

The Canadian Addiction Survey: Substance use and misuse among the Canadian population

Patricia Begin, John Weekes and Gerald Thomas
Canadian Centre on Substance Abuse¹

In November 2004, Canada's first national survey in a decade dedicated solely to alcohol, cannabis and other illicit drug use was released. The Canadian Addiction Survey (CAS)² is unparalleled in terms of the breadth of substance use indicators and issues it examined among Canadians aged 15 years and older.

Using self-reported information, the survey measured the prevalence, incidence and patterns of alcohol and other drug use; harms from use on physical, mental and social well-being; the context, risk and protective factors associated with use; and public opinions, attitudes and knowledge related to drug and alcohol issues, programs and policies.

This article presents some of the survey findings on alcohol and drug use and harms, as well as public attitudes and opinions about drug use and drug policies. Also included is a discussion of the link between crime and alcohol and drug use.

For this survey, researchers compiled a sample of 13,909 Canadians³ 15 years of age and older from a random selection of telephone numbers. A minimum of 1,000 respondents were sampled in each province.⁴ The Montreal research firm Jolicoeur and Associates conducted the survey via telephone interviews between December 16, 2003, and April 19, 2004.

A unique feature of the CAS was the collaboration among researchers, levels of government and addiction organizations.⁵ CAS partners included Health Canada; the Canadian Executive Council on Addictions (CECA)—which includes the Canadian Centre on Substance Abuse (CCSA); the Alberta Alcohol and Drug Abuse Commission (AADAC); the Addictions Foundation of Manitoba (AFM); the Centre for Addiction and Mental Health (CAMH); the Prince Edward Island Provincial Health Services Authority; the Kaiser Foundation/Centre for Addictions Research of British Columbia (CAR-BC); and the provinces of Nova Scotia, New Brunswick and British Columbia.

Preliminary analysis of the CAS data focused on alcohol and illicit drug use and harms, comparing findings across provinces and analyzing changes over time in substance use. The descriptive information set out below examines alcohol and

drug use and misuse among Canadians, and the consequences of consuming these psychoactive substances by sex and age.

Alcohol use and related harms

In keeping with the results of previous surveys, the CAS reveals that the majority of Canadians consumed alcohol at some point in the year prior to the survey. The percentage of "past-year" or "current" drinkers went from 72.3% of Canadians in 1994 to almost 80% in 2004 (see Table 1). That said, according to the survey results, most past-year or current drinkers in Canada drank in moderation.

The prevalence of alcohol use, the frequency of drinking, the quantity consumed in a sitting and the harmful consequences from alcohol varied by demographic characteristics, particularly by sex and age. Past-year drinking was significantly more common among males (82%) than females (76.8%). Males were also more likely to report more frequent drinking occasions on a weekly basis than females. Among current (past-year) drinkers, 41.3% of males compared with 26.9% of females reported consuming alcohol one to three times a week, and 13.9% of males compared with 5.9% of females reported four or more drinking occasions in a week.

Looking at age, 90% of 18-to-24-year-olds were past-year drinkers. Although the age to legally

Table 1

Alcohol consumption	
	Percent
Drinkers – past year	79.3
Drinking type^a	
Abstainer	7.2
Former drinker	13.5
Light infrequent (less than 5 drinks, less than once a week)	38.1
Light frequent (less than 5 drinks, more than once a week)	27.3
Heavy infrequent (5 drinks or more, less than once a week)	5.5
Heavy frequent (5 drinks or more, more than once a week)	7.0

^a "Not stated" was used in the calculation of rates.

consume alcohol in Canada is 19 in seven of the ten provinces and 18 in the remaining three, 17.4% of young people under the age of 18 and 34.1% of 18-to-19-year-olds who were current drinkers reported consuming alcohol at least once a week.

Research in clinical settings has found that heavy drinking increases the risks of developing alcohol-related problems. In the CAS, heavy drinking was defined as having five or more drinks at a sitting for males and four or more drinks at a sitting for females. Using this definition, among current drinkers, 9% of males compared with less than 4% of females engaged in weekly heavy drinking.

Young people between 15 and 24 years of age reported this risky drinking pattern more frequently. Broken down by age categories, 7.6% of 15-to-17-year-olds, 16.1% of 18-to-19-year-olds and 14.9% of 20-to-24-year-olds reported weekly heavy drinking.

Monthly heavy drinking was reported by a third of males and 17% of females. Among 18-to-24-year-olds, approximately half reported monthly heavy drinking.

... 9% of males compared with less than 4% of females engaged in weekly heavy drinking.

In light of these results, it is not surprising to find that males and youth ages 18 to 24 were more likely to exceed Canadian low-risk drinking guidelines.⁶

The CAS includes measures of hazardous drinking patterns, harm related to one's alcohol consumption and harm from others' drinking. Consistent with the finding that most Canadians are moderate drinkers, the CAS showed that most Canadians do not have alcohol-related problems and most drinking occasions do not result in harm.

Hazardous patterns of alcohol consumption were measured in the CAS by the Alcohol Use

Table 2

Past-year alcohol use		
	Less than 5 drinks	5 drinks or more
Less than once a week	38.7%	5.6%
	Light infrequent	Heavy infrequent
More than once a week	27.7%	7.1%
	Light frequent	Heavy frequent

Disorders Identification Test (AUDIT).⁷ AUDIT scores of eight or more indicate hazardous drinking behaviour, harmful consequences and/or dependency. Among current drinkers, 17% scored 8+ on the AUDIT. The proportion of drinkers identified as hazardous was less than 10% for females and approximately 25% for males.

... rates of hazardous drinking peaked in the 18-to-19 age group ...

Among the 17% of current drinkers who drank hazarously in the 12 months preceding the survey, rates of hazardous drinking peaked in the 18-to-19 age group with 44.6% scoring 8+ on the AUDIT. Hazardous drinking decreased with age, however, with 34.2% of 20-to-24-year-olds, 21.1% of 25-to-34-year-olds and 14.2% of 35-to-44-year-olds scoring 8+ on the AUDIT. Significantly, the second highest rate of hazardous drinking was among 15-to-17-year-olds, suggesting that underage drinkers in Canada engage in risky drinking practices.

... the second highest rate of hazardous drinking was among 15-to-17-year-olds ...

Nearly 1 in 10 current drinkers (8.8%) reported that their drinking had caused harm to themselves or others in the previous year. As shown in Table 3, 3% of current drinkers reported alcohol having a harmful effect on their friendships or social life, and 5.4% reported harmful effects on their physical health. Current drinkers also reported adverse effects from their own drinking on their home life and marriage

Table 3

Alcohol use had a harmful effect on your...		
	Percent experiencing harm in lifetime ^a	Percent experiencing harm in past year ^b
Friendships or social life	14.2	3.0
Physical health	14.8	5.4
Home life or marriage	8.1	1.8
Work, studies or employment opportunities	6.8	1.7
Financial position	6.9	2.7

a Percent answering "yes" among current and former drinkers, n = 12,883.
b Percent answering "yes" among current (past year) drinkers, n = 10,696.

Table 4

Harms from others' drinking – Past year	
	Percent
Insulted or humiliated	22.1
Argument/Quarrels	15.5
Verbal abuse	15.8
Family problems or marriage difficulties	10.5
Passenger with drunk driver	17.8
Pushed or shoved	10.8
Hit/Assaulted	3.2

(1.8%); their work, studies or employment opportunities (1.7%); and their financial position (2.7%). It is noteworthy that roughly a quarter of lifetime drinkers (i.e., current and former drinkers) reported one or more of these harms from their own alcohol consumption.

Males were more likely than females to report at least one harm during the past year from their own drinking (10.5% for males versus 7.1% for females), as were young people between 15 and 24 years of age (21.8%) and respondents who drank heavily, i.e., heavy-frequent drinkers (31.5%) and heavy-infrequent drinkers (16%).⁸

Looking at harm from others' drinking, almost one in three respondents aged 18 years and older (32.7%) reported harm in the past year from the drinking of others.⁹ As shown in Table 4, roughly 1 in 10 Canadians reported social relationship (family or marriage) problems in the past year due to someone's drinking. Other past-year harms from someone's use of alcohol fell into one of two categories: verbal aggression or physical altercations. More than 20% of respondents indicated that they were insulted or humiliated because of someone's drinking, 15.8% reported experiencing verbal abuse and 15.5% reported involvement in serious arguments or quarrels.

... the younger the respondent, the more likely to report harm from others.

While past-year rates of physical harm and assault were lower than the rate of verbal arguments, they are not trivial. Over 10% of respondents reported having been pushed or shoved because of others' drinking in the past year, and 3.2% experienced being hit or physically assaulted.

Gender did not affect the rate of reported alcohol-related harm from others' drinking during the year; the rates for women and men were similar at 32.6% and 32.9%, respectively.

Age was found to be inversely related to harm from others' drinking; the younger the respondent, the more likely to report harm from others. The majority of 18-to-19-year-olds (62.6%) and 20-to-24-year-olds (58.3%) reported experiencing harm in the previous year from the drinking of others.

Heavy drinkers were also more likely to report having been harmed by someone else's drinking. Just over half of heavy-frequent drinkers (52.3%) and 46.7% of heavy-infrequent drinkers reported such harm from others in the past year.

Cannabis use and related harms

The CAS shows that both lifetime and past-year cannabis use among Canadians has been rising. Indeed, self-reported past-year use of cannabis doubled to 14.1% of Canadians in 2004 from 7.4% in 1994, and lifetime use moved upward during the decade from 28.2% in 1994 to 44.5% in 2004.

... both lifetime and past-year cannabis use among Canadians has been rising.

As with alcohol use, sex and age were key demographic correlates of cannabis use. Males were more likely than females to report both lifetime use and past-year use of cannabis: 50.1% of males versus 39.2% of females for lifetime use, and 18.2% of males versus 10.2% of females for past-year use.

Table 5

Percent reporting cannabis-related symptoms indicative of intervention need		
	Past-year users n = 1,851	Total sample n = 13,909
Strong desire to use in past 3 months	32.0	4.5
Health, social, legal problems in past 3 months	4.9	0.7
Failed expectations in past 3 months	6.9	1.0
Friends concerned with use ever in lifetime	15.7	2.2
Failed to control use ever in lifetime	34.1	4.8

Moreover, the younger the age group, the greater the proportion of respondents reporting having ever used cannabis and having used during the past 12 months. Nearly 70% of respondents between the ages of 18 and 24, and 39% between the ages of 15 and 17, reported having ever used cannabis. Among those who had used cannabis in the past year, the rate of use peaked among 18-to-19-year-olds at 47.2%.

The frequency of cannabis use during the three months prior to the CAS shows wide variation

Among those who had used cannabis in the past year, the rate of use peaked among 18-to-19-year-olds at 47.2%.

among past-year users. Of significance, among those who had used cannabis at some point in the past year, 46% reported no use or use only once or twice in the three months before the survey. Nevertheless, a sizable proportion of past-year users reported weekly (20.3%) and daily use (18.1%) during the previous three months.

The CAS assessed survey respondents for cannabis-related problems using the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) developed by the World Health Organization.¹⁰ A strong desire to use cannabis and failure to control use of the substance were the personal harms most frequently reported by cannabis users. As seen in Table 5, for the total sample, 4.5% of respondents reported a strong desire to use in the last three months and 4.8% reported that they had failed to control their cannabis use at some point in their lives. Among past-year users, about one third reported a strong

desire to use and failure to control use. Moreover, among past-year users, close to 16% reported friends expressing concern with their use of cannabis, 7% reported failure to do what had been expected of them and 5% reported health, social or legal problems owing to their cannabis use.

Other drug use and harms

Most Canadians restrict their use of illicit drugs to cannabis only. Apart from cannabis, however, the most commonly used illicit drugs during respondents' lifetime were hallucinogens (11.4%), cocaine (10.6%), speed (6.4%) and ecstasy (4.1%). Lifetime use of psychoactive substances such as inhalants, heroin, steroids and injection drug use was negligible, i.e., 1% or less.

Males were more likely than females to report lifetime use of any of the following illicit drugs: hallucinogens, cocaine, speed, ecstasy and heroin. More specifically, 21.1% of males versus 12.2% of females reported having used at least one of these drugs at some point in their lives. Interestingly, rates of lifetime use of these drugs did not vary greatly between the 18-to-19 and 45-to-54 age groups. The 55-to-64 age group, however, reported a significantly lower rate of lifetime illicit drug use than the younger age groups. Moreover, rates of use were significantly higher among 18-to-19-year-olds compared to 15-to-17-year-olds.

As shown in Table 6, 3% of respondents reported using at least one of the following five illicit drugs in the year before the survey: hallucinogens, cocaine, speed, ecstasy and heroin. More specifically, the rate of current use (i.e., use in the past year) of cocaine was 1.9%, with 1.1% for

Table 6

Other drug use	
	Percent
Cannabis – lifetime	44.5
Cannabis – past year	14.1
Any drug (excl. cannabis) – lifetime	16.5
Any drug (excl. cannabis) – past year	3.0
Cocaine/crack – lifetime	10.6
Cocaine/crack – past year	1.9
LSD – lifetime	11.4
Speed – lifetime	6.4
Heroin – lifetime	0.9

Table 7

Harm from illicit drug use (excluding cannabis)	
	Percent
Friendships or social life	
Lifetime users	22.3
Past-year users	16.4
Physical health	
Lifetime users	30.3
Past-year users	23.9
Work, studies or employment opportunities	
Lifetime users	18.9
Past-year users	14.2
Financial position	
Lifetime users	19.6
Past-year users	18.9

ecstasy and less than 1% for hallucinogens, speed and heroin.

Males were significantly more likely than females to report past-year use of any of the five illicit substances (4.3% for males versus 1.8% for females). Additionally, rates of past-year illicit-drug use were highest among 18-to-19-year-olds (17.8%) and 20-to-24-year-olds (11.5%).

Close to half of lifetime users (45.7%) and over a third of past-year users (36.7%) of hallucinogens, cocaine, speed, ecstasy and heroin (excluding cannabis) reported one or more types of harm from their own drug use. As seen in Table 7, the most common harm reported was to physical health, identified by 30.3% of lifetime users and 23.9% of past-year users of illicit drugs (excluding cannabis). Harmful effects on friendships and social life from the five drugs were reported by 22.3% of lifetime users and 16.4% of past-year users; on home life or marriage by 18.9% of lifetime users and 14.1% of past-year users; on financial position by 19.6% of lifetime users and 18.9% of past-year users; on work, studies or employment opportunities by 18.9% of lifetime users and 14.2% of past-year users; and on learning by 12% of lifetime users and 8.3% of past-year users.

Importantly, past-year users of illicit drugs (excluding cannabis) were more than five times more likely than lifetime users to report symptoms indicative of intervention need as determined by the ASSIST scale (42.1% of past-year users versus 7.8% of lifetime users). Among these past-year users, the most common symptoms reported that are indicative of being at risk (i.e., moderate/high risk of developing problems) were failure to control, cut down or stop using drugs (33.1%); a friend or relative expressing concern (23.8%); and a strong desire to use (21.5%).

While it is not possible to generalize patterns of use and related consequences from the general population to the inmate population, upward trends in consumption patterns of alcohol and cannabis in the general population resulting in intoxication and dependence may be reflected in sub-groups of the population, including prison inmates and other criminal justice populations.

Substance use and misuse among federal offenders

Most offenders use drugs and alcohol, and many misuse these substances. One Canadian study of federally sentenced offenders found that at least

70% of inmates had consumed alcohol and illicit drugs in a problematic manner during the 12-month period preceding their incarceration.¹¹ Moreover, an assessment of inmates housed in federal correctional institutions revealed that slightly more than half (51%) have an alcohol problem and just under half (48%) have problems with drugs other than alcohol.¹²

Among this population, the severity of substance use and related problems from misuse vary. Approximately a third of federal offenders who consume substances do not exhibit signs of problematic use (even though they may consume alcohol and some illicit drugs), another third are considered to have low severity problems and the final third display more serious substance use difficulties, including about 1 in 5 (20%) who have dependence problems.¹³ Similar prevalence rates and severity distributions have been found in other correctional jurisdictions including the U.S. and the U.K.¹⁴

Additional Canadian research has found a direct positive relationship between an offender’s substance abuse severity and the likelihood that he or she consumed alcohol or other drugs on the day of the offence on their present sentence and over their lifetime.¹⁵

Approximately a quarter of federal inmates (23%) had committed their crimes in order to obtain alcohol and/or drugs for their personal use.

The above demonstrates an association between the use and misuse of psychoactive substances and the commission of crimes; it does not, however, establish a causal relationship. Research was initiated by the Canadian Centre on Substance Abuse and conducted by Pernanen et al. (2002) to produce estimates of the fraction of crimes committed in Canada that are attributable to the use and misuse of alcohol and other drugs.¹⁶ This research found that a significant proportion of federal offenders (serving sentences of two years or more in a federal institution) and provincial offenders (serving sentences of less than two years in a provincial correctional facility) were impaired by, or dependent on, alcohol or illicit drugs at the time of their crime. Among male federal inmates, 16% were assessed as dependent on alcohol, 31% as dependent on one or more illicit drugs and 8% as dependent on both

drugs and alcohol. Approximately a quarter of federal inmates (23%) had committed their crimes in order to obtain alcohol and/or drugs for their personal use.

Over half of the federal inmates in the study reported having been intoxicated by a psychoactive substance at the time they committed the most serious offence on their current sentence. Alcohol impairment was reported by 24% of inmates, 19% were under the influence of a drug and 14% reported being intoxicated by both alcohol and drugs.

Estimates were developed of the proportion of crime (violent versus acquisitional or gainful) committed by federal offenders in Canada that can be attributed to alcohol and illicit drugs. Among federal offenders, roughly half of violent crimes (49%) were attributed to alcohol and/or illicit drugs – 5% to drugs only, 28% to alcohol only and 16% to alcohol and drugs combined. In addition, half of gainful crimes were attributed to alcohol and/or other drugs – 20% to drugs only, 11% to alcohol only and 19% to drugs and alcohol combined.¹⁷

Canadian public attitudes and opinions regarding cannabis and other illicit drugs

In addition to questions related to drug and alcohol use and related harms, the CAS included numerous questions to assess public attitudes and opinions on policies and programs dealing with substance abuse in Canada. Several of these questions are relevant to discussions involving substance abuse and corrections.

In light of the recent activity involving cannabis decriminalization in Canada, the survey asked respondents whether they agreed or disagreed with the statement: “People should be allowed to use marijuana as it is not a dangerous drug.” Overall, 60% of respondents either strongly disagreed or disagreed with this statement, suggesting that a majority of Canadians believe that cannabis use should continue to be controlled to some degree. A further question asked respondents directly the degree to which they supported current efforts to decriminalize cannabis, and most (57.2%) said that they either strongly supported or supported decriminalization.

In terms of opinions on sentencing for cannabis offences, Canadians were strictly divided as to whether or not possession of small amounts of cannabis for personal use should be against the law: 46.1% believed it should be illegal and 49.8% said that it should not.

Finally, the survey asked respondents whether Canadians should be allowed to grow a small number of cannabis plants for personal use. Most respondents (57.7%) felt that people should not be allowed to grow cannabis for personal use.

A second set of questions probed public attitudes and opinions about illicit drugs. Significantly, when respondents were asked to select in which area of society substance abuse has the most impact, criminality was picked most commonly (38.7%) followed by family problems (29%), law enforcement costs (12.8%), health care costs (6.6%) and other reasons. Thus, when law enforcement and criminality are combined, over half of Canadians believe that these areas are the most affected by substance abuse.

Respondents were also asked to assess how well Canada is doing in regards to dealing with substance abuse. In general, the public does not feel that Canada is well prepared to deal with this problem: 53.6% disagreed with the statement that “all required programs and tools to deal with drug use are in place;” 64.9% did not agree that “Canada is well prepared to deal with drug use;” 50.5% disagreed with the statement that “adequate measures are in place to address drug problems;” and 58.7% did not feel that “governments are investing enough resources to deal with drug use.”

... Canadians were strictly divided as to whether or not possession of small amounts of cannabis for personal use should be against the law

In terms of basic approaches to dealing with drug abuse, the majority of CAS respondents (71.4%) did not think that “it is possible to have a society free of drugs” and most (78%) preferred prevention and treatment to law enforcement and incarceration (18.7%) as a way to deal with problematic substance use. In addition, a large majority (82.8%) indicated that the government should provide a variety of treatments rather than make drug use criminal. Canadians still see a role, however, for supply reduction with a majority (78.3%) recognizing the need for increased investment in enforcement.

Finally, the survey asked respondents about their knowledge of, and support for, several innovative approaches to dealing with drug use, including drug treatment courts. A strong majority of

respondents said that they had never heard of drug treatment courts; an even larger majority (78.9%), however, said that they supported drug treatment courts.

Conclusion

The information in the CAS provides an important glimpse into the patterns of alcohol and other drug use of Canadians – access that has not been available on a national scale since 1994. Results from the survey conducted so far reveal that the majority of Canadians consume alcohol within recognized safe limits, and that it tends to be younger people, and males in particular, who are more likely to consume alcohol more heavily and in ways that may place them at risk for alcohol-related problems.

Canadians' consumption of cannabis has increased over the past decade, and, again,

younger people and younger males are more likely to have consumed cannabis in the past 12 months.

Further, CAS findings confirm that Canadians consume the full range of illicit drugs, but at rates that are significantly below that of cannabis.

In some respects, offenders in Canada mirror the general population's usage patterns of alcohol and other drugs. The prevalence of substance use problems of this particular sub-group of the population, however, is dramatically more serious than virtually any other population sub-group – particularly with respect to the risk it poses both to themselves and to the health and well-being of others around them. Clearly, considerable resources, both fiscal and human, are warranted in order to minimize the likelihood of future substance abuse and criminality. ■

¹ Patricia Begin, Director, Auditor General of Canada, 240 Sparks St., Ottawa, Ontario K1A 0G6. John Weekes, Interim Director, Research and Policy, and Gerald Thomas, Senior Policy Analyst, Canadian Centre on Substance Abuse, 75 Albert St., Suite 300, Ottawa, Ontario K1P 5E7.

² Adlaf, E.M., Begin, P., & Sawka, E. (Eds.). (2005). *Canadian Addiction Survey (CAS): A national survey of Canadians' use of alcohol and other drugs: Prevalence of use and related harms: Detailed report*. Ottawa, ON: Canadian Centre on Substance Abuse.

³ Canadians not living in conventional households – i.e., prisons, hospitals, military establishments – and transient populations, such as the homeless, were not included in the survey.

⁴ Health Canada surveyed the three territories separately using culturally appropriate research methods.

⁵ The CAS Research Advisory Team developed and implemented the CAS instrument and conducted the preliminary analysis of prevalence of substance use and related harms. Team members were, from west to east: Ed Sawka, Alberta Alcohol and Drug Abuse Commission (AADAC); David Patton, Addictions Foundation of Manitoba (AFM); Ed Adlaf, Centre for Addiction and Mental Health (CAMH); Jürgen Rehm, CAMH; Anca Ialomiteanu, CAMH; Patricia Begin, Canadian Centre on Substance Abuse (CCSA); Eric Single, CCSA; Stéphane Racine, Health Canada; Robert Hanson, Health Canada; Florence Kellner, Carleton University; Andrée Demers, University of Montreal; Christiane Poulin, Dalhousie University. Financial and in-kind contributions were provided by AADAC, AFM, CAMH, CCSA, Health Canada and the provinces of British Columbia, New Brunswick and Nova Scotia.

⁶ Canadian guidelines for low-risk drinking recommend that weekly alcohol consumption not exceed 14 standard drinks for males and 9 drinks for females and that daily alcohol intake not exceed 2 drinks. Among past-year drinkers, 22.6% exceeded the guidelines; 32.3% of 18-to-19-year-olds and 38% of 20-to-24-year-olds reported drinking in excess of these guidelines.

⁷ The AUDIT is a 10-item questionnaire typically used to screen for alcohol problems in clinical settings. It measures lack of control over one's own drinking, failure to meet expectations, drinking in the morning, feelings of guilt, blackouts, injuries resulting from drinking, and having someone express concern about drinking.

⁸ "Heavy-infrequent" was defined as consuming five drinks or more of alcohol less than once a week. "Heavy-frequent" was defined as consuming five drinks or more, more than once a week.

⁹ Due to the sensitivity of some questions, only respondents 18 years of age and older were asked about harm from others' drinking.

¹⁰ The ASSIST includes five questions that were asked of respondents who had used cannabis during the three months before the survey. Items included: (1) how often they had a strong desire or urge to use cannabis; (2) how often their use of cannabis led to health, social, legal or financial problems; (3) if they failed to do what was normally expected of them because of their use of cannabis; (4) whether a friend or relative or anyone else ever expressed concern about their use of cannabis; and (5) whether they ever tried and failed to control, cut down or stop using cannabis. The first three items refer to the past three months; the remaining two to lifetime use. Each item represents a cannabis-related symptom indicative of intervention need. A score of 4+ on the ASSIST indicates moderate/high risk of developing problems.

¹¹ Weekes, J.R., Moser, A.E., & Langevin, C.M. (1999). Assessing substance-abusing offenders for treatment. In E.J. Latessa (Ed.) *Strategic solutions: The International Community Corrections Association examines substance abuse*. Lanham, MD: American Correctional Association Press.

¹² Ibid.

¹³ Weekes, J.R. (2004). *Substance Abuse in Corrections FAQs*. Ottawa, ON: Canadian Centre on Substance Abuse.

¹⁴ Weekes, J.R. (2002). Assessment and treatment of forensic clinical populations. Paper presented at the 10th British Prison Drug Workers' Conference, Manchester, England.

¹⁵ Weekes et al. (1999), Assessing substance-abusing offenders for treatment.

¹⁶ Pernanen, K., Cousineau, M-M., Brochu, S., & Sun, F. (2002). *Proportions of crimes associated with alcohol and other drugs in Canada*. Ottawa, ON: Canadian Centre on Substance Abuse.

¹⁷ According to Pernanen et al. (2002), alcohol and illicit drugs are causally linked to the commission of violent and gainful crimes in two ways: (1) by taking the proportion of inmates who reported (a) that they were intoxicated by a substance when the crime of violence was committed and (b) that they would not have committed the offence if they had not been impaired by alcohol or drugs; and (2) by taking the proportion of inmates who (a) reported they had committed the crime to get drugs or alcohol and (b) were assessed as alcohol or drug dependent.