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CANADA'S ALCOHOL AND OTHER DRUGS SURVEY 1994:

A DISCUSSION OF THE FINDINGS

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PREFACE

Canada's Alcohol and Other Drugs Survey (CADS) 1994: A Discussion of the Findings is a detailed look at Canadians' behaviours and attitudes around alcohol and other drugs as revealed in the second and most recent national survey conducted under the research arm of Phase II of Canada's Drug Strategy, a collaborative endeavour of federal, provincial and territorial governments, and many non-governmental organizations. The publication both updates and expands on data gathered in the *1989 National Alcohol and Other Drugs Survey*, and also reflects the increased emphasis in CADS on applied research, an issue of particular importance as financial resources decline. It will be useful to people in the field of alcohol and other drugs, and related health and social fields, and of particular significance to policy makers, scientists, and treatment and program specialists.

Canada's Alcohol and Other Drugs Survey: Preview 1995, a point-form review of findings in CADS published in the fall of 1995, supplements and supports material in this current publication. A comprehensive review of available knowledge on alcohol and other drug use, and related health and social problems in Canada, with special attention to emerging developments in all provinces and territories, appears in another earlier research publication, *Horizons 1994: Alcohol and Other Drug Use in Canada.*

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The research conducted on behalf of Canada's Drug Strategy (CDS) between 1993 and 1996 benefited from the co-operation and hard work of many dedicated people. Special thanks are extended to our federal partners in Canada's Drug Strategy, our colleagues in the provincial and territorial departments of health and addictions agencies, the regional Health Promotion Research Centres, and the many non-governmental organizations that were involved in the research activities.

Canada's Alcohol and Other Drugs Survey 1994: A Discussion of the Findings is a final product of a three-year research effort. It would not have been possible without the assistance of many people, including the staff of the Office of Alcohol, Drugs and Dependency Issues, who were extremely patient and supportive of the process. Indeed, the spirit of "trying new methods and applications" endorsed by CDS has helped to make the research more responsive and meaningful to many people.

Several groups made significant contributions to this project: Dalhousie University had a leading role in the questionnaire development and consultation process; the Canadian Centre on Substance Abuse, Carleton University, and the Addiction Research Foundation also contributed a great deal, not only to this project, but to various other research activities conducted between 1993 and 1996. To

assist in the technical development of research projects, a national research advisory team provided insight and guidance in specific areas.

Finally, we acknowledge some individuals: Anne MacLennan for her editing style, Diane Jacovella and Ziggie Malyniwsky for their faith in and support of research, Jim Anderson and Pete Conley for reviewing the draft material, and so many others who lent their support and encouragement – thank you.

H I G H L I G H T S

Research is critical to the development of health policies and programs. However, as budgets shrink and the need for accountability increases, there is growing concern that demand - and support - for research will diminish, unless it is responsive, accessible and comprehensible to those who need it.

Each stage of the development of *Canada's Alcohol and Other Drugs Survey* (CADS), and of the presentation of its findings, has reflected this emerging reality, building bridges between research and development, and the practice that must be based on it. Consultation - and compromise - have been paramount.

Preview 1995, an overview of CADS findings, responded to requests from a wide range of people working in health and social fields for timely, easy-to-read updates on national and provincial attitudes and behaviours around alcohol and other drugs.

This publication, in which a statistical technique called multivariate analysis is brought to bear on the findings, allows for more rigorous analyses of the many independent variables that may influence particular alcohol and other drug-use behaviours, and indeed of the interrelatedness of some of the variables themselves. The clearer explication of the role of various predictors in alcohol and other drug use allows, in turn, for more informed decision-making and policy formulation.

Alcohol

Since 1979, there has been an overall and continuing downward trend in the proportion of Canadians reporting alcohol consumption. At the same time, drinking patterns in the population vary. Multivariate analyses identified socio-demographic characteristics that are independently associated with six drinking patterns.

- Lifetime Abstainers: Women and people 55 years and older are more likely to be lifetime abstainers, as are people living in Atlantic Canada, those speaking a language other than French or English at home, and/or people reporting lower income.

- Former Drinkers: Women and people 45 years and older are more likely to be former drinkers, as are people who have not completed secondary school education. Compared to the Canada-wide rate, Quebec has a lower rate and British Columbia a higher rate of former drinkers.

- Light/Infrequent Drinkers: Light/infrequent drinkers have alcohol less than once a week, and average fewer than five drinks on days they drink. Characteristics associated with this drinking pattern are: being female, being in the youngest age group (15 to 17), residing in the Prairie provinces, speaking a language other than English or French, being married, and/or reporting lower income.

- Light/Frequent Drinkers: Light/frequent drinkers have alcohol once a week or more, and fewer than five drinks on days they drink. Characteristics associated with a light/frequent drinking pattern are: being male, being 35 and older, living in Quebec or Ontario, having a university degree, and/or reporting a high income.

- Heavy/Infrequent Drinkers: Heavy/infrequent drinkers use alcohol less than once a week, but have five or more drinks, when they do drink. Characteristics associated with this pattern are: being male, being between 15 and 34 (and especially between 15 and 19), living in Atlantic Canada and/or not having completed secondary school.

- Heavy/Frequent Drinkers: Heavy/frequent drinkers have alcohol once a week or more, and five or more drinks on days they drink. Characteristics associated with this pattern of drinking are: being male, belonging to age groups between 18 and 44 (and particularly between 18 and 24), living in Atlantic Canada, being single or never married, having less than secondary school education, and/or a lower income.

In the past 30 years, there has been a decreasing trend in the proportions of current smokers, with a relatively stable prevalence from 1990 to 1994. However, some recent surveys have noted an increase in the prevalence of smoking among young people. Based on CADS, the prevalence of current smoking among 15-19 year-olds was 30.4% in 1994. The reversal of the downward trend is compatible with the appearance of low-priced contraband in Canada in the early 1990s, and the subsequent lowering of federal taxes on cigarettes in February 1994. Price as a determinant of smoking, especially for youth, has been highlighted in the literature.

Tobacco

Multivariate analysis suggests the following characteristics are associated with an increased likelihood of being a current smoker: being male, being 18 to 54 years of age, being a resident of Quebec, being separated or divorced, having a low income, speaking English at home, and not having completed secondary school education. Of these predictors, the strongest are age and educational level.

The survey included questions about the use of five prescription-medications: pain pills, sleeping pills, tranquilizers, antidepressants or diet pills (stimulants) in the past 12 months.

Licit Drugs

There appears to have been a slight downward trend in the use of prescription tranquilizers and sleeping pills in the past decade. Prevalence of tranquilizer-use decreased to 4% in 1994 from 6% in 1985 and 5% in 1990. The prevalence of the use of sleeping pills decreased to 4.5% in 1994 from 8% in 1985 and 7% in 1990. Of note is a pronounced decrease in use among women of tranquilizers and sleeping pills.

Results confirm many long-standing observations: females are more likely than males to be using prescribed medications. Older people, separated, divorced or widowed people have a higher rate of taking prescribed tranquilizers, sleeping pills and antidepressants. There are also large regional differences in Canada in the prevalence of the use of prescribed pain medication.

The proportions of Canadians reporting the use of cocaine or crack, LSD, amphetamines or heroin are small and appear to have changed little from 1989 to 1994. However, the prevalence of the use of cannabis has fluctuated over the past five years. The proportion of Canadians reporting the use of cannabis was 6.5% in 1989, 5% in 1990, 4.2% in 1993 and 7.4% in 1994.

Illicit Drugs

Illicit drug-use consists primarily of the use of cannabis. Whereas about 7.4% of Canadians report having used cannabis in the 12 months prior to the survey, less than

one percent of the general population report use of cocaine/crack, LSD, amphetamines or heroin. Illicit drug-use is a behaviour found primarily among youth and twice as often among males.

Although gambling does not entail abuse of psycho-active substances, some types of gambling may be considered addictive behaviour which can, in turn, harm gamblers themselves, their families and their communities.

Most Canadians aged 15 years and older gamble. The most frequent form of gambling is playing a lottery, betting on sports, or playing cards for money, which is reported by 60.7% of respondents in the past 12 months. Nearly half (46.5%) play a lottery, bet on sports, or play cards for money once a month or more often. The second most common form is playing bingo, reported by 13% of respondents, with 6.4% playing once a month or more often. Of those who report betting on a lottery, sports, or cards, or playing bingo, 9.3% travelled to places such as Las Vegas, Atlantic City or Canadian cities with casinos to gamble, with 2.2% doing so at least once a month. Furthermore, 5.5% of Canadians report engaging in some other form of gambling in the past 12 months, such as video lottery machines (0.8%) or buying a raffle ticket (0.7%).

Multivariate results indicate that socio-demographic characteristics associated with the two most common forms of gambling are quite different. Drinking patterns are associated with gambling. Heavy drinkers are most likely to bet on lotteries, sports or cards. On the other hand, light/frequent drinkers are least likely to play bingo.

Because public opinion is important in policy formulation, CADS included questions about alcohol and drug-policy issues, which had been asked in the *1989 National Alcohol and Other Drugs Survey* (NADS), as well as several additional questions on new and emerging issues. Canadians generally support current alcohol-control policies, but believe that more should be done in prevention and treatment. However, Canadians are now somewhat less supportive of alcohol-control measures, and increased prevention and interventions, than they were in 1989.

Myriad changes are occurring today in the environment in which research is commissioned and conducted. Research is more strategic and budgets increasingly follow defined policy priorities. Although challenging, the situation provides the opportunity for research to be more clearly reflected in programming and public policy aimed at assisting evolving societies.

CHAPTER 1

OBJECTIVES AND METHODOLOGY

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Canada's Alcohol and Other Drugs Survey 1994, (CADS) is the second national survey to focus on alcohol and other drug-use in Canada. It was conducted under the research arm of Canada's Drug Strategy, Phase II. CADS updates and expands on data collected in the first *National Alcohol and Other Drugs Survey* (NADS) conducted in 1989.

Survey questions were developed by research, policy and program representatives from all of the provinces and territories in association with their federal partners in Canada's Drug Strategy. Although the 1989 survey instrument forms its base, CADS was expanded to accommodate emerging policy, program and research needs among partners; to improve data quality; and to better reflect the current Canadian population. Questions were added to capture data on new issues and changes in drug types since 1989, and others were added, revised or deleted to make the survey more relevant and sensitive to gender and cultural issues. The collaborative nature of the development process is reflected also in the new emphasis on policy.

A point-form review of some of the major findings in CADS, which supports and supplements this current publication, appears in *Canada's Alcohol and other Drugs Survey: Preview 1995,* published in the fall of 1995.

Objectives

As agreed by the working groups, the main survey objectives were to:
- measure the prevalence and patterns of alcohol and other drug use in Canada;
- assess related harm;
- evaluate trends;
- measure demographic, contextual or proximal risk factors of use; and
- assess the range of responses to problems, including attitudes towards users and problem behaviours.

Survey Method

The survey was carried out by Statistics Canada during the period of September 7 to November 5, 1994, using a Random Digit Dialling (RDD) telephone sampling-method.[1]

Population Coverage

The target population was people 15 years of age and older in Canada, excluding residents of the Yukon and Northwest Territories and full-time residents of institutions. A second phase of CADS was conducted in the two territories in 1995 and 1996.

With RDD, households without telephones were also excluded. However, as this group represents less than 2% of the target population, survey estimates have been adjusted (weighted) to represent them.

Survey Design

To carry out sampling, each of the 10 provinces was divided into strata or geographic areas. Generally, for each province, one stratum represented the Census Metropolitan Areas (CMAs) of the province, and another represented the non-CMAs. Exceptions were Prince Edward Island, with no CMA and hence no CMA stratum, and Montreal and Toronto, each with separate strata.

The method known as Elimination of Non-Working Banks (ENWB) was used in which an attempt is made to identify all working banks for an area (i.e. to identify all banks with at least one household). Thus, all telephone numbers within non-working banks are eliminated from the sampling frame.

For each province, lists of telephone numbers in use were purchased from the telephone companies, and lists of working banks were extracted. Each bank was assigned to a stratum within its province. A random sample of telephone numbers was generated in each stratum. On contact with a household, all household members were listed, and basic demographic information was collected on age, sex and marital status. One person 15 years or older was randomly selected in each household, and his/her relationship to all other household members was assessed. For each selected person, a CADS interview was executed.

Sample Sizes and Response Rates

Responses were obtained from 12,155 of 16,082 selected households, yielding a 75.6% response rate. Sample sizes and response rates for each province are listed in Appendix B.

Of the 2,939 (18.3%) non-responding households, 1,666 were refusals, 789 could not be reached for the entire survey period ("ring-no-answer" households), and 484 were cases of language difficulties or other problems. From a total of 13,143 responding households, 12,155 useable responses were obtained.

Non-respondents are more likely to be males and younger[1]. In the responding sample, 3.2% were males between the ages of 15 and 19, while, in the overall population, approximately 4.4% are males in this age group. Thus, the sample counts cannot be considered representative of the target population, unless appropriate weights are applied.

CADS collected data using Computer-Assisted Telephone Interviewing (CATI). With CATI, the survey questions appear on a computer monitor, and the interviewer asks the questions and enters the responses into the computer as the interview progresses. Built-in edits and fewer processing steps provide for more efficient and accurate data collection. CATI methodology also eliminates the need for paper questionnaires. A paper document has been produced, but has not been included in this report because of its excessive length. For copies of the complete instrument, contact Health Canada's Office of Alcohol, Drugs and Dependency Issues.

Data Collection

A field test of the questionnaire was completed in June 1994 in the Statistics Canada Halifax and Montreal regional offices. Data collection for the main survey began the second week of September 1994 and continued through the first week of November 1994. All interviewing took place using CATI telephone facilities in five regional offices of Statistics Canada: Halifax, Montreal, Toronto, Edmonton and Vancouver. All interviewers, most of whom had previous experience, were trained by Statistics Canada staff in telephone interviewing-techniques, and survey concepts and procedures. Interviews were conducted between 9:00 and 21:30 hours from Monday through Saturday for the survey period.

Responses to the survey questions were entered directly into the CATI mini-computers in Statistics Canada's regional offices and transmitted to Ottawa. The data-capture program allowed for a valid range of codes for each question and automatically followed the flow of the questionnaire for CADS.

Data Processing

The expansion weight (FINWGHT) included in Statistics Canada's microdata file was used to obtain population estimates of counts and percentages. The value of FINWGHT indicates how many individuals in the population are represented by each respondent in the sample, and weighting by this variable ensures that the estimates are representative of the Canadian population at the time of the survey – September 1994. This variable was derived from the inclusion probability of telephone numbers in each stratum, adjusted for non-response, multiple telephones per household, the number of eligible persons per household, and for the population projection in each of the provinces by age and sex groupings.

Weighting

Weighting by FINWGHT expands the total count from a sample size of 12,155 to the estimated population of 23,029,739. The average FINWGHT is: 23,029,739 / 12,155 = 1,894.7). This means that, on average, one respondent represents almost 1,900 people.

Weighting by FINWGHT cannot be used for analyses that involve statistical infe-rence because variance estimates based on the population count are meaningless. Instead, FINWGHT was rescaled by dividing by the average FINWGHT (1,894.7). This produced a second weighting variable (WT12155) that retains the sample size of 12,155 and ensures the representativeness of the results at the same time[a].

CADS used a complex sampling-design involving stratification and multistage selection, rather than simple random-sampling, which is assumed in the statistical procedures in standard packages involving significance testing. A complex sam-pling design has indeed resulted in loss of precision (i.e. a higher variance estimate) in CADS, as indicated by the fact that the average design effect presented in Appendix B is greater than one in every geographic unit. Therefore, use of standard packages with CADS data weighted by WT12155 will result in underestimation of the variance, leading to an inflated probability of declaring effects or differences significant, when they are not.

Experts in the field[2,3] strongly recommend the use of specialized statistical packages that have been programmed to incorporate complex sampling-designs, but often the requisite information on sampling design such as the stratum-identifica-tion variable is suppressed to protect confidentiality. CADS is no exception, and the only alternative[4] is to further scale down WT12155 by dividing by the average design effect for each province. The total count (10,530) produced through the use of this new weighting variable, ESSPROV[b] is called the effective sample size, which is substantially smaller than the original sample size. This down-sizing is intended to compensate for the underestimated variance.

In assessing the association between a dependent variable and two or more inde-pendent variables (predictors), it is imperative to go beyond looking at one inde-pendent variable in isolation; i.e. a series of two-way cross-tabulation results. This is because independent variables themselves are very often interrelated to varying degrees.

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[a] The SPSS command for computing WT12155 is: compute WT12155 = FINWGHT/1894.7.

[b] The SPSS command for computing ESSPROV for Ontario with an average design effect of 1.20, for example, is: if DVPROV = 5 ESSPROV = WT12155/1.20.

The effects of region and language on tobacco use provide an example (see Chapter 3). Compared to the Canada-wide statistic (27.4%), the prevalence of current smokers is higher in Quebec (33.6%) and also among francophones (33.3%). Given that the majority of francophones are in Quebec, are region and language both contributing factors or is one of them the primary factor with the other an artifact?

A three-way cross-tabulation, including the dependent and both of the independent variables is sometimes helpful, as it turns out to be in this case (see Table T2). It illustrates that, in four of the five regions, including Quebec, prevalence of current smoking among francophones appears to be somewhat lower than among anglophones. Residency in Quebec is the main contributing factor involved, and the high prevalence found among francophones is its artifact.

Having established that language is not a factor contributing to a higher prevalence in Quebec, the next question might be whether education and income level are involved. Rather than proceeding with more three-way or possibly four-way cross-tabulations, a multivariate technique allows assessment of the unique or independent association or effect of each predictor, controlling for all of the other predictors included in the analysis.

As the dependent variable is dichotomous, the method of choice is logistic regression, the name of which comes from the use of "logit" or logarithmically transformed "odds" as the dependent variable. The Canada-wide prevalence of current smokers (27.4%)[c] is translated to odds of .274/(1-.274)=.377, while Quebec's 33.6% yields odds of .336/(1-.336)=.506. Quebec's odds ratio relative to the Canada-wide ratio is given by .506/.377=1.34. This is presented in Table T3 under "Unadjusted odds ratio" i.e. observed odds ratio without taking the other predictors into consideration. An odds ratio greater than 1.0 indicates a greater than average odds, while an odds ratio less than 1.0 indicates a smaller than average odds for being a current smoker.

What logistic regression does is build an equation that explains or predicts the "logit" by combining all the independent variables, each of which is weighted by the best possible coefficient so that the composite or predicted values of "logit" for all the respondents will agree most closely with the observed data. If a coefficient is significant (reliably different from 0), it can be interpreted in terms of the direction and the size of the independent association or effect the predictor has on "logit".

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[c] Throughout this report, small discrepancies will be noted when percentages in a table presenting multivariate results weighted by ESSPROV (e.g. Table T3) are compared to the percentages obtained with FINWGHT as the weighting variable (e.g. Table T1). They are due to the difference in weighting and exclusion of the "not stated" categories of the dependent variable and the predictors from the multivariate analysis. The "not stated" categories of the predictors did not exceed 2.1% overall, weighted by FINWGHT.

For ease of interpretation, however, the coefficient is often translated back to the form that applies to the odds ratio. For example, the coefficient for Quebec is .3385, and its exponential transformation 1.403 is presented in Table T3 under "Adjusted odds ratio". "Adjusted" refers to the fact that the effects of all of the other predictors are controlled. With every factor being equal, the odds ratio for Quebec are estima-ted to be 1.4 times as high as the Canada-wide odds. This difference is statistically reliable as indicated by **. The francophone effect, on the other hand, is not significant after adjustment for all other predictors is made. In fact, anglophone odds are significantly higher than the overall odds, the odds ratio being 1.2. Multivariate analysis can sometimes unmask effects hidden by certain associations between the predictors, in this case the association between region and language.

As evident in Table T3, at least one category of each predictor is making a significant independent contribution to explaining/predicting the dependent variable when adjusted for all the other predictors. The strength of that significant contribution can be judged by its adjusted odds ratio. For odds ratios greater than one, the higher the ratio, the stronger the contribution, whereas the opposite holds for odds ratios that are smaller than one. The highest significant odds ratio is associated with 'age 20-24', and the lowest with 'age 75+'.

Although they are not included in the tables of this report, logistic regression output from standard statistical packages such as SPSS, BMDP and SAS provide statistics that enable a similar evaluation of each predictor comprised of several categories. For example, 'educational level' is judged to be the strongest among the demographic predictors included in the analysis of current smoking, despite the fact that categories with the highest and lowest odds ratios both belong to the 'age' variable. This means that removing 'educational level' from the logistic regression equation will amount to the greatest loss in terms of predicting or explaining the dependent variable. The discrepancy may be due to a fairly uniform distribution of individuals across four major categories of 'educational level', in contrast to an uneven distribution of individuals across age categories.[5]

Sampling Variability and Data-Release Criteria

The difference between the population estimates obtained from the sample and the results from a complete population count (census) is called the "sampling error" of the estimates. Although the exact sampling error cannot be measured from the sample results alone, it is possible to estimate it from the sample data; this is the standard error of the estimates. Because of the large number of estimates that can be derived from a survey of this size, the standard error is usually expressed

relative to the estimate to which it pertains. This is known as the coefficient of variation of the estimate (CV) and is expressed as a percentage of the estimate. The *CADS Microdata User's Guide* includes a CV table for each of the 13 geographic units within Canada. (Canada, 10 provinces, and two territories). These tables include the design effect resulting from the complex sampling-design.

Statistics Canada's data-release guidelines recommend that any estimate with a CV exceeding 33.3% not be released. This guideline has been followed with the exception of the use of "<x%" to substitute for suppressed estimates, where x% is the upper limit of the 99% confidence interval.

Significance testing involving t-tests for comparisons of two estimated percentages (e.g. current smokers among men and women) followed the methods outlined in Statistics Canada's "User's Guide." A confidence level of 99%, or equivalently a significance criterion of .01, was used in each analysis to avoid significant, yet trivial effects.

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CHAPTER 2

ALCOHOL

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To distinguish high- from low-risk modes of alcohol use, it is useful to identify patterns of use. The following discussion presents two patterns of abstinence and four patterns of alcohol consumption.[1,2] Abstainer categories differentiate between respondents who have never used alcohol and those who are former drinkers. Table A1 defines the various drinking patterns and compares the proportions in CADS with those in the *1989 National Alcohol and Other Drugs Survey.*[a] The classifications of drinkers are based on responses to questions about usual frequency of alcohol use and average number of drinks on days they drank.

While the lighter/heavier and infrequent/frequent drinker divisions tend to be arbitrary, they nevertheless provide indications of the volume of alcohol consumed, and thus of the potential for intoxication and likelihood of harm as a result of high intake, either to others through disturbing behaviour or to self. The discussion in this section will verify that abstention and use patterns are differentially distributed in the population, allowing, in turn, for programs and policies to be designed specifically for those at risk of harm.

Comparisons of percentages of the drinker types for the two survey years reveal little change overall in patterns of alcohol use. There are, however, some substantial differences between the extreme types. The percentage of current non-drinkers (lifetime abstainers and former drinkers) in the population has increased (to 26.3% from 22.3%) between 1989 and 1994. The apparent increase in the percentage of lifetime abstainers (to 12.8% from 6.6%) is difficult to interpret due to the changes in the questions concerning whether the respondent had ever used any alcohol.[b] There is also a decrease in the rate of heavy/frequent drinkers, (to 5.4% from 6.7%) an encouraging finding for this group at high risk for negative medical and social consequences of drinking.

More than a quarter of the population 15 years and older (26.3%) does not use alcohol, and most current drinkers usually have fewer than five drinks per occasion. Among lighter drinkers, the rate of infrequent users is higher than frequent users (33.6% vs. 29.2%). For the heavier drinkers, or those who report usually having five or more drinks, when they use alcohol, the situation is reversed: the proportion of frequent/heavy drinkers is higher than the proportion of infrequent/heavy drinkers (5.4% vs. 3.3% of the population).

Table A2 presents the drinking pattern categories in terms of socio-demographic predictors. The rate of current abstention is higher for females than for males (32.3% vs. 20.1 %).

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[a] Classification was originally developed by the Yukon Bureau of Statistics.
[b] Survey questions were not identical. In NADS: "Did you ever drink alcohol beverages regularly?" and if "No", followed by "Does this mean you never had a drink?" In CADS: "Have you ever had any alcohol?"

Table A1
Drinking patterns of Canadians:
NADS, 1989 and CADS, 1994

		Percent	
		NADS	*CADS*
Pattern	*Definition*	*1989*	*1994*
Lifetime abstainers	*Never had alcohol beyond sips or tastes.*	*6.6*	*12.8*
Former drinkers	*Drank sometime during their lives, but not during the past 12 months preceding the survey.*	*15.7*	*13.5*
Light/infrequent drinkers	*Drink less often than once a week, usually fewer than five drinks, when alcohol is used.*	*35.5*	*33.6*
Light/frequent drinkers	*Drink once a week or more, usually fewer than five drinks, when alcohol is used.*	*31.3*	*29.2*
Heavy/infrequent drinkers	*Drink less often than once a week, usually five or more drinks, when alcohol is used.*	*3.6*	*3.3*
Heavy/frequent drinkers	*Drink once a week or more, usually five or more drinks, when alcohol is used.*	*6.7*	*5.4*
Not stated		*.6*	*2.1*

Note: Weighted by FINWGHT in CADS, and WEIGT in NADS.

Among current drinkers, the most prominent category for women is light/infrequent, while, for men, it is light/frequent drinkers. Men are far more likely than women to be heavier drinkers.

Table A2
Drinking patterns by sex, age, region, language, marital status, education and income

		Drinking pattern (percent)					
	Pop. est. (000s)	*Lifetime abstainers*	*Former drinkers*	*Light – infrequent*	*Light – frequent*	*Heavy – infrequent*	*Heavy – frequent*
Overall	*23,030*	*12.8*	*13.5*	*33.6*	*29.2*	*3.3*	*5.4*
Sex							
Male	*11,337*	*8.9*	*11.2*	*27.3*	*36.4*	*4.5*	*9.1*
Female	*11,692*	*16.7*	*15.6*	*39.8*	*22.2*	*2.2*	*1.9*
Age							
15-17	*1,247*	*21.8*	*12.8*	*33.8*	*7.1Q*	*12.5*	*10.0*
18-19	*711*	*11.5Q*	*9.0Q*	*38.6*	*16.1*	*10.3Q*	*14.0*
20-24	*2,051*	*8.0*	*7.1*	*37.1*	*26.8*	*6.4*	*12.9*
25-34	*4,952*	*8.6*	*10.4*	*39.1*	*29.9*	*4.2*	*6.3*
35-44	*4,802*	*9.2*	*11.7*	*34.7*	*34.8*	*2.4*	*5.0*
45-54	*3,531*	*10.8*	*14.7*	*33.7*	*33.6*	*1.4Q*	*3.7*
55-64	*2,470*	*16.7*	*16.8*	*27.7*	*32.7*	*—*	*2.3Q*
65-74	*2,195*	*21.6*	*21.2*	*25.5*	*27.6*	*—*	*—*
75+	*1,071*	*28.4*	*24.0*	*23.8*	*20.5*	*—*	*—*
Region							
Atlantic	*1,907*	*15.5*	*14.1*	*35.4*	*18.9*	*7.0*	*8.4*
Quebec	*5,796*	*14.8*	*11.0*	*32.1*	*33.3*	*2.5*	*5.8*
Ontario	*8,673*	*14.3*	*13.1*	*31.7*	*29.5*	*2.7*	*4.4*
Prairies	*3,715*	*9.6*	*15.1*	*38.3*	*25.8*	*4.2*	*6.2*
B.C.	*2,939*	*7.0*	*16.8*	*35.4*	*31.0*	*3.1*	*5.1*
Language							
English	*15,006*	*9.9*	*14.5*	*35.4*	*29.5*	*3.8*	*5.9*
French	*5,170*	*13.8*	*12.0*	*32.9*	*32.8*	*2.6*	*5.6*
Other	*1,452*	*31.8*	*11.3*	*30.4*	*21.0*	*2.5Q*	*2.0Q*
Not stated	*1,402*	*20.9*	*9.8*	*20.3*	*21.2*	*—*	*3.2*
Marital status							
Married/common-law	*13,564*	*11.3*	*13.9*	*34.8*	*32.5*	*2.2*	*3.2*
Single/never married	*6,317*	*12.3*	*10.6*	*34.1*	*23.9*	*6.5*	*11.1*
Widowed	*1,316*	*29.7*	*19.8*	*27.9*	*19.2*	*—*	*—*
Divorced/separated	*1,587*	*12.5*	*15.9*	*29.4*	*31.9*	*2.3Q*	*6.3*
Not stated	*246*	*23.5Q*	*—*	*16.5Q*	*15.3Q*	*—*	*—*

(continued)

	Pop. est. (000s)	Drinking pattern (percent)					
		Lifetime abstainers	Former drinkers	Light – infrequent	Light – frequent	Heavy – infrequent	Heavy – frequent
Educational level							
Less than secondary	*5,936*	*18.6*	*20.4*	*29.8*	*18.5*	*5.0*	*6.7*
Secondary	*5,415*	*11.0*	*12.9*	*36.7*	*28.6*	*3.7*	*6.2*
Some post-secondary	*6,455*	*9.2*	*10.8*	*37.1*	*33.5*	*2.9*	*6.1*
University degree	*3,610*	*8.6*	*9.0*	*34.8*	*43.4*	*1.5Q*	*2.3Q*
Not stated	*1,614*	*21.7*	*10.5*	*20.9*	*21.2*	*—*	*3.0Q*
Income							
Low	*3,612*	*16.4*	*17.8*	*35.4*	*17.4*	*4.8*	*7.4*
Middle	*7,742*	*8.6*	*13.1*	*37.5*	*32.0*	*3.1*	*5.3*
High	*2,778*	*5.0*	*8.9*	*30.8*	*47.2*	*2.7Q*	*5.0*
Not stated	*8,898*	*17.5*	*13.4*	*30.4*	*25.9*	*3.0*	*4.9*

Note: Frequent drinking = once a week or more. Heavy drinking = usual number is 5 or more. 'Not stated' category of drinking pattern (2.1% overall) is not presented in the table, although it was included in the computation of the percentages.

Q   Qualified release due to high sampling-variability

––   Not for release due to unacceptably high sampling-variability

Lifetime abstainers tend to be concentrated at the youngest and oldest ends of the age spectrum, while rates of former drinkers increase with age. Rates for light/frequent drinking plateaus at 35 to 64 years of age, while heavier drinking rates are concentrated among those 24 and younger.

Drinking patterns vary among regions of the country. The Atlantic provinces have the highest rates of both lifetime abstainers and heavy drinkers, suggesting that alcohol use may be more of a contentious issue there than in the rest of Canada. The Atlantic provinces also have a much lower rate of light/frequent drinkers. Quebec has the lowest proportion of former drinkers.

The highest rates of lifetime abstention occur among those whose language at home is neither English nor French, indicating some resistance to alcohol use among recent immigrants. Heavier drinking rates are highest among those whose language at home is English.

Those who are widowed have relatively high rates of lifetime abstention, while single people tend to have higher rates of heavier drinking. The rate for heavy/frequent drinking among those who are separated or divorced is twice as high as for those who have partners (married/common-law).

Both extremes – abstention and heavier drinking – occur with higher rates than the overall among those with the lowest level of education, while the rate of light/frequent drinking increases with level of education. High abstention rates also occur among those with lower incomes, and relatively high heavy drinking rates appear in low income categories, as well.

To identify those members of the Canadian population who may be at risk of harm associated with alcohol, it is useful to profile drinker types by their dominant characteristics. Tables A3 to A8 show the relationship between alcohol-use patterns and socio-demographic predictors. The column labeled "unadjusted odds ratio" provides much the same information as the percentage tables, showing (for example) that women (with odds ratio of 1.354) are more than twice as likely as men (.668) to report lifetime abstention. Thus, the unadjusted odds ratio is an indication of the extent to which people with a given characteristic will report abstention or the drinking pattern in question as compared to the overall odds.

The adjusted odds ratio is the result of a multivariate analysis (logistic regression). This analysis assesses the independent contribution of each predictor category to the outcome, controlling for all of the other variables. Using lifetime abstention as an example again, the unadjusted odds among those reporting being widowed is high (2.949) and significant, indicating that widows are almost three times more likely than others to abstain from alcohol. Controlling for all other factors but widowhood, however, reduces the odds ratio to almost unity (1.167), and the statistic is not significant. This outcome suggests that widowhood itself does not impact on abstention once the effects of other characteristics associated with widowhood (e.g. being female and being older) have been removed.

Note that certain factors are associated with decreases in the likelihood of an outcome. For example, the odds of both greater frequency and greater volume of alcohol use are significantly decreased, when the respondent is a woman (Tables A6, A7, and A8).

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Overall	*10235*	*12.9*		
Sex				
Male	*5030*	*9.0*	*.668***	*.710***
Female	*5206*	*16.7*	*1.354***	*1.409***
Age				
15-17	*559*	*22.2*	*1.927***	*1.349***
18-19	*322*	*11.2*	*.852*	*.711*
20-24	*921*	*8.1*	*.595***	*.557***
25-34	*2220*	*8.5*	*.627***	*.642***
35-44	*2126*	*9.1*	*.676***	*.718***
45-54	*1568*	*11.1*	*.843*	*.867*
55-64	*1083*	*16.8*	*1.363***	*1.308**
65-74	*963*	*22.1*	*1.916***	*1.535***
75+	*473*	*29.4*	*2.812***	*2.334***
Region				
Atlantic	*895*	*15.6*	*1.248*	*1.596***
Quebec	*2711*	*14.9*	*1.182*	*1.140*

(continued)

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Ontario	3595	14.6	1.154**	1.128
Prairies	1701	9.6	.717**	.830
B.C.	1333	7.1	.516**	.587**
Language				
English	6714	9.9	.742**	.589**
French	2418	13.9	1.090	.779
Other	650	32.0	3.177**	3.021**
Not stated	454	25.4	2.299**	.721
Marital status				
Married/common-law	6086	11.5	.877**	.874
Single/never married	2845	12.4	.956	.998
Widowed	591	30.4	2.949**	1.167
Divorced/separated	714	12.7	.982	.983
Educational level				
Less than secondary	2684	18.8	1.563**	1.100
Secondary	2451	11.0	.835	.862
Some post-secondary	2937	9.2	.684**	.785*
University degree	1632	8.5	.627**	.753*
Not stated	532	26.1	2.385**	1.784*
Income				
Low	1647	16.5	1.334**	1.332**
Middle	3546	8.6	.635**	.848*
High	1258	5.0	.355**	.626**
Not stated	3784	18.1	1.492**	1.413**

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
      * p< .01;   ** p< .001

Women and older people have higher odds of being lifetime abstainers. Living in Atlantic Canada, speaking a language other than French or English at home, and reporting lower income are all independently and significantly associated with increased odds of never having used alcohol. Associated with decreased odds of lifetime abstention are the following characteristics: being male, being between 20 and 44 years of age, speaking English at home, living in British Columbia and reporting a high educational level. As mentioned above, marital-status categories are no longer significant in multivariate analysis.

Lifetime Abstainers

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Overall	10235	13.7		
Sex				
Male	5030	11.5	.819**	.845**
Female	5206	15.9	1.191**	1.184**
Age				
15-17	559	13.1	.950	.715
18-19	322	8.9	.615	.586*
20-24	921	7.2	.489**	.533**
25-34	2220	10.6	.747**	.870
35-44	2126	11.8	.843	.965
45-54	1568	15.0	1.112	1.244*

(continued)

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
55-64	1083	17.5	1.336**	1.325*
65-74	963	21.8	1.756**	1.688**
75+	473	24.7	2.066**	1.919**
Region				
Atlantic	895	14.2	1.043	.938
Quebec	2711	11.1	.787**	.673**
Ontario	3595	13.8	1.008	1.049
Prairies	1701	15.2	1.129	1.127
B.C.	1333	16.9	1.281**	1.341**
Language				
English	6714	14.6	1.077	1.077
French	2418	12.0	.859	1.207
Other	650	11.4	.811	.862
Not stated	454	13.2	.958	.893
Marital status				
Married/common-law	6086	14.2	1.043	1.063
Single/never married	2845	10.8	.763**	1.072
Widowed	591	20.1	1.585**	.807
Divorced/separated	714	16.1	1.209	1.088
Educational level				
Less than secondary	2684	20.5	1.624**	1.535**
Secondary	2451	13.0	.941	.964
Some post-secondary	2937	10.7	.755**	.851
University degree	1632	9.0	.623**	.700**
Not stated	532	14.0	1.025	1.135
Income				
Low	1647	17.9	1.373**	1.337**
Middle	3546	13.1	.950	.986
High	1258	8.8	.608**	.740**
Not stated	3784	14.1	1.034	1.025

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
 * p< .01; ** p< .001

Former Drinkers

There is a direct association of former drinking with age: respondents in younger age groups are less likely to be former drinkers, and those in the older groups are more likely to be former drinkers. Former drinkers, as well as lifetime abstainers, are more prevalent among women. Quebec has a lower, and B.C. a higher rate of former drinkers in comparison to the overall odds. Odds for being a former drinker are inversely related to educational level and income adequacy: odds ratios decrease as educational level and income adequacy increase. Again, the effect of marital status is no longer significant in multivariate analysis.

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Overall	7504	47.0		
Sex				
Male	3994	35.4	.618**	.602**
Female	3509	60.2	1.706**	1.662**
Age				
15-17	362	53.1	1.277	1.364*

(continued)

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
18-19	258	48.9	1.079	1.130
20-24	780	44.6	.908	.945
25-34	1796	49.2	1.092	1.088
35-44	1681	45.1	.926	.899
45-54	1160	46.6	.984	.979
55-64	712	43.9	.882	.818
65-74	540	46.8	.992	.817
75+	217	53.0	1.272	1.072
Region				
Atlantic	628	50.8	1.164	1.133
Quebec	2007	43.6	.872*	.753**
Ontario	2577	46.3	.972	.969
Prairies	1279	51.5	1.197*	1.188*
B.C.	1013	47.4	1.016	1.018
Language				
English	5067	47.5	1.020	.886
French	1791	44.5	.904	1.020
Other	368	54.4	1.345*	1.382*
Not stated	278	44.2	.893	.801
Marital status				
Married/common-law	4518	47.9	1.037	1.140*
Single/never married	2185	45.0	.923	.891
Widowed	292	57.5	1.526**	1.218
Divorced/separated	508	42.0	.817	.808*
Educational level				
Less than secondary	1627	49.7	1.114	1.054
Secondary	1862	48.8	1.075	1.020
Some post-secondary	2350	46.6	.984	.943
University degree	1346	42.5	.833**	.913
Not stated	319	45.1	.926	1.081
Income				
Low	1080	54.4	1.345**	1.313**
Middle	2775	48.1	1.045	1.070
High	1084	36.1	.637**	.702**
Not stated	2564	47.4	1.016	1.014

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
    * p< .01;   ** p< .001

Table A5
Light/infrequent vs.
the rest among current drinkers
(cont'd)

Light/infrequent drinkers have alcohol less than once a week, and average fewer than five drinks on days they drink. Characteristics associated with increased adjusted odds for this drinking pattern are: being female, being in the youngest age group (15 to 17), residing in the Prairie provinces, speaking a language other than English or French, being married, and/or reporting lower income. Significantly less likely to drink in this way are males, residents of Quebec, people who are separated or divorced, and/or people who report higher income.

Light/Infrequent Drinkers

Table A6
Light/frequent vs. the rest among current drinkers, by sex, age, region, language, marital status, education and income, with and without other predictors taken into account

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Overall	*7504*	*40.7*		
Sex				
Male	*3994*	*47.0*	*1.292***	*1.341***
Female	*3509*	*33.5*	*.734***	*.746***
Age				
15-17	*362*	*11.2*	*.184***	*.265***
18-19	*258*	*20.4*	*.373***	*.483***
20-24	*780*	*32.0*	*.686***	*.805*
25-34	*1796*	*37.6*	*.878**	*.918*
35-44	*1681*	*45.3*	*1.207***	*1.260***
45-54	*1160*	*46.3*	*1.256***	*1.307***
55-64	*712*	*51.4*	*1.541***	*1.823***
65-74	*540*	*50.9*	*1.510***	*2.050***
75+	*217*	*45.5*	*1.216*	*1.718***
Region				
Atlantic	*628*	*27.1*	*.542***	*.632***
Quebec	*2007*	*45.2*	*1.202***	*1.391***
Ontario	*2577*	*43.2*	*1.108**	*1.197***
Prairies	*1279*	*34.7*	*.774***	*.860*
B.C.	*1013*	*41.5*	*1.034*	*1.106*
Language				
English	*5067*	*39.4*	*.947*	*1.049*
French	*1791*	*44.4*	*1.164**	*1.065*
Other	*368*	*37.4*	*.870*	*.832*
Not stated	*278*	*46.0*	*1.241*	*1.076*
Marital status				
Married/common-law	*4518*	*44.7*	*1.178***	*1.040*
Single/never married	*2185*	*31.5*	*.670***	*.996*
Widowed	*292*	*39.4*	*.947*	*.852*
Divorced/separated	*508*	*45.5*	*1.216*	*1.134*
Educational level				
Less than secondary	*1627*	*30.9*	*.652***	*.707***
Secondary	*1862*	*37.9*	*.889*	*.892*
Some post-secondary	*2350*	*42.1*	*1.059*	*1.117*
University degree	*1346*	*52.9*	*1.636***	*1.403***
Not stated	*319*	*46.0*	*1.241*	*1.011*
Income				
Low	*1080*	*26.8*	*.533***	*.642***
Middle	*2775*	*41.1*	*1.017*	*.998*
High	*1084*	*55.0*	*1.781***	*1.454***
Not stated	*2564*	*40.1*	*.975*	*1.074*

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
*   * p< .01;   ** p< .001*

Light/Frequent Drinkers

According to the adjusted odds ratios, characteristics associated with light/frequent drinking patterns are: being male, in age groups 35 and over, living in Quebec or Ontario, having a university degree, and/or reporting a high income. Attributes associated with decreased chances of this drinking pattern are: being female, being 19 or younger, living in Atlantic Canada, not completing secondary school, and/or having a lower income.

Table A7
*Heavy/infrequent vs.
the rest among current drinkers ,by
sex, age, region, language, marital sta-
tus, education and income, with and
without other predictors taken into
account*

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Overall	7504	4.6		
Sex				
Male	3994	5.8	1.277**	1.354**
Female	3509	3.3	.708**	.738**
Age				
15-17	362	19.8	5.120**	6.323**
18-19	258	13.0	3.099**	4.634**
20-24	780	7.8	1.755**	2.986**
25-34	1796	5.3	1.161	2.134**
35-44	1681	3.1	.663*	1.166
45-54	1160	2.0	.423**	.681
55-64	712	1.0	.209**	.312*
65-74	540	.5	.104**	.131**
75+	217	.7	.146*	.166
Region				
Atlantic	628	10.0	2.304**	1.905**
Quebec	2007	3.3	.708*	.770
Ontario	2577	4.0	.864	.780
Prairies	1279	5.6	1.230	1.018
B.C.	1013	4.2	.909	.859
Language				
English	5067	5.2	1.138	.976
French	1791	3.5	.752	.718
Other	368	4.6	1.000	1.015
Not stated	278	2.5	.532	1.406
Marital status				
Married/common-law	4518	3.1	.663**	.891
Single/never married	2185	8.7	1.976**	.884
Widowed	292	1.1	.231*	1.183
Divorced/separated	508	3.3	.708	1.074
Educational level				
Less than secondary	1627	8.4	1.902**	2.178**
Secondary	1862	5.0	1.092	1.400
Some post-secondary	2350	3.7	.797	.989
University degree	1346	1.8	.380**	.601
Not stated	319	2.1	.445	.552
Income				
Low	1080	7.4	1.657**	1.297
Middle	2775	4.0	.864	.947
High	1084	3.1	.663	.974
Not stated	2564	4.8	1.046	.836

*Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
* p< .01; ** p< .001*

Heavy/Infrequent Drinkers

Heavy/infrequent drinkers use alcohol less than once a week but have five or more drinks, when they do drink. Odds for this pattern are significantly increased, when respondents report: being male, being between 15 and 34, with more than 6-fold odds among those aged 15 to 19 as compared to the overall odds; living in Atlantic Canada, and/or having not completed secondary school. Attributes

associated with a reduction in the odds of drinking infrequently and heavily are being female and being between 55 and 74 years of age.

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Overall	7504	7.6		
Sex				
Male	3994	11.8	1.627**	2.145**
Female	3509	2.9	.363**	.466**
Age				
15-17	362	15.8	2.281**	1.479
18-19	258	17.7	2.615**	2.169**
20-24	780	15.6	2.247**	2.368**
25-34	1796	7.9	1.043	1.728**
35-44	1681	6.5	.845	1.610**
45-54	1160	5.1	.653*	1.188
55-64	712	3.7	.467**	.769
65-74	540	1.8	.223**	.369*
75+	217	.8	.098**	.140*
Region				
Atlantic	628	12.0	1.658**	1.375*
Quebec	2007	7.9	1.043	1.182
Ontario	2577	6.4	.831	.750*
Prairies	1279	8.3	1.100	.963
B.C.	1013	6.9	.901	.852
Language				
English	5067	8.0	1.057	1.271
French	1791	7.6	1.000	.888
Other	368	3.6	.454*	.501*
Not stated	278	7.3	.957	1.766
Marital status				
Married/common-law	4518	4.4	.560**	.575**
Single/never married	2185	14.8	2.112**	1.477*
Widowed	292	2.0	.248**	.849
Divorced/separated	508	9.2	1.232	1.387
Educational level				
Less than secondary	1627	11.1	1.518**	1.862**
Secondary	1862	8.3	1.100	1.293
Some post-secondary	2350	7.6	1.000	1.041
University degree	1346	2.8	.350**	.422**
Not stated	319	6.8	.887	.947
Income				
Low	1080	11.4	1.564**	1.274*
Middle	2775	6.9	.901	.919
High	1084	5.8	.749	.936
Not stated	2564	7.6	1.000	.912

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
* p< .01; ** p< .001

Heavy/Frequent Drinkers

The odds for heavy/frequent drinking are significantly increased for male respondents; for those belonging to age groups between 18 and 44, and particularly between 18 and 24; living in Atlantic Canada, being single or never married, having less than secondary school education, and/or a lower income. The odds for

heavy/frequent drinking are reduced for women, people in age groups over 65, people living in Ontario, those speaking a language other than French or English at home, respondents with a partner, and/or those who have completed university.

Noteworthy in these findings is a low proportion of lifetime abstainers in the youngest age group (22.2% for those 15 to 17) followed by a sharp decrease in the next group, where the rates are halved (11.3% for those aged 18 to 19). The results indicate that more than three quarters of the population begin to use alcohol before the age of 15, and the percentage of those exposed to alcohol is high among recent cohorts. The major concentration of life abstainers is among the older members of the population. Alcohol use per se can take a variety of forms or patterns. The analyses above suggest that these patterns are not idiosyncratic; they are outcomes of complex life situations and beliefs, and they are associated with resources.

Light drinking, and especially light/frequent drinking appears to be an adult pattern that is part of a high-resource life style. Heavier drinking, on the other hand, is a young male pattern and is also associated with being less privileged. The data also suggest that higher-risk use (i.e. heavy drinking) is most prevalent in the Atlantic provinces, and that this area of the country could benefit from well-designed prevention and intervention efforts.

Although drinking is generally a pleasant and benign activity, misuse of alcohol can harm the physical and mental well-being of the drinker and can also harm others because of the effect of alcohol on the drinker's associates. The survey asked about these two types of negative consequences from alcohol use: self-inflicted harm as a result of one's own use, and harm as a result of drinking by others.

Harmful Consequences of Alcohol Use

Former and current drinkers were asked to report whether or not they experienced types of trouble due to their alcohol use in their lifetime, and current drinkers were asked about harm during the 12 months prior to the survey. Figure A1 displays percentages of Canadians reporting different types of alcohol-related harm during their lives and during the past year.

Harm from One's Own Drinking

Figure A1
Percentages reporting various types of
harm from one's own alcohol use:
lifetime and past 12 months

HARM

Friendships	10.1 (19,493) / 3.4 (16,507)
Physical Health	12.2 (19,654) / 6.2 (16,558)
Outlook on Life	7.7 (19,654) / 2.7 (16,558)
Spouse/Partner	4.7 (14,174) / 2.4 (11,746)
Children	4.5 (12,712) / 1.3 (10,453)
Home Life	5.7 (16,557) / 2.0 (14,085)
Work/Studies/Employment	4.9 (19,282) / 1.7 (16,263)
Financial Position	6.9 (19,562) / 4.0 (16,501)
Pregnancy[a]	1.3[Q] (6,352) / – – (4,999)
One or More Types of Harm	19.8 (19,654) / 10.5 (16,558)

Lifetime:
Percent (Pop. est. (000s))

Past 12 months:
Percent (Pop. est. (000s))

Note: For lifetime harm, percentages are of current and former drinkers. For harm in the 12 months prior to the survey, percentages are of current drinkers. Population estimates (denominators) reflect exclusion of "not applicable" categories.

a   Percentage of women only

Q   Qualified release due to high sampling-variability

––   Not for release due to unacceptably high sampling-variability

Nearly one in five (19.8%) of former and current drinkers have had trouble with drinking during their lives, and more than one in 10 (10.5%) have had trouble during the past year. Physical health is the most frequently reported problem for both the lifetime and twelve-month time frames (12.2% and 6.2%, respectively).

As Table A9 indicates, harm is strongly associated with drinking patterns. Among current drinkers, reports of having experienced one or more harmful effects from alcohol use during the past year are strongly associated with patterns of alcohol use.

The results suggest that both higher volume and higher frequency of alcohol use are important when assessing potential for alcohol-related harm. Association between heavy drinking and report of harm is also evident in the percentages reporting harm in the four categories derived from the number of drinking occasions with five or more drinks (bottom of Table A9). Percentages reporting harm is

14 times as high among current drinkers reporting 12 or more heavy drinking occasions in the past 12 months as compared to those reporting none.

Harm from drinking varies with socio-demographic characteristics. Table A9 displays the percentages of those reporting one or more harmful effects during the past year by demographic characteristics.

Variable/Category	Pop. est. (000s)	Percent
Overall	16,652	10.5
Sex		
Male	8,857	12.4
Female	7,794	8.3
Age		
15-17	811	25.8
18-19	566	26.0
20-24	1,721	19.8
25-34	3,959	10.8
35-44	3,731	8.8
45-54	2,579	7.4
55-64	1,588	3.3^Q
65-74	1,203	3.4^Q
75+	494	—
Region		
Atlantic	1,341	11.8
Quebec	4,283	13.6
Ontario	6,015	5.8
Prairies	2,789	15.1
B.C.	2,223	10.5
Language		
English	11,315	9.9
French	3,824	13.5
Other	824	10.3^Q
Not stated	688	—
Marital status		
Married/common-law	9,953	6.5
Single/never married	4,833	19.0
Widowed	646	—
Divorced/separated	1,124	14.7
Not stated	95	—
Educational level		
Less than secondary	3,607	14.4
Secondary	4,114	9.3
Some post-secondary	5,161	11.9
University degree	2,973	6.9
Not stated	796	3.1^Q
Income		
Low	2,365	15.7
Middle	6,061	10.2
High	2,390	10.4
Not stated	5,836	8.7

Table A9
Percentages of current drinkers reporting one or more types of harm experienced in past 12 months from one's own alcohol use, by sex, age, region, language, marital status, education, income, drinking pattern and occasions with 5+ drinks

(continued)

Table A9
Percentages of current drinkers
reporting one or more types of harm
experienced in past12 months from
one's own alcohol use (cont'd)

Variable/Category	Pop. est. (000s)	Percent
Drinking pattern		
Light/infrequent	7,747	4.6
Light/frequent	6,720	10.0
Heavy/infrequent	759	24.5
Heavy/frequent	1,253	40.6
Not stated	173	13.7[Q]
5+ drinks (past 12 months)		
12 times or more	1,720	38.0
3-11 times	2,637	17.8
1-2 times	2,805	10.6
Never	8,719	2.7
Not stated	770	11.8

Note: Percentages are of current drinkers.

[Q]   Qualified release due to high sampling-variability

––   Not for release due to unacceptably high sampling-variability

A higher percentage of men than women report that drinking has caused them harm (12.4% vs. 8.3%). Harm decreases with age group, dropping off sharply after age 25. Ontario stands out as having a substantially lower percentage (5.8%) of respondents reporting drinking-related harm; the Prairies (15.1%) and Quebec (13.6%) have more than double Ontario's rates.

Those whose home language is French are more likely to report harm (13.5%) than those who speak English or another language at home. People who have never been married (19%) or are divorced or separated (14.7%) report higher rates of harm than do those who are married (6.5%). Harm is greatest among respondents with less than secondary education (14.4%) and lowest among those with a university degree (6.9%). The rate is also higher among those in the lowest income category (15.7%).

Multivariate Analysis

Multivariate analysis assesses the independent contributions of respondent characteristics to the issue of interest. In Table A10, the factors mentioned above were employed to assess their independent contribution to respondents' reports of harm from their own drinking. Two logistic regression analyses were carried out: one with demographic predictors, and another with both demographic and alcohol-use predictors. Adjusted odds ratios for each predictor category obtained from the two analyses are in the last two columns of Table A10. Comparing the two sets of adjusted odds ratios facilitates separation of the influence of drinking behaviour from other factors associated with negative consequences of alcohol use.

The relationship between gender and harm provides an example of the effect of controls on the original bivariate relationship and the effect of including

alcohol-use measures as predictors. Columns 2, 3 and 4 respectively represent the percentages, unadjusted odds and adjusted odds ratios for reporting at least one type of harm from alcohol use from the analysis with demographic predictors only. When columns 3 and 4 are compared, the odds ratios for men and women are virtually unchanged; men are more likely than women to report harm from alcohol use during the past year. The 5th column presents a strikingly different picture: once alcohol-use predictors are included, odds for reporting harm are higher for women than for men (1.150 vs. .870). The finding suggests that, when drinking behaviours and demographic characteristics of men and women are the same, men are less likely and women are more likely to report being harmed by alcohol use.

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio excluding / including alcohol-use predictor	
Overall	7428	10.7			
Sex					
Male	3946	12.7	1.214**	1.257**	.870*
Female	3482	8.5	.775**	.796**	1.150*
Age					
15-17	355	26.7	3.040**	2.433**	2.115**
18-19	256	25.8	2.902**	2.586**	1.832**
20-24	778	20.1	2.100**	2.112**	1.396
25-34	1777	11.0	1.032	1.312*	1.004
35-44	1669	8.8	.805	1.045	.906
45-54	1149	7.6	.686**	.893	.923
55-64	699	3.4	.294**	.367**	.419**
65-74	536	3.5	.303**	.463**	.700
75+	207	2.6	.223**	.361	.751
Region					
Atlantic	626	11.8	1.117	1.021	.917
Quebec	1989	13.8	1.336**	1.348	1.307
Ontario	2535	5.8	.514**	.499**	.557**
Prairies	1274	15.1	1.484**	1.458**	1.516**
B.C.	1003	10.7	1.000	.999	.988
Language					
English	5060	10.0	.927	1.059	.919
French	1791	13.5	1.303**	.994	.954
Other	367	9.7	.897	1.117	1.771
Not stated	210	4.6	.402*	.851	.645
Marital status					
Married/common-law	4472	6.6	.590**	.775	.904
Single/never married	2164	19.4	2.009**	1.494*	1.306
Widowed	286	1.8	.153**	.419	.440
Divorced/separated	506	14.9	1.461*	2.060**	1.926**
Educational level					
Less than secondary	1625	14.4	1.404**	1.499*	1.326
Secondary	1860	9.3	.856	.916	.820
Some post-secondary	2350	12.1	1.149	1.091	1.065
University degree	1344	7.0	.628**	.764	.898
Not stated	249	4.5	.393*	.874	.962

Table A10
One or more types of harm experienced in past 12 months from one's own alcohol use, by sex, age, region, language, marital status, education and income, and alcohol-use predictors, with and without other predictors taken into account

(continued)

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio excluding / including alcohol-use predictor	
Income					
Low	*1080*	*15.7*	*1.554***	*1.145*	*1.163*
Middle	*2775*	*10.3*	*.958*	*.984*	*1.003*
High	*1084*	*10.5*	*.979*	*1.175*	*1.051*
Not stated	*2489*	*9.1*	*.836**	*.755***	*.816**
Drinking pattern					
Light/infrequent	*3,495*	*4.7*	*.412***		*.535***
Light/frequent	*3,020*	*10.3*	*.958*		*.898***
Heavy/infrequent	*348*	*24.4*	*2.694***		*1.038*
Heavy/frequent	*565*	*41.6*	*5.945***		*2.006***
5+ drinks (past 12 months)					
12 times or more	*775*	*38.9*	*5.313***		*2.802***
3-11 times	*1,194*	*18.1*	*1.844***		*1.345***
1-2 times	*1,275*	*10.7*	*1.000*		*.853*
Never	*3,902*	*2.8*	*.240***		*.304***
Not stated	*283*	*11.9*	*1.127*		*1.023*

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
*   * p< .01;   ** p< .001*

The multivariate procedures confirm the inverse relationship of age to the likelihood of reporting alcohol-related harm. They also allow some further elaboration. Without taking alcohol-use into account, adjusted odds indicate that people under 34 years old are more likely to report their alcohol-use has harmed them. Controlling for alcohol-use qualifies the findings. Odds for harm remain high and significant in the 15 to 19 year age group, indicating that drinkers under 20 are vulnerable to harm from drinking, regardless of their drinking patterns.

Regional relationships (Table A10) are maintained in both multivariate analyses: respondents residing in Ontario are less likely and those in the Prairies more likely to report harm. Adjusting for other factors including alcohol-use, the only marital-status category with significantly increased odds for harm was separated/divorced.

Drinking patterns are related to decreased and increased odds for harm. Light/infrequent drinkers have significantly decreased odds for reporting harm during the past year, while heavy/frequent drinkers have significantly increased odds. Similarly, those respondents who reported 12 or more occasions of drinking five or more drinks during the past year were most likely to report having been harmed by alcohol, while those who reported none of such occasions had significantly decreased odds for harm.
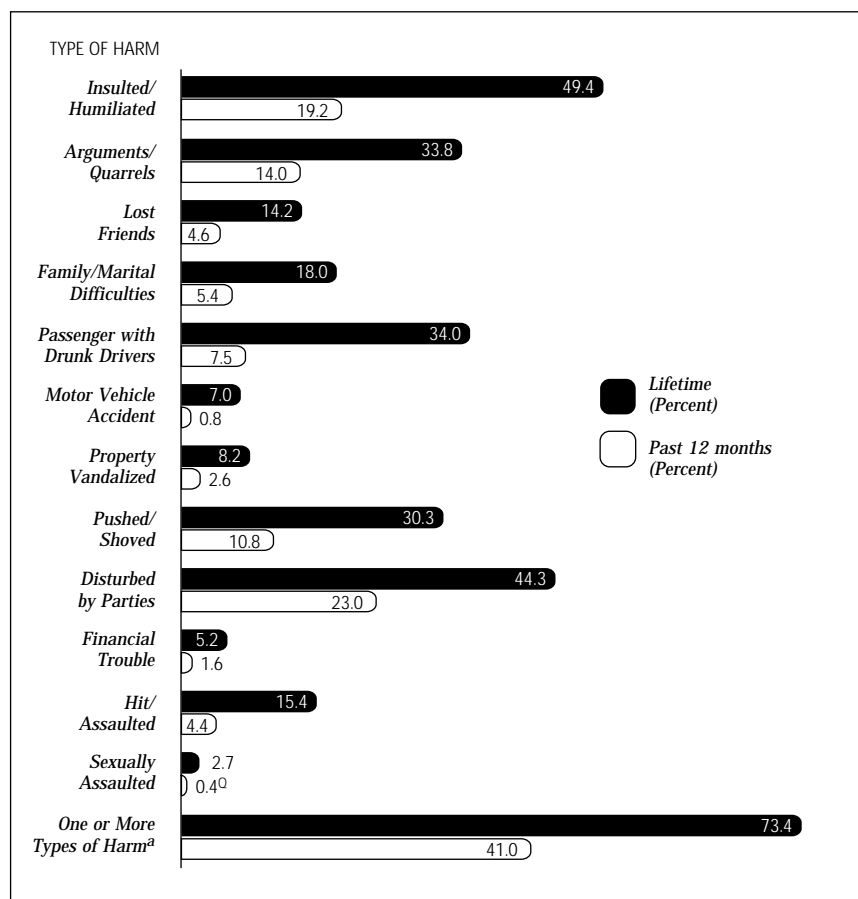
TYPE OF HARM

Type of Harm	Lifetime (Percent)	Past 12 months (Percent)
Insulted/Humiliated	49.4	19.2
Arguments/Quarrels	33.8	14.0
Lost Friends	14.2	4.6
Family/Marital Difficulties	18.0	5.4
Passenger with Drunk Drivers	34.0	7.5
Motor Vehicle Accident	7.0	0.8
Property Vandalized	8.2	2.6
Pushed/Shoved	30.3	10.8
Disturbed by Parties	44.3	23.0
Financial Trouble	5.2	1.6
Hit/Assaulted	15.4	4.4
Sexually Assaulted	2.7	0.4 Q
One or More Types of Harm[a]	73.4	41.0

Note: Weighted by FINWGHT (expansion weight).

a   Excludes "disturbed by loud parties or behaviour of people drinking"

Q   Qualified release due to high sampling-variability

Respondents were asked to report whether they had experienced harm as a result of others' drinking during their lives and during the past 12 months. Twelve kinds of trouble from others were queried. Frequencies for lifetime and the last year's experiences are presented in Figure A2.

The most frequently reported harm in the past 12 months is being disturbed by parties. More serious, however, are the high rates of negative interpersonal experiences (e.g. being insulted/humiliated, having quarrels, losing friends), which attest to the pervasiveness of serious negative social events, where alcohol is involved.

Vulnerability to harm from others appears to be strongly related to drinking patterns. With the exception of reporting being disturbed, heavier drinkers are far more likely to report a given experience than are lighter drinkers. Table A11

presents the percentages reporting one or more types of harm, excluding experiencing "being disturbed," during the 12 month period.

Variable/Category	Pop. est. (000s)	Percent
Overall	23,030	30.1
Drinking pattern		
Lifetime abstainer	2,957	16.8
Former drinker	3,098	22.5
Light/infrequent	7,747	30.8
Light/frequent	6,720	30.1
Heavy/infrequent	759	59.0
Heavy/frequent	1,253	65.2
Not stated	495	13.3^Q

Note: Dependent variable excludes 'disturbed by parties'

^{Q} *Qualified release due to high sampling-variability.*

The results suggest the importance of the social context involving different types of drinkers and different modes of drinking. It is not surprising that both types of abstainers had relatively low rates of problems from others. There are two probable explanations for the large differences between light and heavier drinkers: (1) heavier drinkers are more likely than others to drink with friends whose similar drinking contributes to troublesome behaviour, (2) the behaviour of heavily drinking respondents contributes to social difficulties. Some combination of the two explanations is probably the most frequent case.

Table A12 displays the percentages of persons in each demographic category who stated that they had experienced one or more types of harm during the past year because of the drinking of others.

Variable/Category	Pop. est. (000s)	Percent
Overall	23,030	30.1
Sex		
Male	11,337	32.2
Female	11,692	28.0
Age		
15-17	1,247	50.7
18-19	711	61.9
20-24	2,051	57.4
25-34	4,952	36.4
35-44	4,802	31.0
45-54	3,531	23.5
55-64	2,470	14.1
65-74	2,195	8.0
75+	1,071	3.3^Q
Region		
Atlantic	1,907	33.1
Quebec	5,796	30.1
Ontario	8,673	25.0
Prairies	3,715	36.7
B.C.	2,939	34.8
Language		
English	15,006	32.6
French	5,170	30.2
Other	1,452	23.8

Variable/Category	Pop. est. (000s)	Percent
Not stated	*1,402*	*9.5*
Marital status		
Married/common-law	*13,564*	*23.0*
Single/never married	*6,317*	*49.0*
Widowed	*1,316*	*9.2*
Divorced/separated	*1,587*	*35.4*
Not stated	*246*	*13.1*
Educational level		
Less than secondary	*5,936*	*28.8*
Secondary	*5,415*	*30.8*
Some post-secondary	*6,455*	*37.2*
University degree	*3,610*	*27.1*
Not stated	*1,614*	*10.5*
Income		
Low	*3,612*	*37.1*
Middle	*7,742*	*30.7*
High	*2,778*	*32.3*
Not stated	*8,898*	*26.0*

Note: Dependent variable excludes "disturbed by parties".

Q   Qualified release due to high sampling-variability

Reporting such harm does not differ substantially by gender. Men report harm slightly more than women do (32.2% versus 28%). There are, however, large differences with age: percentages reporting harm decrease substantially with age. The age group 18 to 19 has the highest rate of reported harm from others (61.9%). Differences between regions of the country were not large, but Ontario had the lowest proportion of those reporting negative consequences of drinking by others (25%) and the Prairie provinces had the highest rates (36.7%). Those who speak neither English nor French at home reported harm less often.

Almost half of single respondents (49%), but only (9.2%) of those who are widowed report having experienced such harm. Regarding educational level, the highest rate of reporting harm occurred among those with some post-secondary education (37.2%) and those with university degrees had the lowest rates of reporting harm (20.1%). The lowest income category had a higher rate of reporting harm from others' alcohol-use (37.1%).

Multivariate Analysis

The analysis identifies independent associations between respondent characteristics/drinking behaviours and the odds or likelihood of reporting one or more types of harm from others' drinking. There are two sets of adjusted odds ratios: one excludes alcohol-use measures as predictors and one includes these measures. The results are presented in Table A13.

Table A13
One or more types of harm
experienced in past 12 months from
others' alcohol use by sex, age, region,
language, marital status, education,
income and drinking pattern, with and
without other predictors taken into
account

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio excluding / including alcohol-use predictor		
Overall	10044	31.2				
Sex						
Male	4927	33.5	1.111**	1.097**		1.009
Female	5117	29.0	.901**	.912**		.991
Age						
15-17	552	51.8	2.370**	2.304**		2.297**
18-19	319	63.0	3.755**	3.569**		3.302**
20-24	908	58.7	3.134**	3.237**		2.909**
25-34	2181	37.7	1.334**	1.736**		1.636**
35-44	2090	31.8	1.028	1.402**		1.341**
45-54	1541	24.6	.719**	.995		.987
55-64	1055	14.7	.380**	.513**		.533**
65-74	936	8.6	.207**	.287**		.316**
75+	462	3.5	.080**	.106**		.124**
Region						
Atlantic	891	33.2	1.096	.986		.964
Quebec	2662	30.7	.977	1.007		1.001
Ontario	3489	26.6	.799**	.735**		.749**
Prairies	1685	37.2	1.306**	1.203**		1.210**
B.C.	1318	35.4	1.208**	1.138		1.143
Language						
English	6693	32.8	1.076*	1.348**		1.276*
French	2417	30.2	.954	1.127		1.092
Other	644	23.8	.689**	.825		.937
Not stated	291	19.2	.524**	.798		.766
Marital status						
Married/common-law	5953	23.9	.693**	.701**		.720**
Single/never married	2808	50.1	2.214**	1.203*		1.180
Widowed	576	9.5	.231**	.856		.860
Divorced/separated	707	36.1	1.246*	1.385**		1.370**
Educational level						
Less than secondary	2678	28.8	.892*	1.044		1.013
Secondary	2450	30.8	.981	.948		.921
Some post-secondary	2930	37.4	1.317**	1.080		1.062
University degree	1628	27.4	.832**	.827*		.839
Not stated	358	20.1	.555**	1.132		1.202
Income						
Low	1647	37.2	1.306**	1.144*		1.165*
Middle	3545	30.8	.981	.994		.984
High	1258	32.3	1.052	1.051		1.019
Not stated	3594	28.5	.879**	.837**		.856**
Drinking pattern						
Lifetime abstainer	1294	17.3	.461**			.486**
Former drinker	1381	22.8	.651**			.667**
Light/infrequent	3472	31.4	1.009			.808**
Light/frequent	2988	31.0	.991			.943
Heavy/infrequent	346	59.3	3.213**			1.642**
Heavy/frequent	563	66.6	4.397**			2.469**

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
Dependent variable excludes "disturbed by parties".

* p< .01; ** p< .001

When controlled for drinking pattern, rates of reporting harm from others do not differ significantly between men and women. There is, however, a small but significant difference (1.097 vs. .912) when drinking behaviour is excluded from the predictor variables. The apparent gender difference in reporting harm from others' drinking is primarily due to men's drinking patterns, men being more likely to be heavier drinkers.

There is an inverse relationship between age and the rate of reporting harm from others' drinking; younger people are more vulnerable to such negative consequences of alcohol-use, while chances of consequences decrease in older groups. The pattern of results is remarkably unchanged in both multivariate analyses.

The regional variability of the rates of reported harm persists in both multivariate analyses. Residents of Ontario are least likely to report having experienced harm from others' drinking during the past year, while odds of reporting harm are highest for those living in the Prairie provinces.

After controlling for all of the other predictors, the only language-group effect is for English speakers who are more likely to report being harmed as a result of drinking by others. The effect of other language groups is not significant.

Logistic regression analyses confirm that married respondents are significantly less likely, and divorced/separated people are more likely to report harm from others' drinking. Single/never-married respondents have the highest rates for reporting this outcome (50.1%) and more than twice the likelihood of those in the other marriage categories (unadjusted odds ratio of 2.214). However, controlling for other demographic factors reduces the effect of the category upon the odds (1.203), and including drinking behaviour as a predictor results in a non-significant odds ratio. The reduction in the strength of single status as a predictor of harm probably has its source in the age effect. Younger people are more likely to report having been harmed, and younger people are more likely to be single.

Once adjusted for other factors, educational categories generally do not have a significant impact. A minor exception is the category of respondents with university degrees who have significantly lower odds of harm from others, when respondents' drinking is not taken into account. This effect is not significant once drinking pattern is included as a predictor.

These analyses confirmed that people with the lowest incomes are more likely to report having experienced alcohol-involved social consequences.

The alcohol-use relationship remains strong in the multivariate results, with a slight adjustment. Abstainers and light/infrequent drinkers are less likely to report

harm from others' alcohol-use in the past year, while odds are higher for heavy/infrequent and heavy/frequent drinkers. The odds ratio for light/frequent drinkers is not significant.

Family/Marital Problems and Assaults

The above analyses addressed harm from drinking by others without specifying which types of harm were involved. The vulnerability of different subpopulations to alcohol-related social consequences differs with the type of trouble. To illustrate this point, analyses were done of two types of harm: the impact of others' alcohol-use (1) on the family and (2) on being hit, pushed or assaulted.

For brevity, discussion of these two types of harm combines tabular and multivariate analyses.

Table A14
Family/marital problems in the past 12 months due to others' alcohol use, by sex, age, region, language, marital status, education, income and drinking pattern, with and without other predictors taken into account

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio excluding alcohol-use predictor	including
Overall	10014	5.6			
Sex					
Male	4911	3.9	.684**	.706**	.679**
Female	5103	7.2	1.308**	1.418**	1.473**
Age					
15-17	544	7.1	1.288	1.613	1.593
18-19	319	10.0	1.873*	2.606**	2.400**
20-24	908	7.6	1.387	2.069**	1.903**
25-34	2175	7.0	1.269*	1.925**	1.827**
35-44	2085	6.5	1.172	1.666**	1.632**
45-54	1538	5.1	.906	1.248	1.252
55-64	1052	3.0	.521**	.662	.694
65-74	932	2.1	.362**	.473*	.514*
75+	460	.4	.068**	.092**	.103**
Region					
Atlantic	890	6.2	1.114	.991	.973
Quebec	2660	4.7	.831	.888	.913
Ontario	3468	4.9	.869	.840	.858
Prairies	1683	7.0	1.269	1.128	1.107
B.C.	1314	7.1	1.288	1.200	1.184
Language					
English	6678	6.2	1.114	1.636*	1.547*
French	2416	4.8	.850	1.313	1.266
Other	644	3.1	.539*	.863	.960
Not stated	276	2.8	.486	.540	.532
Marital status					
Married/common-law	5937	5.0	.887	.906	.921
Single/never married	2797	6.8	1.230*	.942	.921
Widowed	574	2.1	.362**	.808	.821
Divorced/separated	707	8.3	1.526*	1.450*	1.435*
Educational level					
Less than secondary	2670	6.0	1.076	1.254	1.189
Secondary	2450	5.7	1.019	.902	.877
Some post-secondary	2926	6.4	1.153	.900	.892

(continued)

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio excluding	/ including alcohol-use predictor
University degree	1625	3.6	.630**	.542**	.558**
Not stated	343	4.0	.702	1.813	1.924
Income					
Low	1646	7.2	1.308*	1.103	1.091
Middle	3539	5.6	1.000	.949	.941
High	1256	6.2	1.114	1.209	1.214
Not stated	3572	4.6	.813*	.790*	.803*
Drinking pattern					
Lifetime abstainer	1291	2.6	.450**		.496**
Former drinker	1375	6.2	1.114		1.069
Light/infrequent	3464	6.6	1.191		.995
Light/frequent	2979	4.2	.739**		.811
Heavy/infrequent	346	9.3	1.729		1.349
Heavy/frequent	559	9.9	1.852**		1.731**

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
* p< .01; ** p< .001

Table A14 indicates that family/marital problems are not frequently reported in the sample: 5.6% of the respondents reported they experienced problems in the family or in the marriage because of someone else's drinking during the past year. Close to twice as many women as men report having had recent family or marriage problems because of someone else's drinking (3.9% versus 7.2%). This gender effect persists in both logistic regression analyses, with odds for women doubling the odds for men.

While percentage differences in age categories are not large, they are consistent; younger respondents are more likely to report this type of problem. It is most likely that respondents in the youngest age groups are referring to problems with parents or siblings, and not problems with a spouse. Multivariate analyses confirms such a pattern due to age groups.

Regional variations were minor, and none persisted in the multivariate analyses. People speaking English at home are most likely to report having alcohol-related family or marital problems, and separated or divorced people have increased odds of such problems.

The lower rates among university graduates observed remained intact after multivariate controls. People who have attained this level of education have decreased odds of reporting alcohol-related family problems. While higher rates were reported by people in the low-income category, the effect was no longer present in the multivariate results. Lifetime abstainers report the lowest rates of problems (2.6%), and, among current drinkers, light/frequent drinkers report lower rates (4.2%). The proportions for both categories of heavy drinkers are more than double the light/frequent drinkers' rates (heavy/infrequent 9.3%; heavy/frequent 9.9%). According to the multivariate results, the odds of heavy/frequent drinkers reporting marital/family problems (1.731) more than triple those for lifetime abstainers (.496).

Table A15

Physical assault in past 12 months due to others' alcohol use, by sex, age, region, language, marital status, education, income and drinking pattern, with and without other predictors taken into account

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio excluding / including alcohol-use predictor	
Overall	*9964*	*12.0*			
Sex					
Male	*4884*	*15.4*	*1.335***	*1.374***	*1.252***
Female	*5080*	*8.7*	*.699***	*.728***	*.799***
Age					
15-17	*536*	*28.0*	*2.852***	*3.365***	*3.454***
18-19	*319*	*33.5*	*3.694***	*4.734***	*4.267***
20-24	*905*	*33.7*	*3.728***	*5.578***	*4.857***
25-34	*2169*	*14.6*	*1.254***	*2.217***	*2.023***
35-44	*2083*	*8.8*	*.708***	*1.276*	*1.188*
45-54	*1522*	*5.9*	*.460***	*.820*	*.802*
55-64	*1047*	*2.9*	*.219***	*.374***	*.392***
65-74	*927*	*1.2*	*.089***	*.160***	*.183***
75+	*455*	*.6*	*.044***	*.081***	*.101***
Region					
Atlantic	*899*	*13.0*	*1.096*	*1.010*	*.965*
Quebec	*2650*	*12.1*	*1.010*	*.970*	*.990*
Ontario	*3440*	*10.0*	*.815***	*.788***	*.807**
Prairies	*1680*	*14.4*	*1.234**	*1.162*	*1.161*
B.C.	*1305*	*13.3*	*1.125*	*1.115*	*1.118*
Language					
English	*6649*	*12.5*	*1.048*	*1.238*	*1.147*
French	*2411*	*12.0*	*1.000*	*1.240*	*1.142*
Other	*642*	*9.9*	*.806*	*.971*	*1.143*
Not stated	*262*	*5.0*	*.386***	*.672*	*.668*
Marital status					
Married/common-law	*5909*	*6.8*	*.535***	*.637***	*.666***
Single/never married	*2785*	*24.9*	*2.431***	*1.159*	*1.127*
Widowed	*571*	*1.5*	*.112***	*.770*	*.773*
Divorced/separated	*699*	*13.7*	*1.164*	*1.760***	*1.726***
Educational level					
Less than secondary	*2661*	*12.2*	*1.019*	*1.252*	*1.188*
Secondary	*2441*	*12.6*	*1.057*	*1.089*	*1.050*
Some post-secondary	*2915*	*14.4*	*1.234***	*1.016*	*.988*
University degree	*1621*	*7.9*	*.629***	*.694**	*.712**
Not stated	*327*	*5.5*	*.427***	*1.040*	*1.141*
Income					
Low	*1642*	*14.9*	*1.284***	*1.023*	*1.036*
Middle	*3538*	*11.4*	*.944*	*1.041*	*1.029*
High	*1252*	*11.6*	*.962*	*1.142*	*1.104*
Not stated	*3532*	*11.4*	*.944*	*.822**	*.849**
Drinking pattern					
Lifetime abstainer	*1289*	*4.7*	*.362***		*.422***
Former drinker	*1371*	*6.3*	*.493***		*.616***
Light/infrequent	*3439*	*11.3*	*.934*		*.893*
Light/frequent	*2965*	*11.3*	*.934*		*1.042*
Heavy/infrequent	*345*	*32.5*	*3.531***		*1.746***
Heavy/frequent	*556*	*38.2*	*4.533***		*2.373***

Note: *Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.*

Variable derived from A39P "pushed/shoved" and A39V "hit/assaulted".

* *p< .01;* ** *p< .001*

In contrast with family/marital problems, prevalence of physical assault due to alcohol-use is high: 12% of the respondents reported being physically bothered in some way as a result of someone else's drinking (Table A15). Also in contrast with the above problems, men had a higher rate (15.4%) than women (8.7%), and the results are verified in the multivariate results. Younger people had dramatically higher rates of assault, especially between ages 18 and 24.

Those living in Ontario report the lowest rates for physical harm, and the finding persists in the multivariate analysis. Cross-tabulations suggest large diffe- rences in rates of reporting physical harm from others according to marital status. People with partners have lower rates (6.8%), single people have the highest rates (25.9%), the proportion of widows is negligible (1.5%), while (13.7%) of those who are divorced or separated report having had this problem during the past year. When the factors are adjusted in the multivariate analysis, marriage remains a pro- tector against physical harm, and the status of divorced/separated is associated with increased odds of reporting such harm. Odds ratios for single status and widowhood are not significant. The only educational category with significant effects after mul- tivariate adjustment was university completion; respondents with a university degree are significantly less likely than others to report physical harm. Higher rates are reported among people in the low-income category, but the effect does not per- sist in the multivariate analysis.

Rates for reporting physical harm from others increase considerably with drinker categories, and the increase is especially sharp between the light and heavy drinker categories (light/infrequent and frequent, both 11.3%, heavy/infrequent, 32.5%, heavy/frequent, 38.2%). The multivariate analysis distinguishes between the non-drinkers, whose odds of assault are significantly decreased, and heavy drinkers, whose odds are increased.

Harm to self and harm from others due to drinking are results of a complex of characteristics, circumstances and behaviour. Certain characteristics appear to be consistently linked to an array of alcohol-related misfortune. Clearly, youth seems to be a vulnerable time for self- and other-inflicted harm. While youth is an ascribed characteristic, it is not a permanent one. People who live in Ontario can expect relatively lower rates of trouble involving alcohol. Because of the repetition of independent regional effects, some closer examination is in order. Both financial and cultural capital appear fairly consistently as protectors against trouble from alcohol. Having less income and less education is associated with more trouble. Social supports also appear to be related to the likelihood of reporting trouble with

alcohol. Marriage/having a partner seems to be a general protector against such trouble, while being separated or divorced is associated with increased harm from one's own drinking and from the drinking behaviour of others.

References

1   Yukon Bureau of Statistics. (1991). *Yukon Alcohol and Drug Survey.* Whitehorse: Executive Council Office.

2   Yukon Bureau of Statistics. (1994). *What the Numbers Say: A Review of the Methodology and the Results of the 1993 Yukon Health Promotion Survey.* Whitehorse: Executive Council Office.

CHAPTER 3

TOBACCO

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The human cost of tobacco use is high. In 1991, an estimated 45,064 deaths in Canada were attributable to smoking.[1] Smoking is associated with numerous health problems, including cardiovascular diseases, cancer, respiratory diseases, diseases of the digestive system, health problems during pregnancy and pediatric diseases. Exposure to environmental tobacco smoke is associated with an increased risk of acute and chronic health problems. Particularly vulnerable to environmental tobacco smoke are children. Smoking is also associated with house fires and other accidents. Clearly, smoking is a major public-health problem.

Based on CADS, 1994, overall, 45.5% of Canadians had never smoked, 26.3% used to smoke, and 27% were current smokers. Figure T1 presents tobacco-use trends in terms of overall percentages in the Canadian population. Overall, in the past 30 years, there has been a decreasing trend in the proportions of current smokers, with a relatively stable prevalence from 1990 to 1994.[2] However, among those aged 15 to 19, the prevalence of current smoking increased to 27% in 1994 from 23% in 1991.[3] In 1994, the prevalence of current smoking among 15- to 19-year-olds was 30.4%. The reversal of the downward trend is compatible with the appearance of low-priced contraband in Canada in the early 1990s, and the subsequent lowering of federal taxes on cigarettes in February 1994. Price as a determinant of smoking, especially among youth, has been highlighted in the literature.[4] Given the likelihood of a lifetime's addiction to tobacco emanating from adolescent smoking, the increasing evidence of a reversal in prevalence of smoking among youth is cause for concern.

Trends

% of smokers
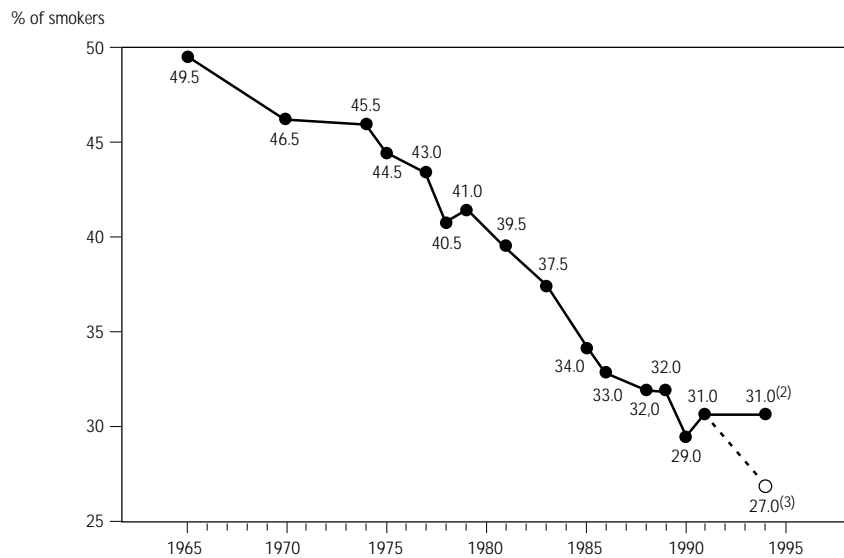
Figure T1
Trends in tobacco use of Canadians
1965 to 1994[1]

Sources: [1] *Williams, B. Canadian Profile: Alcohol, Tobacco and Other Drugs, 1995*
[2] *Statistics Canada. Survey on Smoking in Canada, 1994.*
[3] *Health Canada. Canada's Alcohol and Other Drugs Survey, 1994.*

The "quitting rate" is defined as the percentage of people who have quit among all those who have ever smoked, that is the percentage of former smokers divided by the percentages of former and current smokers combined. The Canada-wide quitting rate is 49.3%, indicating that about one half of those who have ever smoked are no longer smoking. The last column in Table T1 presents demographic information about quitting rates. The proportion of people quitting smoking increases with age, to more than 66% for people 65 and older and from about 1 in 4 for those 15 to 24. The higher quitting rate among the older age groups may reflect a greater need or desire to quit smoking, for example, because of medical problems. Regional differences ranging from 46.1% in Quebec to 53.4% in British Columbia, and gender differences (50.3% for men and 48.3% for women) are not statistically significant.

Single or never-married people are less likely (32.2%), and married or widowed people are more likely (56.2% and 62.4% respectively) to have quit smoking as compared to the overall rate of 49.3%. The association between marital status and smoking is at least partly due to the age effect observed above. The quitting rate also increases with both educational level (from 42.6% to 64.7%) and income adequacy (from 40.5% to 59%).

Table T1
Tobacco-use status, by sex, age, region, language, marital status, education and income

	Population estimate (000s)	TOBACCO-USE STATUS (PERCENT)				Quitting rate
		Never smoked	Former smoker	Current smoker	Not stated	
Overall percentages in the population (as reported in the Preview 1995)	*23,030*	*45.5*	*26.3*	*27.0*	*1.3*	*49.3*
Overall percentages (excluding "not-stated" category)	*22,352*	*46.0*	*26.7*	*27.3*		*49.3*
Sex						
Male	*10,978*	*42.0*	*29.2*	*28.8*		*50.3*
Female	*11,374*	*50.0*	*24.3*	*25.7*		*48.3*
Age						
15-17	*1,221*	*62.6*	*10.6*	*26.8*		*28.0*
18-19	*705*	*51.7*	*11.4Q*	*36.9*		*23.4*
20-24	*2,014*	*53.0*	*12.4*	*34.6*		*26.6*
25-34	*4,854*	*48.7*	*20.2*	*31.1*		*39.3*
35-44	*4,643*	*41.3*	*28.9*	*29.9*		*48.6*
45-54	*3,417*	*40.2*	*33.1*	*26.7*		*55.3*
55-64	*2,363*	*39.6*	*37.9*	*22.6*		*62.9*
65-74	*2,101*	*44.2*	*37.6*	*18.2*		*66.3*
75+	*1,034*	*55.9*	*35.6*	*8.5Q*		*81.5*
Region						
Atlantic	*1,886*	*39.0*	*29.3*	*31.7*		*47.9*
Quebec	*5,748*	*37.7*	*28.7*	*33.6*		*46.1*
Ontario	*8,165*	*53.8*	*23.3*	*22.9*		*50.1*
Prairies	*3,675*	*45.6*	*28.0*	*26.4*		*51.4*
B.C.	*2,878*	*46.1*	*28.7*	*25.2*		*53.4*

(continued)

	Population estimate (000s)	TOBACCO-USE STATUS (PERCENT)				Quitting rate
		Never smoked	Former smoker	Current smoker	Not stated	
Language						
English	14,779	46.7	27.2	26.1		50.8
French	5,138	37.3	29.3	33.3		46.6
Other	1,437	62.3	15.7	21.9		42.2
Not stated	997	58.5	21.3	20.2		51.8
Marital status						
Married/common law	13,276	43.9	31.6	24.5		56.2
Single/never married	6,225	52.8	15.2	32.0		32.2
Widowed	1,290	49.9	31.2	18.9		62.4
Divorced/separated	1,561	33.7	27.3	39.0		41.2
Educational level						
Less than secondary	5,841	39.3	26.1	34.7		42.6
Secondary	5,347	42.9	26.9	30.2		47.1
Some post-secondary	6,412	46.0	27.9	26.2		51.5
University degree	3,581	58.0	27.2	14.8		64.7
Not stated	1,170	58.1	20.7	21.2		50.1
Income						
Low	3,573	40.9	24.1	35.1		40.5
Middle	7,700	40.5	29.8	29.7		50.1
High	2,752	45.9	32.1	22.0		59.0
Not stated	8,327	53.4	23.2	23.4		49.6

Note: Quitting rate = % former/(% former + % current)

Q   Qualified release due to high sampling-variability

In 1994, an estimated 6.2 million (27%) Canadians 15 years of age or older were current smokers. Among smokers, 2.8% smoke an average of fewer than one cigarette per day; 31.2% smoke from one to 10 cigarettes per day; 58.7% smoke 11 to 25 cigarettes per day; and 7.3% smoke 26 or more cigarettes per day. Among current smokers, males are more likely than females to smoke 26 or more cigarettes per day (9.9% vs. 4.6%), and females are more likely than males to smoke 10 or fewer cigarettes per day (38.1 vs. 30.1%). The highest proportions of people smoking 26 or more cigarettes per day occurs among those aged 45 to 64 years (13.6%).

Consumption Level

About 27% of the Canadian population report being current smokers. Table T1 shows that a higher percentage of males (28.8%) than females (25.7%) report smoking. The highest proportion of current smokers is found among youth; about 37% of 18- to 19- year olds, and 35% of 20- to 24-year olds report being current smokers. Smoking is much less prevalent among older age groups; fewer than one in five respondents over age 65 report being current smokers.

Correlates of Current Smoking

   The proportions of the population who smoke vary across Canada. The highest proportions are found in Quebec and in the Atlantic region, where about one in

three respondents report being current smokers. The lowest rates are found in Ontario, where fewer than one in four respondents report being current smokers.

Smoking status also appears to vary according to language spoken at home. The lowest proportion of current smoking (21.9%) occurs among people who speak other than English or French at home. A majority (62.3%) in this language group have never smoked.

Table T1 also suggests that a larger proportion of francophones than of anglophones are current smokers (33.3% vs. 26.1%). However, the French language is not distributed evenly across the country—most persons whose language at home is French reside in Quebec. Table T2 presents the percentages of current smokers by language within each region. Once region is taken into account, there is very little difference in the proportions of current smoking when comparing persons whose language at home is French with those whose language is English. For example, in Quebec, 34% of francophones smoke compared with 35.3% of anglophones. In Ontario, 26.8% of francophones smoke compared with 23.1% of anglophones.

LANGUAGE SPOKEN AT HOME

	English		French		Other		Overall	
	Pop. est. *(000s)*	*%*	*Pop. est.* *(000s)*	*%*	*Pop. est.* *(000s)*	*%*	*Pop. est.* *(000s)*	*%*
Canada	14,779	26.1	5,138	33.3	1,437	21.9	22,352	27.3
Atlantic	1,646	32.3	215	28.0[q]	14	--	1,886	31.7
Quebec	596	35.3	4,678	34.0	268	24.8[q]	5,748	33.6
Ontario	6,646	23.1	176	26.8	774	23.9	8,165	22.9
Prairies	3,297	27.4	49	22.6[q]	200	17.0[q]	3,675	26.4
B.C.	2,594	26.3	20	--	180	15.8[q]	2,878	25.2

[q]   *Qualified release due to high sampling-variability*

--   *Not for release due to unacceptably high sampling-variability*

The proportions of the population who smoke also vary according to marital status (Table T1). About 39% of divorced or separated respondents and 32% of single/never-married respondents report being current smokers, whereas less than 25% of married and 19% of widowed respondents report being current smokers. The low prevalence in the last group is probably related to age, as confirmed by logistic regression.

Current smoking is inversely related to education and income, that is, the higher the educational and income levels, the lower the percentage of current smokers (Table T1). About one in three people (34.7%) with less than secondary-

school education smoke, compared with about one in seven (14.8%) with a university degree. Whereas 35.1% of people with a low income currently smoke, only 22% of people with a high income do.

Thus, current smoking is associated with age, gender, region, marital status, education and income. It remains to be seen whether each of these characteristics is related to smoking, when the other factors are taken into account.

Table T3 presents the results of logistic regression comparing current smokers with the rest of the respondents. Using this technique, further confirmation of the associations between current smoking and many demographic characteristics is obtained. Taking into account all other demographic characteristics, males are more likely to be current smokers than are females. People from 18 to 54 years old are more likely to be current smokers (adjusted odds ratio from 1.29 to 1.86) and those aged 15 to 17 and 65 and over are less likely (adjusted odds ratio of .73 and less than .60) as compared to the overall odds. People living in Quebec are more likely to be current smokers (adjusted odds ratio 1.40) and people in Ontario are less likely (adjusted odds 0.81) in comparison to the overall odds. Those who are divorced or separated are more likely to be current smokers (adjusted odds ratio 1.43), and married people less likely (adjusted odds ratio 0.74).

	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Overall	10227	27.4		
Sex				
Male	5024	28.9	1.077	1.086**
Female	5204	25.9	.926	.921**
Age				
15-17	559	26.9	.975	.728*
18-19	322	36.7	1.536**	1.600**
20-24	921	34.6	1.402**	1.856**
25-34	2218	31.2	1.202**	1.785**
35-44	2126	30.0	1.136*	1.625**
45-54	1564	26.8	.970	1.290**
55-64	1082	22.7	.778**	.864
65-74	962	18.3	.594**	.604**
75+	473	8.6	.249**	.237**
Region				
Atlantic	894	31.7	1.230*	1.099
Quebec	2709	33.6	1.341**	1.403**
Ontario	3591	22.9	.787**	.813**
Prairies	1701	26.4	.950	.892
B.C.	1333	25.2	.893	.895
Language				
English	6711	26.2	.941	1.218*
French	2416	33.3	1.323**	1.062

Table T3

Current smokers vs. current non-smokers by sex, age, region, language, marital status, education and income, with and without other predictors taken into account

(continued)

Table T3
Current smokers vs. current non-
smokers (cont'd)

	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Other	*650*	*21.9*	*.743**	*.881*
Not Stated	*450*	*20.3*	*.675***	*.877*
Marital status				
Married/common-law	*6078*	*24.6*	*.864***	*.735***
Single/never married	*2845*	*32.1*	*1.253***	*.978*
Widowed	*591*	*18.9*	*.618***	*.969*
Divorced/separated	*714*	*39.2*	*1.708***	*1.434***
Educational level				
Less than secondary	*2684*	*34.8*	*1.414***	*1.854***
Secondary	*2447*	*30.3*	*1.152**	*1.143*
Some post-secondary	*2937*	*26.3*	*.946*	*.835**
University graduate	*1632*	*14.8*	*.460***	*.445***
Not stated	*528*	*21.3*	*.717**	*1.268*
Income				
Low	*1647*	*35.2*	*1.439***	*1.221***
Middle	*3544*	*29.8*	*1.125**	*1.068*
High	*1258*	*22.1*	*.752***	*.893*
Not stated	*3779*	*23.5*	*.814***	*.859***

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
* p< .01; ** p< .001*

Taking into account all other demographic characteristics, educational level is found to be a strong predictor of current smoking. The odds are inversely related to the educational level, with the odds ratios decreasing to 0.45 (university degree) from 1.85 (less than secondary). Finally, income level is also a predictor of current smoking. People with a low income are more likely to be current smokers (adjusted odds ratio 1.22) as compared to the overall odds.

Logistic regression analysis helps clarify the relationship between current smoking and language spoken at home. Once all the other predictors including region are taken into account, people who speak French at home are not found to be at significantly higher risk. However, people who speak English at home are found to be at higher risk (adjusted odds ratio 1.22).

Smoking and Alcohol

There is an association between smoking status and alcohol consumption (Table T4). The definitions for the categories of drinking patterns are found in the section on alcohol.

The proportion of current smoking increases according to increasing alcohol consumption, to 59.3% current smokers among heavy/frequent drinkers from 13% current smokers among lifetime alcohol-abstainers. The majority (75%) of lifetime abstainers from alcohol have never smoked. The majority of heavy drinkers are current smokers (51% for the heavy/infrequent and 59.3% for the heavy/frequent).

Furthermore, the association between tobacco- and alcohol-use remains strong, when the demographic variables are taken into account in a multivariate analysis (data not presented).

| | | TOBACCO-USE STATUS (PERCENT) | | |
Drinking Pattern	Pop. est. (000s)	Lifetime Non-smoker	Former Smoker	Current Smoker
Lifetime abstainer	2,890	75.0	12.0	13.0
Former drinker	3,073	44.1	31.4	24.5
Light/infrequent drinker	7,706	47.1	26.8	26.0
Light/frequent drinker	6,682	39.0	33.5	27.4
Heavy/infrequent drinker	757	30.1	18.9	51.0
Heavy/frequent drinker	1,243	24.1	16.5	59.3

Table T4
Tobacco-use status and drinking pattern

Note: N=22,030,000.

1   Ellison, L.F., Mao, Y., Gibbons, L. (1995). Projected Smoking-attributable Mortality in Canada, *1991-2000. Chronic Diseases in Canada,* Spring: 84-89.

2   Williams, B., Single, E., McKenzie, D. (1995). *Canadian Profile: Alcohol, Tobacco and Other Drugs.* Ottawa: Canadian Centre on Substance Abuse and Addiction Research Foundation

3   Stephens, T. (1995). Trends in the Prevalence of Smoking, *1991-1994. Chronic Diseases in Canada,* Winter: 27-32.

4   *Ibid.*

References

CHAPTER 4

LICIT DRUGS

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CADS asked respondents about their use of five types of prescription medications. Here, use is defined as having taken prescribed pain pills, sleeping pills, tranquilizers, antidepressants or diet pills (stimulants) in the 12 months prior to the survey.

There appears to have been a slight downward trend in the use of prescription tranquilizers and sleeping pills in the past decade. Prevalence of tranquilizer-use decreased to 4% in 1994 from 6% in 1985[1] and 5% in 1990.[2] The prevalence of the use of sleeping pills decreased to 4.5% in 1994 from 8% in 1985[3] and 7% in 1990.[4] Of note is that the decreasing trend is pronounced among women. From 1985 to 1994, the proportions of women using tranquilizers decreased to 5% from 8%, and the proportions of women using sleeping pills decreased to 5% from 10%.[5] No clear trend emerges regarding the use of the remaining prescription medications.

Overall, 20.8% of Canadians used at least one of the five prescription medications in 1994. A larger proportion of females than males reported using at least one of the medications (23.9% vs. 17.7% respectively).

The proportions of the population reporting use of each of the five medications and use of at least one of the five medications is presented in Table M1. The most commonly reported medication was prescription pain medication (13.1%). About three to five percent of Canadians reported using sleeping pills, tranquilizers or antidepressants. Fewer than one in 100 Canadians reported using diet pills (0.9%).

		TYPE OF PRESCRIPTION MEDICATION					
	Pop. est. (000s)	Pain pills	Sleeping pills	Tran- quilizers	Anti- depressants	Diet pills	One or more
Overall	*23,030*	*13.1*	*4.5*	*4.3*	*3.0*	*.9*	*20.8*
Sex							
Male	*11,338*	*12.0*	*3.7*	*3.4*	*1.7*	*.7Q*	*17.7*
Female	*11,692*	*14.1*	*5.4*	*5.3*	*4.2*	*1.0*	*23.9*
Age							
15-24	*4,010*	*14.0*	*3.0*	*1.3Q*	*1.2Q*	*1.9Q*	*18.5*
25-44	*9,754*	*13.9*	*3.5*	*2.9*	*3.0*	*.7Q*	*19.8*
45-64	*6,001*	*11.3*	*4.7*	*6.4*	*3.9*	*.5Q*	*20.4*
65+	*3,265*	*12.6*	*9.2*	*8.4*	*3.2*	*—*	*27.4*
Region							
Atlantic	*1,907*	*13.3*	*4.3*	*4.4*	*3.3*	*1.1Q*	*21.5*
Quebec	*5,796*	*6.8*	*5.8*	*6.8*	*3.7*	*.7Q*	*18.5*
Ontario	*8,673*	*12.6*	*3.5*	*3.3*	*1.8*	*.7Q*	*17.9*
Prairies	*3,715*	*17.5*	*4.5*	*3.2*	*3.7*	*1.2Q*	*24.9*
B.C.	*2,939*	*21.2*	*5.3*	*4.0*	*3.9*	*.9Q*	*28.4*

(continued)

Table M1
*Percentages reporting prescription-
medication use in past 12 months
(cont'd)*

	Pop. est. (000s)	Pain pills	Sleeping pills	Tran- quilizers	Anti- depressants	Diet pills	One or more
Language							
English	15,000	16.6	4.4	3.8	3.1	1.1	23.7
French	5,170	7.3	6.4	7.5	3.9	.5[Q]	19.8
Other	1,452	6.6	3.4[Q]	2.3[Q]	––	––	10.7
Not stated	1,402	3.3[Q]	––	––	––	––	4.2[Q]
Marital status							
Married/common law	14,000	12.8	4.2	4.4	2.8	.6[Q]	20.1
Single/never married	6,317	13.1	3.9	2.7	2.0	1.6	19.2
Widowed	1,316	13.4	9.4	7.5	4.6[Q]	––	27.9
Divorced/separated	1,587	16.4	6.6	7.9	7.1	––	28.6
Not stated	246	—	—	—	—	—	9.8[Q]
Educational level							
Less than secondary	5,936	13.8	6.0	6.9	3.4	1.0[Q]	24.5
Secondary	5,415	14.0	4.1	4.0	3.0	1.0[Q]	21.3
Some post-secondary	6,455	14.4	4.3	3.6	2.8	1.0[Q]	21.6
University degree	3,610	12.5	5.1	3.6	3.5	––	19.7
Not stated	1,614	3.6[Q]	––	––	––	––	5.2[Q]
Income							
Low	3,612	14.4	5.9	5.9	3.7	1.6[Q]	25.1
Middle	7,742	14.4	4.9	4.3	3.7	.7[Q]	22.7
High	2,778	14.9	4.7	4.1	2.8[Q]	––	22.2
Not stated	8,898	10.9	3.6	3.8	2.1	.7[Q]	17.[Q]

Above all columns: TYPE OF PRESCRIPTION MEDICATION

[Q]   Qualified release due to high sampling-variability

––   Not for release due to unacceptably high sampling-variability

Correlates of Prescription Medication Use

The results in Table M1 show a striking pattern. For all of the above types of medications, as well as for use of at least one of them, a larger proportion of females than males report use over the course of 12 months. The association between prescription drug use and gender has been observed in previous surveys in Canada.[6,7,8]

Use of pain medication appears to be more -or- less evenly distributed across all age groups. In the case of diet pills, young people are more likely than older people to use these stimulants. In contrast, use of prescribed tranquilizers, sleeping pills and antidepressants increases with age (Table M1). For example, about 1% of people under 20 years of age use tranquilizers, whereas, by 65 years of age, more than 8% do. A similar pattern emerges for sleeping pills and antidepressants. Use of one or more medications increases to 27.4% in the oldest (65+) from 18.5% in the youngest age group (15-24) . The finding of an association between aging and use of prescription psychotropic medications is consistent with previous surveys.[9,10,11] That older people may be on psychotropic and many other medications at the same time is a cause for concern. Because of a reduced rate of drug metabolism and

excretion in the elderly, use of psychotropic medications can result in a decreased state of alertness or in harmful drug interactions, which can further compromise the health of the elderly.

There are large regional differences in use of some types of prescription drugs. In Quebec, 6.8% of people 15 years old and older report using prescription pain medication, whereas 21.2% of people in British Columbia report use. In the other regions, prevalence of use ranges from 12.6% to 17.5%. Use of tranquilizers appears to be most prevalent in Quebec, where 6.8% of the population reports use. Similar regional differences were noted in the *National Alcohol and Other Drugs Survey* in 1989 and the *General Social Survey* in 1993.[12,13]

Prescription-medication use is also related to the language spoken at home (Table M1). In the case of tranquilizers and sleeping pills, a larger proportion of francophones than anglophones report using those medications (for tranquilizers, 7.5% vs. 3.8%; for sleeping pills, 6.4% vs. 4.4%). However, the reverse is the case with prescription pain medication, where 16.6% of anglophones in contrast with 7.3% of francophones report use.

In the current survey, marital status appears to play a role in the use of some prescription medications. Separated, divorced or widowed people are more likely than single or married people to report using prescription sleeping pills, tranquilizers and antidepressants. For example, 9.4% of widowed people but only about 4% of single or married people report using prescription sleeping pills.

People who used prescription pain pills, sleeping pills, tranquilizers, antidepressants or stimulants for 30 days or more in the past 12 months were asked about harmful effects arising from their use, including harm to their social life, physical health, happiness, home life, marriage, work or finances.

Harmful Consequences Arising from the Use of Prescription Medications

As presented in Figure M1, 15.7% of respondents who were asked these questions reported having experienced at least one harm as a result of their drug use in their lifetime. Also, 11.6% of respondents who had used at least one of the above medications 30 days or more in the 12 months prior to the survey reported having experienced at least one harm recently (in the 12 months prior to the survey).

HARM

Physical Health — 10.6 (2,667) / 7.3

Outlook on Life — 7.7 (2,667) / 5.6

Work/Studies/ Employment — 5.4 (2,554) / 4.0

Financial Position — 4.5 (2,650) / 4.0

Friendships — 3.8 (2,663) / 2.3ᵠ

Home Life — 5.2 (2,050) / 4.0ᵠ

Spouse/ Partner — 3.4ᵠ (2,152) / 2.4ᵠ

Children — 3.2ᵠ (1,985) / 2.1ᵠ

Any of the Above Harms — 15.7 (2,667) / 11.6

Lifetime: Percent

Past 12 months: Percent

(Pop. est. (000s))
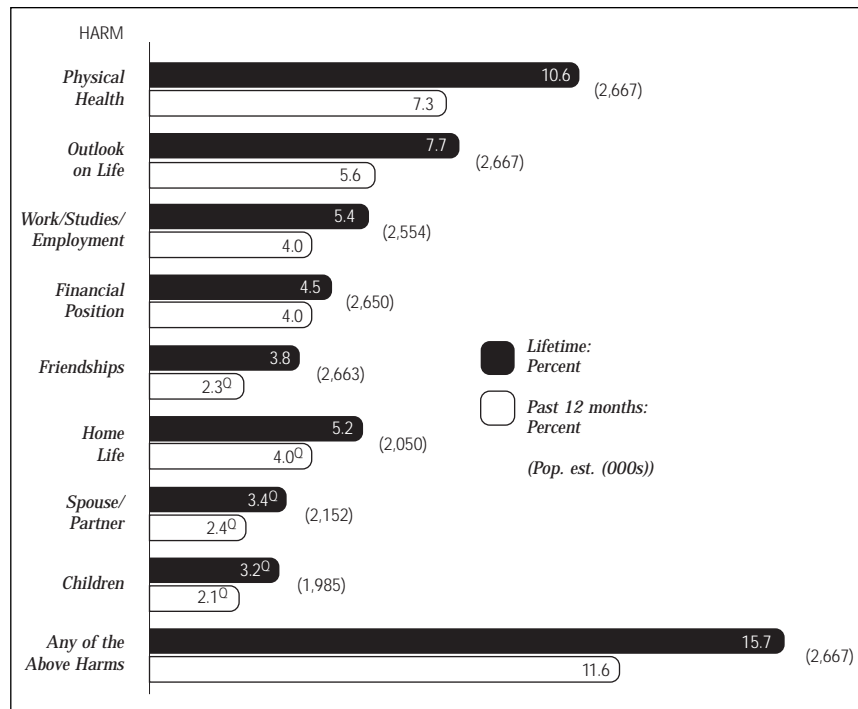
Note: **Percentages of those who used at least one of the five prescription medications (pain pills, sleeping pills, tranquilizers, antidepressants and diet pills) for 30 days or more in the past 12 months. Population estimates reflect exclusion of "not applicable" categories.**

Q   **Qualified release due to high sampling-variability**

––   **Not for release due to unacceptably high sampling-variability**

Figure M1 shows the proportions of prescription-medication users who repor-ted various types of harm during their lifetime and in the past 12 months. The most frequently reported harm was harm to physical health, reported by 10.6% of people who used medications in their lifetime and by 7.3% of those who used medications in the 12 months prior to the survey. Least frequently reported were problems with friendships, spouse/partners or children.

Age	Pop. est.(000s)	Lifetime	Past 12 months
All ages	2,667	15.7	11.6
15-24	232	31.7	25.5ᵠ
25-44	899	19.0	14.1
45-64	829	16.7	12.7
65+	706	5.2ᵠ	––

Note: **Percentages of those who used at least one of the five prescription medications (pain pills, sleeping pills, tranquilizers, antidepressants and diet pills) for 30 days or more in the past 12 months.**

Q   **Qualified release due to high sampling-variability**

––   **Not for release due to unacceptably high sampling-variability**

The reporting of harmful consequences of medication use appears to be inversely related to age. Table M2 shows that, with increasing age, in general,

decreasing proportions of persons reported experiencing at least one harm from their medication use, both during their lifetime and recently. This finding was unexpected, especially given that the use of tranquilizers, antidepressants and sleeping pills increases with increasing age.

A possible explanation is that harm itself may be perceived, recalled or reported differently by persons in different age groups. For example, young persons may consider acute side effects from psychotropic medications as problems with physical health. Or, older persons may interpret physical harm to mean chronic health problems but ignore acute side effects. Or, older persons may not acknowledge new health problems arising from the very medications intended to treat existing health problems. Further research is needed to clarify the association between age and harmful consequences arising from the use of prescription medications.

1   Lamarche, P. and Rootman, I. *(*1988*)*. Drug use. In Rootman I., Warren, R., Stephens T., Peters, L. (eds.), *Canada's Health Promotion Survey: Technical Report*. Ottawa: Minister of Supply and Services.

2   Adlaf E.M. *(*1993*)*. Alcohol and Other Drug Use. In Stephens, T. and Fowler-Graham, D. (eds.), *Canada's Health Promotion Survey 1990: Technical Report*. Ottawa: Ministry of Supply and Services Canada.

3   Lamarche, P. and Rootman, I. *(*1988*)*. Canada's Health Promotion Survey: Technical Report.

4   Adlaf, E.M. *(*1993*). Canada's Health Promotion Survey 1990: Technical Report.*

5   Lamarche, P. and Rootman, I. *(*1988*). Canada's Health Promotion Survey: Technical Report.*

6   Adlaf, E.M. *(*1993*). Canada's Health Promotion Survey: Technnical Report.*

7   Single, E., MacLennan, A., MacNeil, P. (1994). *Horizons 1994: Alcohol and Other Drug Use in Canada*. Ottawa: Health Canada and Canadian Centre on Substance Abuse.

8   Eliany, M., Giesbrecht, N., Nelson, M., Wellman, B., Wortley, S., (eds.) (1992). *Alcohol and Other Drug Use by Canadians: A National Alcohol and Other Drugs Survey (1989) Technical Report*. Ottawa: Supply and Services Canada.

9   Adlaf, E.M. *(*1993*). Canada's Health Promotion Survey: Technnical Report.*

10   Single, E. et al. (1994). *Horizons 1994.*

11   Eliany, M. et al. (1992). *Alcohol and Other Drug Use by Canadians.*

12   *Ibid.*

13   Single, E. et al. (1994). *Horizons 1994.*

CHAPTER 5

ILLICIT DRUGS

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CADS included questions on lifetime and current use of five types of illegal substances: cannabis, cocaine or crack, LSD, amphetamines and heroin, as well as steroids and solvent sniffing. Table D1 presents the prevalence (overall and by gender) of use of each substance and combinations of drugs. There is a consistent gender difference across most of the drugs and drug combinations: a larger proportion of males than females report using these drugs.

The proportions of Canadians reporting the use of cocaine or crack, LSD, amphetamines and heroin, are small and appear to have changed little from 1989 to 1994. However, prevalence of cannabis use has fluctuated over the past five years. The proportion of Canadians reporting use was 6.5% in 1989, 5% in 1990, 4.2% in 1993 and 7.4% in 1994.[1,2,3]

Trends

Cannabis is the most widely used illegal drug in Canada (Table D1). The prevalence of lifetime use is 28.2%, while current use (any use in the 12 months preceding the survey) is 7.4%. (Note: If 'one-time users' are excluded, the percentages are 23.1% and 7% respectively.) The rates are consistently higher among males.

Cannabis

During the 12 months prior to the survey, 3.2% of Canadians reported use at least once a month. Again, a gender difference exists with 4.7% for men and 1.8% for women.

Table D2 presents the percentages of respondents reporting any use of cannabis according to key demographic characteristics. In general, cannabis is used by young people. The proportion of users steadily decreases with age, to less than 1.4% among people more than 45 years of age and 10% among people 25 to 34, from about 25% among those 15 to 19 years old. Cannabis use also varies according to region, with the highest proportion in British Columbia (11.6%), and the lowest in Ontario (5.1%).

	Lifetime			Current		
	Overall	*Male*	*Female*	*Overall*	*Male*	*Female*
Pop. Est. (000s)	*23,030*	*11,337*	*11,692*	*23,030*	*11,337*	*11,692*
Illicit drugs						
Cannabis[1]	*28.2*	*33.5*	*23.1*	*7.4*	*10.0*	*4.9*
Cannabis[2]	*23.1*	*27.7*	*18.7*	*7.0*	*9.5*	*4.6*
Crack/Cocaine	*3.8*	*4.9*	*2.7*	*.7*	*.8Q*	*.5Q*
LSD	*5.2*	*7.2*	*3.3*	*.9*	*1.3*	*.6Q*
Speed (Amphetamines)	*2.1*	*3.1*	*1.2*	*.2Q*	*.4Q*	*—*
Heroin	*.5*	*.8*	*—*	*—*	*—*	*—*
LSD/Speed/Heroin	*5.9*	*8.1*	*3.6*	*1.1*	*1.5*	*.7Q*
Any illicit drug use[3]	*28.5*	*33.6*	*23.5*	*7.6*	*10.1*	*5.1*

Table D1
Percentages reporting use of illicit drugs, steroids and solvents in lifetime and past 12 months, overall and by sex

(continued)

Table D1
Percentages reporting use of illicit
drugs, steroids and solvents in lifetime
and past 12 months, overall and by sex
(cont'd)

	Lifetime			Current		
	Overall	*Male*	*Female*	*Overall*	*Male*	*Female*
Illicit drug use[4]	*23.9*	*28.5*	*19.4*	*7.3*	*9.7*	*4.9*
Steroids	*0.3q*	*0.4q*	*—*	*—*	*—*	*—*
Solvents	*0.8*	*1.2*	*0.3q*	*—*	*—*	*—*

[1] *Includes "one-time only" use*

[2] *Excludes "one-time only" use*

[3] *Use of at least one of 5 illicit drugs, including "one-time only" use of cannabis*

[4] *Use of at least one of 5 illicit drugs, excluding "one-time only" use of cannabis*

q *Qualified release due to high sampling-variability*

— *Not for release due to unacceptably high sampling-variability*

Cannabis use varies according to the language spoken at home, with the lowest proportion (2.7%) occurring among people who speak other than English or French at home. However, there is little difference in the proportions of cannabis users between those who speak English and those who speak French (8.0% and 8.7% respectively). Regarding marital status, cannabis use is markedly more prevalent among the single or never-married. This finding is probably related to the young age of most cannabis users.

No clear association emerges between cannabis use and educational level. Finally, a larger proportion of people in the low-income group than the remaining income-adequacy groups use cannabis.

Correlates of Cannabis Use

Table D3 presents the results of analysis comparing cannabis users with non-users, taking into account all the demographic characteristics at the same time.

Males are more than twice as likely to be cannabis users than are females (1.49 compared to 0.67), according to the adjusted odds ratios. Young people are more likely to be cannabis users, and the odds of being a cannabis user steadily decreases with age. The odds ratio of being a cannabis user relative to overall odds are five-to-one among people 15-17 years old, four-to-one among 18- to 24-year olds, two-and one-half-to-one among 25- to 34 year olds, and one and one-half-to-one among those 35 to 44. Youthful age is a strong predictor of cannabis use.

Regarding region, people living in the Atlantic region and in Ontario are the least likely (adjusted odds ratios 0.72 and 0.68), and residents of British Columbia are the most likely to be cannabis users (adjusted odds ratio 1.78). People who speak other than English or French at home are the least likely to be cannabis users (adjusted odds ratio 0.37).

Marital status is not a statistically significant predictor of cannabis use. In particular, because most cannabis users are young, the real risk factor is youthful age. Finally, taking into account all other demographic characteristics, different educational and income levels do not appear to predict cannabis-use.

In summary, the relationship between cannabis use and all the demographic characteristics was examined using logistic regression. The following groups have increased odds (or are at increased risk) of being cannabis users: males, persons 15 to 44 years of age and residents of British Columbia. The strongest predictor of cannabis use is youthful age, particularly 15 to 24 years.

Variable/Category	Pop. est. (000s)	Percent
Overall	23,030	7.4
Sex		
Male	11,337	10.0
Female	11,692	4.9
Age		
15-17	1,247	25.4
18-19	711	23.0
20-24	2,051	19.3
25-34	4,952	9.6
35-44	4,802	5.8
45-54	3,531	1.4^Q
55-64	2,470	––
65+	3,265	––
Region		
Atlantic	1,907	6.3
Quebec	5,796	8.6
Ontario	8,673	5.1
Prairies	3,715	8.2
B.C.	2,939	11.6
Language		
English	15,006	8.0
French	5,170	8.7
Other	1,452	2.7^Q
Not stated	1,402	––
Marital status		
Married/common-law	13,564	3.3
Single/never married	6,317	18.1
Widowed	1,316	––
Divorced/separated	1,587	6.5
Not stated	246	––
Educational level		
Less than secondary	5,936	8.2
Secondary	5,415	7.2
Some post-secondary	6,455	8.9
University degree	3,610	6.6
Not stated	1,614	––
Income		
Low	3,612	9.9
Middle	7,742	6.9
High	2,778	7.8
Not stated	8,898	6.7

Table D2
Percentages reporting current cannabis-use, by sex, age, region, language, marital status, education and income

Note: Current cannabis use = use of cannabis in past 12 months prior to the survey, including 'one-time only' use.

^{Q} Qualified release due to high sampling-variability

––   Not for release due to unacceptably high sampling-variability

	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Overall	*9,999*	*7.7*		
Sex				
Male	*4,897*	*10.5*	*1.406***	*1.490***
Female	*5,102*	*5.0*	*.631***	*.671***
Age				
15-17	*546*	*26.1*	*4.234***	*5.332***
18-19	*322*	*22.9*	*3.560***	*4.433***
20-24	*905*	*20.0*	*2.997***	*4.202***
25-34	*2,164*	*10.0*	*1.332***	*2.504***
35-44	*2,086*	*6.0*	*.765**	*1.588**
45-54	*1,541*	*1.4*	*.170***	*.355***
55-64	*1,046*	*.7*	*.085***	*.175***
65+	*1,388*	*.1*	*.012***	*.041***
Region				
Atlantic	*886*	*6.3*	*.806*	*.723**
Quebec	*2,645*	*8.8*	*1.157*	*1.088*
Ontario	*3,480*	*5.3*	*.671***	*.683***
Prairies	*1,677*	*8.3*	*1.085*	*1.048*
B.C.	*1,311*	*11.8*	*1.604***	*1.776***
Language				
English	*6,678*	*8.0*	*1.042*	*1.254*
French	*2,413*	*8.7*	*1.142*	*1.351*
Other	*647*	*2.8*	*.345***	*.373***
Not stated	*261*	*1.9*	*.232***	*1.585*
Marital status				
Married/common law	*5,929*	*3.4*	*.422***	*0.646*
Single/never married	*2,794*	*18.7*	*2.757***	*1.653*
Widowed	*572*	*.3*	*.036***	*.580*
Divorced/separated	*703*	*6.3*	*.806*	*1.615*
Educational level				
Less than secondary	*2,673*	*8.0*	*1.042*	*1.456*
Secondary	*2,440*	*7.3*	*.944*	*1.325*
Some post-secondary	*2,929*	*9.0*	*1.186**	*1.385*
University degree	*1,625*	*6.6*	*.847*	*1.453*
Not stated	*331*	*1.2*	*.146***	*.258*
Income				
Low	*1,646*	*9.9*	*1.317***	*1.127*
Middle	*3,538*	*6.8*	*.875*	*.996*
High	*1,256*	*7.8*	*1.014*	*1.084*
Not stated	*3,559*	*7.5*	*.972*	*.822**

*Table D3
Current cannabis-users vs. non-users, by sex, age, region, language, marital status, education and income, with and without other predictors taken into account*

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
* p > .01; ** p < .001

Cannabis use in Relation to Alcohol and Tobacco Use

Cannabis use is associated with alcohol and tobacco use. Table D4 shows the proportion of cannabis users for each alcohol- and tobacco-consumption pattern. The definitions for these consumption categories are found in the sections on alcohol and tobacco. Whereas about 4% of lifetime non-smokers and former tobacco smokers also report having used cannabis in the 12 months prior to the survey, 16.3%

of current tobacco smokers report being cannabis users. The proportion of cannabis users increases according to increasing alcohol consumption, to 34% among heavy/frequent drinkers from less than 1.2% among lifetime alcohol-abstainers.

Although the results are not presented, alcohol- and tobacco-use predictors were submitted to logistic regression—cannabis-use together with all the demo-graphic predictors presented in Table D3. When adjusted for all the other predictors, both tobacco-use and alcohol-use predictors remain significant. Furthermore, they are the second- and third-strongest predictors after age, in terms of their unique contribution to explaining cannabis-use.

	Pop. est. (000s)	Percent
Overall	23,030	7.4
Drinking pattern		
Lifetime abstainer	2,957	<1.2[a]
Former drinker	3,098	2.1[Q]
Light/infrequent	7,747	5.0
Light/frequent	6,720	9.1
Heavy/infrequent	759	21.9
Heavy/frequent	1,253	34.0
Not stated	495	5.7[Q]
Smoker type		
Lifetime non-smoker	10,481	4.0
Former smoker	6,047	4.5
Current smoker	6,208	16.3
Not stated	294	––

Table D4
Current cannabis-use, and alcohol- and tobacco-use patterns

Note: Current cannabis use = use of cannabis in past 12 months, including 'one-time only' use.

[a]   *<1.2 is based on the upper limit of 99% confidence interval. Actual estimate has been suppressed because of unacceptably high sampling-variability*

[Q]   *Qualified release due to high sampling-variability*

––   *Not for release due to unacceptably high sampling-variability*

Illicit drug-use is defined as use of at least one of five illicit drugs (cannabis, cocaine/crack, LSD, amphetamines and heroin), excluding 'one-time only' use of cannabis. Table D5 presents the percentages of respondents reporting illicit drug-use in their lifetime. Overall, 23.9% of Canadians are estimated to have used illegal drugs and a higher percentage of males than females report illicit drug-use in their lifetime (28.5% vs. 19.4%). Lifetime illicit drug-use is most prevalent among young persons. Whereas 30 to 38.2% of people 15 to 44 years of age report lifetime illicit drug-use, less than 14.8% of people 45 years of age and over do so.

Illicit drug-use

Table D5 also presents the percentages of respondents reporting current illicit drug-use (in the 12 months prior to the survey). About 7.3% of Canadians report such drug-use, with a higher percentage of males than females (9.7% vs. 4.9%). The highest proportion of use is reported by young persons. About one in four people

15 to 19 years of age, and one in five people 20 to 24 years of age, report having used illicit substances in the previous 12 months. The prevalence of current illicit drug-use among people 45 years of age or older is less than 1.4%. The region with the highest prevalence of current illicit drug-use is British Columbia (11.4%) and the region with the lowest proportion is Ontario (4.8%).

		Percent	
	Pop. est. (000s)	Lifetime	Current
Overall	23,030	23.9	7.3
Sex			
Male	11,337	28.5	9.7
Female	11,692	19.4	4.9
Age			
15-17	1,247	30.0	24.0
18-19	711	32.9	23.8
20-24	2,051	37.7	19.0
25-34	4,952	38.2	9.6
35-44	4,802	32.9	5.7
45-54	3,531	14.8	1.4^Q
55-64	2,470	3.7^Q	––
65+	3,265	.8^Q	––
Region			
Atlantic	1,907	21.9	6.0
Quebec	5,796	25.3	8.7
Ontario	8,673	17.5	4.8
Prairies	3,715	27.5	8.2
B.C.	2,939	36.6	11.4
Language			
English	15,006	26.4	7.8
French	5,170	26.4	8.9
Other	1,452	8.0	2.4^Q
Not stated	1,402	3.8^Q	––
Marital status			
Married/common-law	13,564	20.2	3.2
Single/never married	6,317	35.5	18.0
Widowed	1,316	2.3^Q	––
Divorced/separated	1,587	28.0	6.5
Not stated	246	12.5^Q	––
Educational level			
Less than secondary	5,936	19.0	8.2
Secondary	5,415	24.0	6.8
Some post-secondary	6,455	30.0	9.0
University degree	3,610	29.5	6.4
Not stated	1,614	4.1^Q	––
Income			
Low	3,612	24.8	9.6
Middle	7,742	27.7	6.7
High	2,778	33.8	7.9
Not stated	8,898	17.1	6.6

Note: Illicit drug-use = use of at least one of 5 illicit drugs (see Table D1) excluding 'one-time only' use of cannabis.

Q Qualified release due to high sampling-variability

––   Not for release due to unacceptably high sampling-variability

An estimated 1.7 million Canadians (7.4% of population) have used at least one of the injectable drugs (cocaine/crack, LSD, amphetamines, heroin and steroids) in their lifetime. Reflecting the general patterns of drug-use, the proportion is higher among males (10% vs. 4.9%) and among those younger than 45 (greater than 10.8%). Of those, 7.7% (132,000) report having injected drugs at some time in their lives.

Injection Drug-Use (IDU)

Sharing needles is a special concern because of the risk of transmitting blood-borne infections such as HIV and hepatitis B. When asked whether they had shared needles with anyone, 41.4% of those who had reported injection drug-use (IDU) in their lifetime responded affirmatively.[a]

Less than one percent of all respondents reported sniffing solvents or glue in their lifetime and in the 12 months prior to the survey. The use of inhalants occurs mostly among young persons and other groups that may not be reached easily by a telephone survey.

Glue or Solvent Sniffing

Respondents who reported drug-use were asked about problems or harm caused by it. Here, lifetime drug-use is defined as having used at least one of cannabis, cocaine/crack, LSD, amphetamines, heroin, steroids or solvents excluding 'one-time only' use of cannabis or solvents, while current drug-use does not exclude trying cannabis or solvents only once. An estimated 4,436,000 (19.3%) Canadians are lifetime drug-users, and 1,588,000 (6.9%) are current drug-users. The possible harmful effects about which respondents were asked included harm to their social life, physical health, happiness, home life or marriage, work or finances.

Harm Arising from Drug-Use

Figure D1 shows the proportions of drug-users who reported harm from their drug-use. The most frequently reported harm was harm to physical health, reported by 17.6% of lifetime users and by 12.5% of current users. The least frequently reported were problems with home life, spouse/partner or children, reported by less than 10% of lifetime or current users. One intriguing gender difference emerged in relation to harm arising from drug-use in the 12 months prior to the survey: harm to home life was reported by 5.8% of male users and 11.8% of female users. However, both of these estimates have a rather high sampling-variability, and the difference only approaches the significance level.

About 26.9% of lifetime drug-users as defined above reported having experienced at least one harm as a result of their drug-use (Table D6). A small gender

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[a] The rate appeared to be much higher for women than men. However, such estimates are based on unacceptably low numbers of respondents according to Statistics Canada's guidelines. Further investigations are warranted.

difference observed (28.7% of males vs. 24.2% of females) falls short of our significance level. A larger proportion of young persons than of older persons experienced harm. For example, more than 36% of persons 15 to 19 years of age reported harmful effects from their drug-use, whereas less than 24% of persons 35 years of age or older reported such harm. There is a wide regional variation in reporting harm from drug-use, with the lowest proportion being reported in Ontario (15.6%) and the highest being reported in the Prairies (37.3%) and in Quebec (35.2%).

Illicit drug-users potentially face legal repercussions associated with their drug-use. Among persons who reported having used drugs during their lifetime, 7.7% reported having had contact with the police, with a higher proportion among males than females (10.7% vs. 3.1%).

	Lifetime		Current		
	Pop. est. (000s)	*Percent*	*Pop. est. (000s)*	*Percent*	
Overall	*4,436*	*26.9*	*1,588*	*23.8*	
Sex					
Male	*2,676*	*28.6*	*1,050*	*24.1*	
Female	*1,760*	*24.2*	*537*	*23.2*	
Age					
15-17	*302*	*38.5*	*279*	*36.2*	
18-19	*196*	*36.2*	*154*	*34.5^Q*	
20-24	*646*	*30.1*	*364*	*21.0^Q*	
25-34	*1,546*	*28.1*	*456*	*23.1*	
35-44	*1,297*	*24.0*	*271*	*13.4^Q*	
45-54	*380*	*12.8^Q*	*47*	*—–*	
55+	*70*	*—–*	*17*	*—–*	
Region					
Atlantic	*324*	*26.5*	*102*	*28.8^Q*	
Quebec	*1,213*	*35.2*	*491*	*34.9*	
Ontario	*1,268*	*15.6*	*403*	*15.1^Q*	
Prairies	*781*	*37.3*	*279*	*29.3*	
B.C.	*851*	*22.3*	*312*	*11.1^Q*	
Language					
English	*3,197*	*24.9*	*1,103*	*20.3*	
French	*1,126*	*33.2*	*443*	*33.3*	
Other or not stated	*113*	*19.2^Q*	*42*	*—–*	

Table D6
Percentages of lifetime and current drug-users reporting one or more types of harm from drug-use, by sex, age, region and language
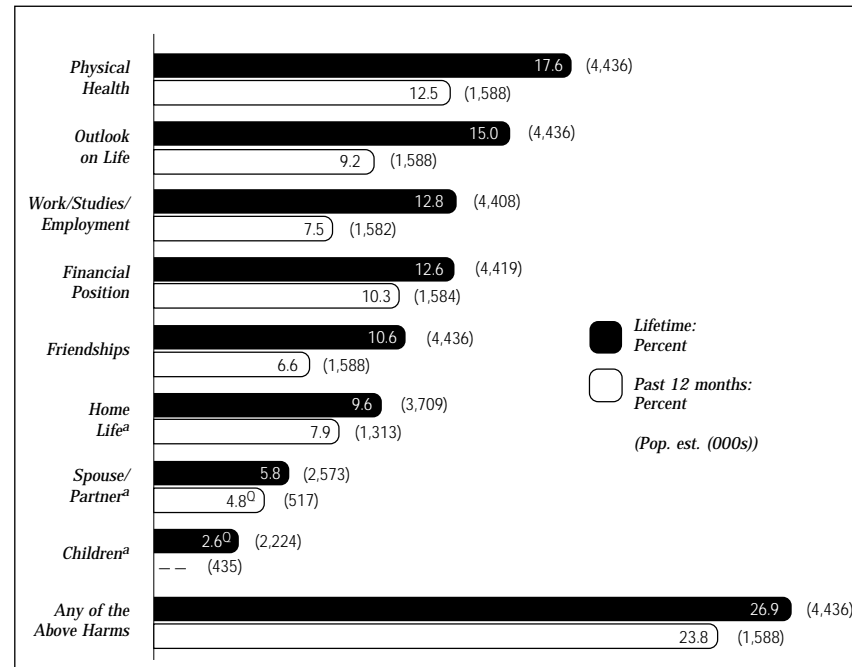
Note: Lifetime drug-use = use in lifetime of at least one of cannabis, cocaine/crack, LSD, amphetamines, heroin, steroids or solvents, excluding 'one-time only' use of cannabis or solvents.

Current drug-use = use in past 12 months of at least one of cannabis, cocaine/crack, LSD, amphetamines, heroin, steroids or solvents.

^{Q} Qualified release due to high sampling-variability

—–   Not for release due to unacceptably high sampling-variability

Among the current drug-users, 23.8% reported harm arising from their drug-use. (Table D6). Gender does not seem to be an issue in experiencing harm from drug-use. However, experiencing harm does appear to be related to young age. More than one in three persons 15 to 19 years of age reported harm from their drug-use, whereas by 35 years of age, less than 13% of persons reported harm from their drug-use. Reporting harm is related to the region, in that the highest proportion of harm is reported from drug-users in Quebec (34.9%), and the lowest is from drug-users in British Columbia (11.1%). Finally, the rate of reporting harm from current drug-use is higher among francophones than among anglophones.

As in the previous section on tobacco, logistic regression was used to help clarify the relationship between harm arising from drug-use and the demographic characteristics of drug-users. Table D7 presents the results of the analysis comparing drug-users in terms of reported harm, taking into account gender, age, region and language at the same time.

Confirmation of the Correlates of Harm Arising from Drug-Use

Table D7
One or more types of harm reported by current drug-users by sex, age, region and language, with and without other predictors taken into account

Variable/Category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio
Overall	*713*	*23.5*		
Sex				
Male	*475*	*23.9*	*1.022*	*1.107*
Female	*238*	*22.7*	*.956*	*.904*
Age				
15-17	*124*	*36.6*	*1.879***	*2.170**
18-19	*69*	*33.0*	*1.603*	*1.902*
20-24	*166*	*21.0*	*.865*	*1.052*
25-34	*205*	*22.2*	*.929*	*1.156*
35-44	*123*	*13.2*	*.495*	*.550*
45-54	*19*	*7.9*	*.279*	*.416*
55+	*8*	*17.1*	*.672*	*.872*
Region				
Atlantic	*47*	*30.0*	*1.395*	*1.472*
Quebec	*229*	*34.3*	*1.700***	*2.460**
Ontario	*168*	*13.8*	*.521**	*.516**
Prairies	*127*	*29.6*	*1.369*	*1.410*
B.C.	*142*	*10.0*	*.362***	*.380***
Language				
English	*488*	*19.9*	*.809*	*1.340*
French	*207*	*32.7*	*1.582***	*.820*
Not stated	*19*	*15.9*	*.616*	*.910*

Note: N=713, weighted by ESSPROV. Current drug-use = use of at least one of the following substances: cannabis, cocaine/crack, LSD, amphetamines, heroin, steroids or solvents in past 12 months.

*   *p< 0.01; **   p< 0.001*

Two important relationships are confirmed. First, young age, in particular, age 15 to 17, is an independent risk-factor for experiencing harm from drug-use. Drug-users in that age group have more than a two-fold risk (adjusted odds ratio = 2.17) of reporting harm relative to the overall. Second, drug-users in Quebec are most likely (adjusted odds ratio = 2.46) and those in British Columbia are least likely (adjusted odds ratio = 0.38), to report harm. Once adjusted for regional effect, language spoken at home has no significant impact on experiencing harm from current drug-use.

References

1   Adlaf, E.M. *(*1993*)*. Alcohol and Other Drug Use. In Health and Welfare Canada. Stephens, T. and Fowler-Graham, D. (eds.). *Canada's Health Promotion Survey 1990: Technical Report*. Ottawa: Ministry of Supply and Services Canada.

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3   Eliany, M., Giesbrecht, N., Nelson, M., Wellman, B., Wortley, S. (eds.) (1992). *Alcohol and Other Drug Use by Canadians: A National Alcohol and Other Drugs Survey (1989) Technical Report*. Ottawa: Supply and Services Canada.

CHAPTER 6

GAMBLING

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CADS included a series of questions on gambling behaviour. Although gambling does not entail abuse of psycho-active substances, some types of gambling behaviour can be considered to be addictive behaviour, which can cause harmful consequences to gamblers, their families and their communities. Gambling is also associated with alcohol and other drug-use.[1]

As seen in Figure G1, the vast majority of Canadians over the age of 15 engage in some form of gambling, the most frequent form of which is playing a lottery, betting on sports, or playing cards for money, which is reported by 60.7% of respondents in the past 12 months. Nearly half of the respondents (46.5%) report playing a lottery, betting on sports, or playing cards for money, monthly or more. The second most common type of gambling is playing bingo, reported by 13% of respondents, with 6.4% playing monthly or more. Of those who report betting on a lottery, sports or cards, or playing bingo, 9.3% travelled to places such as Las Vegas, Atlantic City or Canadian cities with casinos in order to gamble, with 2.2% doing so at least once a month. Furthermore, 5.5% report engaging in some other form of gambling in the past 12 months, such as video lottery machines (.8%) or buying a raffle ticket (.7%). Overall, 32.1% of Canadians do not gamble at all, and 16.5% are infrequent gamblers (less than monthly), 48.4% are frequent gamblers, in that they play lotteries or cards, bingo, travel to gamble, or gamble in some other way, monthly or more often.
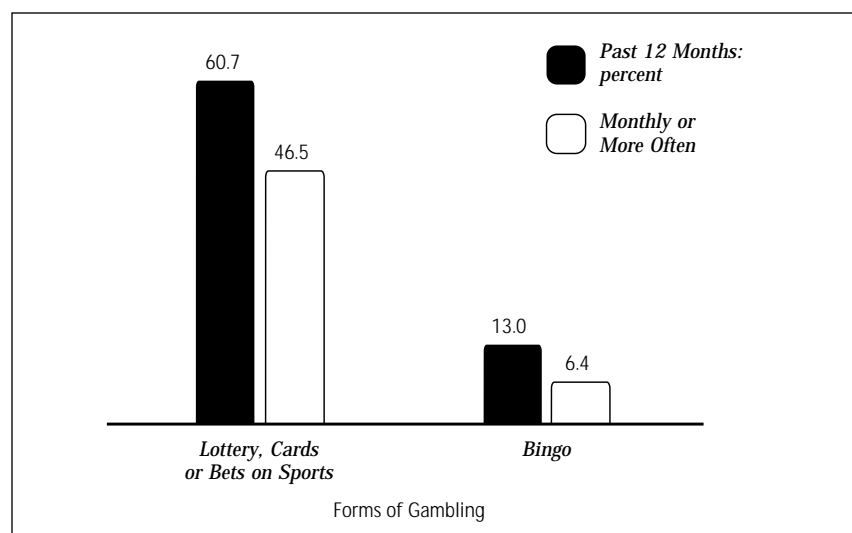

Forms of Gambling

Figure G1
Percentages reporting two forms of gambling in past 12 months, at least once, and monthly or more often

The two major types of gambling – betting on lotteries, cards, or sports and playing bingo – are related to one another, but not as strongly as might be

expected. Lottery players are more than twice as likely as non-lottery players to play bingo (17.1% vs. 7.4%).

The relationship between the two major types of gambling and several key socio-demographic variables was examined. People who play bingo differ from people who bet on lotteries, sports or cards, in terms of their sex, age, region, language, marital status, education, income and drinking pattern. Logistic regression was used to examine the relationship between gambling and particular characteristics, taking into account all the information on demographic characteristics at the same time.

Table G1 presents the results of logistic regression comparing gamblers with those who do not gamble. The first column gives the percent of respondents with a particular characteristic who engage in that type of gambling; the second column gives the same result in terms of an odds ratio, indicating how their odds for engaging in gambling compares with the overall or average odds for the entire sample. If the odds ratio is greater than 1.0, their odds are higher than the average, and if the number is less than 1.0, their odds are lower than the average. The third column presents the "adjusted" odds ratios obtained through a series of logistic regression analyses. The "adjusted" odds ratio may be interpreted as a ratio indicating how the odds for that particular group of people would compare to the average odds, controlling for the confounding influence of the other predictors. The table also shows the statistical significance of the relationship between predictor categories and the two types of gambling behaviour.

Table G1
Gambling in past 12 months, by sex, age, region, language, marital status, education, income and drinking pattern, with and without other predictors taken into account

| Variable/Category | Weighted sample size | Percent | Bets on lotteries, cards, sports | | Percent | Plays bingo | |
			Unadjusted odds ratio	Adjusted odds ratio		Unadjusted odds ratio	Adjusted odds ratio
Overall	*10,105*	*62.7*			*13.4*		
Sex							
Male	*4,959*	*66.1*	*1.160***	*1.141***	*8.2*	*.577***	*.649***
Female	*5,146*	*59.4*	*.870***	*.876***	*18.5*	*1.467***	*1.541***
Age							
15-17	*547*	*28.6*	*.238***	*.287***	*11.6*	*.848*	*.607***
18-19	*320*	*40.9*	*.412***	*.504***	*11.0*	*.799*	*.808*
20-24	*913*	*55.4*	*.739***	*.995*	*15.4*	*1.176*	*1.531***
25-34	*2,193*	*67.0*	*1.208***	*1.576***	*13.9*	*1.043*	*1.353***
35-44	*2,108*	*67.7*	*1.247***	*1.541***	*11.8*	*.865*	*1.062*
45-54	*1,545*	*70.0*	*1.388***	*1.743***	*11.6*	*.848*	*.965*
55-64	*1,062*	*70.6*	*1.429***	*1.769***	*13.9*	*1.043*	*.987*
65-74	*954*	*62.1*	*.975*	*1.232**	*16.1*	*1.240*	*.996*
75+	*463*	*48.4*	*.558***	*.755**	*18.0*	*1.419**	*.976*
Region							
Atlantic	*893*	*60.6*	*.915*	*.881*	*17.8*	*1.399***	*1.164*
Quebec	*2,696*	*72.3*	*1.553***	*1.382***	*12.2*	*.898*	*.740**

(continued)

		Bets on lotteries, cards, sports			Plays bingo		
Variable/category	Weighted sample size	Percent	Unadjusted odds ratio	Adjusted odds ratio	Percent	Unadjusted odds ratio	Adjusted odds ratio
Ontario	3,500	55.3	.736**	.800**	12.1	.890	.921
Prairies	1,694	63.8	1.048	1.031	14.4	1.087	1.033
B.C.	1,321	62.8	1.004	.997	15.3	1.167	1.220*
Language							
English	6,691	59.9	.889**	.867	13.9	1.043	.937
French	2,418	72.8	1.592**	1.050	13.4	1.000	1.113
Other	644	58.4	.835	.903	8.5	.600**	.595**
Not stated	352	55.5	.742*	1.217	12.7	.940	1.611
Marital status							
Married/common-law	6,008	67.3	1.224**	.995	13.1	.974	.991
Single/never married	2,807	52.0	.644**	.861*	12.1	.890	.886
Widowed	580	58.5	.839	1.071	21.6	1.781**	1.158
Divorced/separated	710	70.0	1.388**	1.091	14.5	1.096	.984
Educational level							
Less than secondary	2,676	62.5	.991	1.421**	20.0	1.616**	2.042**
Secondary	2,447	67.1	1.213**	1.259**	14.1	1.061*	1.245
Some post-secondary	2,935	64.8	1.095	1.109	11.0	.799**	.908
University degree	1,628	54.9	.724**	.641**	6.5	.449**	.612**
Not stated	418	53.9	.696**	.786	11.5	.840	.708
Income							
Low	1,645	62.1	.975	.933	19.7	1.585**	1.308**
Middle	3,546	70.7	1.435**	1.174**	12.9	.957	.985
High	1,258	66.8	1.197*	1.121	7.4	.516**	.768*
Not stated	3,656	53.8	.693**	.814**	13.2	.983	1.011
Drinking pattern							
Lifetime abstainer	1,298	49.1	.574**	.592**	15.2	1.158	.922
Former drinker	1,397	60.2	.900	.838*	19.2	1.536**	1.200
Light/infrequent	3,486	64.7	1.090	1.077	15.0	1.140*	1.002
Light/frequent	3,015	66.1	1.160**	.996	8.0	.562**	.667**
Heavy/infrequent	344	63.5	1.035	1.366*	17.3	1.352	1.347
Heavy/frequent	565	69.4	1.349**	1.375**	12.0	.881	1.004

Note: Weighted by ESSPROV – the weighting variable scaled down to produce the effective sample size.
  * p < .01; ** p < .001

It can be seen that males are more likely than females to bet on lotteries, cards or sports (66.1% vs. 59.4%) and that this relationship persists, when the other variables are taken into account. On the other hand, women are more likely than men to play bingo (18.5% vs. 8.2%). The relationship between gender and playing bingo is relatively unaffected, when other variables are controlled.

Age is also significantly related to both types of gambling. Betting on lotteries, cards or sports increases among those aged 15 to 17 (28.6%) to age 55 to 64 (70.6%) and then declines. The magnitude and direction of this pattern generally remains the same, when the other predictors are taken into account. Playing bingo is most common among those aged 20 to 24 (15.4%), 65 to 74 (16.1%), and 75 or more (18%). Indeed multivariate analysis indicates that it is people aged 20 to 29 years who are most likely to play bingo, once the other variables are taken into account.

Betting on lotteries, cards or sports is most commonly reported in Quebec (72.3%) and least commonly in Ontario (55.3%). This pattern persists in multivariate analysis. On the other hand, bingo is most commonly played in the Atlantic provinces (17.8%) and British Columbia (15.3%), and least often in Ontario (12.1%) and Quebec (12.2%). However, the relationship between region and playing bingo is much weaker, when other predictors are controlled. Then residents of Quebec have the lowest odds of playing bingo and residents of British Columbia have the highest.

Multivariate analysis clarifies the relationship between gambling and language spoken at home. Although a higher proportion of francophones appear to engage in lotteries, sports or cards, this relationship is no longer significant, once all other demographic variables are taken into account. As for bingo, anglophones and francophones do not appear to differ greatly. However, people who speak other than English or French at home are less likely to play bingo.

Respondents who have never married are somewhat less likely to bet on lotteries, cards or sports than those who are married or were once married. Widowed people are particularly likely to play bingo.

University graduates are less likely than others to bet on lotteries, cards or sports, or play bingo, and those without a post-secondary school education are more likely to do both. Indeed, a stronger and consistent relationship between education and gambling emerges, once the other factors are taken into account. It can be seen that the higher the respondent's educational level, the less likely he or she reports betting on lotteries, cards or sports, or playing bingo.

Middle income is associated with a higher probability of betting on lotteries, cards or sports. This association persists in the multivariate analysis. In contrast, income is inversely related to playing bingo; lower-income Canadians are much more likely to play bingo and those with high income are much less likely to do so.

Drinking patterns are associated with gambling but not in a simple manner. Lifetime abstainers are the least likely to bet on lotteries, sports or cards, while heavy/frequent are most likely to do so. The association between heavy drinking and betting on lotteries, sports or cards continues to be significant after multivariate analysis. Although former drinkers are the most likely to play bingo (19.2%), once age and other factors are taken into account in the multivariate analysis, this association is no longer significant. Light/frequent drinkers are the least likely to play bingo, a finding that persists when the other variables are controlled.

References

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CHAPTER 7

PUBLIC OPINION

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Because public opinion is an important factor in policy formulation, CADS included questions about alcohol and drug-policy issues, which had been asked in the *1989 National Alcohol and Other Drugs Survey* (NADS), as well as several additional questions on new or emerging issues.

Table P1 shows responses to a set of questions about alcohol-policy issues. On questions about the perceived seriousness of various alcohol-issues, it can be seen that impaired driving is most often perceived as a serious concern. About one fourth of respondents (25.8%) view drinking and driving in their neighbourhoods as serious or very serious, another one fourth (24.7%) view it as a problem but not a serious one, and 41.7% see it as not a problem. Alcohol-related public fights in their neighbourhood is seen as a problem by 39.8% of respondents, domestic violence by 37.8%, and alcohol problems in the workplace by 21.3%.

Alcohol Issues

IMPORTANCE OF ALCOHOL-RELATED PROBLEMS	Percent
Drinking and driving in the neighbourhood	
Serious or very serious	*25.8*
A problem but not very serious	*24.7*
Not a problem	*41.7*
Not stated	*7.8*
Alcohol-related domestic violence	
Serious or very serious	*18.0*
A problem but not very serious	*19.8*
Not a problem	*48.0*
Not stated	*14.2*
Alcohol-related public fights in the neighbourhood	
Serious or very serious	*16.7*
A problem but not very serious	*23.1*
Not a problem	*53.4*
Not stated	*6.9*
Alcohol-related problems in the workplace	
Serious or very serious	*7.8*
A problem but not very serious	*13.5*
Not a problem	*47.8*
Not applicable (e.g. homemaker)	*26.7*
Not stated	*4.2*
ACCESS CONTROLS	
Taxes on alcoholic beverages should be	
Increased	*25.4*
Unchanged	*44.8*
Decreased	*25.4*
Not stated	*4.5*

Table P1
Public opinion on alcohol issues, importance of alcohol-related problems, access control, promotions and counter-promotions, and interventions

(continued)

	Percent
Legal drinking age should be	
Increased	38.3
Unchanged	54.7
Decreased	4.1
Not stated	2.9
Alcohol outlet hours should be	
Increased	10.9
Unchanged	66.5
Decreased	16.0
Not stated	6.6
Alcohol should be sold in convenience stores	
Yes	30.0
No	66.8
Not stated[a]	3.3
PROMOTIONS AND COUNTERPROMOTIONS	
Government advertising against alcohol should be	
Increased	48.8
Unchanged	34.4
Decreased	12.9
Not stated	3.8
Warning labels on alcoholic beverages	
Yes	69.5
No	27.5
Not stated	2.8
INTERVENTIONS	
Alcohol and drug-prevention programs should be	
Increased	74.4
Unchanged	18.0
Decreased	2.6
Not stated	4.9
Preventing drunken people from being served should be	
Increased	75.5
Unchanged	15.3
Decreased	5.2
Not stated	4.0
Treatment programs should be	
Increased	64.6
Unchanged	24.2
Decreased	2.3
Not stated	8.9

Note: 'Not stated' includes 'don't know' and 'refusal'. Percentages are based on the denominator of 23,030,000 weighted by FINWGHT (expansion weight).

[a]   *Includes 'not applicable' (.4%)*

On access to alcohol, Canadians generally favour the status quo, and there is no consensus for change in alcohol taxes up or down. Although 25.4% of respondents favour a tax increase, and 25.4% favour a decrease, the remainder consider taxes should be unchanged. The majority (54.7%) also favour no change to the legal drinking age, with only 4.1% favouring a decrease compared to 38.7%

favouring an increase. Two thirds of Canadians (66.6%) are also satisfied with the operating hours of beer and liquor outlets, with 16% favouring a decrease in hours as compared to only 10.9% favouring an increase. A similar majority (66.8%) believes alcohol should not be sold in convenience stores.

There is continuing support, however, on a need for increased counteradvertising by government and for warning labels on alcoholic beverages (48.8% and 69.5% respectively), and strong support for more alcohol and drug-prevention programs (74.4%), for preventing people who are drunk from being served (75.5%), and for more treatment programs (64.6%).

Although Canadians remain generally supportive of current alcohol-control policies and of increased prevention and treatment efforts, they are now somewhat less supportive both of control measures, and of more prevention and treatment than they were in 1989 as measured by the NADS.

Trends in Public Opinion on Alcohol Issues

| | Percent | | |
	1989	1994	Difference
ACCESS CONTROLS			
Taxes on alcoholic beverages should be			
Increased	27.0	25.4	-1.6
Unchanged	46.1	44.8	-1.3
Decreased	18.1	25.4	+7.3
Legal drinking age should be			
Increased	49.7	38.3	-11.4
Unchanged	44.9	54.7	+9.8
Decreased	2.8	4.1	+1.3
Alcohol outlet hours should be			
Increased	7.2	10.9	+3.7
Unchanged	69.9	66.6	-3.3
Decreased	17.3	16.0	-1.3
Alcohol should be sold in convenience stores			
Yes	23.4	30.0	+6.6
No	73.6	66.8	-6.8
PROMOTIONS AND COUNTERPROMOTIONS			
Government advertising against alcohol should be			
Increased	61.1	48.8	-12.3
Unchanged	28.0	34.4	+6.4
Decreased	6.4	12.9	+6.5
Warning labels on alcoholic beverages			
Yes	74.4	69.5	-4.9
No	22.5	27.6	+5.1
INTERVENTIONS			
Alcohol and drug-prevention programs should be			
Increased	81.0	74.4	-6.6
Unchanged	12.8	18.0	+5.2
Decreased	1.1	2.6	+1.5

Table P2
Trend in public opinion on alcohol issues: NADS, 1989 and CADS, 1994

(continued)

Table P2
Trend in public opinion on alcohol
issues (cont'd)

	1989	*Percent* *1994*	*Difference*
INTERVENTIONS			
Preventing drunken people from being served should be			
Increased	*82.1*	*75.5*	*-6.6*
Unchanged	*10.1*	*15.3*	*+5.2*
Decreased	*3.1*	*5.2*	*+2.1*
Treatment programs should be			
Increased	*74.1*	*64.6*	*-9.5*
Unchanged	*13.6*	*24.2*	*+10.6*
Decreased	*0.8*	*2.3*	*+1.5*

Note: Weighted by FINWGHT in CADS, and WEIGT in NADS.

Table P2 shows that, although support for lower alcohol taxes increased by 7.3% between 1989 and 1994, support for an increase in the legal drinking age declined by 11.4%. Although most Canadians favour no change to the number of hours that alcohol outlets are permitted to be open, support for increasing the number of hours open for service rose by 3.7%. Similarly, while the majority of Canadians remain opposed, support for the sale of alcohol in convenience stores has increased 6.6% while support for increased government advertising against alcohol declined by 12.3% and for warning labels on alcoholic beverages by 4.9%. While most Canadians still favour increases in prevention and treatment programs and measures to prevent people who are drunk from being served, support for increasing these measures declined, while support for maintaining the current level rose.

Correlates of Opinions on
Alcohol Issues

Canadians who favour more restrictive alcohol policies, and increased government funding for prevention and treatment, tend to be females or older Canadians. As Table P3 illustrates, women are more likely than men to favour a higher drinking age, decreases in alcohol-store hours, more government advertising against drinking, more prevention and treatment programs, increased efforts to prevent service to people who are intoxicated, increases in alcohol taxes and warning labels on alcoholic beverages. Older people are more likely to favour increasing the drinking age, decreasing store hours, increasing alcohol taxes, and they are generally more often against alcohol sales in convenience stores. However, age is not clearly related to the other alcohol-policy issues, and is indeed, negatively related to support for increasing treatment programs; support for warning labels is highest in the youngest age category (15-17 years).

Variable	Favours higher drinking age	Favours fewer store hours	Favours more ads against drinking	Favours more alcohol prevention	Favours more to prevent drunks served	Favours more alcohol treatment	Favours higher alcohol taxes	Favours alcohol warning labels	Against alcohol in corner stores
Overall	38.3	16.0	48.8	74.4	75.5	64.6	25.4	69.5	66.8
Sex									
Male	33.3	12.4	42.2	71.3	72.1	59.7	20.8	63.8	57.1
Female	43.2	19.5	55.2	77.4	78.8	69.3	29.8	75.1	76.2
Age									
15-17	10.9	12.6	46.3	66.1	66.2	68.4	22.6	78.9	62.5
18-19	14.8	10.0^Q	40.8	75.7	71.4	72.7	19.1	68.1	69.1
20-24	24.1	9.6	51.9	80.5	77.0	68.6	21.4	66.6	67.3
25-34	35.6	12.5	53.0	78.4	78.3	66.1	21.6	68.6	65.7
35-44	41.7	16.2	51.6	77.0	77.9	65.3	26.9	67.8	66.3
45-54	46.0	18.4	49.3	74.2	78.0	66.1	28.8	68.3	64.6
55-64	46.1	18.9	43.4	69.7	71.5	60.8	26.1	70.5	64.2
65-74	47.2	20.8	42.8	69.7	72.4	57.7	26.7	74.7	72.6
75+	49.0	27.5	42.0	62.6	69.0	54.2	34.8	70.6	77.4
Province									
Newfoundland	42.8	17.3	57.2	84.9	83.9	76.6	31.3	87.4	64.4
P.E.I.	33.5	15.4	56.2	83.8	82.5	60.3	22.5	78.1	77.0
Nova Scotia	36.7	12.7	52.2	81.9	82.8	69.7	24.0	79.9	72.5
New Brunswick	34.5	19.6	55.3	79.4	76.3	69.7	27.1	83.6	60.7
Quebec	37.2	16.0	53.1	75.3	76.5	65.7	21.7	68.3	52.3
Ontario	37.4	11.2	44.5	69.3	69.0	62.1	23.0	65.5	69.1
Manitoba	45.9	18.6	45.8	76.5	82.1	66.0	28.6	69.9	82.3
Saskatchewan	39.0	17.0	46.0	76.4	79.2	62.8	34.4	75.3	78.7
Alberta	46.8	33.0	46.6	76.7	82.3	59.0	31.6	71.2	75.5
B.C.	35.5	17.0	52.3	80.2	81.4	69.4	31.0	72.5	74.3

Note: Percentages are based on the denominator of 23,030,000, weighted by FINWGHT (expansion weight).

^{Q} *Qualified release due to high sampling-variability*

There are several notable variations among the provinces in public opinion on these issues. Support for a higher drinking age is highest in Alberta (46.8%), Manitoba (45.9%) and Newfoundland (42.8%), and lowest in Prince Edward Island (33.5%), New Brunswick (34.5%) and British Columbia (35.5%). Residents of Alberta are also the most likely to favour reduced hours for alcohol sales (33%), and people in the Atlantic provinces are most likely to favour advertising against excessive drinking. However, most Canadians support prevention and treatment programs, increased efforts to prevent serving intoxicated people, and alcohol-warning labels. Respondents in Newfoundland and the western provinces were most likely to support higher alcohol taxes, but there is variation concerning alcohol sales in convenience stores. Although a majority of respondents in all provinces are against such sales, opposition is much lower in Quebec (52.3%) than elsewhere, possibly reflecting the fact that beer and wine have long been available in convenience stores in that province.

Table P4
Public opinion on cannabis policy, by
sex, age, and province

Variable/category	Possession of cannabis should not be against the law	Possession of small amounts of cannabis should not be subject to a jail sentence	Possession of small amounts of cannabis should be subject to a potential jail sentence	No opinion
Overall	27.0	42.1	16.8	14.0
Sex				
Male	33.4	38.7	14.7	13.1
Female	20.8	45.4	18.9	14.9
Age				
15-17	31.6	39.7	21.4	7.3q
18-19	36.0	36.9	21.7	5.4q
20-24	31.0	42.1	20.7	6.2
25-34	29.8	42.6	17.5	10.1
35-44	32.2	42.0	14.5	11.4
45-54	26.3	41.6	16.0	16.1
55-64	20.5	44.1	15.2	20.3
65-74	14.6	43.8	17.5	24.1
75+	14.5	40.7	13.5	31.4
Province				
Newfoundland	16.3	44.2	30.6	8.9
P.E.I.	16.9	47.8	23.6	11.8
Nova Scotia	23.2	46.6	19.6	10.6
New Brunswick	21.3	46.3	24.0	8.4
Quebec	28.9	45.8	15.6	9.7
Ontario	24.7	38.2	17.1	20.0
Manitoba	23.2	47.2	19.2	10.4
Saskatchewan	18.1	52.9	20.8	8.2
Alberta	28.2	44.9	18.0	8.9
B.C.	36.9	37.5	11.5	14.1

Note: Percentages are based on the denominator of 23,030,000, weighted by FINWGHT (expansion weight).
q   Qualified release due to high sampling-variability

Table P4 shows the relationships between opinion on cannabis policy and gender, age and province. Overall, 27% of respondents believe possession of cannabis should be legal, 42.1% believe it should be against the law but subject to either no penalty or a fine only for a first offence, and 16.8% that it should be subject to a potential jail sentence for a first offence. The remaining 14% express no opinion.

Males are more likely than females to believe possession of cannabis for personal use should not be against the law (33.4% vs. 20.8%), and females are more likely than males to favour potential jail sentences for possession (18.9% vs. 14.7%). This finding is not surprising, as males are more likely than females to use cannabis.

Unlike gender, age does not relate to support for more liberal cannabis policy in quite the same manner as it does to rates of use. Just as younger Canadians are more likely to use cannabis, Canadians under the age of 45 are more likely to sup-

port the position that possession of cannabis should not be against the law. However, the proportion who favour potential jail sentences for cannabis possession also decreases with age. Perhaps the most noteworthy pattern with regard to age is that, in every age group, most people with any opinion on cannabis policy favour the middle option, where possession is against the law but not subject to a jail sentence.

There is considerable provincial variation in attitudes. Support for the position that cannabis possession should not be against the law is highest in British Columbia (36.9%), and lowest in Newfoundland (16.3%), Prince Edward Island (16.9%), and Saskatchewan (18.1%). Similarly, support for the policy that possession of cannabis be subject to a potential jail sentence is strongest in Newfoundland (30.6%) and weakest in British Columbia (11.5%).

APPENDICES

The following table summarizes the hit rates, response rates and the final sample size for CADS.

Province	Strata	Telephone Numbers Generated	Supplement Numbers Generated	Total Telephone Numbers Generated	Hit Rate	Response Rate	Sample Size
Newfoundland	CMA	540	0	540	44.2%	86.6%	206
	Non-CMA	1,246	0	1,246	42.0%	87.9%	459
Prince Edward Island		855	0	855	44.0%	83.2%	313
Nova Scotia	CMA	948	0	948	48.6%	74.8%	344
	Non-CMA	1,243	0	1,243	50.0%	85.8%	533
New Brunswick	CMA	393	0	393	34.1%	88.8%	119
	Non-CMA	1,530	170	1,700	44.4%	81.9%	617
Quebec	Montreal	2,307	193	2,500	55.2%	72.8%	1,000
	Other CMA	784	60	844	55.0%	75.6%	351
	Non-CMA	4,686	0	4,686	22.8%	81.8%	874
Ontario	Toronto	2,588	830	3,418	48.4%	60.4%	997
	Other CMA	1,872	170	2,042	57.5%	72.5%	851
	Non-CMA	2,788	302	3,090	41.7%	70.3%	905
Manitoba	CMA	1,262	200	1,462	49.8%	72.4%	527
	Non-CMA	968	0	968	47.0%	75.4%	343
Saskatchewan	CMA	683	65	748	51.3%	81.3%	312
	Non-CMA	1,492	0	1,492	44.4%	79.9%	529
Alberta	CMA	1,784	0	1,784	57.5%	76.7%	786
	Non-CMA	1,433	0	1,433	49.6%	80.2%	570
British Columbia	CMA	1,976	190	2,166	55.9%	72.8%	881
	Non-CMA	1,356	0	1,356	58.0%	81.3%	638
TOTAL		32,734	2,180	34,914	46.1%	75.6%	12,155

Appendix A
Sample sizes and response rates

The table below shows the design effects, sample sizes and population counts by province, which were used to produce the approximate sampling-variability tables.

Province	Design effect	Sample size	Population
Newfoundland	1.15	665	457,961
Prince Edward Island	1.02	313	103,920
Nova Scotia	1.10	877	742,975
New Brunswick	1.12	736	602,504
Quebec	1.12	2,225	5,795,927
Ontario	1.20	2,753	8,672,981
Manitoba	1.11	870	874,366
Saskatchewan	1.15	841	767,332
Alberta	1.15	1,356	2,073,112
British Columbia	1.14	1,519	2,938,661
Atlantic Provinces	1.17	2,591	1,907,360
Prairies	1.2	3,067	3,714,810
Canada	1.43	12,155	23,029,739

Appendix B
Design effects

Type of estimate	*C.V. (in%)*	*Guidelines*
Unqualified	*0.0 – 16.5*	*Estimates can be considered for general unrestricted release. Requires no special notation.*
Qualified	*16.6 – 25.0*	*Estimates can be considered for general unrestricted release but should be accompanied by a warning cautioning subsequent users of the high sampling-variability associated with the estimates. Such estimates should be identified by the letter Q (or in some other similar fashion).*
Confidential	*25.1 – 33.3*	*Estimates can be considered for general unrestricted release, only when sampling variabilities are obtained using an exact variance calculation procedure. Unless exact variances are obtained, such estimates should be deleted and replaced by dashes in statistical tables.*
Not for release	*33.4 or greater*	*Estimates cannot be released in any form under any release OR circumstances. In statistical tables, such estimates must be deleted and replaced by dashes.*

Source: Statistics Canada (1994). Microdata User's Guide: Canada's Alcohol and Other Drugs Survey.