27,57,58,59]

> *"The June, 2004 Community Epidemiologic Work Group meetings included two mid-west US cities reporting on the use of salvia - which I buy at the nursery and plant as an annual herb in my garden from time to time - who knew? Its use in St. Louis led to a city by-law banning its possession. In Minneapolis/St. Paul, salvia divinorum has been showing up in schools where it is either smoked or mixed with beverages*."
>
> **-Staff from Canadian Centre on Substance Abuse, on 2004 report from the U.S. National Institute on Drug Abuse**

DXM (dextromethorphan) is a cough suppressant available in a variety of prescription medications as well as over-the-counter in various pills, lozenges, tablets, capsules and gel caps. Taken as recommended (between 15-30 mgs.) DXM is generally considered safe. However, those who abuse DXM consume considerably higher doses, typically more than 360 mgs. in order to experience hallucinations and 'out of body' effects. The influence of DXM can last for up to six hours, during which time the risks of serious untoward effects include injury due to loss of visual perception and cognition, hypothermia, heart irregularities, seizures and death. Risks increase when used in a hot environment or while users physically exert themselves, as in a dance club setting. Recent anecdotal reports in Toronto indicate the practice of DXM injection drug use among some users.

Cocoa-puffs, or marijuana laced with crack, has reportedly been sold as weed in Toronto. However, there is some skepticism about these reports, given the economic disincentive for dealers.

Ritalin is a stimulant which is commonly prescribed for children with ADD (Attention deficit disorder) or ADHD (Attention deficit hyperactivity disorder). The drug may be diverted from legitimate sources, anecdotal reports indicate there have been thefts from local school dispensaries.

Steroid use at gyms and the use of potentially lethal **caffeine pills** are additional concerns.

For more information on Emerging Issues in General Population Drug Use in this report, see:
- **Emerging Issues for Marginalized Users**
- **The Findings section on Individual Drugs**

SECTION ONE - B

DRUG USE BY POPULATION

B. DRUG USE IN "MARGINALIZED" POPULATIONS

- Drug Use Among Street Youth
- Marginalized Adults and Crack Use
- Marginalized Adults and Injection Drug Use
- Barriers to Drug Use Treatment for Marginalized Populations
- Emerging Issues for Marginalized Users

1. Drug Use Among Street Youth

"Although most people will wrongfully condemn homeless street youth for choosing to live on the streets, it has been found through Canadian research that family breakdown and abuse are the main reasons for youth homelessness.[5]"

-Santos, Maria (1999), "Needs Assessment for a Parent Relief Program in Toronto"; a report for the young Parents No Fixed Address working committee.[5]

A number of local, national and international studies have demonstrated the high proportion of homeless youth who have experienced early family chaos, high rates of physical, mental, and sexual abuse, and neglect. These results make the high levels of reported drug use among street youth in general unsurprising.[81,82,90,105]

Unfortunately, given their lack of parental support and supervision, drug use among street youth is more likely to lead to long term, serious addiction problems than use by their mainstream counterparts.[77,78,80,81]

The absence of any residential drug treatment for youth in Toronto renders effective treatment for homeless youth with serious addictions highly unlikely.[81,82,99]

Several previous studies of street youth and drug use, reported in earlier editions of Drug Use in Toronto reveal levels of use of marijuana, crack, powdered cocaine, speed and heroin at many times the rate of those indicated in student surveys.[1,78]

The popularity of drug use among Toronto street youth is confirmed in a March, 2004 study from Youthlink Inner City in partnership with the Children's Aid Society.[77] Seventy-six homeless youth were asked about any substance use, defined as at least once per month. Their responses follow.

Drug	Number Using	% using
Marijuana	61	84%
Alcohol	61	84%
Cocaine/Crack	44	60%
Prescription pills	30	41%
Methamphetamine	28	37%
Methadone	8	11%
Solvents (Inhalants)	8	10%
Other drugs	11	16%

A high prevalence of poly-drug use, or mixing these drugs, discussed for mainstream populations, was also noted among the youth in this study. Additional studies confirm the popularity of poly-drug use on the streets in Toronto. [1,59,80,81]

Methamphetamine(a.k.a. meth, speed) appears to be popular within this population. According to the Youthlink study described above, approximately 38% of street youth use this highly addictive substance monthly or more. This is especially ominous in light of the 2004 report, "The Adoption of Methamphetamine among Homeless Youth in Downtown Vancouver, A Case Report;[107]" the report is subtitled 'How Crystal Meth Spreads Among Homeless Youth.' It estimates that 71% of Vancouver's street youth have used this drug during their time on the streets. The text below is taken from this report.

"Speed appears to offer relative advantages and 'benefits' (as experienced by consumers) compared to other drugs available to homeless teens. Perhaps most importantly, homeless teens are able to buy one tenth of a gram of speed (called 'a point') for as little as five dollars – making speed much more economical than competing drugs available to them. In some cases, teens are able to obtain it for "merch" (i.e. their term for merchandise stolen or retrieved from dumpsters such as t-shirts, tapes, etc.) One point of speed, according to Dr. Ian Martin of the Three Bridges Health Clinic, can keep a consumer awake for as long as twenty-four hours, depending on the mix and efficacy of the drug and the person involved.

The physiological and psychological effects of speed also appear to have relative advantages in relation to the challenges that homeless youths experience. They are often sleep deprived, dehydrated, hungry, and in danger of losing their possessions (e.g. backpacks, clothing, blankets, etc.) on which their survival depends. Speed curbs the appetite, and by preventing sleep, temporarily solves their safety issues and helps them to protect their possessions. It also allays fear…

Thus, assuming similar environmental conditions, we may cautiously hypothesize that speed's rate of adoption in other vulnerable populations in other Canadian cities will be rapid and reach similar penetration levels to that of Vancouver's homeless youth population"

from "The Adoption of Methamphetamine among Homeless Youth in Downtown Vancouver, A Case Report[107]

The serious health risks of living on the street compounded with those of frequent hard drug use are well documented. In addition, it is estimated that approximately half of the young women living on the streets of Toronto become pregnant while homeless; this means these health problems often affect an unborn child, as well as the young parents. [81]

Another factor which complicates drug abuse treatment for homeless youth is the high prevalence of concurrent disorders, that is mental illness along with problems of substance abuse.[103]

Research has documented wide variability in prevalence rates of concurrent disorders (within community and treatment populations), depending on the setting. Information on the prevalence rates within the homeless youth population is sparse. However, homeless youth sector service providers in Toronto have identified that more homeless youth are developing mental health issues. As youth try to deal with being homeless and the stress associated with life on the street, they are using drugs and alcohol in greater numbers.

In Toronto, there are no specific services for homeless youth with concurrent disorders. Services are spread throughout the mental health system and the addiction system, and workers in the homeless youth sector have to negotiate between both systems to get client services. The nature of street life also interferes with the ability of youth with concurrent disorders to keep appointments. The stigma of having a mental illness is such a significant barrier to this population that many youth will not even acknowledge that they have a mental health concern.[103]" **-Toronto Board of Health paper, "Homeless Youth with Concurrent Disorders," September 1, 2004.**

For more information on Drug Use Among Street Youth in this report, see
- **Barriers to Treatment for Marginalized Populations**
- **The Findings section on Individual Drugs**

2. Marginalized Adults and Crack Use

Local studies confirm that crack is the drug of choice among homeless and otherwise disenfranchised populations in Toronto.[1,58,59,97] This has been true for over a decade in Toronto.

Whether smoked or injected, crack use presents serious health risks, including compulsive use and addiction, the spread of infections including HIV and Hepatitis, cardiac problems, seizures and death. In addition to these serious health and safety problems, crack use has been associated with family breakdown and domestic violence. The associated child protection issues are often devastating.[1,56,81,92]

The low utilization of social and health services by homeless individuals is a well-known, significant barrier with respect to prevention of disease transmission.[6,53,55,56,61,65,95] **As a result, several community agencies in Toronto run outreach programs, designed to attract crack users to use their health services**. Although a controversial issue, community outreach workers report that the distribution of "safer crack use kits" has helped to bring crack users to Toronto health centers, offering opportunities both to improve their health as well as to prevent the spread of HIV, TB, Hepatitis C and other infectious diseases.

> ***Safer crack use kits contain various items to help prevent disease transmission through crack smoking. Most significantly, glass tubing is provided to take the place of unsafe pipes, which may be made of broken glass, used pop cans, or other materials that cause burning or cuts to the lips. It is believed that cuts, burns or sores to the lips and mouth from shared, unsafe pipes may promote the spread of HIV, Hepatitis C and other diseases. Other items often included in the kits include antiseptic, towelettes, lip balm, chewing gum to clean teeth and refresh mouth, and various other items.***
>
> **Source: Safer Crack Use Coalition, Fact Sheet:Health Issues Affecting Crack Smokers," 2003.**

Statistics from the Central Toronto/Queen West Community Health Centre, one of those distributing safer crack use kits, appear on the following table. Along with the numbers receiving medical care, the table also displays the "drug of choice" for each client noting problematic drug use during a visit. Of particular note on this table is the high prevalence of crack and opiate use among these clients. Hundreds of patients discuss problematic, illicit drug use with health care professionals at this center each month**;** this presents an opportunity for staff to assist clients in receiving treatment, or, for those not ready to stop their drug use, to provide advice on minimizing drug-related dangers.

Health care, including immunizations, testing and treatment are among more than 450 medical services dispensed each month at this community health center. The constant flow of new patients to this facility is evidenced in the 421 documented new clients during these nine months.

Queen West Community Health Centre, April 2002 – December 2002

Total Client Visits	New Clients	Medical Care	Client Crack Kit	Crack Users	Opiate Users	Alcohol Users
4536	421	3095	1452	1415	460	359

Many Toronto studies have reported on the lives of crack users. [47,56,65,97] The drug's high potency and fleeting effects are frequently noted:

Some answers to the question: "Anything good about crack? "

A: *"No. Crack lasts for three second – you get high. It's only three seconds and you go, 'I kinda want that feeling back again. But the second one will never give you the same as the first. You can never reach it but you keep trying. That moment was ecstasy…for three seconds. "*
A: *"I ask myself that question and I don't find anything good about it. I don't particularly enjoy the high, I don't particularly like the people you have to deal with to get it. I don't like the coming down off of it. I don't like anything about it. I think I feel that I was punishing myself in [a] subconscious sort of way. I mean for those 15 or 30 seconds that you're actually getting off, there is nothing else. There is no right or wrong. There is no morality. There are no other thoughts in your head. It just blows everything away, so that if you are struggling with some sort of demon or some sort of issue in your life, it takes it away for a short period of time, which is probably some of the allure of it. But it's so short it's ridiculous. Because as soon as you stop, as soon as you start jonesing, those issues come back tenfold."*
A:*"There is something in it that you need, and you use until you run out of your money. You want it right away. Before crack I held a job – a receptionist secretary in a trust company – using cocaine. On crack I couldn't hold a job"*
A: *"Cheap, readily available, easy to use. You can be in a nice posh restaurant, go in the washroom and take a hoot off your pipe. No one would notice, as long as you aren't paranoid. The high kind of carries on afterwards. The high carries on even when you don't realize it. You're high even when you're out there making money or scoring your next piece, at a certain level. But the comedown is horrendous. Like any drug, it does something to you. It's that false heaven."*

Source: Crack Use in Toronto, 2003, Walter Cavalieri [97]

However, despite these factors, many individuals continue to find solace in the use of this widely available, cheap and powerful stimulant:

Some answers to the question: "What was the impact of crack on your life? "

A: *"I lived for it. With cocaine I had a bit more control. I had none over crack. Crack has a different effect on me, big time. Crack just about ruined my life. You use all your money – grocery money, your rent money, just 'cause you want it more and more. You say "that'll be it, after that one more – and then you want more I ended up homeless. Moved in with my mother. She made me go for help. That's what happened. I was a mess. Didn't care about myself, didn't wash my hair, my clothes, didn't care about anything. I never had that feeling with the powder I could go to work with coke, and still function. With crack I could never leave the house, let anyone see me. I became a hermit. Afraid to go out."*
A: "*It numbs me. Yeah, It numbs me. Like if I'm depressed I get away from that for a little while. It's an escape. I'm numbed, I feel good – and I like the rush."*
A: "It provides an antidepressant effect, that's why I do it….Oh, damn right. It's a crutch, the most devious kind, and definitely very adequate. I have gone in a space of seconds from being completely, unquestionably, desperate to die – I wanted to die, wanted to die and meant it – and in seconds it was a great day. You cannot discount that effect. But what I've seen…isn't eradicated with the use of drugs like Prozac of Zoloft.. Well, what Zoloft takes a month to do, crack does instantly."
A: *"Before, when I got my [cocaine] powder, I would disappear to use it, by myself or with one person. With the crack, I'd get my stuff and I wouldn't go far. I didn't want to go far. I only had $20 worth and I had to come right back. With the powder, I could get $40 worth, $80 worth and I'd be gone for a while. I didn't have to come back. With the rock I had to be back in half an hour…45 minutes. I lived one rock to the next. That's how I survived. " from Walter Cavalieri, Crack Use in Toronto, 2003* [87]

For more information on Marginalized Adults and Crack Use in this report, see:
- **The following section on Marginalized Adults and Injection Drug Use and**
- **The Findings section on Coccaine**

3. Marginalized Adults and Injection Drug Use

It is estimated that there are between 10,000-18,000 injection drug users (IDU) in Toronto.[68,74] Because crack cocaine is believed to be the most popular injection drug in Toronto, there is significant overlap between injection drug users and the crack users discussed in the preceding section. In addition, drugs in many categories, including methamphetamine, club drugs, and others, are frequently injected.

The transmission of Hepatitis C and HIV are two of the most serious public health risks associated with this form of drug use.

A 2003 Health Canada study provides a look at the high risk population of injection drug users across the country. It includes interviews and medical tests performed on a total of 794 injection drug users from four Canadian cities. The results are summarized on the following table.

City	No. of Respondents	%HCV+	%HIV+
Regina	254	60.2%	1.2%
Toronto	221	54.3%	5.1%
Sudbury	169	61.5%	10.1%
Victoria	150	79.3%	16.0%
Total	794		

The high rates of Hepatitis C (HCV+) among IDU across Canada are apparent.

The HIV rates measured in this study were lower than previous studies in each of these four cities. Innovative outreach programs in all four cities are generally credited for this apparent reduction in the spread of disease.[49,70,73,74,]

Data from the Works, Toronto's Injection Drug Users' Program, are displayed on the following table. It summarizes selected service and referral statistics from the Works between January and December, 2003.

Client Visits	New Clients in 2003	Needles Given Out	Needles Taken In	Condoms Out	Drug Education/ Counseling	Referrals to Detox or Drug Treatment	Tests for Hepatitis and/or HIV	Vacci-nation	Basic medical care	Other
13,780	200	311,365	192,859	71,344	5350	211	240	255	294	452

While the needle exchange and condom distribution services are clearly well utilized, the Works has grown beyond its original needle exchange mandate of fourteen years ago. Among the services currently offered are Hepatitis A and B vaccines, flu vaccines, testing for HIV, Hepatitis A, B,and C and syphilis, ow threshold methadone maintenance, and facilitation of access to a variety of other services for drug users and sex workers; these include housing, income, food access, drug treatment, detox and counseling. This range of services is provided through a number of venues. The fixed site exchange is located in downtown Toronto and open during regular business hours. Three mobile vans provide services in both downtown Toronto and more suburban areas, and operate six nights per week... In addition, a network of twenty-eight community partners helps deliver health services to injection drug users throughout the Toronto area.

4. Barriers to Drug Use Treatment for Marginalized Populations

This topic has been a long-term concern for frontline workers representing homeless, and/or otherwise disenfranchised individuals.[47,57,59] Among the issues raised at recent community meetings:

There is no residential substance abuse treatment for youth in Toronto; local street youth coping with problematic use have limited options. It is widely acknowledged that drug addiction is exceptionally hard to overcome without stable housing.[51,53,55,59]

> ***"You can't beat the drugs without a roof"***
> --Toronto addictions counselor[47]

Among the most difficult barriers for homeless, pregnant women in need of drug use treatment is fear; the fear of the loss of children to child protection agencies often prevents women from establishing connections with essential health care services.[87,90,92,93.] It is estimated that half of the young women who spend time living on the streets of Toronto become pregnant while homeless.[84] Given the significant opportunity for addressing drug-related problems during pregnancy, outreach to homeless, pregnant women is essential to reduce the number of children born with drug-related problems, as well as to break the cycle of pregnancy, child birth, loss of child custody, and subsequent pregnancy, etc for these families. In addition, existing service providers advise rejecting the "silo mentality" and instead, recommend the integration of services associated with drug treatment and recovery.

The procedure for seeking treatment in Toronto is a source of confusion for clients and providers alike. Among the areas in need of clarification are: the requirements of the initial assessment, the waiting times that should be expected, and the availability of residential services, detox, and follow-up services. In addition, the process for methadone clients seeking detox treatment is reportedly confusing.

The lack of culturally appropriate substance abuse programs available in languages other than English provides additional barriers; this is particularly important given that the pressures of underemployment for new immigrants to Canada is sited as a major risk factor for substance abuse[66]:

> *"Newcomers come with high expectations to Canada. They have PhDs, MSc degrees, but even…a simple teaching job..there are too many barriers and lack of opportunities for professionals. As a result of these pressures, and the challenges of adjusting to a new culture, participants noted that the use of addictive substances becomes a means to cope with social , economic and cultural changes."*
>
> **-- 2003 study of drug use among Canadian newcomers[66]**

Harm reduction demonstration projects in Toronto, designed to increase access to services for drug users most in need of health services, have received international acclaim.[64,76,105] These include the Seaton House Annex for alcoholic, homeless men; the Works Injection Drug Users Program, which includes several fixed sites, three mobile vans, and a low threshold methadone program; the Breaking the Cycle and Jean Tweed's Pathways programs, providing outreach and treatment for pregnant women and mothers who use drugs, and the Toronto Drug Treatment Court, the first in Canada, providing court-supervised addiction treatment as an alternate to prison. These programs all include strong community partners, thereby enhancing the supports available to clients.

5. Emerging Issues for Marginalized Users

A number of the emergent drug issues discussed with respect to more mainstream populations also threaten the health and safety of more marginalized individuals. In particular, the popularity of both methamphetamine and oxycodone on Toronto's streets raise serious health concerns in terms of their strength and addictive potential. In addition, trends in poly-drug use also generalize to marginalized groups.

Reports of drug-related poisonings, potentially related to the contamination of illicit substances, have been made through a number of sources over the past few years, both locally and in other jurisdictions. Again, it must be noted that while traditionally associated with street use, problems with contamination and variable strengths of drugs are also serious issues with respect to the general population, where they are most frequently associated with designer drugs.

A number of cases of severe urinary tract problems recently diagnosed in Toronto were apparently linked with what patients referred to as synthetic ketamine, likely a form of the drug produced outside of a pharmaceutical laboratory. The severity of these cases indicates the strong possibility of permanent damage to some or all of these individuals.

Several serious, unexpected events have been reported in Toronto over the past several years involving heroin injection. In two of these cases, the users were left comatose. One has since died. A number of additional cases included serious infections of the blood and soft tissue.

Incidents of contamination raise concerns regarding possible outbreaks of tetanus and other potentially fatal diseases among intravenous drug users, similar to those occurring recently in the United Kingdom. Such contamination is possible at multiple stages in the production, distribution, storage, cutting and injecting of heroin.[19,79]

In response to the tetanus outbreak in the United Kingdom, the International Society for Infectious Diseases recommends that health professionals update tetanus immunization among IDU.

A dramatic increase in another heroin-related disease in British Columbia prompted a media release from Vancouver Coastal Health authorities on November 27, 2003.[79] An excerpt follows:

> There has been a dramatic increase in the number of cases of heroin-induced toxic leukoencephalopathy in B.C., all tied to 'chasing the dragon' [inhaling heroin] or smoking heroin.
>
> Between January and July [2003], 17 cases of toxic leukoencephalopathy were confirmed in the province, up from four during the same period last year. Of the 17 cases, seven died. This compares with only two deaths in 2002…All of the seventeen individuals have a history of inhaling heated heroin and are believed to have received their heroin from the Lower Mainland.
>
> "Chasing the dragon" is the process of heating heroin with a flame over aluminum or tin foil, and then inhaling the white smoke.. Toxic leukoencephalopathy is believed to be caused when a toxin within the heroin leads to injury of the white matter in the brain.
>
> 'Current heroin users should be aware of this risk and are encouraged to seek addiction treatment,' said chief Medical officer John Blatherwick. 'Indivudals, their friends and family should be aware of [the symptoms of the disease] including difficulty with speaking, walking or getting out of bed after smoking even small amounts of heroin] and seek immediate medical attention.'

A few samples of many emails sent to the Research Group on Drug Use, responding to recent community alerts of potential drug contamination, appear below on this page.

These reports and others, from local, national and international sources, underscore the need for prompt analysis and information sharing in instances of drug contamination and similar emergency situations. Those working in the areas of health care, treatment, policing, public health and related fields in Toronto, have endorsed the idea of creating a system to formalize information sharing in these cases.[57,58,59] In addition to identifying potential dangers, data regarding potential antidotes could also be made available through such a system.

I work with people on addiction and people who are homeless. I had been notified by some of my clients who are afraid to talk to the authorities and some of the dealers in the area about bad heroin on the streets. Your message was a confirmation of that. Please keep us up to date on any further information coming to you relating to bad dope.

–Addictions worker, Toronto West

So many of my clients have told me recently about contaminated powder cocaine, They have reported a variety of painful effects. The most notable of these was a really, really severe burning sensation in the head neck and or face One told me that he had to submerge his head in cold water in order to get rid of the terrible burn.

Peer outreach worker, Toronto East

The drought in white heroin has inundated the market with brown and black-tar heroin. Both can be injected only with lemon juice, vinegar, or ascorbic acid. These agents can easily be contaminated; more serious, however, is the havoc they cause on soft tissue, rendering the injector susceptible to infection and blood poisoning. Black tar heroin is often mixed with so many harmful materials. It can make the user sick even if s/he is going through withdrawal.

--Needle Exchange staff, Toronto

Recently in Toronto there has been a certain kind of heroin going around., It's white, often yellow in appearance but both kinds, when heated, turn into a distinct yellow – almost green – colour. It also has a faint solvent smell. I could not distinguish the solvent but it is definitely not acetone. However, when you shoot it (I have no info on smoking) it's strong, comes on well, and about 3 hrs later you're as sick as a dog. The sickness is almost exactly like 'cotton fever' – achy, very sore, fevers, severe headaches – its like malaria. This was [contracted] by a couple who were very aware of the need for hygienic works and isolated any other possible contaminant and the story was corroborated by others who had used the same dealer.

Please, if you can, please get the info out there – at last reckoning I was told the dealer still had the stuff and was still selling it. If not, they've probably dumped on some other unknowing, small;-time dealer, and it's probably still making the rounds.

--Community member

SECTION TWO

FINDINGS BY INDIVIDUAL DRUGS

- Cocaine
- Heroin
- Marijuana(Cannabis)
- Barbiturates, Sedative-Hypnotics and Tranquilizers
- Hallucinogens
- Inhalants(Solvents)
- Stimulants
- MDMA(Ecstasy)
- GHB

Please note: The data used in this section appear on Tables 1-8B in Section 4.

COCAINE

Use

Several indicators point to the increased use of both powdered cocaine and crack in Toronto for selected groups.

Surveys of the general population of Toronto continue to show low, yet slightly increasing rates of cocaine and crack use. According to the 2003 CAMH Monitor, approximately 3% of Toronto adults used cocaine in the past 12 months. This is the first time since 1991 that more than 2% of respondents reported cocaine use.

Among Toronto students, there was also a slight, but statistically non-significant, increase in cocaine use over the past decade, from 1% in 1993 to 4% in 2003. Crack use was reported by approximately 2% of students in 2003. This level is not significantly different than those reported in previous surveys beginning in the mid-1980s.

Use of cocaine and crack is more prevalent among street youth. In the 1999 SHOUT survey, approximately 13% of the street youth interviewed reported some current regular use of powdered cocaine, while 11% reported regular crack use.[78] According to the more recent study from Youthlink, 60% of street youth use cocaine or crack at least monthly[77].

Based on recent reports from frontline workers, crack cocaine is the most popular drug on the streets.[47] In addition, the February, 2003 I-Track study asked more than 700 Canadian injection drug users about their drugs of choice. Cocaine was the most popular drug among Toronto respondents, with 79% indicating use of this drug. In second place was crack cocaine, injected by approximately 63%.

One of the concerns raised by the increasing popularity of crack injection is the associated risk of spreading Hepatitis C and HIV infection, apparently higher than that associated with the injection of heroin or other drugs. The increased risk is generally attributed to the higher frequency of injection among crack users.[1]

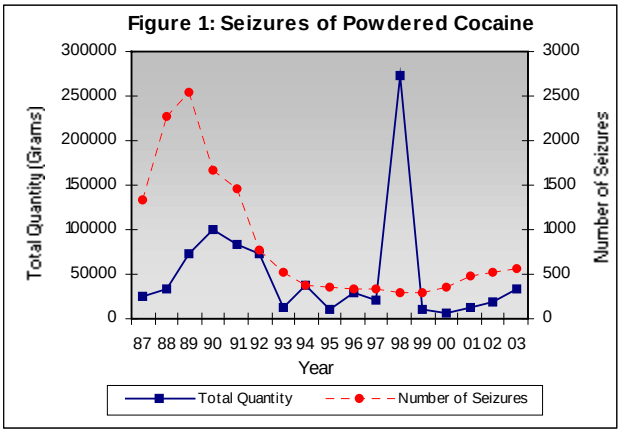
Crack use has been the subject of many local, national, and international reports. Along with the potential health effects discussed above, the use of crack among young parents is another serious concern, especially with respect to child welfare and domestic violence.[1,49,55,94,97]

> *I have a lot of respect for crack because it is the one thing that can destroy everything I am, everything I have, in a shorter time than any other drug I have ever experienced. It total destroyed everything I said I would never do for drugs…[I]t just ruined everything. Everything I thought I wouldn't do, I couldn't do, I did on crack…for crack. Well, that's crack, a real serious drug. Makes me a total paranoid vegetable. I hallucinate. I become psychotic. And I don't know how I am still alive. This human body can take a lot, but, crack has destroyed some parts of my brain that are not going to come back. Luckily I don't have AIDS [or] Hep C. Luckier than a lot of my friends…*
>
> *The biggest thing is to minimize disease risks, until such time as they get tired. Most people get tired sooner or later. The hardest part for me and others is, since I now understand my loneliness, that I was so deeply integrated in a drug culture that it was damned near impossible to think of living in a world without it, with people who hadn't experienced it. Where would I fit? I found it to be painfully lonely and an awful long time until I could feel that I was somewhat worthy of just living a normal kind of life. A lot of people get back on drugs just because they're lonely, just like a lot of people go back to jail because they're lonely. The only people you know are people from a negative part of your life, you get negative and you get back there. Every damn time. You need to find a way you can learn to live another style of life.*
>
> 50 year old female, former crack user [97]

Enforcement Data

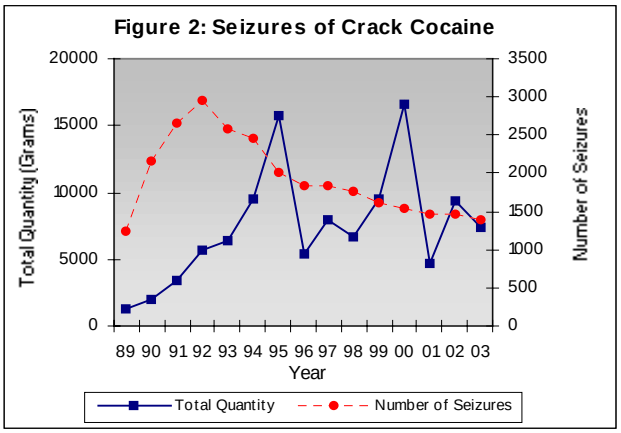
Since the late 1980s, there has been a downward trend in the *number* of cocaine seizures. *The quantity* of cocaine seized has also varied over the past decade, with 1998 showing a considerable peak in quantity seized (from 20 kg in 1997 to 273 kg in 1998). This dramatic increase was likely due to a small number of very large seizures during that year. The amount of cocaine seizured declined in 1999 and again in 2000, to about 7 kg. However, since

then, the quantity of cocaine seized has been increasing, up to 33 kg in 2003.

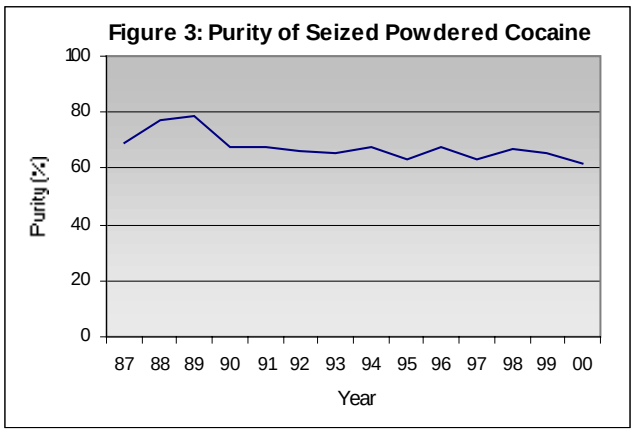


The number of crack seizures has been falling since peaking in 1992, and now resembles the level found when data were first collected in 1989. Although the total quantity of crack seized in 2003 (7 kg) is much less than the quantity seized in 2000 (16.5 kg), it is similar to the amounts seized in past years.

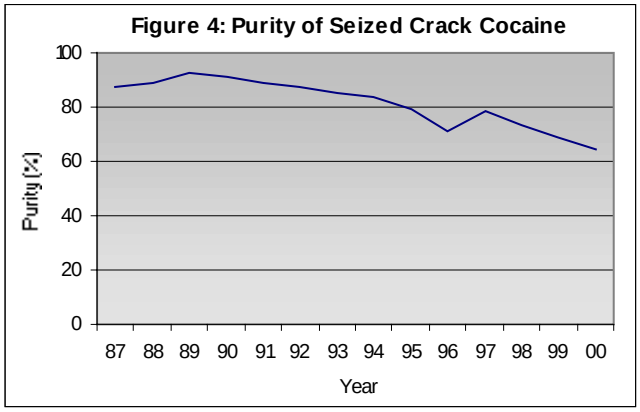
Powdered cocaine accounted for about 12% of all drug seizures in 2003, whereas crack continued to account for a significant proportion of drug enforcement activity (30% in 2003). Crack is second only to marijuana as the primary drug seizured in Toronto in 2003.



The average purity of cocaine and crack peaked in the late 1980s. Over the past decade, the purity of cocaine has remained relatively stable at 62%-67%. The purity of crack has shown a steady decline over the past decade, with the exception of 1997 when the average was 79%.



The 2000 estimate for crack purity is the lowest level on record, at 65%. As noted in earlier reports, there is substantial variation in the range of purity levels for both drugs. For example, between January and December of 2000, the purity of cocaine ranged from 1.5% to 97%, while the purity of crack ranged between 19% and 95%.

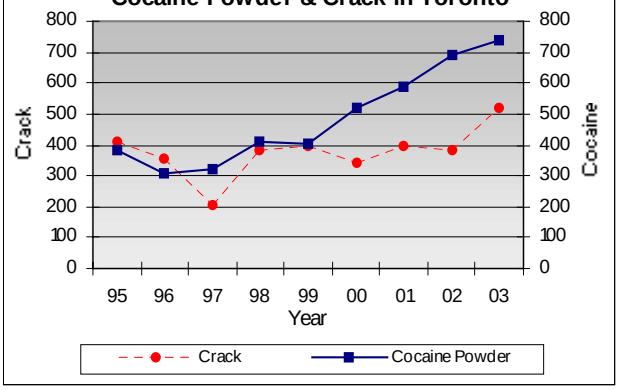


Treatment Data

Among Toronto clients, the numbers and associated percentages of requests for treatment regarding cocaine have risen steadily over the past eight years. Looking at the most recent twelve months for which data are available, October 2002 – September, 2003, 521 requests for treatment of crack use were received by the Drug and Alcohol Registry of Treatment. This corresponded to nearly 14% of all treatment requests received. Even more requests were registered for powdered cocaine during this same period; seven hundred forty requests pertained to the powdered form of the drug, 19% of all those received.

The requests for treatment of crack and cocaine-related problems are growing in other parts of the province as well. The 2,538 requests for problems with powdered cocaine represented 18% of those outside of Toronto. Similarly 1,085 requests for treatment of crack-related problems represented 8% of the total treatment inquiries in the area.

Figure 5: Treatment Requests Regarding Cocaine Powder & Crack in Toronto



Drug-Related Deaths

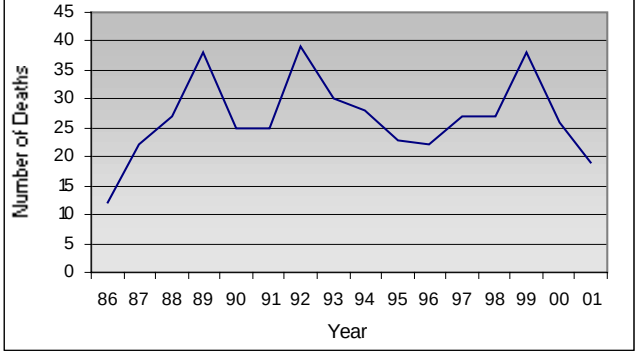
After a spike in cocaine-related deaths in 1999, with 38 recorded, the number of cocaine-related deaths fell to 26 in 2000 and again to 19 in 2001.

The lethality analysis indicates that cocaine is frequently used in combination with other drugs. Cocaine was lethal alone in 14 (37%) of the deaths in 1999, 1 (4%) of the deaths in 2000, and in 6 (32%) of those in 2001. Cocaine combined with other drugs was the cause of death in 7 (18%) of these cases in 1999, 16 (62%) in 2000 and 4 (21%) in 2001. The often lethal combination of cocaine and alcohol was the cause of death in 15 (56%) of the 27 combination cases over these three years. In the remaining 35 fatalities, cocaine was present, but not found to be a direct cause of death. These results are consistent with the findings of previous years. Twenty-nine, or approximately 35% of the cocaine-related deaths during these three years also involved heroin.

The age range of the decedents covered nearly forty years; the youngest was a teenager while the eldest was 54 years of age. The median age for each of the three years was consistent, at 39 years in 1999, 38 years in 2000 and 40 years in 2001. The percentage of male decedents in each of the three years was also consistent, at 79%, 81% and 79% respectively.

In terms of death type, the majority of the cocaine-related deaths in Toronto in 1999-2001 were ruled as accidental; the annual statistics were 22 (58%) in 1999, 14 (54%) in 2000 and 12 (63%) in 2001. The corresponding figures for cocaine-related suicides during these years were 1 (3%), 7 (27%), and 7 (37%) respectively. In 15 (40%) of the cases in 1999 and 5 (20%) in 2000, the distinction between accidental death and suicide could not be made.

Figure 6: Drug-Factor Deaths in Which Cocaine Was Detected



The following is taken from www.xenova.co.uk. This is the website for Xenova:

Xenova, [a U.K. pharmaceutical company], is developing a therapeutic vaccine, TA-CD, for the treatment of cocaine dependence, for which there is no currently available effective treatment…
Most cocaine addicts are treated by a specialist physician or psychiatrist in drug rehabilitation centres. However, due to a high relapse rate reported with current treatment, there is a clear need for an effective treatment to be used alongside a behavioural therapy programme.
Current treatment programmes for cocaine addiction consist primarily of counseling services and medication to treat the symptoms of depression and anxiety associated with cocaine withdrawal. Currently, there is no medication that addresses the strong cravings for cocaine that an addicted individual experiences. These cravings can last for long periods of time following abstinence and frequently lead to relapse. For those cocaine users in the US who seek treatment, the overall retention rates in treatment programmes are low; relapse rates are typically greater than 50%. Currently, no pharmacotherapies have been shown to be clinically effective and there is an urgent need for novel therapeutic approaches."

HEROIN

Use

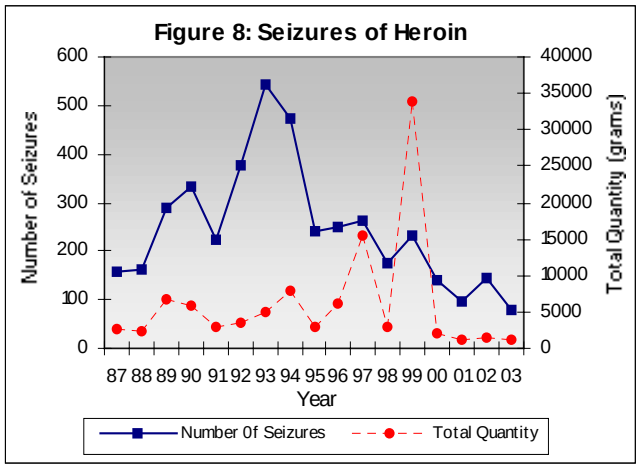
Indicators of heroin use in survey data have remained low among mainstream populations. From the 2000 CAMH Monitor, less than 1% of Toronto adults reported using heroin in the 12 months before the survey. Similarly, less than 1% reported that they had used heroin in their lifetime. This low rate of use was also reflected in the 2003 student survey, in which approximately 1% of Toronto students reported use of heroin in the past year.

Evidence of the popularity of heroin and other opiate use among marginalized groups is found in The Works cumulative statistics for 2003.[71] A summary of drug of choice data for nearly 4000 client visits indicated 49% mentioned heroin and other opiates as a drug of choice, while approximately 47% mentioned cocaine.

Unlike cocaine, heroin does not appear to currently be a significant drug of choice among street youth. It was not mentioned in the March, 2004 Youthlink survey of drug use among street youth.[77] It is interesting to note, however, that methadone, an opiate frequently prescribed as a replacement for heroin, was sited by 11% of respondents. More frequent use of heroin was noted by the respondents to the 1999 SHOUT street youth survey. In total, 11% of these youth reported using heroin at least once monthly. Anecdotally, street youth are also using oxycodone and other opiate formulations. [58,59]

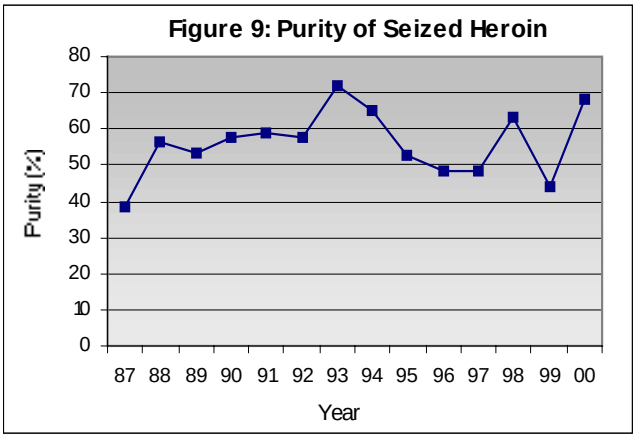
Enforcement Data

The total number of heroin seizures in Toronto peaked between 1992 and 1994. Since then, the numbers have declined and resemble those found in the late 1980s. In 2003, heroin accounted for about 2% of the total number of drug seizures. The total quantity of heroin seized has varied somewhat over time, but 1999 remains a peak year with a total of 34 kilograms seized (up from 3 kg in 1998). This unprecedented amount was likely attributable to a few unusually large seizures. Since 1999, the quantity of heroin seized has declined, ranging between 1 and 2 kg.



The purity of the heroin seized in 2000 averaged 54.7%, higher than that seized in 1999 (44.3%). The average purity level of heroin has shown much fluctuation since data collection began, from a low of 38% in 1987 to a high of 72% in 1993.

Although variation exists, the primary type of heroin in Toronto is white heroin, which originates in Asia.

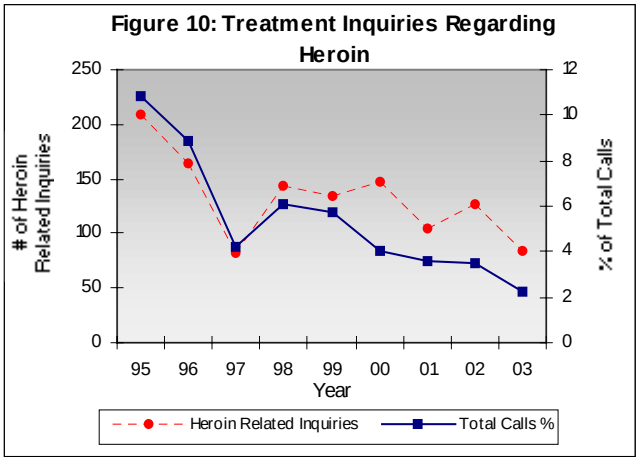


Treatment Data

According to the most recent data from the Drug and Alcohol Registry of Treatment, approximately 2% of drug treatment inquiries from Toronto involve heroin as a primary substance of abuse. This percentage has

steadily decreased from 11% when recording began in September, 1994. A similar pattern has been observed in the rest of Ontario. The changes in the provincial methadone policies are widely cited as significant in the corresponding increase in numbers of methadone clients and decrease in heroin-related deaths.

Figure 10: Treatment Inquiries Regarding Heroin



Methadone Treatment

In July, 1996, the (former) Ontario Substance Abuse Bureau and the College of Physicians and Surgeons in Ontario (CPSO) agreed to administer the licensing of physicians to prescribe methadone in the province. One of the immediate changes was that there were no longer limits imposed on physicians with respect to the number of patients that they could treat at any given time. This led to more accessibility to methadone treatment for clients who had been on long waiting lists.

As of July 31, 2004, there were 10,497 individuals in active methadone treatment in Ontario. This number compares to just 975 individuals who were receiving treatment prior to the 1996 reorganization, an increase of more than 1000%.

According to officials at the College of Physicians and Surgeons, there is better access to a range of methadone treatment programs in the Toronto area than outside the city. Of the total 257 physicians who provide methadone maintenance treatment in Ontario, 87 (34%) practice in the city of Toronto.

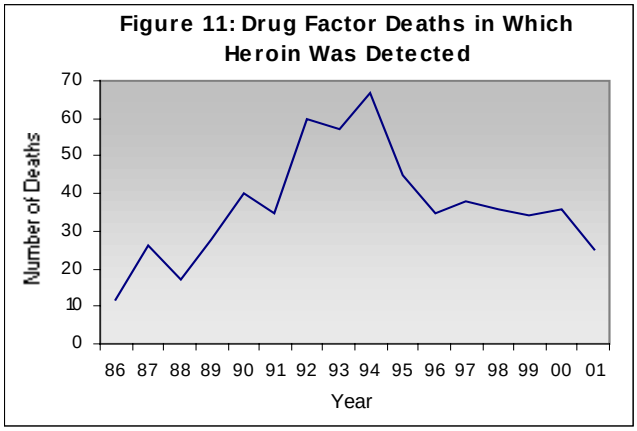
Officials at the CPSO also report that the number of pharmacies dispensing methadone has continued to increase and that there is reasonable availability of methadone in pharmacies throughout the province.

In 1999, correctional facilities in Ontario adopted a policy of maintaining methadone clients who become incarcerated. While physicians associated with the correctional system are being encouraged to obtain methadone licenses, it is not yet possible for a newly incarcerated individual to request methadone treatment if not previously prescribed.

Drug-Related Deaths

As noted in the previous edition of Drug Use in Toronto, an increase in heroin-related deaths during the period 1988-1994 was followed by a decline from 1995-1998. From the high of 67 heroin-related deaths in 1994, subsequent results from the Office of the Chief Coroner showed a decline to 45 such deaths in 1995, 38 deaths in 1996, and 36 deaths in both 1997 and 1998. The additional data included in the current report reflect a continuation of this downward trend. This new information indicates 34 heroin-related deaths in 1999, a slight increase to 36 in 2000 and a decline to 25 deaths in 2001. The latest figures indicate a decrease to the lowest level seen since the late 1980's.

Figure 11: Drug Factor Deaths in Which Heroin Was Detected



The age range of the decedents covered more than 5 decades; the youngest was a teenager while the eldest was over 70 years of age. The median age was consistent, at 39 years in 1999, 40 years in 2000 and 39 years in 2001. The

percentage of male decedents in each of the three years was also consistent, at 79%, 83% and 80% respectively.

In terms of death types, 18 heroin-related deaths (53%) were ruled as accidental for 1999, with 23 (64%) in 2000 and 19 (76%) in 2001. The corresponding figures for suicides are 2 (6%), 4 (11%) and 1 (4%), while those of undetermined origin were 14 (41%), 9 (25%) and 5 (20%) respectively.

The lethality analysis indicates that heroin is frequently lethal alone; the corresponding annual figures are 20 (59%) in 1999, 12 (33%) in 2000, and 13 (52%) in 2001. The numbers of deaths due to heroin combined with other drugs were 12 (35%), 21 (58%) and 11 (44%), while the corresponding totals for non-lethal doses of heroin were 2 (5%), 3 (8%) and 1 (4%), respectively. Alcohol contributed to death in 8 (22%) of these combination cases. Twenty-nine, or 30% of the heroin-related deaths, also involved cocaine.

From the 1994 "Report of the Task Force into Illicit Narcotic Overdose Deaths in British Columbia," Office of the Chief Coroner.

"And what of the circumstances leading up to and surrounding these deaths? These are not so readily measurable. In fact, they are damned complex and confounding: human behaviour, human failings, social issues, and political issues. Various opinions were expressed, ranging from "What's the worry; they're dead aren't they?" to "We have a social conscience which ought to drive us to assist those who cannot help themselves…

Unless there is a greater understanding on the part of the general public of who these people are, where they come from, and where they are going – all the elements that have gone into their present state – then I am afraid our collective social conscience will not drive us to assist them."

J.V. Cain, (then) Chief Coroner, British Columbia

For more information on Heroin and other opiates in this report, see:

- **Emerging Issues in Mainstream Drug Use and**
- **Marginalized Users and Injection Drug Use**

MARIJUANA (CANNABIS)

Use

Fifteen percent of Toronto adults responding to the 2003 CAMH Monitor reported marijuana, or cannabis, use within the past year. This finding is close to the highest reported level on record, 17% in 1984.[2]

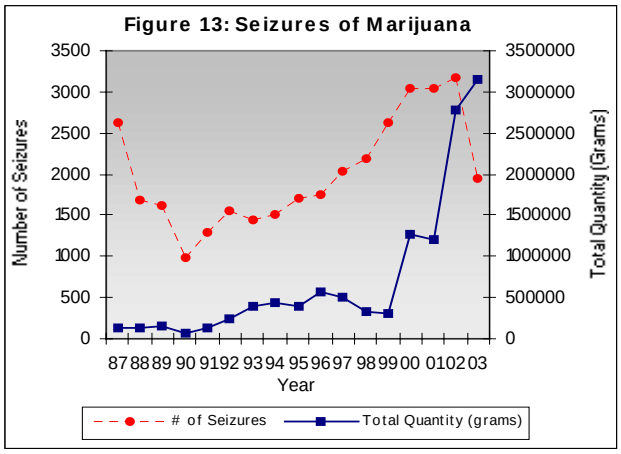
According to the most recent OSDUS survey, 23% of students reported past year cannabis use. This is not statistically significantly different from the 22% found in the previous year, however, it is higher than rates found in the late 1980s and early 1990s.[17] In fact, the 2003 rate is the highest on record since 1977, when data collection began.

Marijuana and alcohol are clearly the most popular drugs used by street youth. According to the March, 2004 survey from Youthlink, 84% and 83% respectively of these youth report marijuana and alcohol use at least monthly.[77] Looking at the SHOUT clinic street youth study from 1999, 31% of over three hundred subjects interviewed reported daily marijuana use, while 18% reported use several times per week [78]

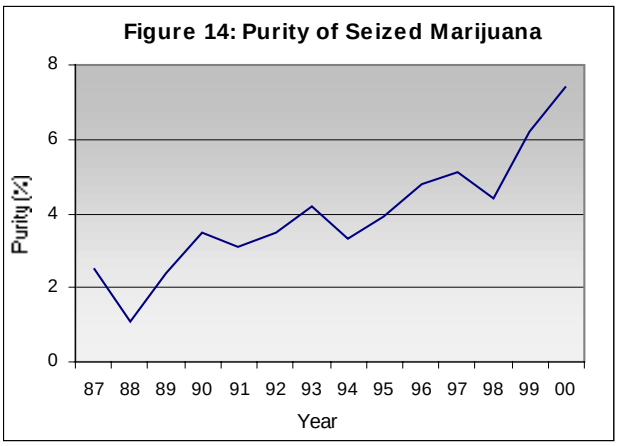
Enforcement Data

The number of marijuana seizures in Toronto increased between 1996 and 2002 to just over 3,100 seizures, but decreased in 2003 to 1,947. Marijuana accounted for 43% of all drug seizures in 2003.

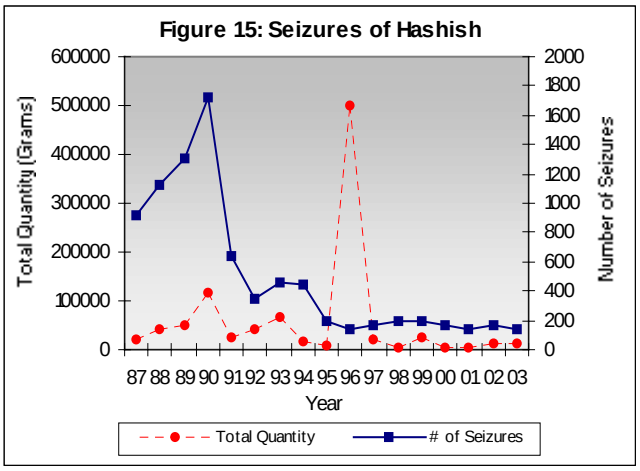
Although the number of seizures declined in 2003, the total quantity of marijuana seized increased substantially compared to 2002 (3,149 kg vs. 2,770 kg, respectively). In fact, the total quantity of marijuana seized in 2003 is the largest since data collection began in 1987. This is likely attributable to a small number of very large seizures during last year. Nonetheless, there has been a generally increasing trend in both the numbers of marijuana seizures and quantities seized since the early 1990s.

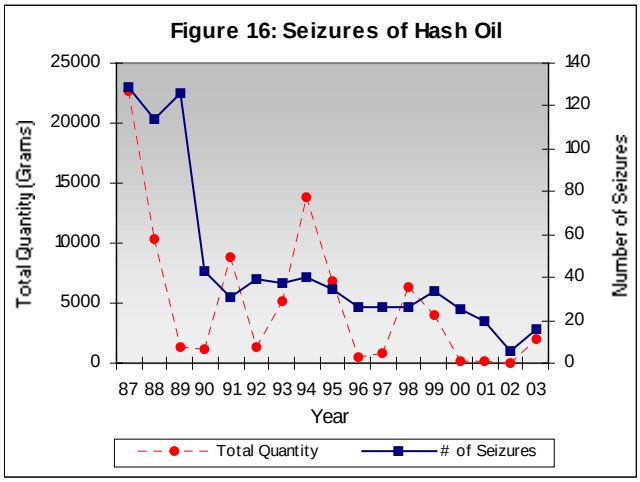


On average, the purity of marijuana seized in 2000 did not change substantially from 1999 levels (7.4% vs. 6.2%, respectively). However, it should be noted that the 2000 estimate is the highest purity level on record.

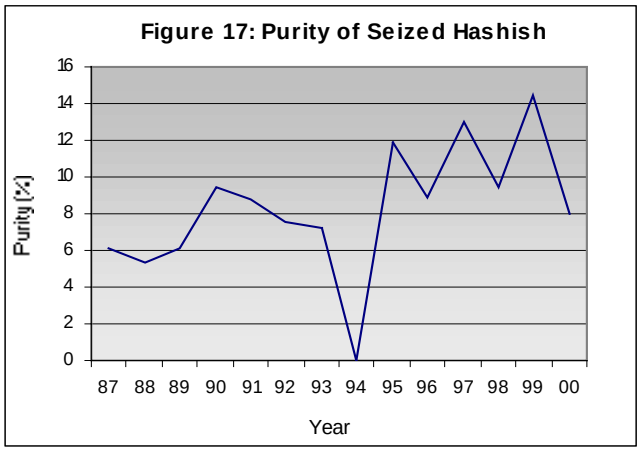


The numbers of seizures of both hash and hash oil have been on a general decline since 1995. In 2003, hash seizures accounted for about 3% of all drug enforcement activity, while hash oil seizures accounted for less than 1%. The quantity of hash seized in 2003 increased slightly compared to 2002 (13 kg vs. 11 kg, respectively). However, there was a large spike in the quantity of hash oil seized in 2003 (about 2 kg compared to 64 grams in 2002). Overall, the amounts of hash and hash oil seized have fluctuated dramatically over the past decade. These appear in the figures on the next page.





On average, the purity of hash seized in 2000 was about 8%, a slight decrease from the 1999 estimate of 12%. In 2000, the average purity level of tested samples of seized hash oil was 23.3%.



From Earlywine. Mitch and Bruce Mirken, Drug Sense Weekly, "THE POTENT POT MYTH," July, 2004, www.alternet.org

"Recently the media have repeated dire warnings about alleged "Super pot" in an attempt to frighten parents who may have dabbled in their day; the [U.S.] government claims that new strains of potent marijuana are far more dangerous than the innocuous grass of the 1960s or 70s.

Many media reports repeat these claims uncritically. For example, a July 19, [2004] Reuters story warned, 'Pot is no longer the gentle weed of the 1960s and may pose a greater threat than cocaine or even heroin.

Such claims are utter nonsense, and may create more harm than good.

First, high potency marijuana has always existed. The average potency has increased slightly, but only because higher potency marijuana has become a little more common. It is not a new phenomenon.

Second, there is precisely zero evidence that marijuana with a higher level of THC is more dangerous. Indeed, a close look at the news accounts shows that official warnings about 'super pot' often accompany claims based upon speculation piled on top of conjecture.

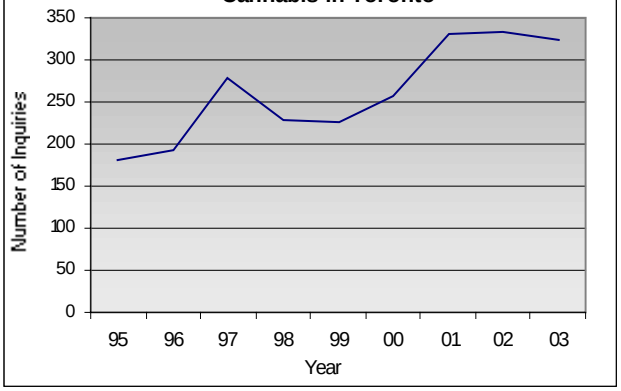
To put this into perspective, the average potency of marijuana that has fuelled this fire is seven percent THC. This is the marijuana that White House Drug Czar John Walters warns is horribly dangerous because of its super-strength. In contrast, Dutch government standards require medical marijuana sold in pharmacies in the Netherlands to be twice that strong. According to the U.S. government's own statistics, most teens in marijuana treatment are there because they were arrested, not because of actual evidence of abuse or dependence."

Treatment Data

The percentage of treatment inquiries regarding problematic marijuana use remained steady in Toronto over the past two years. For the periods

1999-2000 and 2000-2001, 9% and 10% of total inquiries respectively concerned cannabis. This compares with a figure of 10% of treatment inquiries in 1998-1999. Outside of Toronto, requests for marijuana treatment represented 12% of all calls, slightly fewer than those in the recent past.

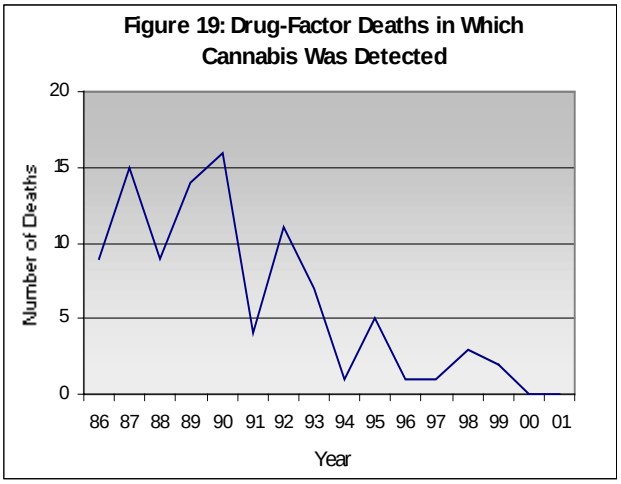
Figure 18: Treatment Inquries Regarding Cannabis in Toronto



Drug-Related Deaths

Cannabis is generally not considered a lethal drug. Previous editions of Drug Use in Toronto showed a total of 49 drug-related deaths between 1986 and 1998 in Toronto in which cannabis was determined to be present, however, cannabis was not the sole cause of death in any of these cases. Two additional drug-related deaths with positive findings for cannabis occurred in the period 1999-2001; in both of these cases, cannabis was excluded as a cause of death.

Figure 19: Drug-Factor Deaths in Which Cannabis Was Detected



From www.arrivealive.vi.gov.au, a website of the Australian government:

The legislation enabling Victoria police to test drivers for the recent consumption of THC (the active component of cannabis) and methamphetamine (speed) was passed in December, 2003.

Any driver in Victoria may be required to undertake a saliva test for the recent consumption of THC and methamphetamine. In the same way that tests for drunk driving are random, drug driving tests are random and target all motorists on Victoria roads.

Drug driving is a major cause of road deaths in Victoria. In 2003, 31% of drivers killed in Victoria tested positive to drugs other than alcohol.

For more information on Marijuana in this report, see also:

- **Update on Marijuana Legislation, and**
- **Driving under the Influence of Marijuana and Other Drugs**

BARBITURATES, SEDATIVE-HYPNOTICS AND TRANQUILIZERS

Use

The use of sedatives, barbiturates, and tranquilizers for non-medical purposes among Ontario students has been tracked since 1977. Past year sedative use hovered around 5% during the late 1970s and early 1980s, and has since declined to between 1% and 3%. The 2003 rate of barbiturate use among Toronto students remains low at 2% .

The same pattern can be seen for tranquilizer use among Toronto students: high rates during the late 1970s and early 1980s followed by an enduring decline. The 2003 level remains low at 1%.

According to the recent Youthlink survey of Toronto street youth, 41% of respondents indicate that they use prescription pills recreationally.[77] However, these are not further classified in terms of the types of drugs. As well, the SHOUT survey in 1999 also did not include any mention of prescription drug misuse. Going back to the (former) Addiction Research Foundation study in 1992, 29% of the youth interviewed reported the non-medical use of tranquillizers. Thus, while street youth clearly use pills in this category, it is difficult to estimate the true extent of the problem.

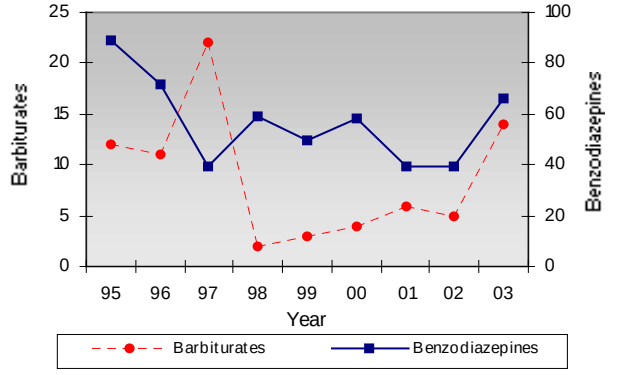
The recent I-Track study indicates that both barbiturates and benzodiazepines are frequently used by IDU in Toronto.[76] Among the two-hundred-twenty-one Toronto respondents, forty-eight, or nearly 22%, indicated the non-injection use of barbiturates, while one-hundred-eight, or approximately 49%, indicated the non-injection use of benzodiazepines.

Treatment Data

Treatment requests for barbiturate use have remained low throughout the nine years monitored both for Toronto as well as the rest of Ontario. The most recent data for Toronto indicate that 5 barbiturate-related treatment inquiries were received by DART for the 2001-2002 reporting period, while 14 were received in 2002-2003. The corresponding numbers for areas outside of Toronto were also extremely low, at 16 and 20 respectively. In each case these numbers represent less than one half of one percent of the total requests received.

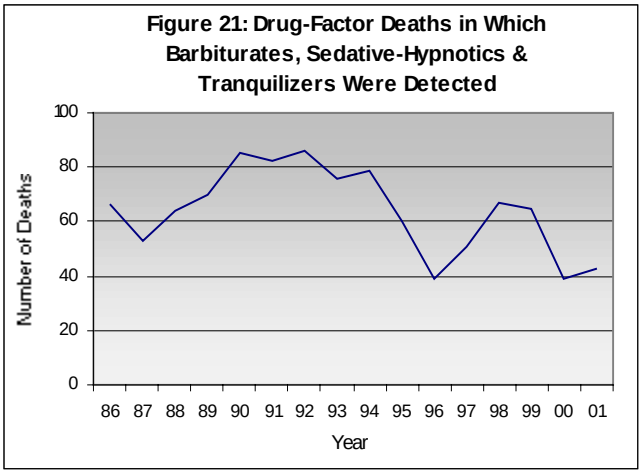
Benzodiazepine-related treatment inquiries, while at a higher level than those for barbiturates, have also remained low for the period studied. In DART's 2002-2003 reporting period, 39 inquiries, or 1% of all received from Toronto regarded benzodiazepines, while the corresponding total for the succeeding year was 66, less than 2%. For the area of Ontario outside of Toronto, the numbers of requests received for these two years were also low, at 185, or 1.4%, and 144, or 1%, respectively. .

Figure 20: Number of Treatment Inquiries Regarding Barbiturates & Benzodiazepines



Drug-Related Deaths

The total numbers of deaths due to drugs in this category for the years 1999 through 2001 were 65, 39 and 43, respectively. As illustrated on the chart below, this represents a relative low in the number of deaths related to the use of these substances, which ranged between 39 – 86 deaths annually from 1986-1998.



Drugs in this category are infrequently lethal alone; this occurred in 4 (6%) of the cases in 1999, 2 (5%) in 2000, and 1 (2%) in 2001. A combination of barbiturates, sedative-hypnotics, or tranquillizers with other drugs was the cause of death in 24 (37%) of the 1999 deaths in this category, 3 (8%) in 2000 and 12 (28%) in 2001 while these drugs were not lethal in the remaining 37 cases (57%) in 1999, 34 (87%) in 2000 and 30 (70%) in 2001.

Barbiturates, sedative-hypnotics and tranquillizers are often associated with suicide. Of the 65 deaths in this category in 1999, 20 (31%) were suicides, while the corresponding figures for the following two years were 18 (46%) and 10 (23%) respectively. Accidental deaths occurred in 25 (38%) of the cases in 1999, 17 (44%) of those in 2000, and 20 (46%) in 2001. A distinction between these two death types could not be made in 20 (31%), 4 (10%), and 13 (30%) in the three years respectively.

The age range and median age of the individuals who died with these drugs in their systems were consistent over the three years studied, with the ages ranging from early twenties to late sixties or early seventies in all cases, and a median age of 42 or 43 years. Males represented 63% of these deaths in 1999, 69% in 2000, and 51% in 2001. Thus, barbiturate, sedative-hypnotic and tranquillizer use is more commonly associated with death in females than many of the other drugs studied.

The June, 2004 meetings of the Community Epidemiology Work Group of the U.S. National Institute on Drug Abuse focused on prescription drug abuse across the United States. The Advance report of this conference contains several interesting issues regarding tranquilizer use among young Americans, which may predict future trends in this country.

The incidence rate for nonmedical tranquilizer use [in the U.S.] in 1990 was 3.9 (new users per 1,000 persons) for 12-17 year olds and 5.5 for 18-25 year olds.

Over the ensuing decade, the numbers of new users of these drugs in these two age groups increased dramatically to 16.5 and 19.8 respectively – more than a threefold increase.

Data on the hospital emergency department (ED) mentions of various drugs are available from the Drug Abuse Warning Network (DAWN) in Washington, DC. Between 1995 and 2002, the total mentions nationally of two tranquilizers, alprazolam and clonazepam, increased significantly.

Regionally, high rates were noted in Philadelphia among patients age 20-25 and 26-34, with the later age group also at a high level in New Orleans.

Rates for clonazepam were highest in Boston and Philadelphia among patients age 20-25 and in Boston for age 26-34.

U.S. National Institute on Drug Abuse, June, 2004 [96]

HALLUCINOGENS

The hallucinogens discussed in this section may be considered the more 'traditional' substances from this category; these include LSD, PCP, psilocybin and mescaline. These are differentiated from those so called designer drugs which are engineered to produce hallucinogenic effects.

Use

About 2% of Toronto students used LSD in 2003. LSD use has significantly decreased in recent years compared to the early 1980s when it was 6% to 8%. PCP use has been low among Toronto students, usually hovering between 1% and 3%. About 1% reported use in 2003.

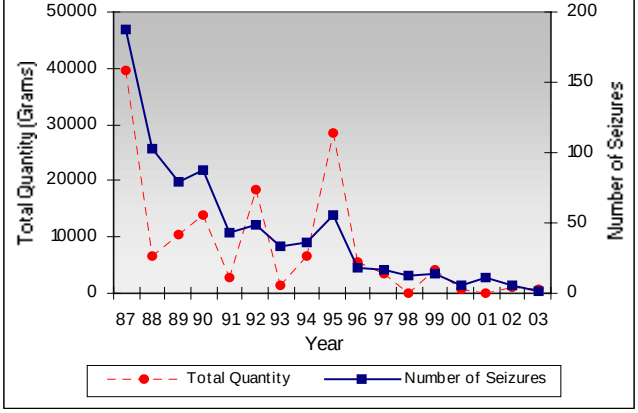
Use of other hallucinogens, such as mescaline and psilocybin, was about 5% in 2003, not significantly different from the 6% found in 2001. However, the current rate of hallucinogen use among Toronto students remains higher than rates seen in the late 1980s and early 1990s. See the next page for more information on these drugs.

Recent surveys of street youth have not focussed on hallucinogens. The SHOUT survey queried the use of only one hallucinogen, LSD. Among those responding, 2% noted daily LSD use, 1% reported use several times weekly, 3% reported use once per week, 7% said they used LSD once or twice per month, and 14% noted use less than once per month. Seventy-three percent of respondents said they never used this drug.[78] These results indicate less use of LSD than among those interviewed by the ARF in 1992; according to this earlier survey, 81% reported using LSD at some point in their lives, with 59% using it in the year before the study.[80]

Enforcement Data

Since 1987, there has been a general downward trend in the number of LSD seizures in Toronto. There were only 2 LSD seizures in 2003, the lowest number recorded over the seventeen years monitored. The number of micrograms per hit confiscated has also decreased substantially over time (39,476 in 1987 vs. 560 in 2000). There were 41 psilocybin seizures in 2003, with a total of 11 kg seized.

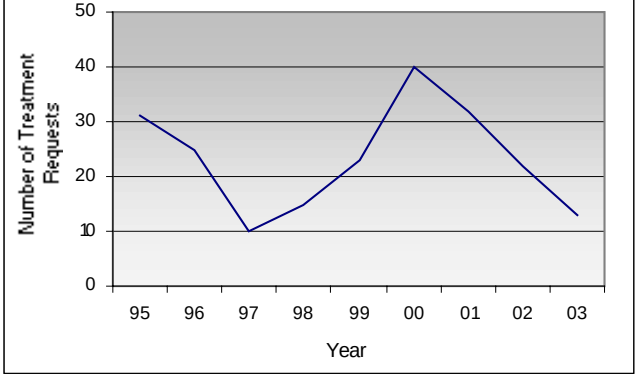
Figure 22: Seizures of LSD



Treatment Data

As noted in earlier reports, hallucinogens are rarely cited as a major problem of abuse locally. According to the Drug and Alcohol Registry of Treatment, only 22 inquiries regarding the use of hallucinogens were received from Toronto during the 2001-2002 reporting interval, representing .6% of all inquiries during that period. The corresponding figures for 2002-2003 were even lower, with 13 calls received, representing .3% of the total. For the rest of Ontario, the numbers are also low although slightly higher; in 2001-2002, 111 hallucinogen-related inquiries, or .8% of the total for the period, were received, while in the following year, the 99 hallucinogen-related inquiries represented .7% of the annual total.

Figure 23: Treatment Requests Regarding Hallucinogens



Drug-Related Deaths

No hallucinogen-related deaths occurred in Toronto the period during 1999 - 2001. Indeed, such deaths have been infrequent in Toronto, with only two occurring since 1986

Common Hallucinogens

- **LSD**(lysergic acid diethylamide) is a synthetic drug, usually sold as a liquid, or applied to blotter paper. The effects of the drug are unpredictable, depending on the quantity consumed as well as the individual user. Flashbacks of an LSD "trip" can occur long after taking the drug.

- **PCP** is produced in clandestine labs in the USA and Canada. Originally developed as a general anaesthetic, it was never marketed to the health industry due to its side effects. Unlike most other hallucinogens, PCP is physically addictive; moreover users may become violent or suicidal.

- **Mescaline** is a hallucinogenic compound found in several species of cactus. Users may chew the top of the cactus plant, or soak it in water, to produce an intoxicating liquid. Mescaline can also produced synthetically in underground labs.

- **Psilocybin**, another hallucinogen, is derived from certain types of mushrooms found in tropical and sub-tropical areas of the Western Hemisphere. These mushrooms are generally brewed as a tea or added to other foods. Unfortunately, poison mushrooms may be mistaken for those containing psilocybin.

Hallucinogens can induce nausea, vomiting, muscle weakness, and lack of co-ordination. In addition, the psychological consequences can be quite serious, including panic reactions and psychoses.[108]

INHALANTS/SOLVENTS

The terms inhalants and solvents are often used interchangeably. This section was previously entitled Solvents. The change to Inhalants addresses a small technical difference. The term inhalant is more general as it refers to any substance which is inhaled for its psycho-active effects. Most inhalants are volatile solvents, i.e. liquids that change to gas with immediately when exposed to air.

Use

The 2003 student survey indicates that about 3% of Toronto students inhaled glue during the past year. This estimate is down slightly from the 2001 survey (5%), and is similar to the low levels found in the past. About 8% of students report inhaling other solvents, such as gasoline and nail polish remover. This rate is higher than those found over a decade ago (1%-2%). It is also be noted that glue and other solvents are most popular among the youngest students surveyed, unlike the general pattern seen for other drugs. This is likely due to their accessibility.

According to the 2004 Youthlink survey, 10% of street youth use inhalants at least once per month. This finding is consistent with those of the and 2% reported use once or twice per month. A 1992 survey of Toronto street youth found that 26% had inhaled solvents in their lifetime, and 8% did so during the year before the study. It should also be noted that 39% of those who indicated use of inhalants in this last study indicated that these substances presented a major problem, second only to crack cocaine

One particular category of inhalants currently popular in gay clubs, among other venues, is "Poppers[54]." According to the 2004 report of the AIDS Committee of Toronto, approximately 23% of men recently surveyed in the 'gay club scene' indicated they use poppers from time to time. Eight percent of those questioned said they had used poppers at the last club event they had attended.

Poppers drugs are any of a variety of physiological-effect chemicals.

Generally they are some sort of n-nitrate compound, with Amyl-, Butyl- and Ispbutylo-Nitrates the most common. All of these substances cause the same effects, as it is the nitrate portion of the molecules that produces the physical effects. The predominant one is the relaxation of all the muscles in the body. This explains why these drugs are so popular among gay men; they facilitate anal intercourse. One of the related effects is vasodilation, or relaxation of blood vessels. This gives the user a warm sensation and causes a "head rush" as large amounts of oxygen-rich blood rush through the brain. The increase in oxygen also leads to a sudden intensification of current positive emotions, thus increasing one's lust and lack of inhibition.

Poppers are sometimes packaged as video head cleaners in order to meet legal requirements, but it is questionable as to whether they are useful for this task. Nitrates are packaged and sold as heart medication in tiny glass bottles. When the small container is "popped" the vapours may be inhaled.[54]

Treatment Data

Requests for the treatment of problems related to abuse of solvents, or inhalants, as they are labeled by DART, are extremely low. According to the most recently obtained data from Toronto, only 6 inquiries regarding inhalant-related problems were received in 2001-2002, representing only .2% of all inquiries received; these numbers fell further to 3 inquiries, or .1% of the total for 2002-2003.

Although often not conceived of as "drugs", inhalants can be highly dangerous. The following is taken from www.erowid.org, generally a non-alarmist, harm reduction oriented website on drug use.

WARNING: "*Our understanding of the literature is that there is no such thing as safe use of most volatile solvents, aerosols or other street inhalants: Their psychoactive effects are inseparable from nerve and organ damage. We have chosen to include information on inhalants in order to help document their real world use, but the inclusion of this information is not intended to imply that they are anything but dangerous."*

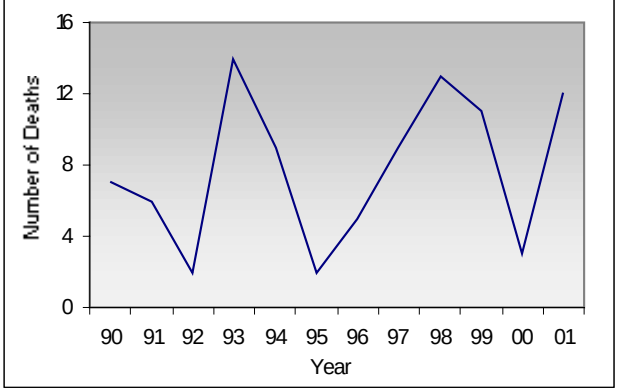
directly quoted from ---www.erowid.org

Drug-Related Deaths

Solvents were detected in 11(7%) of 150 individuals dying from drug-related causes in 1999, (2%) of 119 individuals in 2000, and 12 (11%) of the 106 drug-related decedents in 2001. This lies within the observed range of between 2 and 14 solvent-related deaths annually since 1990.

The lethality studies for 1999 and 2000 indicate solvents were lethal alone in 7 (64%), and 3 (100%) respectively of the cases in which they were observed. The findings of 2001 deviate slightly, with solvents lethal alone in 3 (25%) of the cases in which they were detected. These drugs contributed to a lethal combination in 1 (9%) and 3 (25%) cases in 1999 and 2001 respectively and were not lethal in the remaining 3 cases (27%) in 1999 and 6 cases (50%) in 2001.

Figure 25: Drug-Factor Deaths in Which Solvents Were Detected



In terms of gender, solvent-related deaths occurred in 7 (64%) males in 1999, 2 (67%) males in 2000, and 7 (58%) males in 2001. Again, this drug appears somewhat more popular for males than females, but the differential is not as great as for many other drugs of abuse. The age ranges showed little variation over the three year period; they were 26-68 years in 1999, 26-61 years in 2000 and 18-77 years in 2001 while the median ages were 49,42 and 45 respectively.

" The abuse of inhalants is widespread in the United States; however, it may be underreported because law enforcement officials and healthcare providers are often unfamiliar with the signs of inhalant abuse.

Abusers, primarily adolescents, inhale chemical vapours from a variety of substances, many of which are common household products. These young people abuse inhalants in order to obtain a euphoric effect and are often unaware of the potential risks, which include brain damage and death; some adults also abuse inhalants, particularly nitrites. Adult abusers often inhale substances in order to enhance their sexual experiences."

U.S. Dept. of Justice, Intelligence Brief, Huffing, The Use of Inhalants, November, 2001.

STIMULANTS

Use

Among Toronto students, about 3% reported past year use of non-medical stimulants, such as diet pills, in the 2003 student survey. This percentage decreased non-significantly from 2001 (5%), and is much lower than the level found in 1983 (14%).

While methamphetamine (a.k.a. speed) appears, anecdotally, to be growing in popularity among certain mainstream groups in Toronto, the most recent Toronto data does not reflect this trend.[14,15,24,54,58,59] Use of methamphetamine was found to be 3% among Toronto students, similar to the low levels found in past years (fluctuations between 1% and 4%). Past year use of "Ice" (d-methamphetamine hydrochloride), a smokeable form of methamphetamine, was reported by less than 1% of Toronto students in 2003 (data not tabled). Ice use has declined since 1993, when it was found to be just over 3%.

The 2004 Youthlink survey indicated that methamphetamine use is more popular among Toronto street youth, with 37% stating they used the drug monthly or more. Monthly or more frequent meth use was also acknowledged by 14% of the street youth interviewed for the 1999 SHOUT survey. These numbers point to an increase of the use of this drug among street youth since the 1992 survey, in which only 9% of those interviewed indicated they had used methamphetamne in the 12 months preceding their interview.

Enforcement Data

Seizure data on methamphetamine date back only to 1995. Between 1995 and 1998, both the numbers of seizures and the quantities seized were relatively low. However in 2000 and 2001, there were 46 and 48 seizures, respectively. In 2000, only about .15 kg was seized, but this quantity increased substantially in 2001 when about 7 kg was seized (data not tabled).

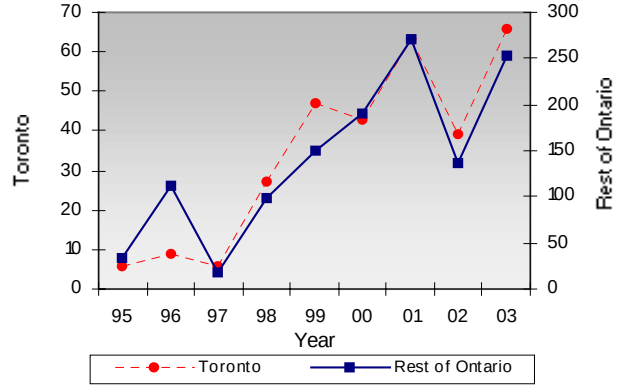
Seizures declined in 2002 (19 seizures; .15 kg), and remained low in 2003 (17 seizures; .17 kg). Methamphetamine seizures accounted for less than 0.5% of all drug seizures in 2003.

The average purity level of the methamphetamine seized in 2000 was about 48% (based on 17 samples; data not tabled).

Treatment Data

Inquiries regarding treatment of stimulant-related problems are classified under the category of Amphetamines by the Drug and Alcohol Registry of Treatment. However, because inquiries regarding MDMA, or ecstasy, are also included in this category, it is not possible to distinguish between these two drugs when examining the DART data. Although the total of 66 inquiries regarding amphetamines during the most recent reporting period represented less than 2% of all those received, there is evidence of an increase over the nine years reviewed, with .3%, .5% and .3% reported in the mid-1990s. With respect to the rest of Ontario, the 252 requests representing 1.8% of all calls indicate a proportion quite close to that of Toronto. A general increase for inquiries *in this category is also evident for this geographic region.*

Figure 26: Treatment Inquiries Regarding Stimulants in Toronto & Rest of Ontario



Drug-Related Deaths

Stimulants were detected in 4 individuals dying of drug-related causes during the period 1999-2001. This included 2 (1.3%) of the 150 individuals dying from drug-related causes in 1999, 1 (less than 1%) of 119 individuals in 2000, and 1 (less than 1%) of the 106 drug-related decedents in 2001. Since monitoring began in 1986, a total of 10 stimulant-related deaths have occurred in Toronto.

The lethality studies for these four deaths indicate stimulants were lethal alone in 1 (25%), part of a lethal combination in 1 (25%) and non-lethal in the remaining 2 (50%) cases.

Three of these four decedents were male. Their ages spanned two decades, from those in their twenties, to those in their forties. The median age at death was 32.5 years.

Three of these deaths were accidental, while one was the result of suicide.

For more information on Methamephetamine Use in this report, see:

- **Use of Designer Drugs among Adolescents and Young Adults and**
- **Emerging Trends in General Population Drug Use.**

MDMA - ECSTASY

Use

The first measurement of ecstasy use among the general adult population of Toronto was conducted by the Centre for Addiction and Mental Health in 2000. In 2003, less than 1% of Toronto adults reported using ecstasy in the past year. This rate is non-significantly lower than those found in previous surveys, when it was about 2%.

In 2003, past year use of ecstasy was reported by 3% of Toronto students. This rate is non-significantly lower than that found in 2001 (6%), but resembles the levels found in the mid-1990s

Despite the low level of ecstasy use reflected in these general surveys, studies at local dance parties as well as those at gay clubs in Toronto indicate ecstasy remains a drug of choice in these settings.[24,54]

Enforcement Data

Since 1997, when data collection on MDMA enforcement activity began, the peak in the number of seizures were in the year 2000 when 219 seizures occurred (14 kg seized) (data not tabled). Since that time, the number of MDMA seizures has declined somewhat, but the quantities seized have increased slightly. In 2003, there were 155 seizures and 16 kg was seized. MDMA accounted for 3% of the total number of drug seizures in 2003.

Police data suggest that the purity of MDMA on the streets of Toronto may also be increasing. The average purity level of MDMA seized in 1999 was found to be approximately 38% (based on 15 samples; data not presented). In 2000, the average purity was 82%, based on 6 samples; data not presented). The average level of MDMA hydrochloride in milligrams per tablet in 2000 was 112 mg, based on 28 samples.

Treatment Data

Inquiries regarding the treatment of MDMA-related problems are classified under the general category of Amphetamines by the Drug and Alcohol Registry of Treatment. As such, trends regarding treatment needs with respect to ecstasy cannot be distinguished from those of Amphetamines

Drug-Related Deaths

During the 3 year period between January 1, 1999 and December 31, 2001, there were 8 deaths in Toronto with positive findings for MDMA.

Four of these deaths occurred in 1999. Each of the four victims was male, ranging in age from teen-aged to 28 years old. In each case the death was ruled accidental. In one case, MDMA was lethal alone, in two cases it was part of a lethal combination, while in the fourth case the dose of MDMA was not considered lethal.

One MDMA death occurred in 2000. This was an accidental death resulting from a combination of MDMA and other drugs. The victim was a female, under twenty years of age.

In 2001, there were 3 deaths related to the use of MDMA. Two of the three decedents were male. The ages of the victims ranged from teen-age to 50 years old. Two of these deaths were accidental while the third was ruled a suicide. In two cases, MDMA was lethal alone, while in the third, it was not considered to be present at a lethal level.

Since the end of the 1990s, designer drugs have increasingly gained in popularity. This interest was at first primarily related to the “Rave” phenomenon, and ecstasy was the substance most often consumed...[T]he National Integrated Training Committee on Chemical Drugs and All-Night Dance Parties for first responders held training workshops in Vancouver, Montreal, Ottawa and Toronto in 2002 and 2003 .It quickly became apparent that the consumption of ecstasy and its derivatives had by then spread to a far broader clientele than ravers.This means that these substances are just as often found in after-hour bars, at private parties, at high schools, colleges, and universities.

From – “Drug Analysis report on Designer Drugs seized in Ouebec,” Health Canada, 2004.

GHB

GHB

or gamma hydroxybutyrate, also called Liquid Ecstasy, Liquid X, Liquid E, Goop, GBH or Grievous Bodily Harm) was originally produced as an anaesthetic. Possession of GHB is currently prohibited in Canada due to its limited analgesic effect and association with serious seizures. GHB is used recreationally for its hallucinogenic and euphoric effects. It is also reportedly used to promote muscle development, although the actual effectiveness of the drug for this purpose is not documented.

Use

The Ontario Student Drug Use Survey began asking students about past year use of GHB in 2001. In 2003, 1% of Toronto students reported use of GHB in the past year. Use has not changed since 2001 when it was also at 1%.

GHB use has reportedly declined significantly in the dance club community. While GHB was, in past years, a primary drug of choice in this population, a large number of hospital emergency department visits by those under the influence of this drug has, anecdotally, caused this decrease in use.

The dangers of GHB include loss of consciousness, coma or death. The fact that this so-called designer drug is generally "manufactured" in clandestine labs means dosage is subject to dangerous fluctuations. Hospital emergency department staff report overdoses more frequently linked to GHB than Ecstasy, but testing is not uniformly conducted.[12,13]

Reports from the gay community in Toronto indicate, however, that GHB remains popular in clubs frequented by this latter group.[14,54]

Enforcement Data

In 2003, there were 15 seizures of GHB in Toronto, with about 1.6 kg seized (data not tabled). Both the number of GHB seizures and the quantity seized have declined over recent years (in 2000: 26 seizures, 2.5 kg; in 2001: 30 seizures, 9.2 kg). In 2003, GHB seizures accounted for 3% of all drug seizures in Toronto.

Treatment Data

Data regarding GHB-related problems are not currently available, although discussions with drug counsellors and other professionals indicate anecdotally that they have received inquiries related to GHB addiction.

There is a debate in the current medical literature regarding the use of the drug physostigmine in treating GHB overdose.[43,58] This drug has been used in the past to reverse the effects of GHB anaesthesia used in surgery.

Drug-Related Deaths

Three GHB-related deaths were recorded in Ontario between January 1, 1999 and December 31, 2002[15]

"GHB is produced in clandestine lab operations and requires no scientific expertise or laboratory skills. GHB is produced by the addition of sodium hydroxide to gamma-butyrolacetone (GBL). GBL is an industrial solvent quite often used as a floor cleaner and is readily available throughout Canada at most chemical distributors. Sodium hydroxide is, quite simply, lye. Lye can be purchased at most grocery stores in the same aisle as other "cleaning products." When these two benign products are mixed together in proper proportions, they form GHB…These chemicals are usually mixed in any glass container without heat or additional chemicals.

It is the lack of lab equipment and specialized precursors that make these labs so difficult to uncover, and allows the "cooks" to set up shop anywhere…Even though it is a simple process, the two precursor chemicals are hazardous and should be treated with the same caution used in handling hazardous materials from more sophisticated clandestine lab operations."[10]

From Rintoul, Scott and Kristy McKillian (2001), "Designer Drugs and Raves", Second Edition, RCMP Drug Awareness Service.

SECTION THREE

DISCUSSION

DISCUSSION

Why study the patterns of illicit drug use?

From a public health and safety perspective, the single most important reason is summarized in one word – prevention. An understanding of the dangers of popular, yet often hidden modes of drug use is essential to the prevention of harms which they may cause. What activities are posing dangers to which segments of the population? How are these best addressed?

Among the most widespread and damaging of the current drug related concerns is the use of crack cocaine, both smoked and injected. While some jurisdictions have developed plans to help individuals addicted to this powerful drug, the quest for effective treatment for crack use continues.

Homeless youth involved in problematic substance use are another group of those hardest to treat, and their problems appear to be worsening. Reports from several front line sources indicate an increasing number of street youth with serious mental health problems as well as those of drug abuse. The lack of any residential treatment for youth with drug addictions and the corresponding absence of facilities for treating dual diagnosis paint a bleak future for thousands of youth in Toronto.

By no means is dangerous drug use confined to those who live in poverty. Examples of problematic use in the more general population include inhalant use among junior high and high school students as well as marijuana use, binge drinking, and the use of chemicals and prescription pills. While these problems, like those listed above, have existed for years, factors such as the emergence of drug production as a home industry. the popularity of poly-drug use, and the growing use of several highly potent, addictive substances contribute to their potential dangers.

Along with concerns for the health and safety of those who use drugs, there are potential drug-related dangers to the wider community. For example, the dangers of driving under the influence of drugs have, in the past, been addressed only for alcohol. The growing popularity of marijuana, however, and of driving under its influence, raise interesting questions with respect to more general roadside testing. There is a need to educate the significant proportion of the driving population who use marijuana of the dangers of driving while stoned. This, in turn, raises the question, "Is ***'Don't drive under the influence of weed'*** an acceptable pubic safety message, given that weed is illegal? Or does this tacitly condone use? What is the best way to minimize the potential harms of this practice?

Choosing effective, practical approaches to preventing potential drug-related harm is a challenge which is often divisive. As the example above is intended to show, individuals can be very committed to how they believe illegal drug use should be addressed. Some see punishment as the only solution for the crime of drug use. Others claim that more flexible approaches are more beneficial in the long term. Despite the controversy which has sometimes accompanied them, Toronto has been the birth place of some extra-ordinary programs for drug prevention and treatment.

Given the complexity of the drug scene in Toronto today, questions of how to approach these problems with limited resources become more urgent. Following the lead of Vancouver, front line staff, clients and professionals involved in substance use prevention and treatment in Toronto are currently constructing a strategic plan to address these critical problems. The project entails a thorough review of the information regarding the most significant drug-related problems in Toronto. In addition, a review of the various solutions used internationally, and the feasibility of adopting similar models in Toronto will be a part of this strategic plan. Given the successful initiatives of the past in Toronto, and the extensive community involvement in this new undertaking, there is much reason for optimism with respect to addressing some of the current, serious drug-related problems in the city.

SECTION FOUR

TABLES

- Table 1: Drug Use in the Past 12 Months from 1977-2003 Among Toronto Adults, Students and Street Youth
- Table 2: Numbers of Seizures and Total Quantities Seized
- Table 3: Trends in Purity of Substances
- Table 4: Substance Use By Street Youth, 1999 SHOUT Clinic Survey
- Table 5: Number of Drug-Related Deaths in Which the Following Substances were Detected, 1986-2001
- Table 6: Number of Drug-Related Deaths by Drug Lethality and Cause, 1990-2001
- Table 7:Toronto Selected Newborn Maternal Diagnoses
- Table 8A: Treatment Inquiries – Toronto
- Table 8B: Treatment Inquiries – Rest of Ontario

Table 1
DRUG USE IN THE PAST 12 MONTHS (%) FROM 1977-2003, AMONG TORONTO ADULTS[a], STUDENTS[b] AND STREET YOUTH[c]

Drug	Population	'77	'79	'81	'82	'83	'84	'85	'87	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03
Cannabis	Students	17	22	17		19		20	10	11		8		8		18		18		18		22		23
	Adults	9			13		17		13	12		12			10		10	11	13	10	14	14	13	15
	Street Youth										92		83											
Cocaine	Students	3	5	4		3		6	4	3		3		1		2		3		3		4		4
	Adults						2		2	2		2			<1		<1		1		1		2	3
	Street Youth										64		31											
Crack	Students								1	2		2		<1		2		2		2		3		2
	Adults								<1	<1		<1			<1		<1		<1		1			
	Street Youth										39		31											
Heroin	Students	2	2	1		1		2	2	1		2		2		2		2		1		1		1
	Adults														<1		<1		<1		<1			
	Street Youth										13		4											
LSD	Students	5	6	6		8		6	3	4		4		3		6		3		3		3		2
	Street Youth										70		59											
Non-Medical Tranquillizers	Students	4	5	4		4		4	2	1		1		1		2		<1		1		1		1
	Adults	15			9		8		3	6		6			5									
	Street Youth										59		29											
Non-medical Barbiturates/ Sedatives	Students	5	6	5		4		4	3	2		2		1		2		1		3		2		2
Non-medical Stimulants	Students	6	7	5		14		13	5	6		3		3		4		4		5		5		3
Methampehtamine ("Speed")	Students	2	3	1		2		4	3	3		1		<1		2		2		4		2		3
	Street Youth										24		9											
Glue	Students	4	4	2		2		2	2	2		1		1		2		3		4		5		3
Other Solvents	Students	7	8	2		4		2	5	3		1		2		3		5		10		10		8
"Ecstasy" (MDMA)	Students											<1		<1		1		3		3		6		3
	Adults																				2		2	<1
GHB	Students																					1		1

Notes: Percentages rounded to the nearest percent. Student use is limited to those in grades 7, 9, and 11 only.
Sources: [a] Estimates are based on a subsample from Adlaf, E.M., & Ialomiteanu, A. (2001). *CAMH Monitor eReport: Addiction and Mental Health Indicators Among Ontario Adults, 1977-2000*. Toronto: Centre for Addiction and Mental Health. [electronic document]; available: www.camh.net/research/population_life_course.html [b] Estimates based on a subsample from Adlaf, E.M., & Paglia, A. (2003). *Drug Use Among Ontario Students, 1977-2003: Detailed OSDUS* Findings. (CAMH Research Document Series No. 13). Toronto: Centre for Addiction and Mental Health. [c] Smart, R.G., Adlaf, E.M., Walsh, G., & Zdanowicz, Y.M. (1992). *Drifting and Doing: Changes in Drug Use Among Toronto Street Youth, 1990-1992*. Toronto: Addiction Research Foundation.

Table 2
NUMBER OF SEIZURES AND TOTAL QUANTITY SEIZED (IN GRAMS)

Year	COCAINE		CRACK		HEROIN		LSD		MARIJUANA		HASH OIL		HASHISH	
	Number of Seizures	Total Quantity	Number of Seizures	Total Quantity	Number of Seizures	Total Quantity	Number of Seizures	Total Quantity	Number of Seizures	Total Quantity	Number of Seizures	Total Quantity	Number of Seizures	Total Quantity
1987	1,337	25,784	NA	NA	158	2,519	188	39,476	2,633	127,787	129	22,715	915	20,465
1988	2,267	34,272	NA	NA	162	2,282	103	6,727	1,681	123,238	114	10,391	1,129	41,581
1989	2,532	72,557	1,236	1,207	290	6,611	79	10,412	1,629	156,205	126	1,271	1,309	50,429
1990	1,664	99,568	2,154	2,042	331	5,793	87	13,955	995	76,047	43	1,085	1,717	117,181
1991	1,465	82,507	2,657	3,474	222	2,805	43	2,638	1,280	140,282	31	8,771	638	26,334
1992	774	72,283	2,953	5,616	377	3,623	48	18,263	1,563	230,702	39	1,275	352	43,466
1993	526	13,340	2,573	6,339	545	5,017	34	1,351	1,448	382,953	37	5,146	458	65,887
1994	369	38,265	2,458	9,482	471	7,983	36	6,472	1,502	437,442	40	13,818	449	15,588
1995	344	10,149	2,002	15,796	239	2,796	56	28,323	1,700	387,150	35	6,801	194	9,684
1996	337	29,111	1,848	5,331	249	6,223	18	5,392	1,759	577,537	26	535	139	502,050
1997	336	19,934	1,829	7,934	263	15,473	16	3,498	2,041	496,158	26	915	160	22,609
1998	289	272,922	1,767	6,712	173	2,925	13	97	2,182	334,818	26	6,312	191	5,160
1999	287	10617	1609	9540	232	33763	14	4296	2616	312237	34	4056	188	25903
2000	362	7258	1532	16554	138	2321	5	714	3049	1273861	18	185	147	4012
2001	474	12462	1470	4676	97	1302	11	149	3048	1204721	20	243	132	4370
2002	522	19389	1476	9396	146	1354	6	955	3169	2770345	6	64	169	11571
2003	569	33081	1386	7398	80	1060	2	560	1947	3148889	16	1987	141	13429

*Measured in microgram per hit
Source: Toronto Police Service

Table 3
TRENDS IN PURITY OF SUBSTANCES

Year	COCAINE			CRACK			HEROIN			LSD			MARIJUANA			HASH OIL			HASHISH		
	Average	Range	No of Samples	Average	Range	No of Samples	Average	Range	No of Samples	Average	Range	No of Samples	Average	Range	No of Samples	Average	Range	No of Samples	Average	Range	No of Samples
1987	69.1	.001, 100	1618	87.4	1.4, 100	85	38.5	4.0, 94	187	46.0	17.0, 73	101	2.5	.001, 6.2	5422	16.4	.09, 33	35	6.1	.8, 20	15
1988	77.3	.01, 100	1666	88.9	35.0, 100	90	56.7	4.0, 99	172	31.0	20.0, 72	6	1.1	.06, 4.9	37	10.0	1.6, 19	34	5.3	4.1, 7.4	11
1989	78.7	.003, 100	1673	92.3	25.0, 100	64	53.2	9.0, 100	135	48.2	30.0, 115	18	2.4	.06, 12	59	20.7	.05, 32	11	6.1	2.3, 9.8	26
1990	68.0	.03, 100	1147	90.9	50.0, 100	53	57.9	8.0, 100	250	46.5	29.0, 60	32	3.5	.04, 23.7	119	11.5	2.5, 17.8	6	9.5	.1, 24	37
1991	67.9	.003, 100	1338	89.1	34.0, 98	135	58.9	5.0, 100	307	58.0	56.0, 59	3	3.1	.005, 12	113	0.0	0.0, 0.0	0	8.8	.05, 35	44
1992	66.5	.002, 100	1195	87.7	58.0, 100	142	57.9	2.0, 100	438	49.0	33.0, 70	13	3.5	.004, 18	98	12.7	.0002, 28	16	7.6	.07, 20	31
1993	65.3	.20, 99	697	85.0	13.0, 100	144	72.0	3.5, 100	325	43.0	38.0, 47	2	4.2	.30, 11	167	1.3	.60, 1.8	3	7.2	.1, 38	27
1994	67.6	5.0, 97	544	83.9	24.0, 97	173	64.9	8.0, 98	268	0.0	.0, .0	4	3.3	.02, 12	210	N/A	N/A	0	N/A	N/A	0
1995	63.0	.06, 96	566	79.4	2.2, 98	157	52.8	1.5, 100	633	25.0	15.0, 79	7	3.9	0.4, 17.9	157	0.5	0.2, 1.1	10	11.9	.38, 52	23
1996	67.5	.20, 96	712	71.0	14, 96	354	48.5	9.0, 94	239	24.1	.13, 65	4	4.8	0.1, 13	219	16.7	0.5, 27	11	8.91	.02, 44	47
1997	63.4	.20, 95	734	78.8	5.6, 100	140	48.4	7.9, 96	171	N/A	N/A	0	5.1	.04, 22	61	11.6	.02, 24.6	14	13.0	.08, 45.7	53
1998	67.2	1.4, 97	594	73.3	21.0, 96	158	63.4	7.0, 96	163	N/A	N/A	0	4.4	.03, 11	105	15.8	13.0, 25	9	9.4	0.8, 34	17
1999	65.4	1.4, 93	489	68.7	.01, 95	90	44.3	10.0, 87	190	N/A	N/A	0	6.2	.02, 47	87	N/A	N/A	0	12.1	2.0, 8	49
2000	62.1	1.5, 97	404	64.7	19.0, 95	84	54.7	2.0, 95	93	N/A	N/A	0	7.4	.06, 20	N/A	23.3	18.0, 30	6	8.1	.05, 36	14

Table 4 – Substance Use By Street Youth, 1999 SHOUT Clinic Survey

Drug	Never	Monthly or More
Marijuana or Hash (n=322)	27%	65%
Crack (n=323)	81%	18%
Powder Cocaine (n=327)	75%	13%
Speed/Crystal (n=322)	78%	14%
Acid (LSD) (n=324)	73%	13%
Heroin (n=326)	84%	11%
Glue or Gasoline (n=323)	92%	6%
Ecstacy (n=326)	72%	15%
Steroids (n=322)	95%	3%
Growth Hormones (n=321)	96%	3%
Pharmaceuticals (n=325)	77%	18%

Source: Making Money, The Shout Clinic Report on Homelessness, Youth, and Employment, 1999

The following data is taken from the March, 2004 Youthlink/CAS study of drug use among 76 homeless youth in Toronto. The data in the table below are from this study.

Drug	Drug Use
Marijuana	84% (61)
Alcohol)	83% (61)
Cocaine/Crack	60% (44)
Prescription pills	41% (30)
Methamphetamine	37% (28)
Methadone	11% (8)
Solvents (Inhalants)	10% (8)
Other drugs	16% (11)

The high prevalence of poly-drug use is apparent in these numbers. This is just one of the several indicators of poly-drug use among street youth.

TABLE 5
NUMBER OF DRUG-RELATED DEATHS IN WHICH THE FOLLOWING SUBSTANCES WERE DETECTED, 1986-2001

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Cannabis	9	15	9	14	16	4	11	7	1	5	1	1	3	2	0	0
Cocaine	12	22	27	38	25	25	39	30	28	23	22	27	27	38	26	19
Heroin	12	26	17	28	40	35	60	57	67	45	38	36	36	39	36	25
Barbiturates Sedative/ Hypnotics & Tranquillizers	66	53	64	70	85	82	86	76	79	60	39	51	67	65	39	43
Total*	141	139	137	151	159	158	143	155	173	130	96	132	155	150	119	106

Source: Office of the Chief Coroner of Ontario.

- Individual column entries do not add to column total. This is because (1) not all drug deaths fall into the 4 categories shown and (2) categories are not mutually exclusive.

Table 6
NUMBER OF DRUG-RELATED DEATHS BY DRUG LETHALITY AND CAUSE, 1990-1991

Year		COCAINE		HEROIN		CANNABIS		SEDATIVE-HYPNOTICS	
		N	%	N	%	N	%	N	%
1990	**Number of Positive Tests**	25		40		16		85	
	Drug Lethality								
	Sole Lethal Cause	5	20	27	68	0	0	9	11
	Lethal Combination	3	12	9	22	1	6	25	29
	Non-lethal Level	17	68	4	10	15	94	51	60
	Type of Death								
	Accidental	22	88	34	85	12	75	42	49
	Suicide	2	8	6	15	3	19	41	48
	Unknown	1	4	0	0	1	6	2	2
1991	**Number of Positive Tests**	25		35		4		82	
	Drug Lethality								
	Sole Lethal Cause	5	20	16	46	0	0	6	7
	Lethal Combination	6	24	17	48	1	25	44	54
	Non-lethal Level	14	56	2	6	3	75	32	39
	Type of Death								
	Accidental	20	80	28	80	3	75	32	39
	Suicide	5	20	5	14	1	25	43	52
	Unknown	0	0	2	6	0	0	7	9
1992	**Number of Positive Tests**	39		60		11		86	
	Drug Lethality								
	Sole Lethal Cause	11	28	26	43	0	0	6	7
	Lethal Combination	9	23	32	53	2	18	36	42
	Non-lethal Level	19	49	2	3	9	82	44	51
	Type of Death								
	Accidental	34	87	48	80	9	82	53	62
	Suicide	3	8	6	10	10	18	28	33
	Unknown	2	5	6	10	0	0	5	5
1993	**Number of Positive Tests**	30		57		7		76	
	Drug Lethality								
	Sole Lethal Cause	1	3	35	61	0	0	5	7
	Lethal Combination	2	7	21	37	0	0	25	33
	Non-lethal Level	27	90	1	2	7	100	46	60
	Type of Death								
	Accidental	22	73	47	82	7	100	40	53
	Suicide	2	7	4	7	0	0	27	35
	Unknown	6	20	7	12	0	0	9	12

Table 6
NUMBER OF DRUG-RELATED DEATHS BY DRUG LETHALITY AND CAUSE, 1990-1991

Year		COCAINE		HEROIN		CANNABIS		SEDATIVE-HYPNOTICS	
		N	%	N	%	N	%	N	%
1994	**Number of Positive Tests**	28		67		1		79	
	Drug Lethality								
	Sole Lethal Cause	12	43	55	82	0	0	5	6
	Lethal Combination	3	11	8	12	0	0	13	17
	Non-lethal level	13	46	4	6	1	100	61	77
	Type of Death								
	Accidental	25	89	42	63	0	0	29	37
	Suicide	0	0	9	13	0	0	32	41
	Unknown	3	11	16	24	1	10	18	23
1995	**Number of Positive Tests**	23		45		5		60	
	Drug Lethality								
	Sole Lethal Cause	6	29	33	75	0	0	7	12
	Lethal Combination	1	5	9	20	1	20	15	26
	Non-lethal level	14	67	2	5	4	80	35	61
		2	0	1	0	0	0	3	0
	Type of Death								
	Accidental	18	78	31	69	4	80	21	35
	Suicide	1	4	6	13	1	20	33	55
	Unknown	4	17	8	18	0	0	6	10
1996	**Number of Positive Tests**	22		35		1		36	
	Drug Lethality								
	Sole Lethal Cause	6	27	28	80	0	0	2	6
	Lethal Combination	6	27	3	8	0	0	7	19
	Non-lethal level	10	45	4	11	1	100	27	75
	Type of Death								
	Accidental	20	91	28	80	1	100	15	42
	Suicide	1	5	4	11	0	0	17	47
	Unknown	1	5	3	9	0	0	4	11
1997	**Number of Positive Tests**	27		38		1		51	
	Drug Lethality								
	Sole Lethal Cause	7	30	27	84	N/A	-	5	14
	Lethal Combination	0	0	3	9	N/A	-	6	17
	Non-lethal level	16	70	2	6	N/A	-	24	69
	Type of Death								
	Accidental	22	81	25	69	0	-	17	33
	Suicide	1	4	4	11	0	-	23	45
	Unknown	4	15	7	19	1	100	11	22

Table 6
NUMBER OF DRUG-RELATED DEATHS BY DRUG LETHALITY AND CAUSE, 1990-1991

Year		COCAINE		HEROIN		CANNABIS		SEDATIVE-HYPNOTICS	
		N	%	N	%	N	%	N	%
1998	**Number of Positive Tests**	27		36		3		67	
	Drug Lethality								
	Sole Lethal Cause	3	11	18	50	N/A	-	5	8
	Lethal Combination	3	11	11	31	N/A	-	16	24
	Non-lethal level	21	78	7	19	N/A	-	46	69
	Type of Death								
	Accidental	23	85	31	86	0	-	31	46
	Suicide	1	4	3	8	0	-	28	42
	Unknown	3	11	2	6	3	100	8	12
1999	**Number of Positive Tests**	27		34		2		65	
	Drug Lethality								
	Sole Lethal Cause	7	30	20	59	0	-	4	6
	Lethal Combination	0	0	2	6	0	-	24	37
	Non-lethal level	16	70	12	36	2	100	37	57
	Type of Death								
	Accidental	22	81	18	53	2	100	25	38
	Suicide	1	4	2	6	0	-	20	31
	Unknown	4	15	14	41	0	-	20	31
2000	**Number of Positive Tests**	27		36		0		39	
	Drug Lethality								
	Sole Lethal Cause	7	30	12	33	-	-	2	5
	Lethal Combination	0	0	21	58	-	-	3	8
	Non-lethal level	16	70	3	8	-	-	34	87
	Type of Death								
	Accidental	22	81	23	64	-	-	17	44
	Suicide	1	4	4	11	-	-	18	46
	Unknown	4	15	9	25	-	-	4	10
2001	**Number of Positive Tests**	27		25		0		43	
	Drug Lethality								
	Sole Lethal Cause	7	30	13	52	-	-	1	2
	Lethal Combination	0	0	11	44	-	-	12	28
	Non-lethal level	16	70	1	4	-	-	30	70
	Type of Death								
	Accidental	22	81	19	76	-	-	20	47
	Suicide	1	4	1	4	-	-	10	23
	Unknown	4	15	5	20	-	-	13	30

Lethality analysis is available for a limited number of cases in 1997. Therefore, percentages in this section of the table are expressed as a fraction of the number of cases with lethality results. **Source: Office of the Chief Coroner of Ontario**

Table 7
Toronto Selected Newborn/Maternal Diagnoses

12 month period ending March 31,	'86	'87	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03
Drug-induced Damage	2	2	3	0	4	6	8	5	1	4	4	5	5	5	20	13	2	2
Noxious Influences Through Placenta	5	7	8	12	32	35	46	59	61	69	77	58	59	49	63	46	38	54
Newborn Drug Withdrawal Syndrome	4	7	11	16	23	26	23	23	16	17	18	17	22	14	30	27	22	23

Source: Ontario Ministry of Health, User Support Branch
** A newborn may appear in more than one category.*

Table 8A
Treatment Inquiries - Toronto

Total Calls Regarding Treatment Placement	10/94 - 9/95	10/95 - 9/97	10/96 - 9/97	10/97 - 9/98	10/98 - 9/99	10/99 - 9/00	10/00 - 9/01	10/01 – 09/02	10/02 – 09/03
	1,921	1,837	1,937	2,426	2,363	2,991	3,375	3,576	3,808
	%	%	%	%	%	%	%	%	%
Age (years)									
0-14	0.5	0.8	1.2	0.6	0.6	0.7	0.7	0.6	0.4
15-19	6.0	7.7	6.9	6.1	8.3	9.2	8.2	6.5	6.1
20-24	10.7	8.3	8.9	8.8	11.1	10.9	11.5	10.5	10.5
25-34	40.6	33.0	26.7	29.7	32.7	28.2	27.2	30.1	26.5
35-44	25.2	17.6	16.2	22.7	25.0	25.0	24.1	22.6	26.8
45-54	7.4	5.6	6.3	7.2	9.8	10.7	9.6	11.9	13.0
55-64	2.5	2.4	2.1	3.1	3.4	3.2	2.7	3.2	4.4
65+	1.3	1.3	1.1	2.0	1.7	1.3	1.3	1.4	1.2
Unknown	5.7	23.5	30.6	19.7	7.5	10.7	14.7	13.2	11.2
Sex									
Female	27.8	28.2	28.8	31.0	30.8	31.9	31.5	30.8	30.3
Male	71.5	70.7	69.8	67.9	69.2	68.1	68.5	69.2	69.7
Unknown	0.7	1.1	1.5	1.1	0	0	0	0.0	0.0
Problem Substances Identified (Several may be identified for one individual, with resulting effect on percentage.)									
Alcohol	50.1	46.4	46.9	48.6	51.3	57.5	56.7	59.8	57.7
Crack	21.2	19.3	10.5	15.8	16.7	11.4	11.7	10.7	13.7
Cocaine Powder	19.8	16.8	16.6	16.8	17.1	17.3	17.5	19.3	19.4
Cannabis	9.4	10.5	14.4	9.4	9.6	8.6	9.8	9.3	8.5
Heroin	10.8	8.9	4.2	5.9	5.7	4.9	3.1	3.5	2.2
Methadone	N/A	N/A	N/A	1.2	2.4	1.8	1.4	1.2	1.0
Other Narcotics	5.8	4.8	5.9	4.4	4.3	4.0	3.6	4.2	5.5
Benzodiazepine	4.6	3.9	2.0	2.4	2.1	1.9	1.2	1.1	1.7
Hallucinogens	1.6	1.4	0.5	<0.1	1.0	1.3	0.9	0.6	0.3
Barbiturates	0.6	0.6	1.1	<0.1	0.1	0.1	0.2	0.1	0.4
Inhalants	0.5	0.5	0.2	<0.1	0.2	0.1	0.1	0.2	0.1
Amphetamines	0.3	0.5	0.3	1.1	2.0	1.4	1.9	1.1	1.7
Not Identified	N/A	N/A	N/A	10.9	6.9	7.0	6.8	4.0	3.8
Other Non -Prescription	N/A	N/A	N/A	3.4	3.5	1.7	3.1	2.8	2.2
Other Prescription	N/A	N/A	N/A	0.9	1.0	1.4	0.8	1.2	1.4
Other	N/A	N/A	N/A	0.3	0.2	0.1	0.1	0.1	0.3

Source: Drug and Alcohol Registry of Treatment, October 1994 – December 2003

Table 8B
Treatment Inquiries – Rest of Ontario

Total Calls Regarding Treatment Placement	10/94 - 9/95	10/95 - 9/97	10/96 - 9/97	10/97 - 9/98	10/98 - 9/99	10/99 - 9/00	10/00 - 9/01	10/01 – 9/02	10/02 – 9/03
	5,073	6,093	6,556	9,525	9,564	10,239	12,243	13,199	14,404
	%	%	%	%	%	%	%	%	%
Age (years)									
0-14	1.7	1.9	1.5	1.4	1.3	1.5	1.5	1.2	0.8
15-19	13.4	14.5	13.0	11.4	11.3	11.7	11.1	10.3	9.9
20-24	10.4	9.6	8.9	9.9	10.7	10.2	11.1	10.6	11.3
25-34	33.8	26.7	23.1	24.0	26.1	25.1	23.3	23.9	23.2
35-44	23.2	18.9	17.8	20.1	23.8	23..3	22.8	22.0	23.2
45-54	8.1	6.4	6.6	7.7	8.1	9.7	9.6	10.3	11.0
55-64	2.8	2.1	2.1	2.6	3.0	2.7	3.0	2.9	3.0
65+	1.5	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.4
Unknown	5.1	18.8	25.7	24.4	14.4	14.5	16.3	17.4	16.1
Sex									
Female	32.2	33.3	31.8	34.0	33.9	35.3	35.3	35.4	33.7
Male	66.6	65.2	66.3	66.8	66.1	64.7	64.5	64.6	66.3
Unknown	1.1	1.5	1.3	2.0	0	0	0	0.0	0.0
Problem Substances Identified (Several may be identified for one individual, with resulting effect on percentage.)									
Alcohol	66.6	61.0	57.2	59.6	60.8	63.9	61.6	63.9	62.0
Crack	6.9	5.7	18.3	6.2	6.9	5.8	5.5	6.0	7.5
Cocaine Powder	17.3	14.3	14.2	13.5	15.2	14.4	14.4	16.1	17.6
Cannabis	19.1	20.0	6.2	14.0	14.5	13.6	13.6	12.9	12.3
Heroin	4.3	4.1	5.2	2.4	3.0	3.0	2.2	2.2	1.6
Methadone	N/A	N/A	N/A	0.6	0.8	0.9	0.8	0.6	0.7
Other Narcotics	5.6	5.9	3.1	4.1	4.4	4.3	5.1	5.9	5.9
Benzodiazepine	3.6	3.7	2.7	2.1	1.5	1.4	1.6	1.4	1.0
Hallucinogens	4.1	3.4	2.4	1.4	1.3	1.3	1.0	0.8	0.7
Barbiturates	0.9	0.5	1.2	0.3	0.3	<0.1	0.2	0.1	0.1
Inhalants	1.5	1.2	1.0	0.8	0.6	0.5	0.5	0.4	0.3
Amphetamines	0.7	1.8	0.3	1.0	1.6	1.9	2.2	1.0	1.8
Not Identified	N/A	N/A	N/A	11.8	8.3	7.0	6.3	5.1	5.2
Other Non - Prescription	N/A	N/A	N/A	3.2	0.5	1.9	2.8	2.3	2.1
Other Prescription	N/A	N/A	N/A	1.2	1.1	1.3	1.3	1.3	1.0
Other	N/A	N/A	N/A	0.3	0.3	0.2	0.1	0.1	0.2

Source: Drug and Alcohol Registry of Treatment, October 1994 – December 2003

SECTION FIVE

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