

## ***2014 BRITISH COLUMBIA PROBLEM GAMBLING PREVALENCE STUDY***

**Gaming Policy and Enforcement Branch**

**Ministry of Finance**

### **FINAL REPORT**

Submitted by:

**R.A. Malatest & Associates Ltd.**

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## Executive Summary

### *Background*

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The Gaming Policy and Enforcement Branch of the Ministry of Finance contracted with R.A. Malatest & Associates Ltd., a program evaluation and market research firm, to conduct a study measuring the prevalence of adult participation in gambling and adult problem gambling in B.C. The 2014 study is the fifth such study to be conducted since 1993 to establish the prevalence of adult problem gambling in the province. The previous prevalence study was released in 2008.

The main objectives of this report are to provide estimates of gambling and problem gambling prevalence in British Columbia and, where appropriate, to compare these results to the 2008 study. Understanding gambling participation and problem gambling prevalence helps inform the development of effective policies and programs related to responsible and problem gambling. The government delivers free information, support, and treatment services through the Gaming Policy and Enforcement Branch's Responsible and Problem Gambling Program (the Program). This research will inform the Program's services in the areas of problem gambling prevention, education, treatment, and future research projects.

### *Methodology*

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The 2014 Problem Gambling Prevalence Study included telephone and online survey activities resulting in a total of 3,058 survey completions with adult residents of B.C., and a minimum of 600 completions per B.C. health authority region (i.e., Fraser, Interior, Island, Northern, and Vancouver Coastal). To the extent possible, methodological considerations and population estimation approaches were based on those used for the 2008 survey study in order to make comparisons over time. As such, the current study shares all of the methodological rigor and limitations attributed to the previous survey study. Respondents were selected using a random sample of B.C. telephone numbers, and data have been weighted to be representative of age and gender by health region.

Problem gambling behaviour is commonly measured by a scoring instrument called the Canadian Problem Gambling Index (CPGI).<sup>i</sup> In accordance with the CPGI, the following definitions and criteria have been used throughout this report:

#### **Non-Gamblers**

- Individuals who have not gambled in the past 12 months.

#### **Gamblers**

- Individuals who have participated in at least one gambling activity in the past 12 months. Gamblers are classified as:

##### ***Non-Problem Gamblers***

- CPGI Score of 0. These individuals have no problems with gambling.

##### ***At-risk Gamblers***

- **Low-risk Problem Gamblers** – CPGI Score of 1 to 2. These individuals have few or no identified negative consequences as a result of gambling.

### ***Problem Gamblers***

- **Moderate-risk Problem Gamblers** – CPGI Score of 3 to 7. These individuals have some negative consequences as a result of gambling.
- **High-risk Problem Gamblers** – CPGI Score of 8 or more. These individuals experience significant negative consequences as a result of gambling and may experience a loss of control.

Throughout the report the term “**problem gamblers**” refers to all moderate-risk and high-risk problem gamblers. The term “**at-risk/problem gamblers**” refers to low-, moderate-, and high-risk problem gamblers.

### ***Gambling Prevalence***

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#### ***Overall gambling participation in British Columbia remained unchanged since the 2008 study.***

Nearly three-quarters (72.5%) of adult British Columbians have participated in at least one gambling activity in the past 12 months. This is the same percentage as reported in the 2008 study (73%<sup>ii</sup>).

#### ***B.C. gamblers participated in more types of gambling activities.***

The 2014 study found that participation in individual gambling activities increased for 9 of the 12 surveyed gambling activities relative to the 2008 study. The largest percentage point increase was in participation in lottery games (+23% points), followed by playing charity raffles, (+14% points), gambling at a casino (+3% points), betting on the outcome of a sports or other event (+3% points), purchasing speculative stock (+3% points), playing bingo (+1% point) betting on a horse race (+1% point), participating in Internet gambling (+1% point; estimates should be considered with caution due to the small number of Internet gambler respondents), and playing sports lottery games (1% point).

#### ***Lottery games were the most played and favourite gambling activity of B.C. residents.***

The largest proportion of B.C. gamblers reported playing lottery, Scratch & Win, Keno or Pull-Tabs (81.6%), and 43.6% of B.C. gamblers stated that this was their favourite gambling activity.

#### ***Higher income levels continued to be related to gambling participation.***

Survey respondents with annual household incomes of \$100,000 or more (79.3%) or \$50,000 to \$100,000 (78.2%) were significantly more likely to have gambled in the past year than respondents with annual household incomes of \$30,000 to \$50,000 (68.9%) or less than \$30,000 (69.2%).

#### ***Young adults were significantly less likely to have participated in gambling activities than other age groups.***

Respondents 18 to 24 years of age were the least likely to report having gambled in the past year (61.9%), followed by respondents who were 65 years of age and older (70.8%) and respondents who were 25 to 34 years of age (73.9%). Respondents in the 35 to 64 years of age category were the most likely age group to have gambled in the past year. (75.1%)

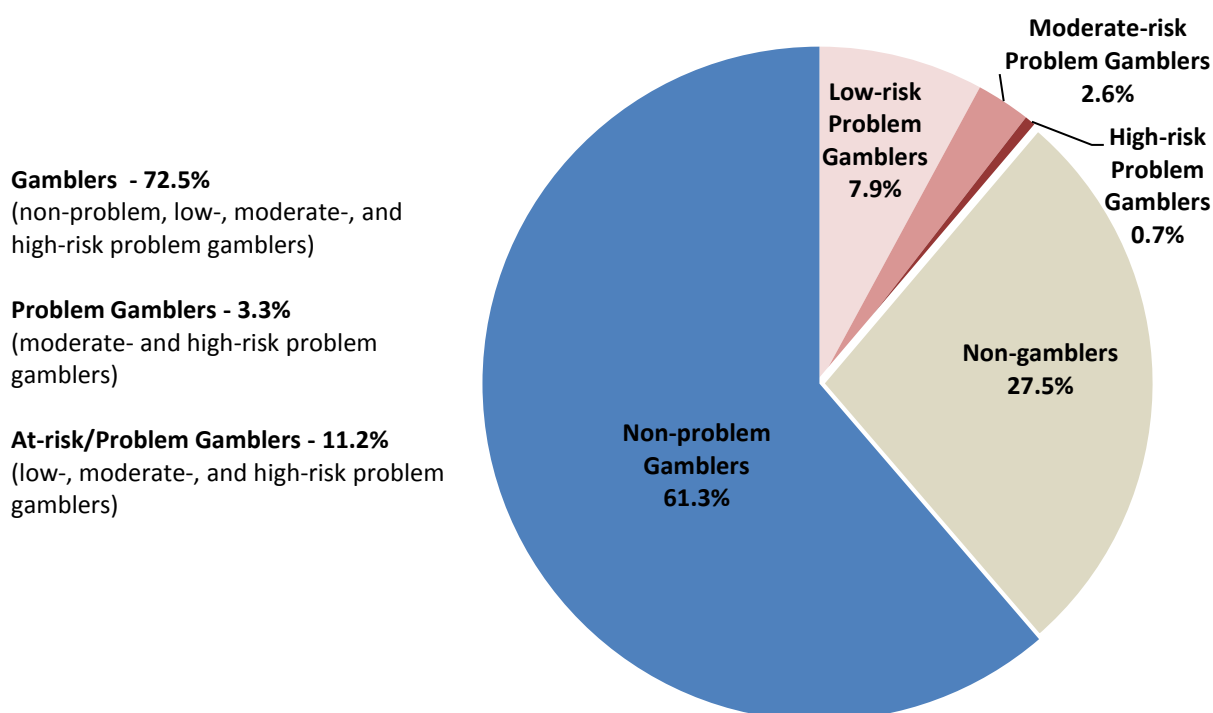
## Problem Gambling Prevalence

### *Problem gambling prevalence has declined since the 2008 study.*

Moderate- and high-risk problem gamblers made up an estimated **3.3% of adult British Columbians**, including 2.6% moderate-risk problem gamblers and 0.7% high-risk problem gamblers. This represents an estimated 125,000 people considered to be problem gamblers. There has been a decline in problem gambling prevalence since the 2008 study when 4.6% of the population (an estimated 159,000 individuals) was classified as high- and moderate-risk problem gamblers.

In addition to problem gamblers, 7.9% of the adult population is estimated to be at low-risk for problem gambling, bringing the total percentage of the population that is at risk for problem gambling to 11.2%. The figure below shows the distribution of non-gamblers, non-problem gamblers, and at-risk/problem gamblers in B.C.

**Distribution of Gambler Types and Non-Gamblers in British Columbia**



The decline in problem gambling prevalence reflects a trend that has been observed both nationally and internationally, and most gambling jurisdictions have seen declining problem gambling prevalence rates.<sup>iii</sup> Additionally, it is important to bear in mind that the shifting landscape of gambling from physical venues, such as casinos, to Internet sites may impact prevalence estimates obtained through common telephone surveying approaches. To more thoroughly account for changes in problem gambling prevalence related to Internet gambling, other research methodologies (e.g., panel studies) would be required.

***Some groups showed higher risk for problem gambling than their demographic counterparts.***

Young adults **18 to 24 years of age** were more likely than other age groups to experience problem gambling. Although young adults 18 to 24 years of age were the least likely age group to gamble, they were most likely to experience problem gambling relative to other age groups. Among 18 to 24 year olds, 7.3% were classified as problem gamblers, and 18.4% were classified as at-risk/problem gamblers.

Individuals of **Aboriginal, Inuit, or Métis ethnic origins** were more likely than other ethnic groups to experience problem gambling. Among the general population, 5.5% of individuals with Aboriginal, Inuit, or Métis ethnic origins were classified as problem gamblers, and 23.7% were classified as at-risk/problem gamblers.

Individuals of **Southern Asian ethnic origins** were more likely than other ethnic groups to experience problem gambling. Among the general population, 8.0% of individuals of Southern Asian descent were classified as problem gamblers, and 17.2% were classified as at-risk/problem gamblers.

Individuals with **low household incomes** were more likely than other income groups to experience problem gambling. Although individuals with higher household incomes (more than \$50,000) were more likely to participate in gambling, low-income individuals (household incomes of less than \$30,000) were more likely to be problem gamblers. Among the general population, 7.6% of individuals with low household incomes were classified as problem gamblers, and 18.9% were classified as at-risk/problem gamblers.

***At-risk/problem gamblers were significantly more likely to experience a mental health issue than non-problem gamblers.***

Over one-third (36.4%) of at-risk/problem gamblers (low-, moderate-, and high-risk) reported that they had experienced a mental health issue while only 13.5% of non-problem gamblers reported experiencing a mental health issue. Mental health issues included in the study were mood disorders (such as depression or bi-polar disorder), anxiety disorders, consideration of committing suicide, or suicide attempt. At-risk/problem gamblers were significantly more likely to have considered committing suicide (17.9%) than non-problem gamblers (5.9%), and were significantly more likely to have attempted suicide (7.1%) than non-problem gamblers (2.6%).

***At-risk/problem gamblers were significantly more likely to report using drugs or alcohol while gambling.***

Over one-third (34.7%) of at-risk/problem gamblers (low-, moderate-, and high-risk) reported using drugs or alcohol while gambling compared to 19.2% of non-problem gamblers.

***At-risk/problem gamblers were significantly more likely than non-problem gamblers to participate in a diversity of gambling activities.***

At-risk problem gamblers were significantly more likely than non-problem gamblers to participate in the following gambling activities:

- Gambling at a casino (50.4% vs. 23.9%);
- Gambling during a private game/event (31.9% vs. 20.5%);
- Gambling on the outcome of a sports event (23.6% vs. 10.3%);

- Gambling via short-term speculative stock/commodity purchasing (15.4% vs. 6.3%);
- Gambling while playing bingo (13.9% vs. 4.2%);
- Gambling on a sports lottery game (9.4% vs. 3.0%);
- Gambling while at a poker tournament (9.1% vs. 2.9%);
- Gambling on the Internet, using either regulated or unregulated sites (7.0% vs. 3.1% - estimates should be considered with caution due to the small number of Internet gambler respondents); and
- Gambling via electronic gaming machines outside of a casino (unavailable in B.C. except online) (6.4% vs. 2.7%).

### ***Public Awareness of Problem Gambling Services***

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***While B.C. problem gambling counselling services appealed to almost three-quarters of respondents to the 2014 survey study, awareness of services has declined since the 2008 study.***

Nearly three-quarters (72.8%) of 2014 study respondents affirmed that they would use B.C. government problem gambling counselling services if they were to experience any gambling-related problems. Yet only about one-third (35.8%) of survey respondents reported awareness of free problem gambling counselling services available in B.C., which represents a decrease in awareness of free counselling services from the 46% of respondents who reported awareness of services in the 2008 study.

***Fewer respondents reported awareness of the toll-free help line in the 2014 study than in the 2008 study.***

One-half of the 2014 study respondents (50.5%) reported awareness of the toll-free help line, while two-thirds (66%) reported awareness of the toll-free help line in the 2008 study. Respondents of Eastern and Southern Asian descent (61.8% and 69.2% respectively) were significantly more likely to be unaware of the toll-free problem gambling help line in the 2014 study than Canadian (41.4%), European (47.9%), and Aboriginal, Inuit, or Métis (30.4%) ethnic groups.

### ***Public Attitudes toward Gambling***

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***Most British Columbians reported not being adversely affected by gambling and feel they have sufficient information to identify a gambling problem.***

The majority of survey respondents indicated that gambling was not a problem for their families (92.8%), that they had sufficient information to identify a gambling problem (87.7%), and that they had never experienced problems as a result of someone else's gambling (86.8%).

***In the 2014 study, most adult British Columbians viewed problem gambling as an addiction.***

Approximately 89.8% of survey respondents reported that gambling problems should be treated *like any other addiction*.

***Since the 2008 study, British Columbians have not changed their opinion regarding the effects of legalized gambling on society.***

Almost one-half (46.8%) of 2014 study respondents reported that the effect of legalized gambling on society was *about equally good and bad*, over one-third felt that the effect was *bad or very bad* (41.2%), and less than one-tenth felt that the effect was *good or very good* (9.3%). The proportion of

respondents expressing these sentiments was similar to the 2008 study with 43% of respondents reporting *bad* or *very bad* effects and 10% reporting *good* or *very good* effects.

***British Columbians said winning, entertainment, and excitement were the main benefits that individuals experience as a function of gambling.***

*Winning* was the most commonly cited benefit that individuals receive from gambling by survey respondents in the 2014 study (32.9%). Young adults, 18 to 24 years of age, (44.0%) were significantly more likely to cite winning/financial gain as a main benefit that individuals receive from gambling than respondents over 35 years of age (30.1%).

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## Section 1: Introduction the B.C. Problem Gambling Prevalence Study

### 1.1 B.C. Problem Gambling Prevalence Study Background

The 2014 Problem Gambling Prevalence Study was the fifth study commissioned by the Government of British Columbia (the province) to establish the prevalence of adult problem gambling in the province. Previous Problem Gambling Prevalence Study surveys were administered in 1993, 1996, 2003, and 2007. The most recent study (published in January 2008) revealed that the existence of moderate problem gambling in the B.C. population was at 3.7% and severe problem gambling was at 0.9%.<sup>iv</sup>

R.A. Malatest & Associates Ltd. (Malatest), a program evaluation and market research firm, was contracted by the Government of British Columbia to develop and administer a survey study and prepare a report outlining findings of gambling prevalence and problem gambling prevalence among residents of British Columbia, as well as public perceptions of gambling and awareness of services to assist problem gamblers. This type of population research provides important information for the development of effective programs and services related to responsible and problem gambling.

Through the Responsible & Problem Gambling Program of the Gaming Policy and Enforcement Branch, the Government of British Columbia delivers free information, support, and treatment services to promote informed choices and healthy behaviours regarding gambling participation. The following list provides an overview of these services:

- Public Education – delivered in schools and communities across the province and online through the B.C. Responsible Gambling website;<sup>v</sup>
- Staff in Casinos – contracted by the Responsible & Problem Gambling Program to provide information to players about how games work, dispel commonly held myths about gambling, provide information about responsible play, and offer support to players who may be in distress;
- The Problem Gambling Help Line – operates 24-hours a day, seven days a week to provide British Columbians with free information, crisis-counselling, and referral services in several languages; and
- Counselling and Treatment Services – delivered free of charge to individuals and families seeking help with gambling addiction. The program served 1,673 people last year.

### 1.2 Defining Problem Gambling

*Gambling* is defined by the Canadian Public Health Association as “risking money or something of value on the outcome of an event involving chance when the probability of winning or losing is less than certain.”<sup>vi</sup> Gambling activities and locales take many forms and may include lotteries, instant win tickets (e.g., scratch tickets), bingo, electronic gaming machines, casino games, sports betting, speculative stock purchases, and Internet gambling, among several other forms of wagering or betting.

Pathological gambling or problem gambling was first established as a diagnosable mental disorder by the American Psychological Association in 1980; it was included in the third edition of the Diagnostic and Statistics Manual of Mental Disorders (DSM-III) as an impulse control disorder. The DSM provides standardized criteria for classifying mental disorders and established ten criteria for pathological gambling. These criteria included preoccupation with gambling, progressive loss of control, and harm to individuals and families.<sup>vii</sup> The fifth edition of DSM, released in May 2013, reclassified pathological

gambling as an addictive disorder based on the growing body of research demonstrating that problem gambling closely resembles other types of addictions in terms of its external consequences to individuals' lives, as well as its neurological effects.

In Canada, a reputable definition of problem gambling has been established by the Canadian Public Health Association, which defines *problem gambling* as a “progressive disorder characterized by: a) continuous or periodic loss of control over gambling; b) preoccupation with gambling and money with which to gamble; c) irrational thinking; d) continuation of the activity despite adverse consequences.”<sup>viii</sup>

### 1.3 Measuring Problem Gambling

Since pathological gambling was first established as a mental disorder, several diagnostic tools and screening instruments have been developed to identify this behaviour in individuals.<sup>ix</sup> Among these tools, the South Oaks Gambling Screen (SOGS) is one of the most commonly cited instruments. The SOGS questionnaire screens for pathological gambling using DSM criteria. Several different screening instruments for assessing problem gambling, including SOGS, have been used in problem gambling prevalence studies. In Canada, reported estimates of severe problem gambling are consistently, on average, around 1.0% regardless of the screening instrument.<sup>x</sup>

The Canadian Problem Gambling Index (CPGI) was developed in 2001 as a standard measurement tool for assessing problem gambling risk levels. Since 2001, the CPGI has been the most commonly used assessment tool for problem gambling in Canadian jurisdictions.<sup>xi</sup> The CPGI validation processes involved a general population sample, positioning this instrument as an advantageous tool for use in general population prevalence studies over those validated using clinical samples (e.g., SOGS).<sup>xii</sup> To allow for comparisons between the 2008 B.C. Problem Gambling Prevalence Study and the 2014 B.C. Problem Gambling Prevalence Study, the CPGI was used as the measurement tool for problem gambling in the province. In accordance with the CPGI, the following criteria are used in this report to identify types of gamblers:

#### **Non-Gamblers**

- Individuals who have not gambled in the past 12 months

#### **Gamblers**

- Individuals who have gambled in the past 12 months including at-risk/problem gamblers
- All gamblers (i.e., non-problem gamblers and at-risk gamblers as classified by the CPGI, and further defined below)

#### **Non-Problem Gamblers**

- CPGI Score 0 = Non-problem gambling

#### **At-risk Gamblers**

- **Low-risk Problem Gambler:** CPGI Score 1-2 = Low level of problems with few or no identified negative consequences, such as personal, social, or financial distress

#### **Problem Gamblers**

- **Moderate-risk Problem Gambler:** CPGI Score 3-7 = Moderate level of problems leading to some negative consequences
- **High-risk Problem Gambler:** CPGI Score 8 or more = Problem gambling with negative consequences and a possible loss of control, such as betting more on a gambling activity than an individual can afford to lose

## 1.4 Problem Gambling in Canada

Research, undertaken by Williams et. al. (2012), examined problem gambling prevalence studies world-wide and within Canada in order to standardize studies for comparative purposes. This research found that the average Canadian national problem gambling prevalence rate (moderate-risk and high-risk problem gamblers) was 1.8%. The highest provincial average problem gambling prevalence was 3.7% in New Brunswick and the lowest was 1.3% in Quebec. Additionally, the study found that problem gambling prevalence has been declining in Canada since a peak in the mid-1990s. This decline in problem gambling prevalence is similar to that experienced in other gambling jurisdictions including the United States and Australia.<sup>xiii</sup>

In terms of demographic characteristics of problem gamblers, a 2010 study that reviewed the socio-demographic and substance use correlates of gambling behaviour in Canada found that 15% of Aboriginal people were moderate-risk or high-risk problem gamblers and 15% of individuals of Asian descent were low- to moderate-risk problem gamblers. In addition, past-year gamblers were commonly of European ancestry. The study also found that the proportion of individuals in the moderate-risk and high-risk problem gambling groups who engaged in more than one electronic gambling game in the past year was double that of the estimated proportion of non-problem gamblers.<sup>xiv</sup> Another Canadian study found that demographic profiles for males and females most at risk of problem gambling showed some differences in terms of problem gambling behaviour related to managing life stress. Coping with problems was more common for females, while lack of social support was related to problem gambling for males.<sup>xv</sup>

Another dimension of problem gambling is the presence of simultaneous, or comorbid, disorders. Research suggests that the presence of one or more comorbid disorders is associated with more severe gambling behavior. Ibanez et al., (2001) found that pathological gamblers with comorbid mental health disorder(s) had significantly higher SOGS scores, indicating increased recurrent and maladaptive gambling behaviours. Furthermore, within the clinical sample there was a correlative relationship between the number of comorbid disorders and gambling severity.

With the emerging ubiquity of Internet access and availability, many jurisdictions are interested in understanding the impact of the growth in web-based gambling opportunities on problem gambling prevalence. Notable developments in Internet gambling over the past six years include the significant increase in popularity of both live and online poker and greater access to unregulated Internet gambling sites. New research exploring the trends and tendencies of Internet gamblers suggests that online gamblers may be at increased risk of gambling-related problems.<sup>xvi</sup> Some findings also suggest that online gamblers tend to be young adults, male, and more likely to exhibit other addictive behaviours.<sup>xvii</sup> Internet gambling opportunities have grown substantially since the 2008 B.C. Problem Gambling Prevalence Study was published. While the subject of Internet gambling was of interest for the 2014 study, Internet gambling participants in the survey were too few to allow for a robust subgroup analysis.

## 1.5 Economic and Social Impacts of Problem Gambling

While most of the economic, socio-economic, and cultural impacts of gambling are complex and to some extent unknown, increases in problem gambling from legalized and illegal forms of gambling is a well documented undesirable outcome. For problem gamblers the social and economic impacts extend further into related indices such as bankruptcy, divorce, exacerbation of mental health issues, suicide, and need for treatment among other factors. Naturally, socio-economic inequality increases for low-income earners who spend proportionally more of their income on gambling activities than high income earners.<sup>xviii</sup>

Many studies have reviewed the economic and social impacts of the individual types of gambling (e.g., casino gambling, horse racing). These studies consistently show that legalized gambling increases both government revenue and problem gambling. However the economic and social impacts of Internet gambling remain elusive and merit further research.<sup>xix</sup> The singular qualities of the platform (e.g., ubiquity, 24-hour access, player isolation) have potential implications beyond that which has been previously measured in gambling and problem gambling research studies.

## 1.6 Structure of the Report

This report contains six sections:

- Section 1 - Introduction;
- Section 2 - describes the Evaluation Scope and Methodology including details about study participants, response rates, and data weighting procedures;
- Section 3 - examines Gambling Activity in British Columbia;
- Section 4 - presents survey findings on Public Attitudes toward Gambling and Public Awareness of Gambling Services;
- Section 5 - discusses Problem Gambling in the province according to survey results; and
- Section 6 - provides Conclusions based on the findings for this study.

## **Section 2: Evaluation Scope and Methodology**

### **2.1 Scope of Work**

The 2014 B.C. Problem Gambling Prevalence Study was commissioned to help guide responsible gambling policies and initiatives, specifically in the areas of problem gambling prevention, education, treatment, and future research projects and programs. To draw conclusions and implications for this purpose, the study focused on the following areas:

- Prevalence and nature of gambling and problem gambling within the province's adult population;
- Prevalence and nature of gambling and problem gambling by demographic group (e.g., age group, ethnicity), and residents of each of B.C.'s five health authority regions in order to enhance targeted programs and services;
- Demographic characteristics of non-gamblers and gambler sub-types, which include non-problem gamblers, at-risk gamblers (i.e., low-, moderate-, and high-risk gamblers), and problem gamblers (i.e., moderate- and high-risk gamblers); and
- Where possible, comparisons to the results from previous B.C. prevalence studies.

The 2014 B.C. Problem Gambling Prevalence Study primarily entailed the refinement of the 2008 study survey instrument (see Section 2.2) and its administration by phone or online (see Section 2.3) among a sample of British Columbian adults (see Section 2.4). As the Contractor, Malatest conducted the study in consultation with representatives of the Gaming Policy and Enforcement Branch beginning with a project initiation meeting and subsequently through ongoing communication over the duration of the project.

### **2.2 Questionnaire Design**

With the focus areas of research as outlined in Section 2.1 in mind, Malatest developed a survey instrument (see Appendix A) that included more than 50 questions, most of which were close-ended (e.g., yes/no, scale, distinct choice) and matched those used in the previous 2008 study for the purpose of facilitating comparisons. Given the questionnaire's length, survey completions took about 20 minutes on average—with the shortest survey taking only four minutes and the longest survey taking almost one hour. The option of online survey completion was offered to any research participants who did not wish to complete the survey by phone or preferred to be able to start and stop the survey at their leisure.

As the research targeted particular segments of the population, Malatest also worked with a professional translation firm to translate the survey instrument into Punjabi and Chinese (Mandarin and Cantonese) for administration in these languages.

### **2.3 Survey Administration**

Given the intention to administer the survey by phone and online, the questionnaire was programmed and extensively tested in Malatest's Computer Assisted Telephone/Web Interviewing (CATI/CAWI) software, CallWeb. Through CallWeb, checks were programmed to ensure that respondents were asked by telephone interviewers to clarify their responses should any errors in logic occur in their answers. All questions were also automatically checked to ensure that there were no out-of-range values.

Interviewers were trained to conduct the survey prior to the field test and on an as needed basis throughout the survey administration window. Interviewer training included a detailed review of the data collection instrument, provision of relevant definitions and clarification of terms, emphasis on asking the questions verbatim, discussion of sensitivity to the survey's content, and a reminder of professionalism and confidentiality requirements.

Prior to full survey administration, the survey programmed in CallWeb was also field tested with a sample of up to 150 respondents. Full survey administration occurred from December 2, 2013 to January 13, 2014. By the time full survey administration wrapped up, Malatest completed 3,058 surveys with residents of British Columbia out of 47,502 telephone numbers that were called (see Section 2.5.1 for details on the call disposition and response rates). The number of completions achieved overall, and per sub-group of interest, was in accordance with the sampling plan (see Section 2.4) that was determined prior to survey administration.

## 2.4 Sampling Methodology

Malatest developed a disproportionate stratified random sampling plan based on obtaining at least 3,000 completed surveys with a representative sample of British Columbian adults (18 years of age or older). The sampling plan was developed to yield comparable survey precision to past prevalence studies in B.C. in order to obtain a margin of error of  $\pm 4.0\%$  (at the 95% confidence level) at the regional health authority region level.<sup>xx</sup>

The selection of phone numbers was done via sampling software, which randomly selected phone numbers based on the sampling requirements. In order to increase sample coverage of the youth population (age 18 to 34), a separate working cell phone sample was procured to supplement the main sample. The final sample frame consisted of three sample sources: listed sample (73%); random digit dialed (RDD) sample (random B methodology)<sup>xxi</sup> (5%); and cell phone sample (22%).

Within the overall target completions, sub-group quotas were then set based on the respondents' regional health authority. Table 2.1 breaks down the population universe, sampled cases, targets, and actual completions by the five regional health authorities.

**Table 2.1**  
**Population Universe, Sample, Target and Actual Number of Survey Completions by Health Authority**

Health Authority	18+ Population	Sample	Target	Completions	% of Target
Fraser	1,317,552	12,226	600	609	101.5%
Interior	607,547	8,929	600	609	101.5%
Island	637,669	8,666	600	604	100.7%
Northern	227,456	8,476	600	623	103.8%
Vancouver Coastal	988,143	10,210	600	606	101.0%
Don't know/No response	n/a	n/a	n/a	7	n/a
<b>Total (Provincial)</b>	<b>3,778,367</b>	<b>48,507</b>	<b>3,000</b>	<b>3,058</b>	<b>101.9%</b>

Source: B.C. Stats Population Estimates

\*All samples were randomly selected via ASDE Survey Sampler.



Due to the stratification (over- and under-sampling of certain regional health authorities), the survey results reported were weighted based on the actual proportion of B.C. male and female adults in each regional health authority. Further details on weighting are discussed in Section 2.6.

## 2.5 Study Participant Overview

Malatest completed survey activities on January 13, 2014 after reaching target completions for each regional health authority. At which time, 3,058 surveys were completed with residents of British Columbia. These survey completions were obtained after Malatest reached out to a total of 47,502 cases. Overall, the response rate for the study was 10.2%. This response rate was calculated, in accordance with the 2008 study, by adding the total number of completed surveys (3,058) and over-quota respondents (597) and then dividing this number by the total valid sample<sup>xxii</sup> (35,808). Had the survey window allowed time to fully exhaust and mature the sample, a higher response rate would have been achieved. A total of 58 web completions were obtained. Surveys were completed in English, Mandarin, and Punjabi. Call disposition details are provided in Appendix B.

The average survey length was 20 minutes. The survey introduction informed respondents that the survey was about “games of chance, gaming, and other issues of importance to B.C. residents”. The survey is provided in Appendix A. Randomly selected individuals over the age of 18 were invited to participate in the survey. During telephone survey administration, 5% of the surveys were monitored by senior supervisors in the call centre.

## 2.6 Margin of Error and Weighting

The margin of error indicates the imprecision inherent in survey data. A smaller margin of error means the survey results were more precisely measured. A margin of error of  $\pm 5\%$  or  $\pm 10\%$  are considered good and acceptable, respectively. The margin of error of percentage estimates at the 95% confidence level is obtained by multiplying the standard error of the estimate by the critical value, 1.96. For example, if the reported percentage is 50%, with a margin of error of  $\pm 5\%$ , the true score is captured within the range of 45% and 55% 19 out of 20 times. The overall margin of error is estimated to be  $\pm 1.8\%$  (at the 95% confidence level) and ranges from  $\pm 3.9\%$  to  $\pm 4.9\%$  at the regional health authority level (see Table 2).<sup>xxiii</sup>

**Table 2**  
**Population Universe, Sample**

Health Authority	Completions	Margin of Error
Fraser	609	$\pm 4.0\%$
Interior	609	$\pm 4.0\%$
Island	604	$\pm 4.0\%$
Northern	623	$\pm 3.9\%$
Vancouver Coastal	606	$\pm 4.9\%$
Don't know	7	-
<b>Total (Provincial)</b>	<b>3,058</b>	<b><math>\pm 1.8\%</math></b>

Note: The estimated margins of errors are based on a 50% response distribution, after correction was made to adjust for sampling from a finite population.



Due to the stratification (over- and under-sampling of certain regional health authorities), survey results reported in this report have been weighted so that the sample distribution reflects that of the 18 years of age and over B.C. population in terms of age group, gender, and health region. Population estimates were obtained from B.C. Stats' latest estimates in 2012.<sup>xxiv</sup> Unless otherwise noted, all reported responses and reported estimates are based on weighted data.

## 2.7 Study Limitations

### *Interpretation of Results*

Statistical significance should be interpreted with an eye towards practical importance. To highlight the importance of both statistical and practical importance, statistically significant differences were reported for those data with direct relationships to the scope of this study. The survey results provide a reliable snapshot of problem gambling prevalence, demographic characteristics of B.C. gamblers, and public awareness of problem gambling support services, but additional data would be required to review other dimensions of the gambling population (e.g., gambling in B.C. versus gambling outside of the province) and to determine comparability of problem gambling in B.C. with other jurisdictions.

### *Non-response Bias*

As in any survey, bias due to non-response could weaken the conclusions drawn through analysis and review. To the extent that individuals who did not complete the survey held different opinions and had different experiences compared to those who did complete the survey, the results and findings may be subject to response biases. In addition, assessment of problem gambling using the CPGI limits this research by any response bias associated with this assessment tool.

### *Comparability*

Comparisons of survey data to data reported in the 2008 study have been made throughout this report for the purpose of reviewing change over time and providing relevant context for the findings of this study. To the extent possible, the research methods used for the 2014 B.C. Problem Gambling Prevalence Study were developed to align with methods used for the 2008 study in order to review changes in the population over time. CPGI scores were tallied based on methods used for the 2008 B.C. Problem Gambling Prevalence Study. Although the current study was designed to follow the approach used in the previous study, the comparisons made with previous studies are limited to descriptive review, as no raw data was available for analysis. Changes observed in the population should be subject to additional review to examine underlying causes (e.g., shifts in demography over time) for differences in study results.

### *Research Opportunities*

Sampling methodology applied to this study mirrored that which was used in the 2008 study to facilitate a similar type of analysis and comparisons between the two time points. However, larger sample prevalence studies allow for subgroup analysis of at-risk/problem gambling populations. Several subgroup populations (e.g., ethnic groups, gambling activity participant groups such as Internet gamblers) cannot be fully explored in this report due to small numbers of respondents for these groups.

Further analysis about internet gamblers may be beneficial for policy makers. Furthermore, information about shifts toward Internet gambling from other types of gambling and the behaviours, trends, and composition of Internet gamblers remains an area for further study.

Problem gambling flows and/or cycles (e.g., changes from low- to moderate- to high-risk problem gambling) are not captured in prevalence study methodology. To better understand factors that affect transition from low-risk to moderate- or high-risk problem gambling behaviour, longitudinal studies employing comparison group methodologies can offer more insight into treatment and prevention strategies for the B.C. problem gambling population.

## Section 3: Gambling Activity in British Columbia

This section highlights the core demographic characteristics, gambling activities, and gambling behaviour of gamblers in B.C. (i.e., all people who gambled in the past year including non-problem and at-risk/problem gamblers) based on results from the 2014 B.C. Problem Gambling Prevalence Study survey. Gambling activity profiles for each of the surveyed gambling activities are provided in Appendix C.

### 3.1 Overview of Gambling Participation in B.C.

Of the total participants of the general population survey, 72.5% had participated in some form of gambling in the last 12 months. This is the same proportion as reported in the 2008 study (73%). When asked to report which gambling activities they participated in, the majority of respondents who had gambled during the past 12 months said they played lottery games, Scratch & Win tickets, Keno, or Pull-tabs (81.6%). The second most popular gambling activity, charity raffles, was reported by a little less than half (45.8%) of gamblers. Table 3.1 provides gambling activity participation of gamblers, ranked by popularity. Although there are many reports of a rise in Internet gambling availability,<sup>xv</sup> the 2014 B.C. Problem Gambling Prevalence Study survey shows that a relatively small proportion of gamblers (3.7%) who responded to the survey participated in this activity. Note that each activity was asked without additional context, which means that some respondents may have reported participating in bingo, lottery games, or electronic gaming machines, for example, that were offered in an online format.

**Table 3.1**  
**Gambling Activity Participation of B.C. Gamblers**

Rank	Gambling Activity	% Participation in Past 12 Months
1	Other lottery games, Scratch & Win tickets, Keno, or Pull-tabs	81.6%
2	Charity raffles	45.8%
3	Gambling at a casino (includes slot machines)	28.0%
4	Private game such as cards, dice, or dominoes in someone's home or at a club or organization	22.2%
5	Outcome of sports or other events with friends co-workers, a bookie or some other person	12.3%
6	Short-term speculative stock or commodity purchases such as day trading	7.7%
7	Bingo	5.7%
8	Horse race	5.4%
9	Sports lottery game through a lottery retailer	3.9%
10	Poker tournament at a casino, bar, restaurant, or other public venue	3.9%
11	Internet gambling such as GeoSweep, sports betting, poker, interactive games (includes regulated and unregulated sites)	3.7%
12	Electronic gaming machine, video lottery terminal – not in a casino (not available in B.C. except online)	3.3%
13	Other	0.6%

Source: 2014 B.C. Problem Gambling Prevalence Survey. Unweighted n = 2,244.

Note: Multiple Response Question – Percentages may total more than 100.0%.

Female respondents were significantly more likely than male respondents to participate in playing charity raffles (35.5% vs. 30.9%), and male respondents were significantly more likely than female respondents to participate in playing private games such as cards (19.6% vs. 12.7%), betting on the outcome of sports events (13.9% vs. 4.1%), purchasing speculative stock/commodities (7.9% vs. 3.4%), playing at sports lottery terminals (4.3% vs. 1.5%), playing in poker tournaments (3.9% vs. 1.8%), playing on Internet gambling sites (3.8% vs. 1.5%), and gaming on electronic gaming machines outside of a casino (3.2% vs. 1.5%).

Those survey respondents who gambled in the past 12 months were most likely to do so alone (56.5%) and travel five kilometres or less (46.4%) to gamble. However, the majority of gambling activity participation was reported for lottery games followed by charity raffles, which are commonly solitary activities that can occur close to one's home. When asked how much they spent on gambling activities in an average month, gamblers were most likely to report an average value of less than \$50 spent per month – with 29.9% reporting \$11 to \$49, 20.7% reporting \$1 to \$5, and 17.6% reporting \$6 to \$10.

### **3.2 Profile of B.C. Gamblers**

Table 3.2 shows the trends over previous studies of gambling activity participation. Statistical comparisons cannot be conducted without access to the original data; instead, changes over time have been summarized descriptively. Since the 2008 study, most gambling activities have increased in participation. Lottery games saw the largest increase (+ 23% points), bringing the percentage to the same level as observed in the 1990s. There has also been a +14 percentage point increase in participation in charity raffles since the 2008 study. The percentage of respondents who self-reported participation in Internet gambling has been steadily on the rise since it was first reported in 2003 (from 2% to 4%). Over the past year, gambling has remained the same for both private games and electronic gaming machines outside of a casino, which is not available in B.C. except online.

**Table 3.2**  
**Trends in Past Year Gambling Activities**

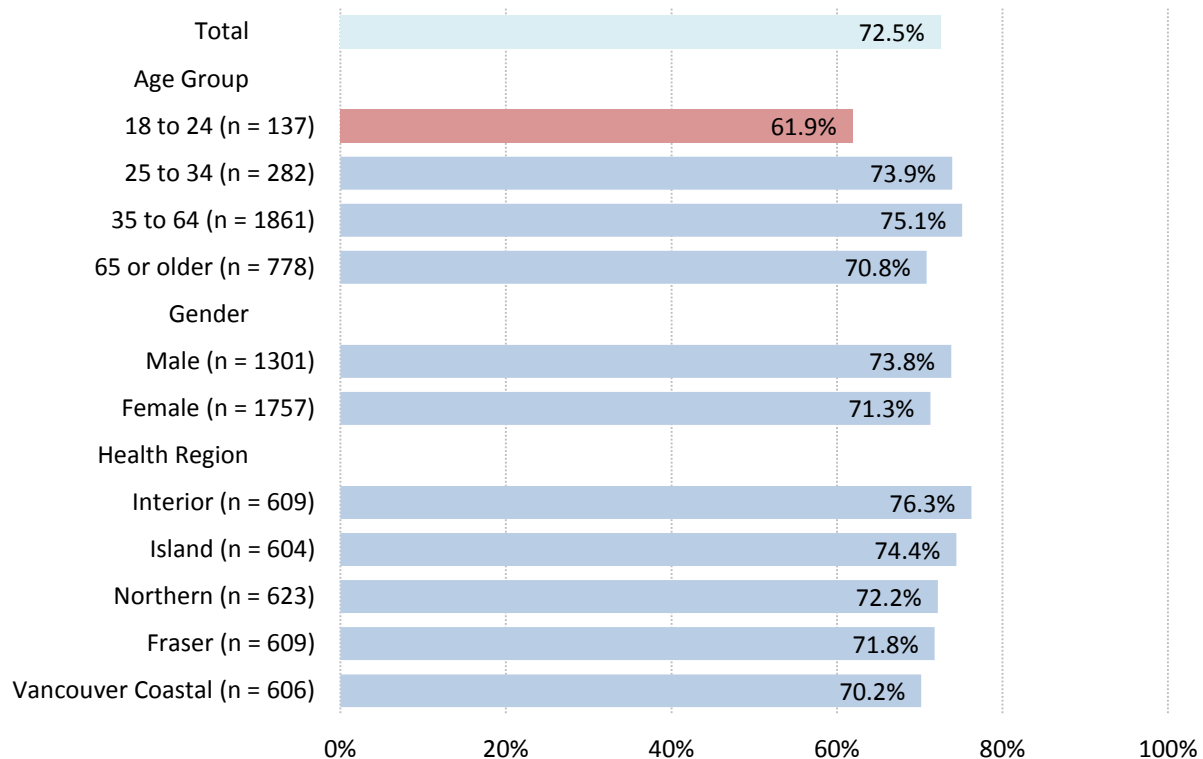
<b>Gambling Activities</b>	<b>1993</b>	<b>1996</b>	<b>2003</b>	<b>2008</b>	<b>2014</b>
Lottery games	81%	85%	74%	59%	82%
Charity raffles			49%	32%	46%
Gambling at a casino (includes slot machines)	18%	16%	27%	25%	28%
A private game			20%	22%	22%
Sports or other event			18%	9%	12%
Speculative stock/commodity purchases			13%	5%	8%
Bingo	13%	9%	8%	5%	6%
A horse race	9%	5%	8%	4%	5%
Internet gambling (includes regulated and unregulated sites)			2%	3%	4%
A sport lottery game	8%	6%	5%	3%	4%
A poker tournament				5%	4%
An electronic gaming machine - not in a casino (not available in B.C. except online)				3%	3%
Any other kind of game			3%	3%	1%

Source: B.C. Problem Gambling Prevalence Survey; Unweighted data (n = 3,038 for 2014 study).

Yellow shaded cells represent no change, red shaded cells represent decreases, and blue shaded cells represent increases. Percentages from the 2014 study are rounded to compare with estimates provided in reports from prior studies.

Figure 3.1 presents the profile of those who gambled over the past year by age group, gender, and health region. Provincially, 72.5% of the respondents reported that they engaged in at least one gambling activity in the past 12 months. Respondents who were 18 to 24 years of age were less likely to have participated in any gambling activities (61.9%), compared to all other age groups (ranging from 70.8% to 75.1%). No statistically significant difference was found between gender or health region.

**Figure 3.1**  
**Profile of Respondents who Gambled during the Past Year**



Source: B.C. Problem Gambling Prevalence Survey; Unweighted data (n = 3,038 for 2014 study).

Red shaded bars represent statistical significant difference from the other sub-group.

With respect to other demographic characteristics, respondents who were single or never married were significantly less likely to have gambled in the past year (66.4%), compared to those who were married or in a common law relationship (75.1%). Statistically significant differences were also found among respondents of different ethnic origins and employment statuses. A higher percentage of respondents who self-identified themselves as having Aboriginal, Inuit, or Métis (86.5%) origins had gambled in the past year, compared to Europeans (73.8%), Southern Asians (62.8%), and Eastern Asians (60.4%). Respondents with European origins were significantly more likely to have gambled in the past year compared to those with Eastern Asian origins (73.8% vs. 60.4%, respectively).

Respondents who worked full-time (76.9%) were significantly more likely to have gambled in the past year than respondents who were homemakers (62.6%), unemployed (61.2%), or students (57.0%), as shown in Table 3.3. Compared to student respondents, a significantly higher percentage of respondents who were retired, semi-retired, or self-employed had gambled in the past year (57.0% vs. 72.4%, respectively).

**Table 3.3**  
**Gamblers by Employment Status**

Employment Status	Unweighted n	% Gamblers	Sig*	
Employed full-time	1,162	76.9%	O	
Disability	61	75.0%		
Retired	939	72.4%	*	
Self-employed	335	72.4%	*	
Employed part-time	260	69.5%		
Homemaker	120	62.6%	*	
Unemployed	107	61.2%	*	
Student	55	57.0%	*	O

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighed Data (Unweighted n = 3,047).  
O = the reference point. \* = a significant deviation from the reference point.

Gambling participation in the past 12 months was related to the number of dependents (under 18 years of age) in the household (see Table 3.4, below). In particular, respondents with four or more dependents were significantly less likely to have gambled in the past year (46.6%) compared to other respondents.

**Table 3.4**  
**Gamblers by Number of Dependents**

Number of Dependents	Unweighted n	% Gamblers	Sig*	
None	2,141	73.2%	*	*
One	368	68.7%	*	*
Two	339	74.4%	*	
Three	124	84.0%	*	O
Four or more	66	46.6%	O	*

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighed Data (Unweighted n = 3,038).  
O = the reference point. \* = a significant deviation from the reference point.

As shown in Table 3.5, the likelihood of having gambled in the past 12 months was positively related to self-reported household income levels (before tax). Specifically, respondents with household incomes of \$100,000 or over were significantly more likely to have gambled in the past year (79.3%) compared to respondents with household incomes of under \$30,000 (69.2%) and those with household incomes between \$30,000 and \$50,000 (68.9%). The same pattern was observed when comparing the two lowest household income groups with respondents who reported between \$50,000 and \$100,000 in household income levels (78.2%).

**Table 3.5**  
**Gamblers by Household Income (Before Tax)**

Household Income	Unweighted n	% Gamblers	Sig*		
Under \$30k	430	69.2%	*	*	*
\$30k to under \$50k	486	68.9%	*	*	*
\$50k to under \$100k	911	78.2%	*		O
Over \$100k	721	79.3%	*	O	
No Response	510	59.0%	O		

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighed Data (Unweighted n = 3,058).  
 O = the reference point. \* = a significant deviation from the reference point.

### 3.3 Favoured Gambling Activities

Of survey respondents who were gamblers, the top four favourite gambling activities were “Other lottery games (such as 6/49); Scratch & Win tickets, Keno, or Pull-tabs” (43.6%); “Charity raffles” (15.8%); “Gambling at a casino” (11.1%); and “Private game such as cards, dice or dominoes in someone’s home or at a club or organization” (10.6%). Table 3.6 shows the ranked (most to least popular) preference for gambling activities by gamblers.

**Table 3.6**  
**Favourite Gambling Activities of Gamblers**

Rank	Gambling Activity	% Participation in Past 12 Months
1	Other lottery games, Scratch & Win tickets, Keno, or Pull-tabs	43.6%
2	Charity raffles	15.8%
3	Gambling at a casino (may include slot machines)	11.1%
4	Private game such as cards, dice, or dominoes in someone's home or at a club or organization	10.6%
5	Outcome of sports or other events with friends co-workers, a bookie or some other person	2.9%
6	Short-term speculative stock or commodity purchases such as day trading	2.1%
7	Other	2.1%
8	Horse race	1.9%
9	Bingo	1.3%
10	Internet gambling such as, GeoSweep, sports betting, poker, interactive games (can include regulated and unregulated sites)	1.0%
11	Sports lottery game through a lottery retailer	0.9%
12	Poker tournament at a casino, bar, restaurant, or other public venue	0.7%
13	Electronic gaming machine, video lottery terminal –not in a casino (not available in B.C. except online)	0.2%
	No response	5.8%

Source: 2014 B.C. Problem Gambling Prevalence Survey. Unweighted n = 2,244.



### 3.4 Frequency of Gambling Activities

Table 3.7 depicts the frequency of gambling, as reported by gamblers, for each surveyed gambling activity. Short-term speculative stock purchasing (12.3%) and Internet gambling (10.1%) were the top two activities reported for daily participation. Internet gambling activity also proportionally received the most responses for participation several times per week (14.7%) and several times per month (28.9%).

**Table 3.7**  
**Frequency of Gambling Activities for B.C. Gamblers – Ranked by Popularity**

Rank	Gambling Activity	Daily	Several Times per Week	Several Times per Month	Once per Month	A Few Times per Year	No Response
1	Other lottery games, Scratch & Win tickets, etc. (n = 1866)	0.5%	8.0%	26.7%	23.5%	39.7%	0.7%
2	Charity raffles (n = 1143)	--	0.7%	2.2%	6.1%	88.1%	1.6%
3	Gambling at a casino (may include slot machines) (n = 582)	0.2%	2.3%	7.7%	15.9%	72.2%	0.8%
4	Private games (n = 432)	0.2%	4.6%	10.6%	23.8%	57.7%	1.8%
5	Outcome of sports or other events with friends co-workers, a bookie or some other person (n = 217)	0.3%	4.1%	10.4%	12.8%	68.2%	4.0%
6	Short-term speculative stock or commodity purchases (n = 145)	12.3%	2.8%	7.4%	19.0%	48.1%	9.0%
7	Bingo (n = 107)	0.8%	3.1%	13.6%	10.6%	65.8%	4.0%
8	Horse race (n = 80)	--	2.0%	7.4%	4.8%	82.8%	1.6%
9	Sports lottery game through a lottery retailer (n = 70)	2.2%	10.7%	28.0%	17.9%	38.3%	2.9%
10	Poker tournament at a casino or other public venue (n = 63)	1.9%	0.9%	8.3%	26.4%	58.2%	4.3%
11	Internet gambling such as GeoSweep, sports betting, etc. (can include regulated and unregulated sites) (n = 70)	10.1%	14.7%	28.9%	14.6%	28.5%	1.2%
12	Electronic gaming machine, video lottery terminal not in a casino (not available in B.C. except online) (n = 65)	2.6%	4.3%	10.6%	8.8%	53.3%	14.8%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data (n = 2,244 for gamblers).

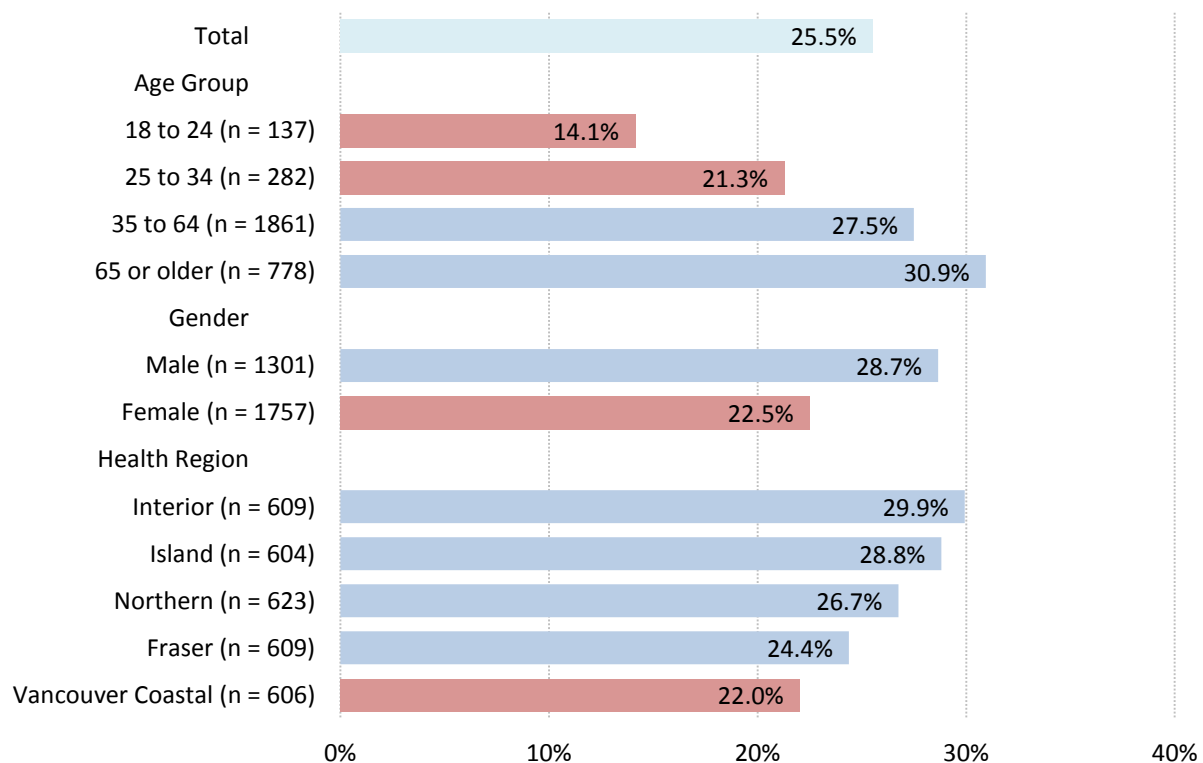
Note: "--" denotes insufficient data available to report.

Across British Columbia, approximately one-quarter of gamblers (25.5%) indicated that they participate in at least one gambling activity on a weekly basis (three to five times per month or more). The percentages of weekly gamblers were significantly lower for gamblers who were 18 to 24 year of ages (14.1%) and 25 to 34 years of age (21.3%), compared to the other age groups. Female gamblers were significantly less likely to

gamble weekly compared to males (22.5% vs. 28.7%). Among the five regional health authorities, respondents in the Vancouver Coastal health region were the least likely to have gambled on a weekly basis (22.0%), and this rate was significantly lower than the rates for the other four health regions.

Figure 3.2 shows the percentage of weekly gamblers by age group, gender, and health region. Weekly gamblers are defined as respondents who answered they had spent money or bet on at least one gambling activity either “daily”, “several times per week”, or “several times per month”.

**Figure 3.2**  
**Profile of Past Year Weekly Gambler (three to five times a month or more)**



Source: B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data (N = 3,058 for 2014).

Red shaded bars represent statistical significant difference from the other sub-group.

Respondents who self-identified as having Aboriginal, Inuit, or Métis origins were significantly more likely to gamble on a weekly basis (43.0%), compared to those with European origins (25.9%), Southern Asian origins (20.0%) and Eastern Asian origins (18.4%). Respondents with up to high school education had the highest rate of gambling on a weekly basis (30.8%), this rate is significantly higher than respondents with either an undergraduate degree (22.7%) or post-graduate degree (19.1%). Respondents with post-graduate degrees were in turn significantly less likely to be weekly gamblers compared to those who completed post-secondary trade or technical school (30.2%). Respondents who were students and homemakers were statistically less likely to gamble on a weekly basis (12.8% and 12.5%), compared to those who were retired or semi-retired (31.2%), were unemployed (30.3%), or were employed full-time (26.4%).

Compared to the 2008 study, weekly gambling has remained about the same in the Interior and Island health regions, but has decreased in other health regions, as shown in Table 3.8.

**Table 3.8**  
**Weekly Gambling 2014 Study to 2008 Study Comparison for Each Health Authority Region**

Health Authority Region	2014	2008*
Interior health region	29.9%	29%
Island health region	28.8%	29%
Northern health region	26.7%	32%
Fraser health region	24.4%	32%
Vancouver Coastal health region	22.0%	26%

Source: B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values.

All estimates and rankings are based on weighted data (N = 3,058 for 2014 study).

\*Estimates for the 2008 study did not include decimals.

Since 2008, there has been a general decline in weekly gambling by age group, as shown in Table 3.9.

**Table 3.9**  
**Weekly Gambling 2014 Study to 2008 Study Comparison for Age Groups**

Age Groups	2014	2008*
18 to 24	14.1%	28%
25 to 34	21.3%	24%
35 to 64	27.5%	31%
65 and over	30.9%	34%

Source: B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values.

All estimates and rankings are based on weighted data (N = 3,058 for 2014 study).

\*Estimates for the 2008 study did not include decimals.

A significantly higher percentage of respondents who self identified as having mental health problems gambled on a weekly basis (31.3%) compared to those who did not report any mental health problems (24.4%). In particular, respondents who indicated that they had seriously considered committing suicide were significantly more likely to gamble on a weekly basis (38.0%) compared to those who had not (24.5%).

### 3.4.1 Gambling More or Less

Most respondents who gambled during the year (56.3%) reported that they gambled about the same amounts as five years ago, with 21.5% reporting they are gambling more and 21.6% reporting that they are gambling less than five years ago. Respondents who indicated that they currently gamble more than five years ago were significantly more likely to be weekly gamblers (45.3%) compared to respondents who indicated they gambled about the same (33.0%) or less than five years ago (31.2%).

Of the 21.5% of gamblers who reported gambling more than five years ago, respondents cited several reasons for this change as follows:

- They are now old enough to gamble (24.3%);
- They gamble more for entertainment/fun/socializing with friends or family (17.8%);
- They have more money/income (17.5%);
- They believe they have better odds/chance of winning and/or for bigger prizes (10.3%);
- They have more interest in gambling (7.8%);
- They find there are more opportunities for gambling (6.5%);
- They find there is easy access to casinos or other places to gamble (6.0%);
- They wish to support charity/office lottery (3.6%);
- They have more free time/wish to ease boredom (3.4%); and
- They participate more due to retirement (0.6%).

Of the 21.6% of gamblers who reported gambling less than five years ago, respondents cited several reasons for this change as follows:

- They have less money/cannot afford gambling/feel it is generally a waste of money (25.7%);
- They are not interested/busy with other things/change of interests or lifestyle (19.0%);
- They used to go out with family or friends/less opportunity/reduced access to casino or places to gamble (13.6%);
- They do not win/feel unlucky with gambling (11.2%);
- They have family obligations/priorities (11.0%);
- They feel their age or getting older has reduced their participation (2.4%);
- They have retired (1.3%); and
- They are concerned about the negative performance of the economy (0.9%).

### 3.5 Regional Highlights for B.C. Gamblers

In all health authorities, the most popular gambling activities were lottery games like 6/49, Scratch & Wins, which were played by 3 out of 5 individuals. The popularity of the other gambling activities differed across health regions, notably:

- Charity raffles were more likely played in the Northern region than in others (see Table 3.8). About 4 in 5 charity players in the Northern region indicated that they play 1 to 5 times per year.
- Gambling at a casino was more likely for gamblers in the Fraser region than in others (see Table 3.7). About 3 in 4 casino gamblers in the Fraser region indicated that they play 1 to 5 times per year.

- Horse racing was more popular in Vancouver Coastal and Fraser than in others (see Table 3.10). At least 4 in 5 horse race bettors in both regions indicated that they play 1 to 5 times per year. Of note, respondents may be reporting horse race betting for regions outside of B.C. The province has two major race tracks in Vancouver and Surrey. The other three race tracks in B.C. are seasonal and located in Osoyoos, Princeton, and Vernon in the Interior health region.

**Table 3.10**  
**Gambling Activities in the Past 12 Months across Health Regions**

	Total	Fraser	Interior	Island	Northern	Vancouver Coastal
<b>n=</b>	<b>3,051</b>	<b>609</b>	<b>609</b>	<b>604</b>	<b>623</b>	<b>606</b>
Lottery games (e.g. 6/49, Scratch & Wins)	<b>59.2%</b>	58.9%	61.2%	62.3% ↑	60.9%	55.8%
Charity raffles (e.g. hospital lottery)	<b>33.3%</b>	31.9%	36.7% ↑	33.2%	44.0% ↑↑↑	30.6%
Gambling at a casino (may include slot machines)	<b>20.2%</b>	25.7% ↑↑↑	20.0%	16.1%	19.6%	16.0%
Private game (e.g. cards, dice in someone's home, etc.)	<b>16.1%</b>	15.7%	18.1%	15.3%	15.3%	16.0%
Outcome of sports, other events with friends, co-workers, etc.	<b>8.9%</b>	9.4%	6.9%	8.9%	7.1%	10.0%
ST speculative stock, commodity purchases (e.g. day trading)	<b>5.6%</b>	6.2%	4.1%	5.0%	3.3%	6.5%
Bingo	<b>4.2%</b>	4.3% ↑	4.1%	2.1%	3.8%	5.4% ↑
Horse race	<b>3.9%</b>	5.3% ↑↑↑	1.8%	1.0%	0.5%	5.9% ↑↑↑
Sports lottery game (e.g. Sports Action)	<b>2.9%</b>	3.3%	2.0%	1.9%	2.7%	3.5%
Poker tournament at a casino, bar, etc.	<b>2.9%</b>	3.3%	2.4%	2.9%	2.2%	2.6%
Internet gambling (e.g. GeoSweep, sports betting, etc.) (includes regulated and unregulated sites)	<b>2.7%</b>	2.6%	3.1%	2.3%	2.2%	2.8%
Electronic gaming machine –not in a casino (not available in B.C. except online)	<b>2.3%</b>	1.9%	3.1% ↑	0.8%	3.3% ↑	3.3% ↑
Have not bet or spent money on any gambling or gaming activity	<b>27.4%</b>	28.2%	23.7%	25.6%	27.7%	29.8% ↑

↑↑↑↑↑ Indicates a statistically higher result than in Fraser, Interior, Island, Northern, or Vancouver Coastal.

Note: The colour of the arrow corresponds to a significant difference between the regional health authority with a matching colour.

Source: B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data (n = 3,051).

About 1 in 5 respondents who have taken drugs/alcohol in the past year indicated that they have gambled while doing so. Using drugs/alcohol while gambling was particularly higher in the Fraser region than in the Interior and Island; however, Fraser region gamblers appear to be less likely to have gambled drunk or high compared to their counterparts in other regions, particularly those in the Island or Vancouver Coastal regions (see Table 3.11).

**Table 3.11**  
**Drug and Alcohol Use in the Past 12 Months among Gamblers Across Regions**

	Total	Fraser	Interior	Island	Northern	Vancouver Coastal
<b>n=</b>	<b>1,918</b>	<b>382</b>	<b>403</b>	<b>384</b>	<b>382</b>	<b>367</b>
Not used alcohol or drugs while gambling	<b>78.5%</b>	74.0%	83.5% ↑	83.8% ↑↑	78.4%	78.1%
Used alcohol or drugs while gambling	<b>21.5%</b>	26.0% ↑↑	16.5%	16.2%	21.6%	21.9% ↑
<b>n=</b>	<b>332</b>	<b>88</b>	<b>62</b>	<b>51</b>	<b>65</b>	<b>66</b>
Not gambled while drunk or high	<b>68.1%</b>	78.3% ↑↑	67.3%	61.1%	64.0%	56.2%
Gambled while drunk or high	<b>31.9%</b>	21.7%	32.7%	38.9% ↑	36.0%	43.8% ↑

↑↑↑↑↑ Indicates a statistically higher result than in Fraser, Interior, Island, Northern, or Vancouver Coastal.

Note: The colour of the arrow corresponds to a significant difference between the regional health authority with a matching colour.

Source: B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data (n = 1,918).

### 3.6 Gambling Activity Profiles

Statistical highlight profiles for each gambling activity, including details of problem gambling risk, region, gender, marital status, age, household income, substance use while gambling, and gambling alone versus accompanied, are provided in Appendix C.

## Section 4: Public Attitudes toward Gambling and Service Awareness

Public attitudes toward gambling and awareness of gambling services based on the results of the 2014 B.C. Problem Gambling Prevalence Study survey are summarized in this section.

### 4.1 Effects of Gambling on Society

Almost one-half (46.8%) of respondents reported that the effect of legalized gambling on society is *about equally good and bad*, over one-third felt that the effect was *bad* or *very bad* (41.2%); and less than one-tenth felt that the effect was *good* or *very good* (9.3%). The proportion of respondents expressing this sentiment was similar to the 2008 study where 43% reported *bad* or *very bad* and 10% reported *good* or *very good*.

### 4.2 Perceived Benefits of Gambling

When asked for their opinion of the main benefit individuals receive from gambling, survey respondents reported the following:

1. Winning/financial gain/sense of hope/chance to fulfill a dream (32.9%);
2. Entertainment/recreation/fun/provides relief from stress (28.4%);
3. Excitement/getting a high or rush (27.2%);
4. No advantages (21.3%);
5. Getting out of the house/socializing/something to do (7.5%);
6. Support charities (0.9%); and
7. Mental challenge/competition (0.6%).

*Winning* was the most commonly cited main benefit individuals receive from gambling by survey respondents (32.9%). Youth (44.0%) were significantly more likely to cite winning/financial gain as a main benefit individuals receive from gambling than respondents over 35 years of age (30.1%). Non-gamblers were significantly more likely than gamblers to report “no advantages” when asked for the main benefit individuals receive from gambling. Whereas gamblers were significantly more likely to report either winning, entertainment, or socializing than non-gamblers.

### 4.3 Perception of Gambling as an Addiction

The majority of survey respondents (89.8%) responded “yes” when asked if they agree with the statement that gambling problems should be considered like any other addiction. Non-gamblers (11.1%) were significantly more likely than gamblers (7.2%) to disagree with the statement that gambling problems should be considered like any other addiction.

### 4.4 Awareness of Problem Gambling Counselling Services

Over one-half (59.0%) of survey respondents reported awareness of assistance or services in place to help people having problems with their gambling. However, when asked for their awareness of assistance services for *families* of people having problems with their gambling 55.8% of respondents answered “no”. Further, approximately one-third (35.8%) of survey respondents answered “yes” that they are aware that free problem gambling counselling services are available in B.C., which represents a



decrease in awareness of free counselling services since the 2008 study at which time 46% reported government service awareness. One-half (50.5%) of survey respondents were aware of the toll-free problem gambling help line, which is a decrease from the 2008 study (66%). Gamblers (72.2%) were significantly more likely to report awareness of assistance and support services for individuals and families than non-gamblers (42.0%).

Respondents in the 18 to 24 years of age category (63.6%), of Eastern Asian (57.8%) or Southern Asian (64.4%) descent, and with household income levels under \$50,000 annually (42.6% for less than \$30k and 48.3% for \$30k to \$49k) were significantly less likely to report awareness of assistance services in B.C. for people having problems with their gambling than their demographic counterparts. Respondents 25 to 34 years of age (58.5%), of Aboriginal, Inuit, or Métis descent (69.6%), and residing in the Northern health region (61.9%) most frequently reported awareness of the toll-free problem gambling help line. Respondents of Eastern and Southern Asian descent (61.8% and 69.2% respectively) were significantly less likely to be aware of the toll-free problem gambling help line than those who identified as having Aboriginal, Inuit, or Métis; European; and Canadian ethnic origins (30.4%, 47.9%, and 41.4%, respectively).

Most respondents (72.8%) reported that they would likely use B.C. government problem gambling counselling services if they ever experience problems related to gambling. Less than one-quarter (21.7%) of respondents reported that they would be unlikely to use B.C. government problem gambling counselling services. Respondents in the 65 years of age and over age category (26.8%) and males (25.3%) were significantly more likely to report that they would be unlikely to use B.C. government counselling services if they were to experience a problem with their gambling than respondents 18 to 64 years of age (20.4%) and females (18.1%). There was no statistically significant difference found between ethnic groups in terms of likelihood to use services. The most common reasons respondents gave for not seeking B.C. government problem gambling services if they were to experience problems related to gambling included the following reasons:

- No need (e.g., “I do not have a problem”, “I do not gamble”) – 27.5%;
- Negative impression of government programs/conflict of interest with the government – 17.8%;
- Would not seek help/would take care of their problem personally – 17.2%; and
- Would seek private care, alternative care, or care within community (e.g., church) – 8.9%.



#### 4.5 Regional Highlights for Public Perception of Services

About 3 in 5 respondents indicated that they were aware of assistance or services in place in B.C. to help people having problems with their gambling. Across the regions, awareness in Vancouver Coastal was lowest especially when compared to that in the Northern and Fraser regions. Vancouver Coastal respondents were also the least likely to be aware that there is a toll-free problem gambling help line in British Columbia (see Table 4.1).

**Table 4.1**  
**Awareness and Likelihood to Use Problem Gambling-Related Assistance and Services across Health Regions**

	Total	Fraser	Interior	Island	Northern	Vancouver Coastal
<b>n=</b>	<b>2,882 to 3,045</b>	<b>579 to 607</b>	<b>570 to 608</b>	<b>569 to 603</b>	<b>592 to 623</b>	<b>572 to 605</b>
Assistance or services in B.C. to help people having problems with gambling	60.6%	63.7% ↑↑	58.0%	60.6%	66.5% ↑↑↑	56.7%
Toll-free problem gambling help line in B.C.	50.6%	52.8% ↑	54.3% ↑	50.7% ↑	62.0% ↑↑↑↑	42.7%
Assistance or services in place in B.C. to help families of people having problems with gambling	41.3%	43.1%	42.9%	40.4%	44.9% ↑	37.5%
Problem gambling counselling services made available by the B.C. government free of charge	35.9%	36.9%	35.5%	32.1%	39.9% ↑	36.4%
<b>n=</b>	<b>2,856</b>	<b>571</b>	<b>570</b>	<b>573</b>	<b>578</b>	<b>564</b>
Likely to use problem gambling counselling services provided by the B.C. government	77.1%	76.2%	76.2%	75.8%	74.3%	80.5% ↑

↑↑↑↑↑ Indicates a statistically higher result than in Fraser, Interior, Island, Northern, or Vancouver Coastal.

Note: The colour of the arrow corresponds to a significant difference between the regional health authority with a matching colour.

Source: B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data (n = 2,882 to 3,045).

## Section 5: Problem Gambling in British Columbia

The prevalence of problem gambling and the characteristics of problem gamblers in B.C. based on results of the 2014 B.C. Problem Gambling Prevalence Study are explored in this section. ***For the purpose of this report, the term “at-risk/problem gambler” refers to respondents who scored a low-, moderate-, or high-risk level on the Problem Gambling Severity Index (PGSI). Furthermore, much of the analysis has been tailored to review the at-risk/problem gambling subgroup within the subgroup of gamblers, rather than out of the entire population, to isolate the unique traits of the gambling population.***

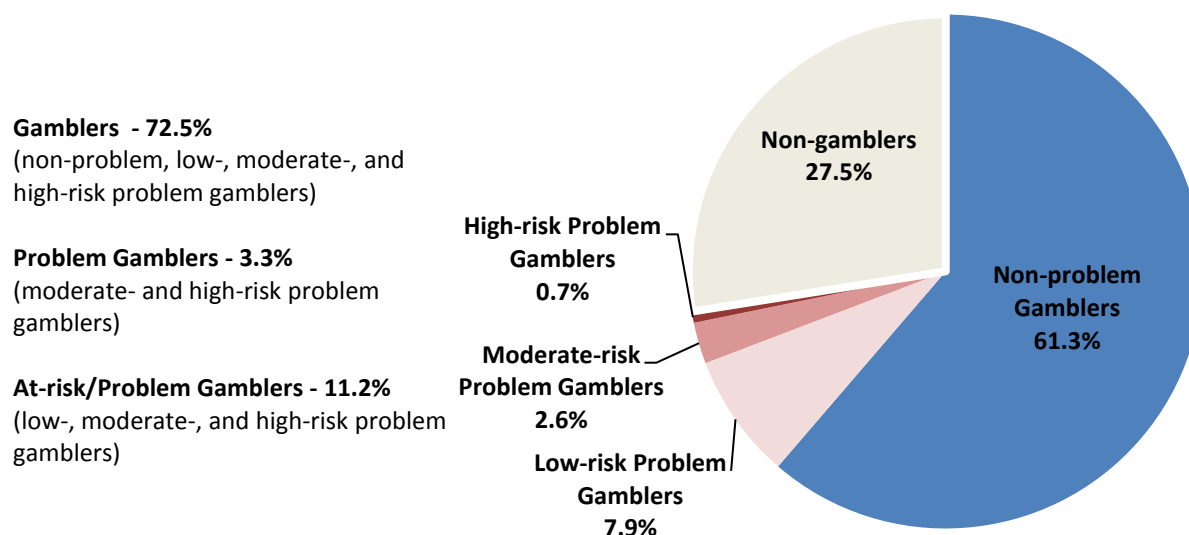
### 5.1 Prevalence of Problem Gambling in British Columbia

Problem gambling risk was calculated based on the Problem Gambling Severity Index (PGSI): a 9-item assessment tool designed to identify problem gambling risk and is derived from the CPGI. PGSI scoring is based on a 4-point scale, where “never” scores 0, “sometimes” scores 1, “most of the time” scores 2, and “almost always” scores 3. Based on the summed value of these scores, problem gambling risk assessment categories for this report are assigned as follows:

- 0 = Non-problem gambling
- 1-2 = Low level of problems with few or no identified negative consequences (low-risk)
- 3-7 = Moderate level of problems leading to some negative consequences (moderate-risk)
- 8+ = Problem gambling with negative consequences and a possible loss of control (high-risk)

Of survey respondents, 0.7% were rated as high-risk gamblers, 2.6% as moderate-risk gamblers, 7.9% as low risk gamblers, and 61.3% were rated as non-problem gamblers according to the PGSI. **Overall, 3.3% of British Columbians, or approximately 125,000 individuals, were classified as high- or moderate-risk problem gamblers.** Note that this is the “problem gambler” group referenced in this report. This represents a decrease in the rate of high- and moderate-risk problem gambling since the 2008 study, at which time an estimated 159,000 individuals (4.6%) were classified as problem gamblers. Figure 5.1 shows the breakdown of gambler subgroups by gambler classification.

**Figure 5.1**  
**B.C. Gambler Subgroups by Gambler Classification**



Source: B.C. Problem Gambling Prevalence Survey; Unweighted data (n = 3,038 for 2014 study).

Problem gambling (moderate- and high-risk) affects an estimated 125,000 B.C. residents and their families. B.C.'s Responsible and Problem Gambling Program provides treatment to approximately 1,600 or 1.3% of the problem gambler population. Approximately one-third (32.1%) of at-risk/problem gamblers (low-, moderate-, and high-risk) reported having one or more children under the age of 18 living in their household. Population estimates show that the Fraser health region has the largest volume of problem gamblers (approximately 44,796), followed by the Vancouver Coastal health region (approximately 32,608), the Island health region (approximately 19,767), the Interior health region (approximately 17,618), and the Northern health region (approximately 11,600).

With the exception of gender where at-risk/problem gamblers (low-, moderate-, and high-risk) were more often male (58.0%) than all gamblers (50.0% male), demographic groups most common to at-risk/problem gamblers mirrored the gambling population as a whole and were:

- Age group: 35 to 64 (43.5%);
- Gender: male (58.0%);
- Health region: Fraser (34.8%);
- Level of education: completed university degree (21.6%);
- Marital status: married or common law (51.4%);
- Employment status: full-time (36.1%);
- Income level: \$50,000 to \$99,000 (27.4%); and
- Ethnicity: European (57.1%).

Similar to the 2008 study, respondents who reported an income level of less than \$30,000 were significantly more likely to be classified as low-, moderate-, or high-risk gamblers (18.9%) than those with incomes of \$30,000 to \$49,000 (12.6%), \$50,000 to \$99,000 (10.2%), or \$100,000 or more (10.8%). The proportion of low income (less than \$30,000 annually) at-risk/problem gamblers is slightly higher than the proportion reported in the 2008 study (18.9% in 2014 study vs. 17.9% in 2008 study), with increases in the moderate- (4.5% in 2014 study vs. 3.8% in 2008 study) and high-risk gambler (3.2% in 2014 study vs. 2.0% in 2008 study) categories. There was a decrease in the proportion of low-risk gamblers with reported incomes of less than \$30,000 (11.2% in 2014 study vs. 12.1% in 2008 study).

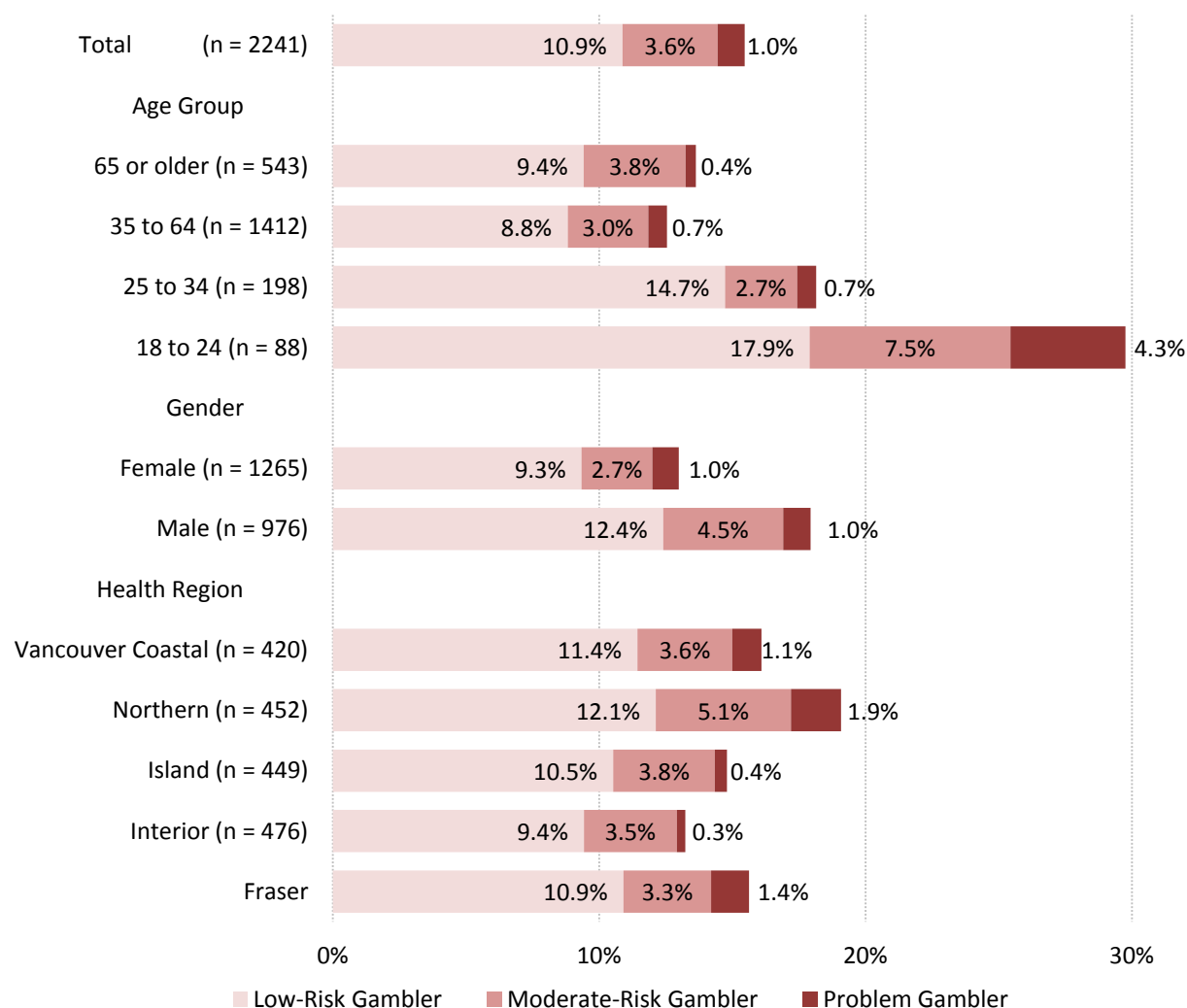
## 5.2 Profiles of Demographic Group At Most Risk for Problem Gambling

This section provides highlights of demographic groups at most risk for problem gambling. Details regarding determination of groups at risk for problem gambling are developed further in Section 5.3. The at-risk/problem gambling group was selected for analysis because the number of problem gamblers (moderate- and high-risk only) was insufficient to reliably support a more granular analysis.

In general, among the four age groups, gamblers who were **18 to 24** years of age were significantly more likely to be classified as at-risk/problem gamblers (i.e., low-risk, moderate-risk, or high-risk problem gamblers) than other age groups. **Males** are more likely than females to be at-risk/problem gamblers. Figure 5.2 summarizes the profile of problem gamblers by age group, gender, and health region. **Mental health issues and substance use** were significant predictors for at-risk/problem gambling. Individuals with ethnic origins of **Aboriginal, Inuit, or Métis and Southern Asian** were more likely to be classified as at-risk/problem gamblers than European or Canadian ethnic groups. Individuals with **low household income, students, and unemployed individuals** were more likely to be classified as at-risk/problem gamblers than employed individuals. Participating in **short-term speculative stock or commodity trading**

**and Internet gambling** were also significantly associated with at-risk/problem gambling. No statistically significant difference was found between health regions.

**Figure 5.2**  
**Profile of At-risk/Problem Gamblers – Gambler Type (3) among Gamblers**



Source: B.C. Problem Gambling Prevalence Survey; Weighted data (Unweighted n = 2,241 for 2014 study).

Note: Three respondents who gambled in the past 12 months did not answer any of the nine PGSI scoring items and were excluded from the total and sub-group unweighted counts.

### Gambling Activity Participation for At-risk/Problem Gamblers

Overall, most at-risk/problem gamblers play lottery, Scratch & Win, or Pull-Tabs (83.8%). A ranked listing of gambling activities at-risk/problem gamblers reported participating in is provided in Table 5.1.

**Table 5.1**  
**Gambling Activity Participation of At-risk/Problem Gamblers (Low-, Moderate-, and High-risk)**

Rank	Gambling Activity	% Participation in Past 12 Months
1	Other lottery games, Scratch & Win tickets, Keno, or Pull-tabs	83.8%
2	Charity raffles	40.7%
3	Private game such as cards, dice, or dominoes in someone's home or at a club or organization	31.9%
4	Gambling at a casino (includes slot machines)	28.0%
5	Outcome of sports or other events with friends co-workers, a bookie or some other person	23.6%
6	Short-term speculative stock or commodity purchases such as day trading	15.4%
7	Bingo	13.9%
8	Sports lottery game through a lottery retailer	9.4%
9	Poker tournament at a casino, bar, restaurant, or other public venue	9.1%
10	Internet gambling such as GeoSweep, sports betting, poker, interactive games (can include regulated and unregulated sites)	7.0%
11	Horse race	6.9%
12	Electronic gaming machine, video lottery terminal – not in a casino (not available in B.C. except online)	6.4%
13	Other	1.7%

Source: 2014 study B.C. Problem Gambling Prevalence Survey. Unweighted n = 323

Note: Multiple Response Question – Percentages may total more than 100.0%.

The following statistically significant differences were found between age groups:

- At-risk/problem gamblers 18 to 24 years of age (37.8%) were significantly more likely to play bingo than all other age groups, bet on a sports event (41.4%) or play in a poker tournament (24.5%) than those 35 years of age or over, or bet on horse racing (17.1%) than those 25 to 34 years of age (1.7%);
- At-risk/problem gamblers 25 to 34 years of age (20.9%) were significantly more like than those 35 years of age or over (4.9%) to bet on a sports lottery game;
- At-risk/problem gamblers 35 to 64 years of age (92.7%) were significantly more likely than those 18 to 34 years of age (77.9%) or 65 years of age and over (75.7%) to play lottery games, Scratch & Win, Keno, or Pull-Tabs;
- At-risk/problem gamblers 18 to 64 years of age (38.1%) were significantly more likely than those 65 years of age or over (17.0%) to bet on private games; and
- At-risk/problem gamblers over 65 years of age (48.0%) were significantly more likely to play charity raffles than those 35 to 64 years of age (44.5%), 25 to 34 years of age (41.6%), or 18 to 24 years of age (24.9%).

Demographic details of at-risk/problem gamblers participating in the top four most highly played gambling activities are provided in Table 5.2. At-risk/problem gamblers who are female (91.0%) were significantly more likely than males (78.7%) to play lottery, Scratch & Win, Keno, or Pull-Tabs. At-risk/problem gamblers with household incomes of \$30,000 or more (55.8%) were significantly more likely to engage in casino gambling than those with household incomes less than \$30,000 (32.6%), and at-risk/problem gamblers with household incomes of \$100,000 or more (63.1%) were significantly more likely than those with household incomes under \$100,000 (28.5%) to play private games.

**Table 5.2**  
**Demographic Characteristics of At-risk/Problem Gamblers for the**  
**Top 4 Activities Played by At-risk/Problem Gamblers**

Demographic Groups of At-risk/Problem Gamblers	Top 4 Gambling Activities for Problem Gamblers			
	<i>Lottery, Scratch &amp; Win, Keno, or Pull-Tabs</i> <i>n = 282</i>	<i>Casino Gambling</i> <i>n = 164</i>	<i>Charity Raffles</i> <i>n = 153</i>	<i>Private Games</i> <i>n = 91</i>
<b>Age</b>				
18 to 34	77.6%	41.9%	33.4%	43.1%
35 and over	87.9%	56.1%	45.5%	24.5%
<b>Gender</b>				
Female	91.0%	49.9%	44.8%	26.5%
Male	78.7%	51.2%	37.7%	35.8%
<b>Marital Status</b>				
Not Married (including widowed)	79.6%	50.1%	37.2%	31.9%
Married/Common Law	87.1%	49.5%	44.5%	32.3%
<b>Income</b>				
<\$30k	73.7%	32.6%	23.7%	29.5%
\$30K to \$99k	84.9%	57.2%	39.7%	27.8%
>\$100k	33.4%	86.1%	52.4%	63.1%
<b>Employment Status</b>				
Employed	82.7%	47.3%	44.5%	35.8%
Non-employed (e.g., student, retired)	84.8%	55.9%	36.8%	27.9%

Source: B.C. Problem Gambling Prevalence Survey; Weighted data (Unweighted n = 323 for 2014 study).

### Regional Highlights of At-risk/Problem Gamblers

Table 5.3 highlights core demographics of at-risk/problem gamblers for each health authority region. At-risk/problem gamblers who were 35 years of age and over (19.0%) or female (21.6%) were significantly more likely to live in the Interior health region than those 18 to 34 years of age (7.4%) or male (9.2%). Male at-risk/problem gamblers (31.8%) were significantly more likely than females (18.7%) to live in the Vancouver Coastal health region. Unmarried (including those widowed and divorced) at-risk/problem gamblers (32.6%) were significantly more likely to live in the Vancouver Coastal health region than married at-risk/problem gamblers (21.4%).

**Table 5.3**  
**Demographic Characteristics of At-risk/Problem Gamblers for Health Authority Regions**

Demographic Groups of At-risk/Problem Gamblers	Health Authority Regions				
	<i>Fraser</i> <i>n = 65</i>	<i>Interior</i> <i>n = 65</i>	<i>Island</i> <i>n = 61</i>	<i>Northern</i> <i>n = 73</i>	<i>Vancouver Coastal</i> <i>n = 57</i>
<b>Age</b>					
18 to 34	33.2%	7.4%	18.2%	8.9%	32.3%
35 and over	35.9%	19.0%	15.5%	6.4%	22.3%
<b>Gender</b>					
Female	33.4%	21.6%	18.1%	7.6%	18.7%
Male	35.9%	9.2%	15.4%	7.2%	31.8%
<b>Marital Status</b>					
Not Married (including widowed)	29.2%	14.7%	14.9%	8.0%	32.6%
Married/Common Law	38.4%	14.6%	18.1%	7.0%	21.4%
<b>Income</b>					
<\$30k	31.5%	12.6%	12.1%	7.5%	35.0%
\$30K to \$99k	38.7%	13.4%	17.4%	7.3%	23.3%
>\$100k	23.3%	25.9%	13.0%	19.2%	7.1%
<b>Employment Status</b>					
Employed	34.4%	11.8%	11.8%	15.0%	7.9%
Non-employed (e.g., student, retired)	43.4%	36.4%	18.2%	19.0%	6.7%

Source: B.C. Problem Gambling Prevalence Survey; Weighted data (Unweighted n = 323 for 2014 study).



***The following behavior and awareness profiles provide highlights of at-risk/problem gamblers by aggregated demographic groups.***

#### At-risk/Problem Gamblers by Aggregate Age Groups

Age groups have been aggregated in Table 5.4 to review differences between younger and older at-risk/problem gamblers. Overall, 60.1% of problem gamblers were 35 years of age or over and 39.7% of problem gamblers are 18 to 34 years of age. There were few differences between the age group proportionally, with the exception of changes to their amount of time spent gambling. At-risk/problem gamblers 18 to 34 years of age (59.5%) were significantly more likely than at-risk/problem gamblers 35 years of age or over (24.1%) to report gambling more than five years ago, whereas those 35 years of age or over (37.5%) were significantly more likely to report gambling the same amount as five years ago compared to those 18 to 34 years of age (12.9%).

**Table 5.4**  
**At-risk/Problem Gamblers by Aggregated Age Groups**

	<b>18 to 34 Years of Age n = 72</b>	<b>35+ Years of Age n = 251</b>
<b>% of At-risk/Problem Gamblers</b>	<b>39.7%</b>	<b>60.1%</b>
<b>Gambling More, the Same, or Less</b>		
% Gambling More	59.5%	24.1%
% Gambling the Same	12.9%	37.5%
% Gambling Less	27.5%	37.3%
<b>Expenditures and Losses</b>		
Average Monthly Spending \$400 or More	14.2%	6.6%
Maximum Loss \$10k or More	4.5%	3.9%
<b>Mental Health</b>		
% Experienced Mood Disorder	21.1%	22.9%
% Experienced Anxiety Disorder	13.9%	17.2%
% Experienced Suicide Ideation	20.9%	15.7%
% Experienced Suicide Attempt	5.2%	8.3%
<b>Service Awareness</b>		
% Aware of Problem Gambling Support Services	76.9%	69.1%
% Aware of Problem Gambling Family Support Services	45.2%	43.0%
% Aware of Toll-free Help Line	68.5%	64.4%
% Aware of Free Government Services	49.8%	46.9%
% Likely to Use Free Government Services	76.0%	69.8%
% Citing Most Common Reason to Not Use Government Services Among Problem Gamblers – Negative Impression of Government Services	32.3%	34.2%

Source: B.C. Problem Gambling Prevalence Survey; Weighted data (Unweighted n = 323 for 2014 study).

### At-risk/Problem Gamblers by Gender

More males than females scored as problem gamblers on the PGSI, as shown in Table 5.5. Overall, 58.0% of at-risk problem gamblers were male and 42.0% were female. Male at-risk/problem gamblers (13.3%) were significantly more likely to have gambled \$400 or more in an average month than females (4.6%). Indeed, no female at-risk/problem gamblers reported losing more than \$10,000 or more on gambling activities, whereas 7.1% of males reported having lost sums of \$10,000 or more.

**Table 5.5**  
**Problem Gamblers by Gender**

	<b>Female n = 173</b>	<b>Male n = 150</b>
<b>% of At-risk/Problem Gamblers</b>	<b>42.0%</b>	<b>58.0%</b>
<b>Gambling More, the Same, or Less</b>		
% Gambling More	32.9%	42.0%
% Gambling the Same	34.6%	22.8%
% Gambling Less	32.0%	34.4%
<b>Expenditures and Losses</b>		
Average Monthly Spending \$400 or More	4.6%	13.3%
Maximum Loss \$10k or More	-	7.1%
<b>Mental Health</b>		
% Experienced Mood Disorder	20.6%	23.3%
% Experienced Anxiety Disorder	15.4%	16.3%
% Experienced Suicide Ideation	16.3%	18.8%
% Experienced Suicide Attempt	10.7%	4.4%
<b>Service Awareness</b>		
% Aware of Problem Gambling Support Services	71.6%	72.7%
% Aware of Problem Gambling Family Support Services	40.5%	46.3%
% Aware of Toll-free Help Line	66.9%	65.4%
% Aware of Free Government Services	44.5%	50.7%
% Likely to Use Free Government Services	75.1%	70.2%
% Citing Most Common Reason to Not Use Government Services Among Problem Gamblers – Negative Impression of Government Services	19.1%	42.6%

Source: B.C. Problem Gambling Prevalence Survey; Weighted data (Unweighted n = 323 for 2014 study).

### At-risk/Problem Gamblers by Aggregate Marital Status

In Table 5.6, marital status has been aggregated into “married” (married or common law) and “not married” (single, widowed, or divorced) for at-risk/problem gambler subgroup analysis. Overall, 52.5% of at-risk/problem gamblers were married and 46.1% were not married. At-risk/problem gamblers who were not married are significantly more likely to gamble alone (63.3%) and report a mood disorder (30.0%) than those who are married (48.8% and 15.8%, respectively). Married at-risk/problem gamblers are significantly more likely to gamble accompanied (51.2%) and report gambling the same amount over the past five years than non-married at-risk/problem gamblers (35.4% and 19.0%, respectively).

**Table 5.6**  
**Problem Gamblers by Aggregate Marital Status**

	<b>Married n = 182</b>	<b>Not Married (Including Widowed and Divorced) n = 139</b>
<b>% of At-risk/Problem Gamblers</b>	<b>52.5%</b>	<b>46.1%</b>
<b>Gambling More, the Same, or Less</b>		
% Gambling More	31.0%	43.6%
% Gambling the Same	36.2%	19.0%
% Gambling Less	31.9%	36.1%
<b>Expenditures and Losses</b>		
Average Monthly Spending \$400 or More	8.2%	11.5%
Maximum Loss \$10k or More	5.0%	3.3%
<b>Mental Health</b>		
% Experienced Mood Disorder	15.8%	30.0%
% Experienced Anxiety Disorder	14.2%	18.2%
% Experienced Suicide Ideation	10.7%	26.3%
% Experienced Suicide Attempt	4.9%	9.7%
<b>Service Awareness</b>		
% Aware of Problem Gambling Support Services	76.0%	67.1%
% Aware of Problem Gambling Family Support Services	48.1%	40.4%
% Aware of Toll-free Help Line	69.4%	61.3%
% Aware of Free Government Services	49.0%	45.5%
% Likely to Use Free Government Services	72.9%	70.7%
% Citing Most Common Reason to Not Use Government Services Among Problem Gamblers – Negative Impression of Government Services	27.3%	41.2%

Source: B.C. Problem Gambling Prevalence Survey; Weighted data (Unweighted n = 323 for 2014 study).

### At-risk/Problem Gamblers by Aggregate Household Income

Household income has been aggregated into groups of less than \$30,000 (21.9% of at-risk/problem gamblers), \$30,000 to \$99,999 (44.6% of at-risk/problem gamblers), and \$100,000 or over (23.3% of at-risk/problem gamblers). Table 5.7 shows that at-risk/problem gamblers with household incomes of \$100,000 or more are significantly more likely to estimate spending \$400 or more on gambling as a monthly average than those with household incomes of \$30,000 to \$99,999 (7.2%) or less than \$30,000 (2.6%) annually. No at-risk/problem gamblers with household incomes of less than \$30,000 reported losing \$10,000 or more on gambling activities.

**Table 5.7**  
**Problem Gamblers by Aggregate Household Income**

	<b>&lt;\$30k n = 64</b>	<b>\$30K to \$99k n = 146</b>	<b>&gt;\$100k n = 72</b>
<b>% of At-risk/Problem Gamblers</b>	<b>21.9%</b>	<b>44.6%</b>	<b>23.3%</b>
<b>Gambling More, the Same, or Less</b>			
% Gambling More	42.3%	36.2%	42.5%
% Gambling the Same	17.5%	34.8%	25.5%
% Gambling Less	38.2%	29.0%	31.7%
<b>Expenditures and Losses</b>			
Average Monthly Spending \$400 or More	2.6%	7.2%	22.6%
Maximum Loss \$10k or More	-	3.3%	9.6%
<b>Mental Health</b>			
% Experienced Mood Disorder	32.8%	21.9%	14.6%
% Experienced Anxiety Disorder	15.3%	18.9%	10.1%
% Experienced Suicide Ideation	30.7%	13.5%	17.1%
% Experienced Suicide Attempt	16.3%	4.2%	2.2%
<b>Service Awareness</b>			
% Aware of Problem Gambling Support Services	64.2%	74.7%	79.6%
% Aware of Problem Gambling Family Support Services	41.7%	42.9%	47.8%
% Aware of Toll-free Help Line	60.2%	71.0%	66.9%
% Aware of Free Government Services	48.3%	43.3%	56.3%
% Likely to Use Free Government Services	70.0%	76.2%	67.2%
% Citing Most Common Reason to Not Use Government Services Among Problem Gamblers – Negative Impression of Government Services	36.4%	33.8%	42.7%

Source: B.C. Problem Gambling Prevalence Survey; Weighted data (Unweighted n = 323 for 2014 study).

Note: A total of 41 at-risk/problem gambler respondents did not provide information about their income range.

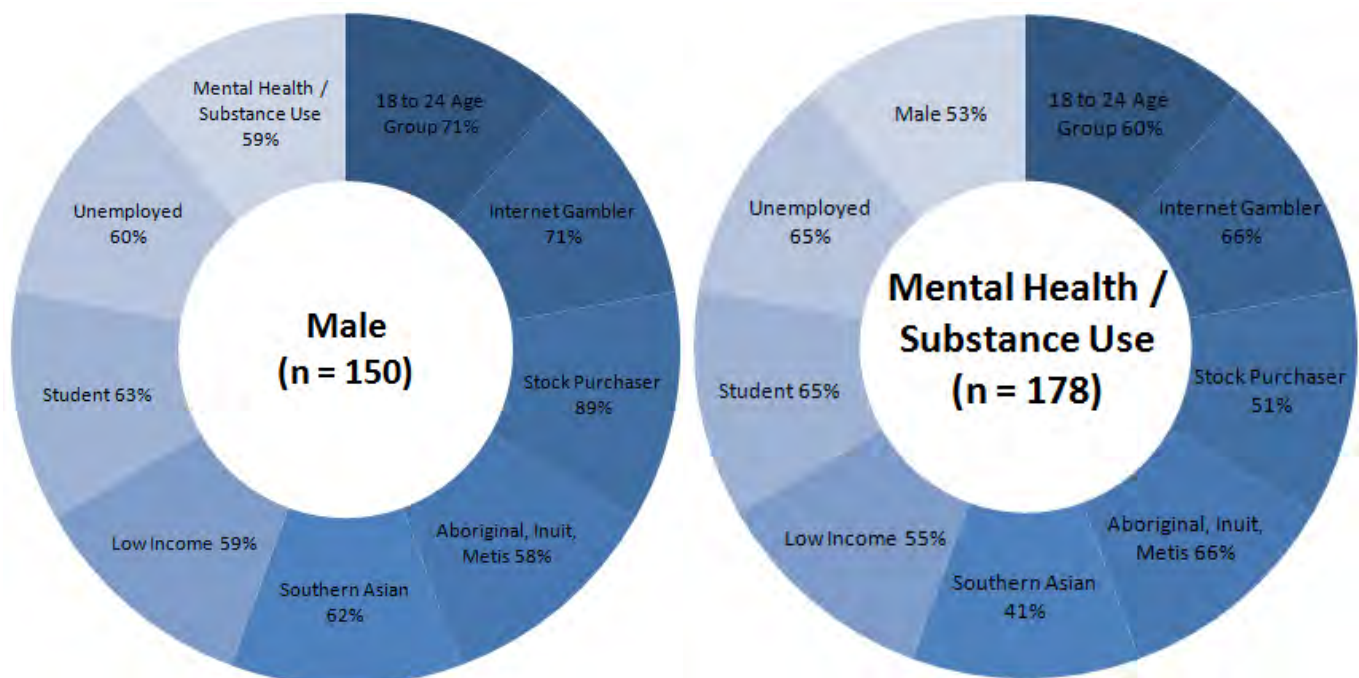
### At-risk/Problem Gambler Complexity

The most predictive indicators for at-risk/problem gambling among B.C. residents are:

- 18 to 24 years of age group;
- Male gender;
- Internet gambling;
- Short-term stock or commodity purchasing;
- Aboriginal, Inuit, or Métis ethnicity;
- Southern Asian ethnicity;
- Annual household income under \$30,000;
- Student occupation;
- Unemployed occupation; and
- Mental health or substance use issues.

Most of these subgroups are of insufficient size to conduct subgroup analysis, but the male gender and mental health or substance use issues groups allow for some review of case complexity. As shown in Figure 5.3, each of the predictive indicators for at-risk/problem gambling (e.g., age of 18 to 24) also have high incidence of being male or mental health/substance use challenges. For example, of Internet at-risk/problem gamblers, 71% were male and 66% had mental health or substance use challenges.

**Figure 5.3**  
**Male Gender and Mental Health and Substance Use Incidence for At-risk/Problem Gambling Subgroups**



Source: B.C. Problem Gambling Prevalence Survey; Weighted data (Unweighted n = 343 for 2014 study).

### 5.3 B.C. At-risk/Problem Gamblers – Regression Analysis

A logistic regression was conducted on a subset of respondents who were gamblers ( $n = 2,244$ ) to examine the relationship between gambler risk type (as classified by the PGSI) and important demographic characteristics and correlates of problem gambling. Gambler risk type was defined as a dichotomous dependent variable, classifying those with zero score PGSI assessments as “non-problem gamblers” and those with positive score PGSI assessments as “at-risk/problem gamblers”. The following factors were included in the model as predictors of problem gambling:

- *Demographic characteristics*: health authority region, age group, gender, marital status, ethnicity, education level, employment status, number of dependents, and household income;
- *Comorbidity and mental health*: self-reported mood disorder, anxiety disorder, and suicide (attempt and ideation); and
- *Alcohol and illegal drug use*: consumed five drinks or more on one occasion (yes/no), and reported using illegal drugs in the past 12 months.

Cross-tabulations on each of the predictive factors were also reviewed to compare differences among subgroups. In contrast to cross-tabulation and statistical comparison among sub-groups, logistic regression allows one to assess the relative impacts of each factor while holding the influence of other factors constant. In this way, the unique contribution and relative importance of each factor can be estimated. By examining these associations simultaneously, the chance of Type I error is reduced from that which may be found in the cross-tabulation pair-wise comparisons across sub-groups.

The resulting model coefficients (i.e., odds ratios, confidence intervals, and  $p$  values) and overall model statistics can be found in Appendix E. Briefly, the results of the logistic regression show that the likelihood of being an at-risk/problem gambler in British Columbia is related to the following factors: age group, gender, ethnicity, employment status, self-reported mood disorder, anxiety disorder, and suicide attempt/ideation. These statistically significant factors are subsequently discussed in more detail in this report with the prevalence rate presented in cross-tabulation tables. Depending on the number of respondents who gambled in the past year who had answered the question, these tables show the prevalence rates by either the full classification of gambler risk types (gambler type [4] - non-problem gamblers, low-risk gamblers, moderate-risk gamblers, high-risk gamblers) or the dichotomy classification of non-problem gamblers versus at-risk/problem gamblers (gambler type[2] – non-problem gamblers versus the combined grouping of low-, moderate-, and high-risk problem gamblers).

### Age Range Subgroup Analysis

Table 5.8 summarizes the percentage of non-problem gamblers, low-risk gamblers, moderate-risk gamblers, and high-risk gamblers by age group. In general, there is a statistical relationship between gambler types and age groups for respondents who gambled in the last 12 months, confirming the logistic regression findings that the youngest age group was most likely to be classified as at-risk or problem gamblers by the PGSI assessment. Gamblers between the ages of 18 to 24 (4.3%) were significantly more likely than other age groups (0.7% for ages 25 to 34 and 35 to 64, and 0.4% for ages 65 or over) to be classified as high-risk gamblers. Furthermore, this pattern of higher prevalence rates also holds true when looking at low- and moderate-risk gamblers.

**Table 5.8**  
**Gambler Type (4) by Age Group among B.C. Gamblers**

	Total	18 to 24	25 to 34	35 to 64	65 or older
<b>Unweighted n</b>	2,241	88	198	1412	543
<b>Non-Problem Gambler</b>	84.5%	70.2% O	81.9% * O	87.5% * *	86.4% *
<b>Low-risk Gambler</b>	10.9%	17.9% O	14.7% O	8.8% * *	9.4% *
<b>Moderate-risk Gambler</b>	3.6%	7.5% O	2.7% *	3.0% *	3.8%
<b>High-risk Gambler</b>	1.0%	4.3% O	0.7% *	0.7% *	0.4% *

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighted Data (Unweighted n = 2,241).

O = the reference point. \* = a significant deviation from the reference point.

### Gender Subgroup Analysis

In the logistic regression model, male respondents who gambled in the past 12 months were found to have higher odds of being classified as at-risk/problem gamblers than female respondents. As seen in Table 5.9, among gamblers, the proportion of low-risk gamblers (12.4% vs. 9.3%) and moderate-risk gamblers (4.5% vs. 2.7%) who self-identified as male was significantly higher than female. However, the prevalence rates for high-risk gambler classification were similar between males and females for problem gamblers (both at 1.0%) in British Columbia.

**Table 5.9**  
**Gambler Type (4) by Gender among B.C. Gamblers**

	Total	Male	Female
<b>Unweighted n</b>	2,241	976	1,265
<b>Non-Problem Gambler</b>	84.5%	82.1% O	87.0% *
<b>Low-risk Gambler</b>	10.9%	12.4% O	9.3% *
<b>Moderate-risk Gambler</b>	3.6%	4.5% O	2.7% *
<b>High-risk Gambler</b>	1.0%	1.0%	1.0%

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighted Data (Unweighted n = 2,241).

O = the reference point. \* = a significant deviation from the reference point.



### Ethnicity Subgroup Analysis

Results from the logistic regression indicated that respondents who gambled in the last 12 months and reported particular ethnic or cultural origins, had higher odds of being classified as at-risk/problem gamblers compared to respondents of European descent. This was supported by the comparison of gamblers who identified their primary ethnic origin as European (13.2%) to other ethnic groups (see Table 5.10). Those who identified their ethnicity as Southern Asian (27.4%) and Aboriginal, Inuit, or Métis (27.3%) were significantly more likely to be classified as at-risk/problem gamblers than those with European ethnicity (13.2%). Gamblers of assorted other ethnic or cultural origins had the highest prevalence rate of at-risk/problem gamblers (33.8%), and this rate is statistically higher compared to the rates observed for gamblers who reported European (13.2%) or Canadian (10.4%) ethnicity. However, the “Other” ethnic group represents a combination of ethnicities that were reported in numbers too small to support subgroup analysis. Various ethnic groups including African, Latin American, and Oceanic have been placed in this category as well as respondents who reported mixed ethnic origins. While at-risk/problem gambling prevalence is observably higher for this group, it cannot be further explored due to the low number of respondents for each ethnic group category.

**Table 5.10**  
**Gambler Type (2) by Ethnicity among B.C. Gamblers**

	Total	Aboriginal, Inuit, Métis	European	Asian (Eastern)	Asian (Southern)	Canadian	Other
<b>Unweighted n</b>	2,201	114	1,809	73	38	106	61
<b>Non-Problem Gambler</b>	84.5%	72.7% *	86.8% O	77.9%	72.6% *	89.6% O	66.2% *
<b>At-risk/Problem Gambler</b>	15.5%	27.3% *	13.2% O	22.1%	27.4% *	10.4% *	33.8% O

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighted Data (Unweighted n = 2,201).  
O = the reference point. \* = a significant deviation from the reference point.

### Employment Status Subgroup Analysis

Similar to the logistic regression results, employment status was found to be statistically related to the likelihood of being classified as an at-risk/problem gambler. However, the overall patterns differ as the cross-tabulation did not statistically control for the influences of other factors (e.g., age group) included in the regression model and the reference groups used for comparison were different: in the regression, respondents who were employed full-time (worked 30 hours per week or more) were selected as the reference group for comparison.

As shown in Table 5.11, gamblers who worked full-time (12.7%) were significantly less likely to be classified as at-risk/problem gamblers compared to those who were unemployed (26.7%) or student respondents (28.7%). Student respondents in turn were significantly more likely be classified as at-risk/problem gamblers than self-employed respondents (28.7% vs. 13.0%).

**Table 5.11**  
**Gambler Type (2) by Employment Status among B.C. Gamblers**

		Full Time	Part Time	Self- employed	Un- employed	Student	Retired/ Semi- retired	Homemaker	Other
<b>Unweighted n</b>	2,237	909	188	236	68	33	676	76	51
<b>Non-Problem Gambler</b>	84.5%	87.3%	81.1%	87.0%	73.3%	71.3%	85.2%	77.1%	74.6%
		O			*	*			
<b>At-risk/Problem Gambler</b>	15.5%	12.7%	18.9%	13.0%	26.7%	28.7%	14.8%	22.9%	25.4%
		O		O	*	*			*

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighted Data (Unweighted n = 2,237).

O = the reference point. \* = a significant deviation from the reference point.

## **5.4 Gambling Behaviours and Co-morbidity by PGSI Classification**

### Activity Participation

Low-risk gamblers were significantly more likely than non-problem gamblers to report that gambling at a casino or purchasing short-term speculative stock or commodity (21.9% and 5.3% respectively) are their favourite gambling activities. Additionally, low-risk gamblers were significantly more likely than non-problem gamblers to participate in the following gambling activities:

- Gambling at a casino (51.5% vs. 23.9%);
- Private games, such as cards, dice, or dominoes, in someone's home or at a club or organization (29.4% vs. 20.5%);
- Betting on the outcome of sports or other events with friends, co-works, a bookie, or some other person (21.7% vs. 10.3%);
- Short-term speculative stock or commodity purchases, such as day trading (13.2% vs. 13.2%).
- Bingo (11.7% vs. 4.2%); and
- Sports lottery game through lottery retailers (6.9% vs. 3.0%);

Moderate-risk gamblers were significantly more likely than non-problem gamblers to gamble at a casino (41.5% vs. 28.0%), participate in a private game (39.0% vs. 20.5%), or play bingo (13.9% vs. 4.2%).

Moderate-risk gamblers were significantly more likely than both non-problem gamblers and low-risk gamblers to purchase short-term speculative stock or commodity shares (26.6% vs. 13.2% low-risk and 6.3% non-problem gamblers) or participate in Internet gambling (12.8% vs. 3.7% low-risk and 3.1% non-problem gamblers).

In general, non-problem gamblers (61.5%) were significantly more likely than at-risk/problem gamblers to report that they gamble about the same amount as five years ago (27.7%), and at-risk/problem gamblers were significantly more likely to report gambling either more (38.2%) or less (33.4%) than they did five years ago.

At-risk/problem gamblers were significantly more likely than non-problem gamblers to have spent \$50 to \$99 (15.5% vs. 7.3%), \$200 to \$299 (8.0% vs. 1.0%), or \$400 or more (9.6% vs. 1.0%) in one day. At-risk/problem gamblers were significantly more likely to report having lost \$100 to \$999 (39.2% vs. 18.8%), \$1,000 to \$9,999 (7.4% vs. 1.7%), or \$10,000 or more (4.1% vs. 0.5%) in one day than non-problem gamblers.

At-risk/problem gamblers were significantly more likely than non-problem gamblers to report that gambling is “somewhat important” (26.8% and 8.7%, respectively) or “very important” (3.3% and 0.7% respectively) compared to other entertainment activities. Whereas non-problem gamblers were significantly more likely than at-risk/problem gamblers to report that gambling is “not at all important” (90.5% and 69.9% respectively) compared to other entertainment activities.

Non-problem gamblers were significantly more likely to report that they do not travel (24.7%) to participate in their favourite gambling activity than at-risk/problem gamblers (16.2%). At-risk/problem gamblers were significantly more likely to report traveling 51 to 100 kilometres (5.3%) to participate in their favourite gambling activity than non-problem gamblers. Most at-risk/problem gamblers reported traveling 5 kilometers or less (44.3%) to participate in their favourite gambling activity, which was a similar proportion to non-problem gamblers (46.8%).

### Mental Health

Overall, approximately 16.7% of respondents who gambled in the past 12 months indicated that they had a mental health problem (mood disorder, anxiety disorder, considered suicide, or attempted suicide). Compared to non-problem gamblers (13.5%), at-risk/problem gamblers were significantly more likely to report that they had a mental health problem (36.4%). Table 5.12 provides additional details on these differences between gamblers who were classified as at-risk/problem gamblers and those classified as non-problem gamblers.

**Table 5.12**  
**Self-Report Mental Health Problems by Gambler Type (2) among B.C. Gamblers**

<b>Mental Health Problem</b>	<b>Total (n= 2,240)</b>	<b>At-risk/ Problem Gambler (n = 323)</b>	<b>Non-Problem Gambler (n = 1,917)</b>	<b>Sig*</b>
Mood Disorder (e.g., depression, bipolar)	9.8%	22.1%	7.6%	*
Anxiety Disorder (e.g., phobia, OCD)	7.5%	15.9%	5.9%	*
Considered Committing Suicide	7.8%	17.9%	5.9%	*
Attempted Suicide	3.3%	7.1%	2.6%	*

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighted Data (Unweighted n = 323 to 2,240).

\* = a significant deviation from the reference point.

As seen in Table 5.13, at-risk/problem gamblers were also significantly more likely to have used alcohol or drugs while gambling (34.7%) compared to non-problem gamblers (19.2%). Among those who had used alcohol or drugs while gambling, close to one-third (31.7%) indicated that they had gambled while they were drunk or high. The difference between at-risk/problem gamblers (44.0%) and non-problem gamblers (28.1%) was statistically significant.

**Table 5.13**  
**Self-Report Mental Health Problems by Gambler Type (2) among B.C. Gamblers**

<b>Answered "Yes" to ...</b>	<b>Total</b>	<b>At-risk/Problem Gambler</b>	<b>Non-Problem Gambler</b>	<b>Sig*</b>
Use alcohol or drugs while gambling	21.5% (n =1,922)	34.7% (n = 256)	19.2% (n = 1,666)	*
Gambling while drunk or high	31.7% (n = 334)	44.0% (n = 79)	28.1% (n = 255)	*

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighted Data (Unweighted n = 1,922 and 334).

\* = a significant deviation from the reference point.

### Employment Impacts

When respondents were asked whether they had had any work-related problems as a result of gambling, almost all (99.1%) gamblers (i.e., people who gambled in the last 12 months) answered "no".

### Expenditure

At-risk/problem gamblers (36.9%) were significantly more likely than non-problem gamblers (13.9%) to spend \$50 or more on gambling in an average month.

### Perception and Belief

When asked how much respondents agreed with the statement “after losing many times in a row, you are more likely to win”, most gamblers *disagreed* (45.2%) or *strongly disagreed* (40.9%). At-risk/problem gamblers (20.5%) were significantly more likely than non-problem gamblers (8.7%) to report that they *agree* that “after losing many times in a row, you are more likely to win”.

When asked how much respondents agreed with the statement “while gambling, you could win more if you used a certain system or strategy”, most gamblers *disagreed* (43.2%) or *strongly disagreed* (29.4%), while some *agreed* (20.8%) or *strongly agreed* (2.5%). Moderate-risk gamblers (38.9%) were significantly more likely than non-problem (19.5%) and low-risk gamblers (23.7%) to report that they *agree* that “you could win more if you used a certain system or strategy”. At-risk/problem gamblers (5.5%) were significantly more likely than non-problem gamblers (2.0%) to report that they *strongly agree* that “you could win more if you used a certain system or strategy”.

## **5.5 Family and Others**

When respondents were asked to report on how gambling has affected their family on a scale of 1 to 5, with 1 being no problem at all and 5 being the most serious problem faced by their family, most respondents (92.8%) answered “1”, no problem at all. Non-problem gamblers (95.6%) were significantly more likely than at-risk/problem gamblers (81.2%) and non-gamblers (91.3%) to report “1”.

As shown in Table 5.14, on a five-point rating scale, non-problem gamblers (95.6%) were significantly more likely than non-gamblers (91.3%), low-risk problem gamblers (90.0%), and moderate- and high-risk problem gamblers (62.3%) to state that gambling was no problem at all for their families. Moderate- and high-risk problem gamblers (21.0%) were significantly more likely than low-risk problem gamblers (6.6%), non-problem gamblers (1.8%), and non-gamblers (2.0%) to severity of the problem related to gambling on their family as “2”. Over one-tenth (11.4%) of moderate- and high-risk problem gamblers rated gambling as the most serious issue their family has ever had, and they were significantly more likely to rate family impact of gambling as “5” than non-problem and non-gamblers (11.4% vs. 0.2% and 2.2%). Note that non-gambler classification does not exclude their families from having been impacted by problem gambling.

**Table 5.14**  
**B.C. Gamblers by Perceived Family Impact**

Rating of Perceived Family Impact	Unweighted n	% Non-gamblers n = 688	% Non-Problem Gamblers n = 1,646	% Low-risk Gamblers n = 205	% Moderate- and High-risk Gamblers n = 93
1 (No problem at all)	2,424	91.3% *	95.6% O	90.0% *	62.3% *
2	68	2.0% *	1.8% O	6.6% *	21.0% *
3	41	2.4% *	1.7% O	2.1% *	2.5% *
4	31	2.2% *	0.6% O	1.3%	2.9%
5 (The most serious problem)	36	2.2% *	0.2% *	-	11.4% O

Source: 2014 B.C. Problem Gambling Prevalence Survey. Weighed Data (Unweighted n = 2,620). Note: This question was added partway during survey administration; not all respondents have been asked this question. O = the reference point. \* = a significant deviation from the reference point.

When asked whether respondents believed that they have enough knowledge or information to identify whether they or someone close to them has a gambling problem, most respondents (87.7%) answered “yes”. Gamblers (90.4%) were significantly more likely than non-gamblers (80.8%) to believe that they had enough information to identify a gambling problem. Moderate- and high-risk problem gamblers (78.0%) were significantly less likely than non-problem gamblers (91.5%) to believe that they had enough information to identify a gambling problem.

When respondents were asked if they had ever experienced problems as a result of someone else’s gambling, most respondents (86.8%) answered “no”. At-risk/problem gamblers (21.0%) were significantly more likely than non-problem gamblers (12.6%) to answer “yes”. Respondents who indicated they had experienced problems as a result of someone else’s gambling were also significantly more likely to have gambled during the past year (77.6%) compared to those who had not (71.8%).

## 5.6 Regional Highlights for the Problem Gambling Severity Index

Only 1 out of 55 gamblers felt that they may have had a problem with gambling in the past 12 months (note, this is the prevalence of self-identified problem gambling among survey respondents who had gambled in the past 12 months). The prevalence of gamblers who felt this way was higher among those in the Northern and Island regions than in Vancouver Coastal. Moreover, gamblers in the Northern region were also more likely than those in other regions to indicate that other people criticize their betting or were told that they had a gambling problem (see Table 5.15).

**Table 5.15**  
**Problem Gambling Severity Index (PGSI)**  
**Gambling-Related Experiences in the Past 12 Months across Health Regions**

<b>Top 3 Boxes %</b> Almost always, Most of the time, Sometimes*	<b>Total</b>	<b>Fraser</b>	<b>Interior</b>	<b>Island</b>	<b>Northern</b>	<b>Vancouver Coastal</b>
<b>n=</b>	<b>2,230 to 2,236</b>	<b>437 to 440</b>	<b>474 to 476</b>	<b>448 to 449</b>	<b>449 to 452</b>	<b>418 to 420</b>
Have felt guilty about way or what happens when one gambles	7.2%	7.9%	5.6%	6.0%	7.6%	8.1%
Have bet more than one could really afford to lose	5.4%	6.0%	4.3%	4.4%	6.1%	5.7%
Have gone back another day to try to win back money one lost	5.3%	4.1%	3.5%	5.2%	9.0% ↑↑	7.2% ↑↑
Have needed to gamble with larger amounts of money to get same feeling of excitement	3.0%	2.7%	3.2%	3.4%	3.8%	2.7%
Have had gambling cause one any health problems, including stress or anxiety	2.8%	3.5%	2.1%	2.9%	3.8%	2.1%
Have betting criticized by people or have been told that one had a gambling problem	2.3%	2.2%	1.6%	2.3%	5.3% ↑↑↑	2.0%
Have felt that one might have a problem with gambling	1.8%	1.7%	1.6%	2.6% ↑	3.8% ↑	0.9%
Have gambling cause financial problems for oneself or ones household	1.2%	1.7%	0.5%	1.0%	1.5%	0.9%
Have borrowed money or sold anything to get money to gamble	1.1%	2.4% ↑↑	0.3%	0.8%	0.8%	0.4%

↑↑↑↑↑ Indicates a statistically higher result than in Fraser, Interior, Island, Northern, or Vancouver Coastal.

Note: The colour of the arrow corresponds to a significant difference between the regional health authority with a matching colour.

Source: B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data (n = 2,230 to 2,236).

\*This rating scale is based on the Canadian Problem Gambling Index.



## 5.7 General Population and Subgroup Prevalence Rates for At-risk Groups

The following statements highlight problem gambling (moderate- and high-risk) prevalence for groups identified in this section as having higher risk of scoring as problem gamblers on the PGSI according to the 2014 B.C. Problem Gambling Prevalence Study survey:

- Of the entire population in B.C., problem gambling (moderate- and high-risk) prevalence is 3.3%;
- Of the entire population in B.C., problem gambling prevalence for individuals 18 to 24 years of age is 0.9%. Out of the 18 to 24 years of age population in B.C. 7.3% scored as problem gamblers on the PGSI;
- Of the entire population in B.C., problem gambling prevalence for individuals of Aboriginal, Inuit, or Métis ethnic origins is 0.2%. Out of individuals with Aboriginal, Inuit, or Métis ethnic origins in B.C. 5.5% scored as problem gamblers on the PGSI;
- Of the entire population in B.C., problem gambling prevalence for individuals of Southern Asian ethnic origins is 0.3%. Out of individuals with Southern Asian ethnic origins in B.C. 8.0% scored as problem gamblers on the PGSI; and
- Of the entire population in B.C., problem gambling prevalence for individuals with household incomes under \$30,000 is 1.0%. Out of individuals with household incomes under \$30,000 in B.C. 7.6% scored as problem gamblers on the PGSI.

The following statements highlight at-risk/problem gambling (low-, moderate- and high-risk) prevalence for groups identified in this section as having higher risk of scoring as problem gamblers on the PGSI according to the 2014 B.C. Problem Gambling Prevalence Study survey:

- Of the entire population in B.C., at-risk/problem gambling (low-, moderate- and high-risk) prevalence is 11.2%;
- Of the entire population in B.C., at-risk/problem gambling prevalence for individuals 18 to 24 years of age is 2.2%. Out of the 18 to 24 years of age population in B.C. 18.4% scored as at-risk/problem gamblers on the PGSI;
- Of the entire population in B.C., at-risk/problem gambling prevalence for individuals of Aboriginal, Inuit, or Métis ethnic origins is 1.0% Out of individuals with Aboriginal, Inuit, or Métis ethnic origins in B.C. 23.7% scored as at-risk/problem gamblers on the PGSI;
- Of the entire population in B.C., at-risk/problem gambling prevalence for individuals of Southern Asian ethnic origins is 0.7% Out of individuals with Southern Asian ethnic origins in B.C. 17.2% scored as at-risk/problem gamblers on the PGSI; and
- Of the entire population in B.C., at-risk/problem gambling prevalence for individuals with household incomes under \$30,000 is 2.5% Out of individuals with household incomes under \$30,000 in B.C. 18.9% scored as at-risk/problem gamblers on the PGSI.

## Section 6: Findings

### 6.1 Summary of Conclusions

This section provides a summary of the findings from the 2014 B.C. Problem Gambling Prevalence Study based on the survey results presented in this report.

#### **Nearly three-quarters of British Columbians participate in gambling, and 3.3% of British Columbians experience problem gambling.**

Overall, 3.3% of adult British Columbians in the 2014 study were classified as moderate- or high-risk problem gamblers according to CPGI scoring, which represents approximately 125,000 individuals. This is a decrease in the estimated volume of moderate- and high-risk problem gambling since the 2008 study, at which time approximately 159,000 individuals were classified as moderate- and high-risk problem gamblers.

The current prevalence rate indicates that an estimated 125,000 individuals in B.C., and their families, may benefit from treatment programs. The government's Responsible & Problem Gambling Program provides counselling and treatment services to approximately 1,600 individuals per year, which represents approximately 1.3% of the estimated 125,000 problem gamblers.

#### **Lottery games were the most played and favourite gambling activity for gamblers (i.e., all gamblers) in B.C., and B.C. gamblers are participating in more types of gambling activities.**

Survey findings for 2014 study revealed that participation in individual gambling activities has increased for 9 of the 12 surveyed gambling activities relative to the 2008 prevalence study. The largest proportion of B.C. gamblers reported playing lottery, Scratch & Win, Keno, or Pull-Tabs (81.6), and 43.6% stated that this was their favourite gambling activity.

Since the 2008 study, there has been an increase in participation in lottery games (+ 23% points), playing charity raffles (+14% points), gambling at a casino (+ 3% points), gambling on the outcome of sports or other events (+ 3% points), purchasing speculative stock (+ 3% points), playing bingo (+1% points), betting on horse races (+1% points), participating in Internet gambling (+1% points; estimates should be considered with caution due to the small number of Internet gambler respondents), and playing sports lottery games (+1% points).

#### **Past year B.C. gamblers (i.e., all gamblers) tend to be financially comfortable and of a mature age range.**

High income levels (annual incomes greater than \$50,000) continue to be related to past year gambling participation. Survey respondents with household incomes of \$100,000 or more (79.3%) or \$50,000 to \$100,000 (78.2%) annually were significantly more likely to have gambled in the past year (79.3%) compared to respondents with annual household incomes that were less than \$30,000 (69.2%) and those with household incomes between \$30,000 and \$50,000 (68.9%) per year.

Individuals in the 35 to 64 years of age category represent the largest proportion of past year B.C. gamblers (53.5%), individuals 65 years of age and over (19.1%) are the next largest group, followed by

individuals 25 to 34 years of age (17.3%), and individuals 18 to 24 years of age (10.0%). Young adults in B.C. are significantly less likely to have participated in gambling activities than other age groups.

**Young adults are at risk to be classified as at-risk/problem gamblers, yet the 18 to 24 years of age group is the least likely age group to be gamblers.**

Results of the current study revealed that gamblers between the ages of 18 and 24 (4.3%) were significantly more likely than any other age group to be classified as high-risk gamblers (0.7% for those between the ages of 25 and 34 and 35 and 64 years of age, and 0.4% for those 65 years of age and over). This age-related finding also holds true for low- and moderate-risk gamblers. However, young adults between the ages of 18 and 24 (61.9%) were less likely than all other age groups (ranging from 70.8 to 75.1%) to have participated in any gambling activity during the past year.

**Low household income individuals are at risk to be classified as at-risk/problem gamblers, yet high household income individuals are more likely to be gamblers.**

Respondents who reported an income level of less than \$30,000 were significantly more likely to be classified as low-, moderate-, or high-risk gamblers (18.9%) than those with incomes of \$30,000 to \$49,000 (12.6%), \$50,000 to \$99,000 (10.2%), or \$100,000 or more (10.8%). The proportion of low income (less than \$30,000 annually) at-risk/problem gamblers is a slightly higher than the proportion reported in the 2008 study (18.9% in 2014 study vs. 17.9% in 2008 study), with increases in the moderate- (4.5% in 2014 study vs. 3.8% in 2008 study) and high-risk problem gambler (3.2% in 2014 study vs. 2.0% in 2008 study) categories. There was a decrease in the proportion of low-risk gamblers with reported incomes of less than \$30,000 (11.2% in 2014 study vs. 12.1% in 2008 study). However, individuals with household incomes above \$50,000 were significantly more likely to have participated in gambling activities in the past year.

**Individuals of Aboriginal, Inuit, or Métis and Southern Asian ethnic origins are at risk to be classified as at-risk/problem gamblers.**

Of survey respondents who gambled in the past 12 months, those who identified themselves as Southern Asian (27.4%) and Aboriginal, Inuit, or Métis (27.3%) were significantly more likely to be classified as at-risk/problem gamblers (i.e., low-, moderate-, or high-risk gamblers).

**At-risk/problem gamblers are at higher risk of having a mental health issue, including a mood disorder, anxiety disorder, and suicide ideation or attempt.**

A little over one-third (36.4%) of low-, moderate-, and high-risk gamblers combined reported that they had experienced a mental health issue, while only 13.5% of non-problem gamblers reported experiencing a mental health issue.

**At-risk/problem gamblers are more likely than non-problem gamblers to participate in a large variety of gambling activities.**

At-risk/problem gamblers in B.C. are significantly more likely than non-problem gamblers to participate in the following gambling activities: gambling at a casino (50.4% vs. 23.9%); gambling during a private game/event (e.g., cards) (31.9% vs. 20.5%); gambling on the outcome of a sports event with friends, co-workers, a bookie, or other person (23.6% vs. 10.3%); gambling via short-term speculative stock/commodity purchasing (15.4% vs. 6.3%); gambling while playing bingo (13.9% vs. 4.2%); gambling

on a sports lottery game (9.4% vs. 3.0%); gambling while at a poker tournament (9.1% vs. 2.9%); Internet gambling on both regulated and unregulated sites (7.0% vs. 3.1%; estimates should be considered with caution due to the small number of Internet gambler respondents); and playing electronic gaming machines outside of a casino (6.4% vs. 2.7%), which is not available in B.C. except online.

**Awareness of problem gambling and related resources provided by the B.C. government has declined since the 2008 study, and awareness rates of these resources are particularly low for some groups at risk for problem gambling.**

Approximately one-third (35.8%) of survey respondents reported being aware of free problem gambling counselling services in B.C., which represents a decrease in awareness of free counselling services since the 2008 study where 46% reported government service awareness. Respondents in the 18 to 24 years of age category and of Southern Asian descent were more likely to be classified as problem gamblers and less likely to report awareness of problem gambling assistance services than their demographic counterparts.

One-half of respondents (50.5%) reported awareness of the toll-free help line, while two-thirds (66%) reported awareness of the toll-free help line in the 2008 study. Respondents of Eastern and Southern Asian descent (61.8% and 69.2% respectively) were significantly more likely to be unaware of the toll-free problem gambling help line than Aboriginal, Inuit, or Métis (30.4%); European (47.9%); and Canadian (i.e., individuals who reported their ethnicity as “Canadian”) ethnic groups (41.4%).

**Most adult British Columbians view problem gambling as an addiction. B.C. residents feel they have sufficient information to identify gambling problems, and that legalized gambling has about equally good and bad effects on society.**

In the 2014 study, most adult British Columbians view problem gambling as an addiction. Approximately 89.8% of survey respondents reported that gambling problems should be treated *like any other addiction*. Most British Columbians indicated that they had sufficient information to identify a gambling problem (87.7%).

Since the 2008 study, British Columbians have not changed their opinion regarding the effects of legalized gambling on society. Almost one-half (46.8%) of 2014 study respondents reported that the effect of legalized gambling on society was *about equally good and bad*, over one-third felt that the effect was *bad* or *very bad* (41.2%), and less than one-tenth felt that the effect was *good* or *very good* (9.3%). The proportion of respondents expressing these sentiments was similar to the 2008 study where 43% reported *bad* or *very bad* effects and 10% reported *good* or *very good* effects.

**Additional research is needed to develop an in-depth understanding at-risk/problem gambling groups.**

Large sample prevalence studies allow for more detailed subgroup analysis. Increasing target completions from 3,000 to 6,000 or more increases the population sample for subgroups (e.g., ethnic groups, problem gambler types, gamblers participating in particular activities such as Internet gambling), thereby allowing for more in-depth analysis of factors related to gambling, problem gambling, and co-morbidity.

Internet gambling shifts and trends are largely unknown. Research focusing on Internet gambling in B.C. may offer better insight into the number of gamblers who have migrated from other forms of gambling to online gambling, characteristics of Internet gamblers, economic impacts (e.g., reduction in productivity at work) related to problem Internet gamblers, and effectiveness of problem gambling programs for Internet gamblers, among other possible research topics.

Development of a panel research methodology would allow for continuous monitoring of the flows and cycles of gambling and problem gambling behaviour. This type of research involves repeated surveying of a target population (e.g., gamblers, at-risk/problem gamblers, gamblers by gambling activity) to monitor how the population moves in and out of behaviours patterns of interest, such as increased or decreased gambling participation, changes in gambling activities, changes in at-risk/problem gambling scores, etc.

Awareness of problem gambling prevention and support services could be reviewed using general population surveys and focus groups on this research topic. Using qualitative or a mix of qualitative and quantitative data provides the opportunity to explore public perceptions, opinion, beliefs, and attitudes in a more dynamic or less restricted form.

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- <sup>xix</sup> Ibid.
- <sup>xx</sup> Margins of errors are based on a 50% response distribution, after corrections to adjust for sampling from a finite population.
- <sup>xxi</sup> The random B methodology references blocks of 100 telephone numbers searching for active and/or listed numbers. Each block of 100 numbers is built by using the first two of the last four digits to form working blocks.
- <sup>xxii</sup> Valid sample includes only those numbers that connect to a potential respondent. For example, business numbers and not-in-service numbers in the sample are removed from the total valid sample.
- <sup>xxiii</sup> Margins of errors are based on a 50% response distribution, after corrections to adjust for sampling from a finite population.
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## **Appendix A: 2014 Problem Gambling Prevalence Study Survey**

## **Problem Gambling Prevalence Study Survey**

### **TELEPHONE INTRODUCTION**

Hello, my name is \_\_\_\_\_ with the research firm R.A. Malatest & Associates Ltd. I'm calling on behalf of the Government of BC. We are conducting a survey on games of chance, gaming, and other issues of importance to B.C. residents. Your household was randomly selected to represent the opinions of British Columbians. Responses to this survey will be anonymous, that is, your name and phone number will not be attached to any responses.

NEW1. Can you tell me if I have reached you on a cell phone today?

1. Yes → [GO TO "AFTER APPROPRIATE RESPONDENT SELECTED" SECTION]
2. No → [ASK IN-HOUSEHOLD SELECTION QUESTION]

The survey will take approximately 20 minutes, and you will be given the option to enter into a draw for an iPad at the end. May I complete the survey with you now?

- Yes → [Continue]
- No → [Schedule callback or thank and terminate]

Thank you. This call may be monitored for quality assurance purposes.

### **SECTION A: SCREENERS**

1. To ensure we interview people in a variety of age groups, could you please tell me which of the following broad groups your age falls into? [Read list]
  1. 18 to 24
  2. 25 to 34
  3. 35 to 64
  4. 65 or older
  5. No response → [Thank and terminate]
2. Which gender do you identify as?
  1. Male
  2. Female
  3. Other
  4. No response → [Thank and terminate]

3. Which of the following health authorities are you served by? [Read list if required]

1. Fraser Health Authority
2. Interior Health Authority
3. Island Health Authority [SURVEYOR NOTE: this is for Vancouver Island]
4. Northern Health Authority
5. Vancouver Coastal Health Authority
6. Don't know → Could you help us narrow down your region by telling me the name of the city or community you live in or giving me the first three digits of your postal code?
7. No response → [Thank and terminate]

## SECTION B: GAMBLING PARTICIPATION

First, I'd like to ask some questions about activities you may participate in. People bet money and gamble on many different things including buying lottery tickets, playing bingo, or card games with their friends. I am going to list some activities that you might have bet money on.

4. In the past 12 months, have you bet or spent money on?

	Yes	No	DK/NA
a. Charity raffles such as a hospital lottery	1	2	99
b. Other lottery games like 6/49, Scratch & Wins tickets, Keno or Pull-tabs	1	2	99
c. Bingo	1	2	99
d. Gambling at a casino	1	2	99
e. An electronic gaming machine outside of a casino, such as a video lottery terminal	1	2	99
f. A sports lottery game like Sports Action through a lottery retailer	1	2	99
g. A horse race	1	2	99
h. The outcome of sports or other events with friends, co-workers, a bookie or some other person	1	2	99
i. A poker tournament at a casino, bar, restaurant or other public venue	1	2	99
j. A private game such as cards, dice or dominoes in someone's home or at a club or organization, or on a game of skill such as golf, pool or bowling	1	2	99
k. Short-term speculative stock or commodity purchases such as day trading, but not including long-term investments such as mutual funds or RRSPs	1	2	99
l. Internet gambling (GeoSweep, sports betting, poker, interactive games)	1	2	99
m. [Do not read] I have not bet or spent money on any gambling or gaming activity. [If "yes" skip to Q27]	1	2	99
n. In the past 12 months, have you bet or spent money on any other kind of gambling that I haven't mentioned?			
1. Yes → What kind of gambling would that be?	<input type="text"/>		
2. No			

5. Which of these activities is your favourite? [Recall “yes” options from Q4a – Q4n, and Q4p] [Surveyor Note: Remind respondent of their responses if needed.]
6. When participating in your favourite type of gambling, does anyone usually accompany you or do you usually go alone?
  1. Alone
  2. Accompanied
7. When participating in your favourite type of gambling, can you tell me what distance you usually travel in kilometres, if any? [Surveyor Note: Read if needed.]
  1. Don't travel
  2. 5K (3.1miles) or less
  3. 6K to 10K (3.7 to 6.2 miles)
  4. 11K to 20K (6.8 to 12.4 miles)
  5. 21K to 50K (13.0 to 31.1 miles)
  6. 51K to 100K (32.0 to 62.1 miles)
  7. More than 100K (more than 62.1 miles)
8. [Ask of “yes” answers to 4n only] Do you primarily use your home or work computer for internet gambling? [Do not read]
  1. Home
  2. Work
  3. Home and work equally
  4. Other → Please specify:
9. [Ask of “yes” answers to 4n only] What time of the day do you most often use the internet to gamble or place bets? Would you say: [Read List]
  1. 9am – 5pm
  2. 5pm – Midnight
  3. Midnight – 9am

10. In the past 12 months, how often did you spend money or bet on [Recall answers from Q4]? [Read each item]

	<b>Daily (30+ times per month)</b>	<b>Several times per week (6 – 29 times per month)</b>	<b>Several times per month (3 – 5 times per month)</b>	<b>Once per month (6 – 12 times per year)</b>	<b>A few times per year (1 – 5 times per year)</b>
[RECALL]	1	2	3	4	5

### SECTION C: GAMBLING BEHAVIOURS

11. Would you say that you gamble more, less, or about the same as 5 years ago? [Do not read]

1. More
2. About the same → [Skip to Q13]
3. Less

12. What is the main reason you are gambling [Recall answer to Q11] than 5 years ago?

13. Compared to other entertainment activities, how important is gambling to you? Would you say it is...[Read list]

1. Very important
2. Somewhat important
3. Not at all important

14. About how much do you spend on gambling in an average month? [If needed state, "I'm just looking for an approximate amount", and read list if required]

1. Less than \$1
2. \$1 to \$5
3. \$6 to \$10
4. \$11 to \$49
5. \$50 to \$99
6. \$100 to \$199
7. \$200 to \$299
8. \$300 to \$399
9. \$400 or more

15. What is the largest amount of money you ever lost in one day? [If hesitant say, "I'm just looking for an approximate amount." If still hesitant, read list.]

1. Less than \$1
2. \$1 to \$9
3. \$10 to \$99
4. \$100 to \$999
5. \$1,000 to \$9,999
6. \$10,000 or more

#### SECTION D: PGSI

16. Thinking about the last 12 months... [Read scale for first three items, and remind R of scale for subsequent items as needed]

	Never	Sometimes	Most of the time	Almost always	Don't Know/No Response
16a. Have you bet more than you could really afford to lose?	1	2	3	4	99
16b. Still thinking about the last 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?	1	2	3	4	99
16c. When you gambled, did you go back another day to try to win back the money you lost?	1	2	3	4	99
16d. Have you borrowed money or sold anything to get money to gamble?	1	2	3	4	99
16e. Have you felt that you might have a problem with gambling?	1	2	3	4	99
16f. Has gambling caused you any health problems, including stress or anxiety?	1	2	3	4	99
16g. Have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?	1	2	3	4	99
16h. Has your gambling caused any financial problems for you or your household?	1	2	3	4	99
16i. Have you felt guilty about the way you gamble or what happens when you gamble?	1	2	3	4	99



## SECTION E: GAMBLING BELIEFS AND MOTIVATIONS

17. For each of the following statements, please tell me if you strongly agree, agree, disagree, or strongly disagree.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know/No Response
17a. After losing many times in a row, you are more likely to win.	1	2	3	4	99
17b. While gambling, you could win more if you used a certain system or strategy.	1	2	3	4	99

## SECTION F: ALCOHOL AND DRUG QUESTIONS

18. In the last 12 months, how often did you drink alcoholic beverages? [Read list]

1. 4 to 6 times a week or more
2. 1 to 3 times a week
3. Once a week
4. 2 to 3 times a month
5. Once a month
6. Less than once a month
7. Never in the last 12 months → [Skip to Q20]
8. Never in your lifetime → [Skip to Q20]

19. During the past 12 months, have you had 5 or more drinks on one occasion? [Read list]

1. More than once per week
2. Once per week
3. 2 to 3 times per month
4. Once per month
5. Less than once per month
6. Never

20. In the last 12 months, how often did you use illegal drugs? Was it...? [Read list]

1. 4 to 6 times a week or more
2. 1 to 3 times a week
3. Once a week
4. 2 to 3 times a month
5. Once a month
6. Less than once a month
7. Never in the last 12 months
8. Never in your lifetime

[If respondent answered never in the last 12 months or never in your lifetime to Q18 and Q20, skip to Q23]

21. In the last 12 months, have you used alcohol or drugs while gambling?

1. Yes
2. No → Skip to Q23

22. In the last 12 months, have you gambled while you were drunk or high?

1. Yes
2. No

23. During the past year, have you been under the care of a professional, such as a doctor or therapist, for physical or emotional problems brought on by gambling? [Surveyor Note: record respondent's reply in other if you do not know if the professional is a doctor or therapist. Doctor is defined as anyone whose profession requires a medical degree.]

1. Yes, doctor
2. Yes, therapist
3. Yes, other → Please specify:
4. No

## SECTION G: EMPLOYMENT IMPACTS

24. During the past 12 months, have you had any work-related problems that have occurred as a result of gambling?

1. Yes
2. No → [Skip to Q27]

25. How many times in the last 12 months did you not come to work due to gambling?

1.  # of days

26. How many times in the last year did you come to work but were less productive due to gambling?

1.  # of days

## SECTION H: MENTAL HEALTH

27. Now I'd like to ask you some questions about your mental health.

[If R asks why, read, "We are asking these questions to better understand mental health characteristics that are important for British Columbians. Please remember that your responses will remain anonymous.]"

Do you have a mood disorder such as depression, bipolar disorder, mania or dysthymia?

1. Yes
2. No

28. Do you have an anxiety disorder such as a phobia, obsessive-compulsive disorder or a panic disorder?

1. Yes
2. No

29. Have you ever seriously considered committing suicide or taking your own life?

1. Yes
2. No

30. Have you ever attempted to commit suicide or tried taking your own life?

1. Yes
2. No

## **SECTION I: FAMILY IMPACTS**

31. Next I'd like to ask you about how gambling has affected your family. On a scale of one to five, with 1 being no problem at all and 5 being the most serious problem your family has had, how would you rate the issue of gambling in your family?

[RECORD 1 TO 5]

32. Do you believe that you have enough knowledge or information to identify whether you or someone close to you has a gambling problem?

1. Yes
2. No

33. Have you ever experienced problems as a result of someone else's gambling?

1. Yes
2. No

## **SECTION H: GAMBLING PERSPECTIVES**

34. What would you say are the main benefits individuals receive from gambling? [Do not read list, multiple response]

1. Entertainment
2. Excitement
3. Winning
4. Getting out of the house
5. No advantages
6. Other → Please specify:

35. People have different beliefs about the overall effects of gambling on society. Would you say that the overall effect of legalized gambling on society is...? [Read scale]

1. Very good
2. Good
3. About equally good and bad
4. Bad
5. Very bad

36. Do you agree with the statement that gambling problems should be considered like any other addiction (e.g., alcohol, drug addictions)?

1. Yes
2. No

## SECTION I: PROBLEM GAMBLING HELP SERVICES

37. Are you aware of any assistance or services in place in BC to help...[Read beginning of question for both response options.]

		Yes	No	DK/NR
36a.	People having problems with their gambling	1	2	99
36b.	Families of people having problems with their gambling	1	2	99

38. Are you aware that there is a toll-free problem gambling help line in British Columbia? [If requested, the number for the Problem Gambling Help Line is: 1-888-795-6111.]

1. Yes
2. No

39. Are you aware that the BC provincial government provides problem gambling counselling services that are available free of charge?

1. Yes
2. No

40. If you ever experience problems related to gambling, how likely would you use the problem gambling counselling services provided by the BC government? [If needed, ask, "would you say likely or unlikely?"]

1. Likely → [Skip to Q41]
2. Unlikely

41. Why would you be unlikely to use the problem gambling counselling services provided by the BC government? [Do not read list]

1. I don't have a problem/I don't gamble
2. Negative impression of government programs
3. I would sort it out myself/I would not go to anyone for help
4. I would seek family support
5. Other → Please specify:

## SECTION J: DEMOGRAPHICS

42. In what year were you born?

43. What is your current marital status? [Do not read list]

1. Married or common law
2. Living with partner, but not common law
3. Widowed
4. Divorced
5. Separated
6. Single or never married

44. What is the primary ethnic or cultural origins of your ancestors? [Read list]

1. Aboriginal, Inuit, Métis
2. European (Western)
3. European (Eastern)
4. Asian (Eastern – Chinese, Korean, Vietnamese, Cambodian, Japanese, other East Asian)
5. Asian (Southern – Indian, Pakistani, Sri Lankan, other South Asian)
6. Asian (Western – Iranian, Iraqi, Afghan, other West Asian)
7. African
8. Latin American (Mexican, Central/South American)
9. Oceania (Australian, New Zealander, Pacific Islander)
10. Other → Please specify:

45. What is the highest level of education that you have completed? [Read list]

1. Grade school or some high school
2. Completed high school
3. Post-secondary trade or technical school
4. Some college or university
5. Completed college diploma
6. Completed university degree
7. Post-graduate degree

46. What is your primary employment status? [Read list, select the activity R devotes the most time to]

1. Employed full-time (30 hours per week or more)
2. Employed part-time (less than 30 hours per week)
3. Self-employed
4. Unemployed
5. Student
6. Retired
7. Homemaker
8. Other → Please specify:

47. How many people under 18 years of age live with you?

48. a. [IF "YES" TO NEW1] Earlier you said that I reached you on a cell phone. Does your household also have a landline or traditional telephone? Would you say...[READ LIST]  
b. [IF "NO" TO NEW2] Do you or does anyone in your household also use a cell phone?...[READ LIST]

[WEB ONLY] Which of the following best applies to your household?

1. My household uses a cell phone(s) and a landline
2. My household uses a landline only
3. My household uses a cell phone(s) only

49. Which of the following ranges best describes your total household income before taxes?  
[This should be the combined income for all persons in the household] [Read list]

1. Under \$30,000
2. \$30,000 to \$39,999
3. \$40,000 to \$49,999
4. \$50,000 to \$59,999
5. \$60,000 to \$69,999
6. \$70,000 to \$79,999
7. \$80,000 to \$99,999
8. \$100,000 or more

## **SECTION K: SURVEY IMPACT**

We have talked at length about some very important topics. Sometimes talking about gambling or taking part in a survey makes you start to think about your gambling or someone else's gambling.

50. Did taking part in this survey make you feel uncomfortable or concerned about any aspect of your gambling?

1. Yes
2. No

51. Do you have any interest in speaking to someone else such as a trained counsellor or professional about your gambling or the gambling problems of someone you know?

1. Yes
2. No

52. Would you like more information about problem gambling in British Columbia?

1. Yes
2. No

[IF YES TO Q48, Q49, or Q50] I have a toll-free number that you can call for information or assistance on gambling. The number for the Problem Gambling Help Line is: 1-888-795-6111. It's free and confidential.

**END**

[ALL RESPONDENTS]

On behalf of Malatest & Associates, we would like to thank you for your contribution to this important research.



## **Appendix B: Survey Call Disposition**

### Survey Call Disposition

Call Disposition	Count	%
Completion	3,058	6.4%
Refusal	14,977	31.5%
Answering Machine	13,523	28.5%
Wrong Number/NIS	8,156	17.2%
No Answer/Busy Signal	4,030	8.5%
Call Answered Call Again	2,216	4.7%
Non-Qualifier*	597	1.3%
Language Barrier	514	1.1%
Appointment	253	0.5%
Respondent Wants to Complete Online	115	0.2%
Communication Problem Non-Language	63	0.1%
<b>Total Called Sample</b>	<b>47,502</b>	<b>100.0%</b>
<b>Response Rate (MRIA)<sup>1</sup></b>	<b>8.4%</b>	
<b>Gross Response Rate</b>	<b>6.5%</b>	
<b>Gross Refusal Rate</b>	<b>31.8%</b>	
<b>Gross Non Qualifier Rate</b>	<b>0.4%</b>	
<b>Web Complete</b>	<b>58</b>	

\*Non-qualifying respondents include those who belong to the quota-filled age groups

<sup>1</sup> MRIA Response Rate Calculation: <http://mria-arim.ca/about-mria/standards/response-rate-calculation-formula>

## **Appendix C: Gambling Activity Profiles**

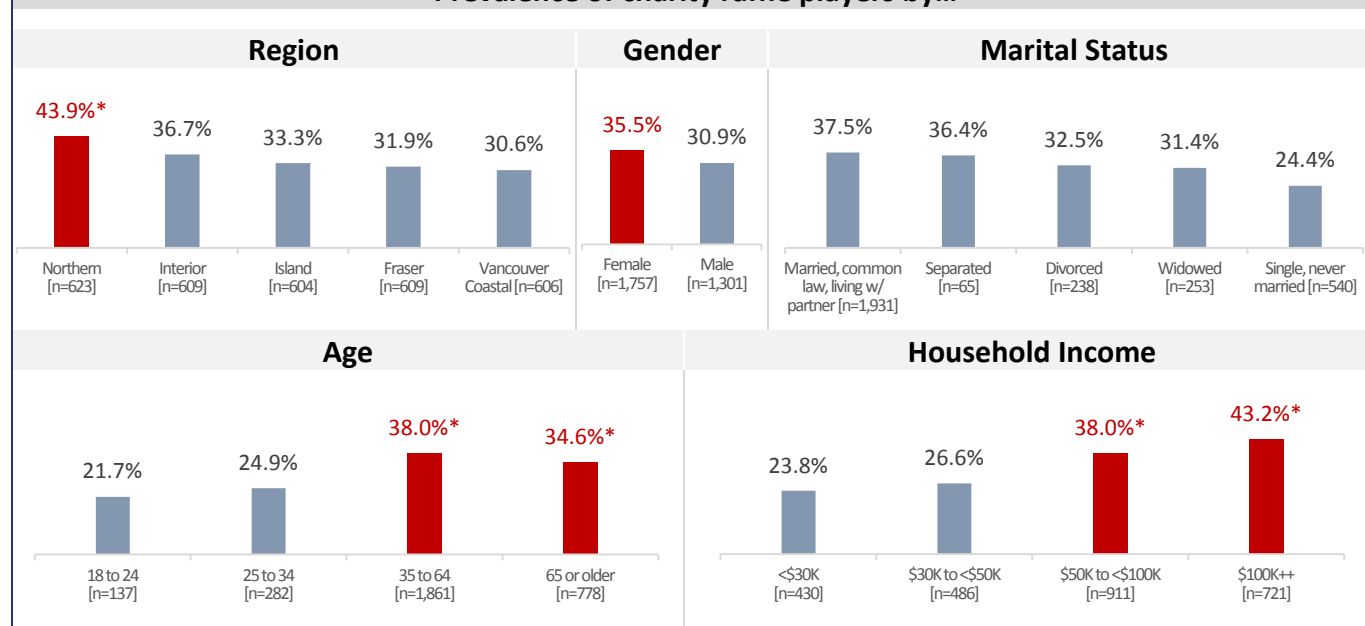
## Charity Raffles – 2014 Profile

About **1 in 3** British Columbians play **Charity Raffles**.<sup>1</sup>  
Of those who do, over **4 out of 5** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Charity Raffle Players</b> [n=1,142]	86.3%	9.6%	3.8%	0.3%
<b>All Gamblers</b> [n=2,241]	84.6%	10.9%	3.6%	1.0%

### Prevalence of charity raffle players by...



**Most likely profile of charity raffle players:**

Individuals who are **65 years old or older** and with a **household income of \$100K or more**.

*The prevalence rate of charity raffle players in this segment [53.6%] is statistically higher than the provincial rate of 33.6%.*

### Charity raffle players' behaviour and perspectives on gambling



<sup>1</sup>Base: Total Sample, n=3,058

*\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.*

Source: 2014 BC Problem Gambling Prevalence Study

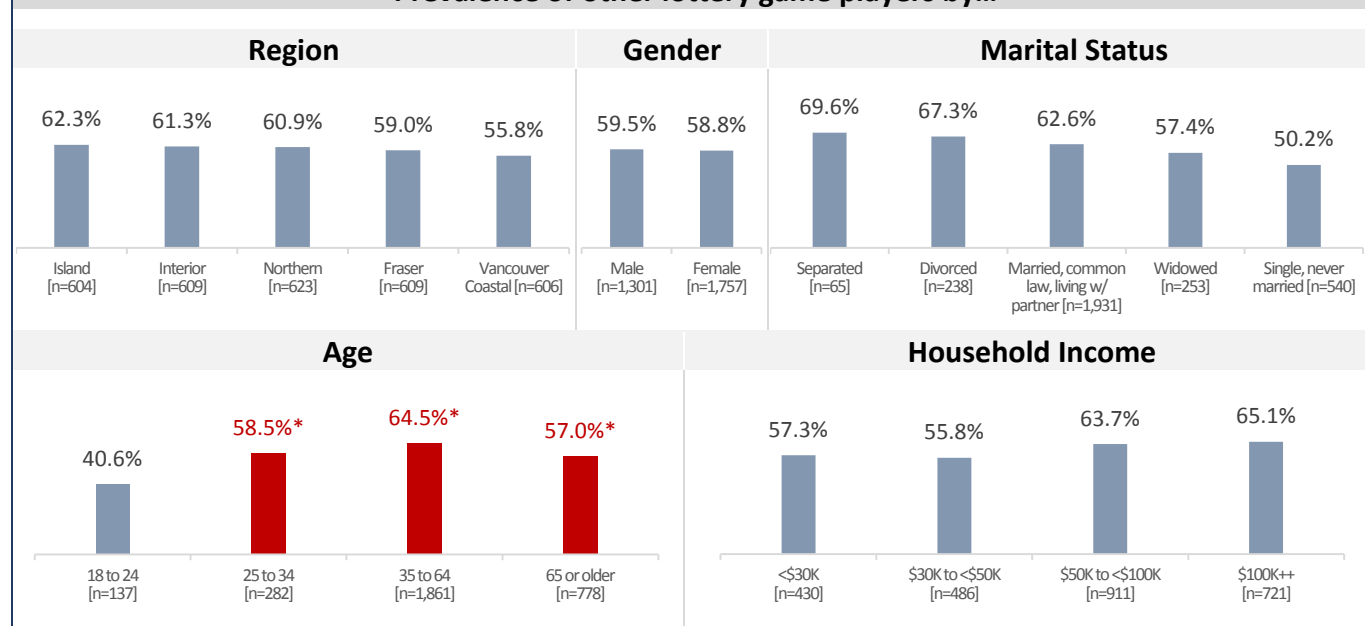
## Other Lottery Games, Scratch & Win Tickets, Keno or Pull-Tabs – 2014 Profile

About **3 in 5** British Columbians play **Other Lottery Games**.<sup>1</sup>  
Of those who do, over **4 out of 5** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Other Lottery Game Players</b> [n=1,866]	84.1%	11.1%	3.5%	1.2%
<b>All Gamblers</b> [n=2,241]	84.6%	10.9%	3.6%	1.0%

### Prevalence of other lottery game players by...



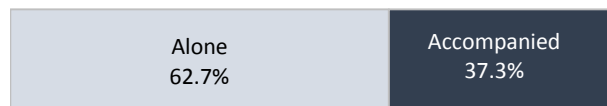
**Most likely profile of other lottery game players:**

Individuals who are **35 to 64 years old** and with a **household income of \$100k or more**.

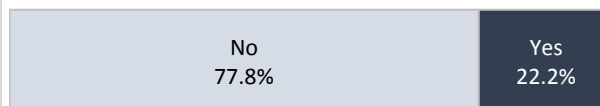
*The prevalence rate of other lottery game players in this segment [68.5%] is statistically higher than the provincial rate of 59.7%.*

### Other lottery game players' behaviour and perspectives on gambling

#### Gambling alone vs. accompanied [n=1,823]

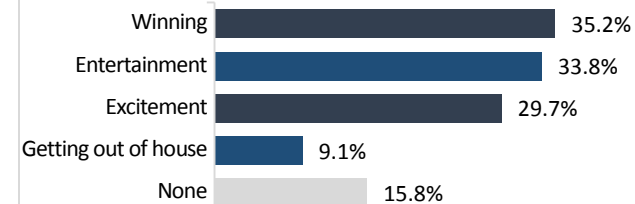


#### Drug, alcohol use while gambling [n=1,594]



#### Perceived benefits from gambling\* [n=1,792]

\*Note: Multiple selection was allowed. Answers need not sum to 100%.



<sup>1</sup>Base: Total Sample, n=3,058

\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.

Source: 2014 BC Problem Gambling Prevalence Study

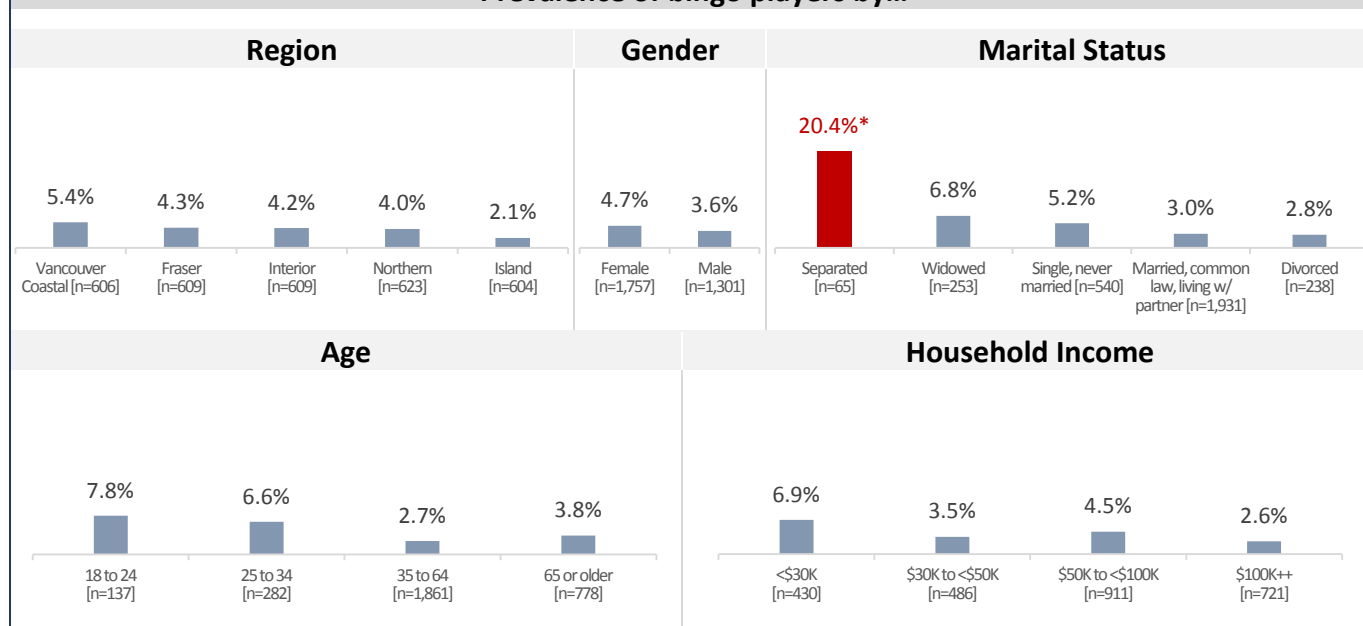
## Bingo – 2014 Profile

Only **1 in 25** British Columbians play **Bingo**.<sup>1</sup>  
Of those who do, over **3 out of 5** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Bingo Players [n=106]</b>	62.7%	22.2%	8.7%	6.3%
<b>All Gamblers [n=2,241]</b>	84.6%	10.9%	3.6%	1.0%

### Prevalence of bingo players by...



Most likely profile of bingo players:

**Separated** individuals.

*The prevalence rate of bingo players in this segment [20.3%] is statistically higher than the provincial rate of 4.2%.*

### Bingo players' behaviour and perspectives on gambling

#### Gambling alone vs. accompanied [n=107]

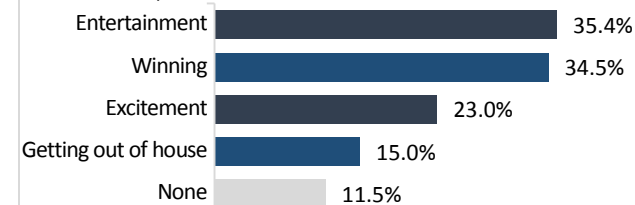


#### Drug, alcohol use while gambling [n=71]



#### Perceived benefits from gambling\* [n=101]

\*Note: Multiple selection was allowed. Answers need not sum to 100%.



<sup>1</sup>Base: Total Sample, n=3,058

\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.

Source: 2014 BC Problem Gambling Prevalence Study

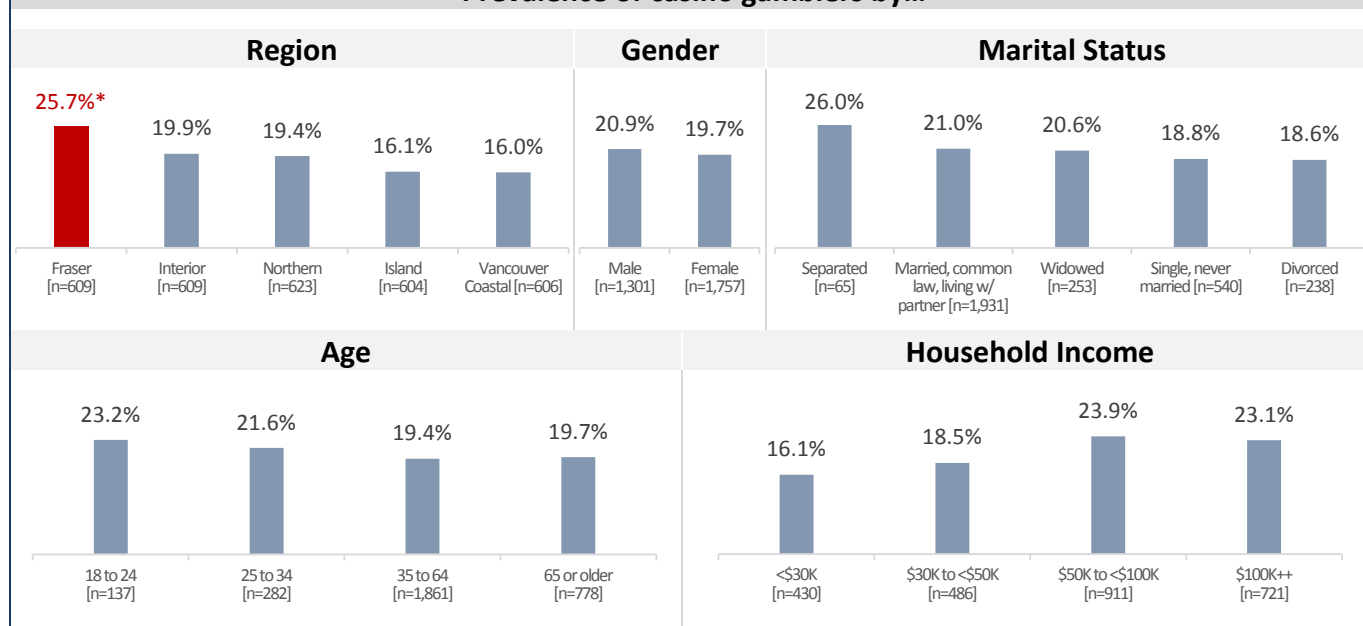
## Casinos – 2014 Profile

About **1 in 5** British Columbians play in **Casinos**.<sup>1</sup>  
Of those who do, almost **3 out of 4** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
Casino Gamblers [n=581]	72.1%	20.0%	5.3%	2.6%
All Gamblers [n=2,241]	84.6%	10.9%	3.6%	1.0%

### Prevalence of casino gamblers by...



Most likely profile of casino gamblers:

**Single** individuals who are **18 to 24 years old** and with a **household income of \$100k or more**.

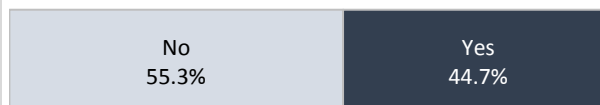
*The prevalence rate of casino gamblers in this segment [51.9%] is statistically higher than the provincial rate of 20.6%.*

### Casino gamblers' behaviour and perspectives on gambling

#### Gambling alone vs. accompanied [n=580]

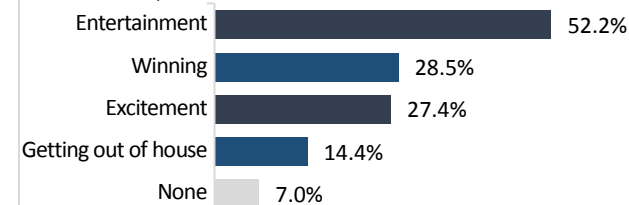


#### Drug, alcohol use while gambling [n=502]



#### Perceived benefits from gambling\* [n=567]

\*Note: Multiple selection was allowed. Answers need not sum to 100%.



<sup>1</sup>Base: Total Sample, n=3,058

\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.

Source: 2014 BC Problem Gambling Prevalence Study



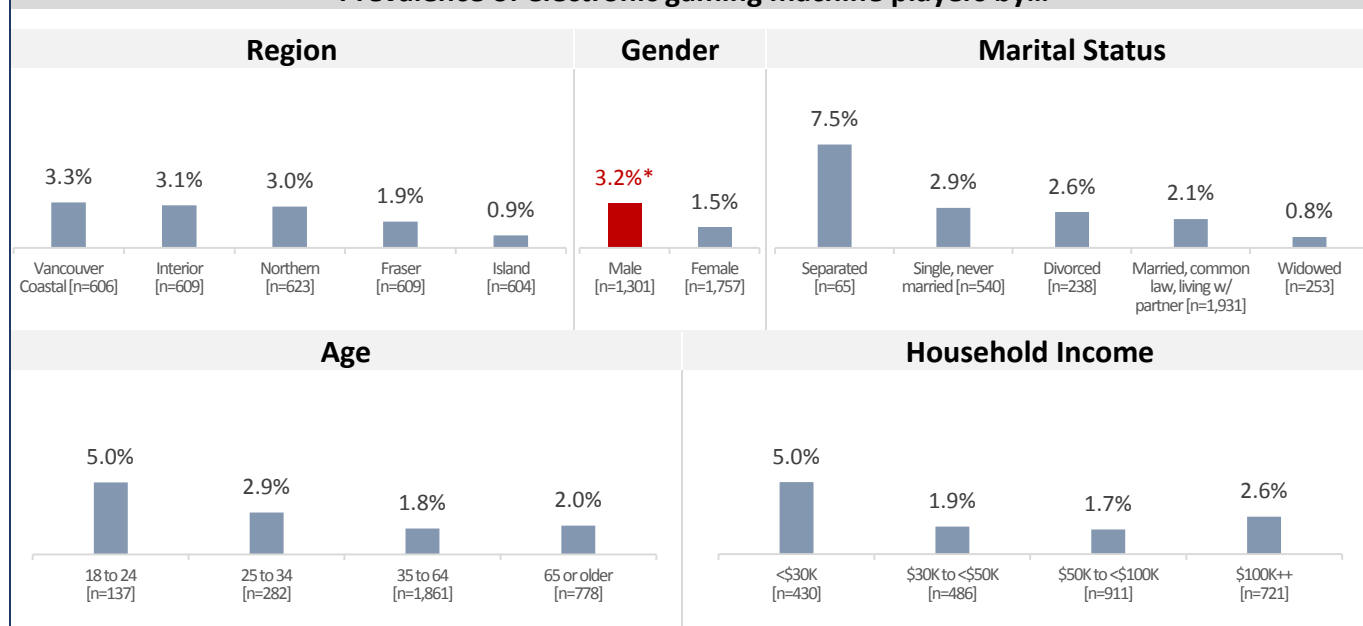
## Electronic Gaming Machines, Video Lottery Terminals – 2014 Profile

Only about **1 in 40** British Columbians play **Electronic Gaming Machines**.<sup>1</sup>  
Of those who do, over **3 out of 5** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Electronic Machine Players [n=65]</b>	70.8%	15.3%	6.9%	6.9%
<b>All Gamblers [n=2,241]</b>	84.6%	10.9%	3.6%	1.0%

### Prevalence of electronic gaming machine players by...

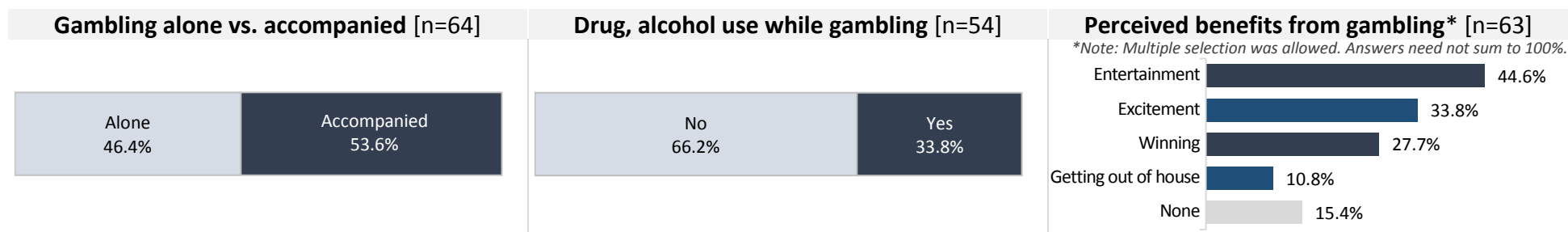


Most likely profile of electronic gaming machine players:

**Males who are 18 to 24 years old.**

*The prevalence rate of electronic gaming machine players in this segment [6.9%] is statistically higher than the provincial rate of 2.5%.*

### Electronic gaming machine players' behaviour and perspectives on gambling



<sup>1</sup>Base: Total Sample, n=3,058

\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.

Source: 2014 BC Problem Gambling Prevalence Study

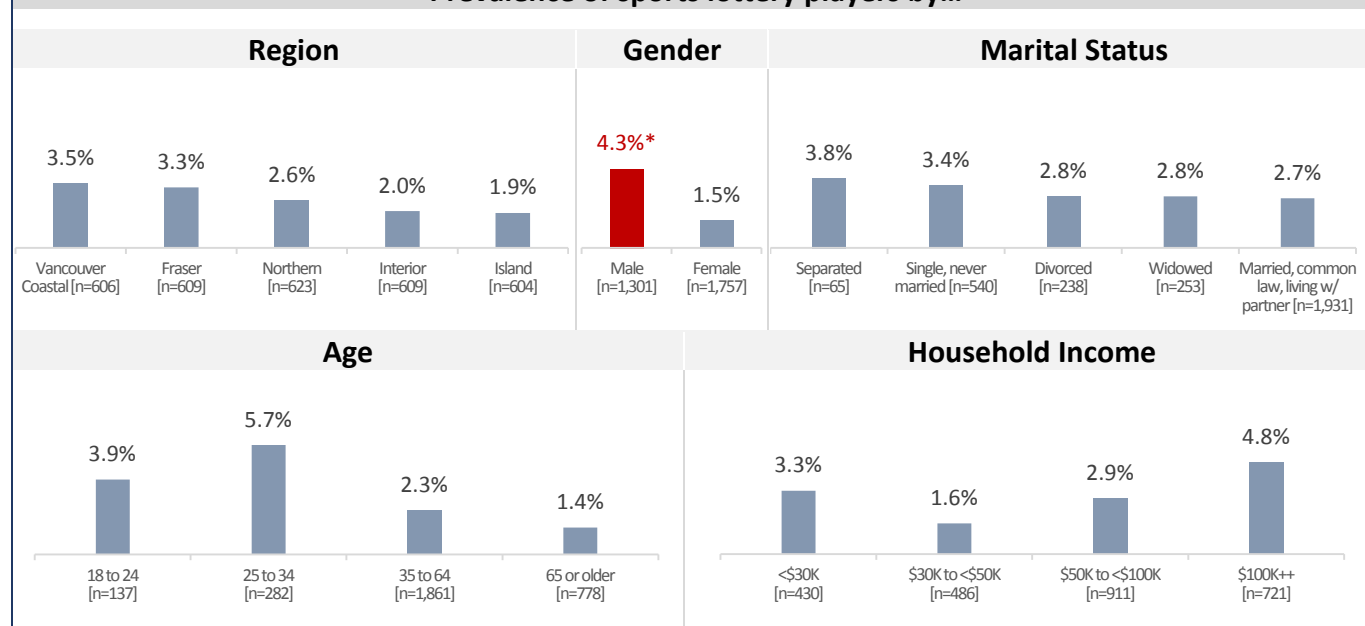
## Sports Lotteries – 2014 Profile

Only about **1 in 35** British Columbians play **Sports Lotteries**.<sup>1</sup>  
Of those who do, almost **2 out of 3** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Sports Lottery Players [n=70]</b>	62.5%	19.3%	8.0%	10.2%
<b>All Gamblers [n=2,241]</b>	84.6%	10.9%	3.6%	1.0%

### Prevalence of sports lottery players by...



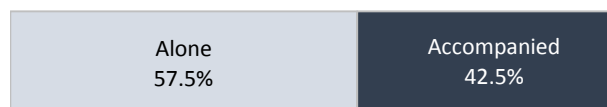
**Most likely profile of sports lottery players:**

**Males** who are **18 to 34 years old** and are **single or never married**.

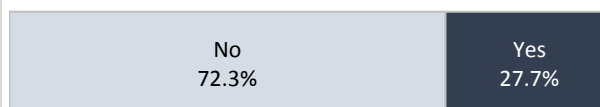
*The prevalence rate of sports lottery players in this segment [7.2%] is statistically higher than the provincial rate of 2.9%.*

### Sports lottery players' behaviour and perspectives on gambling

#### Gambling alone vs. accompanied [n=70]

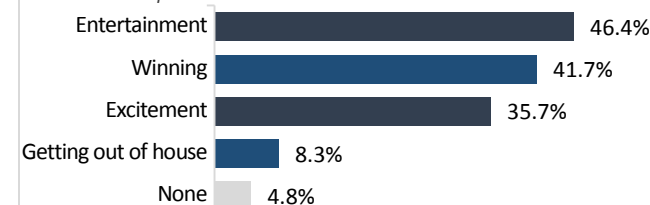


#### Drug, alcohol use while gambling [n=63]



#### Perceived benefits from gambling\* [n=69]

\*Note: Multiple selection was allowed. Answers need not sum to 100%.



<sup>1</sup>Base: Total Sample, n=3,058

\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.

Source: 2014 BC Problem Gambling Prevalence Study

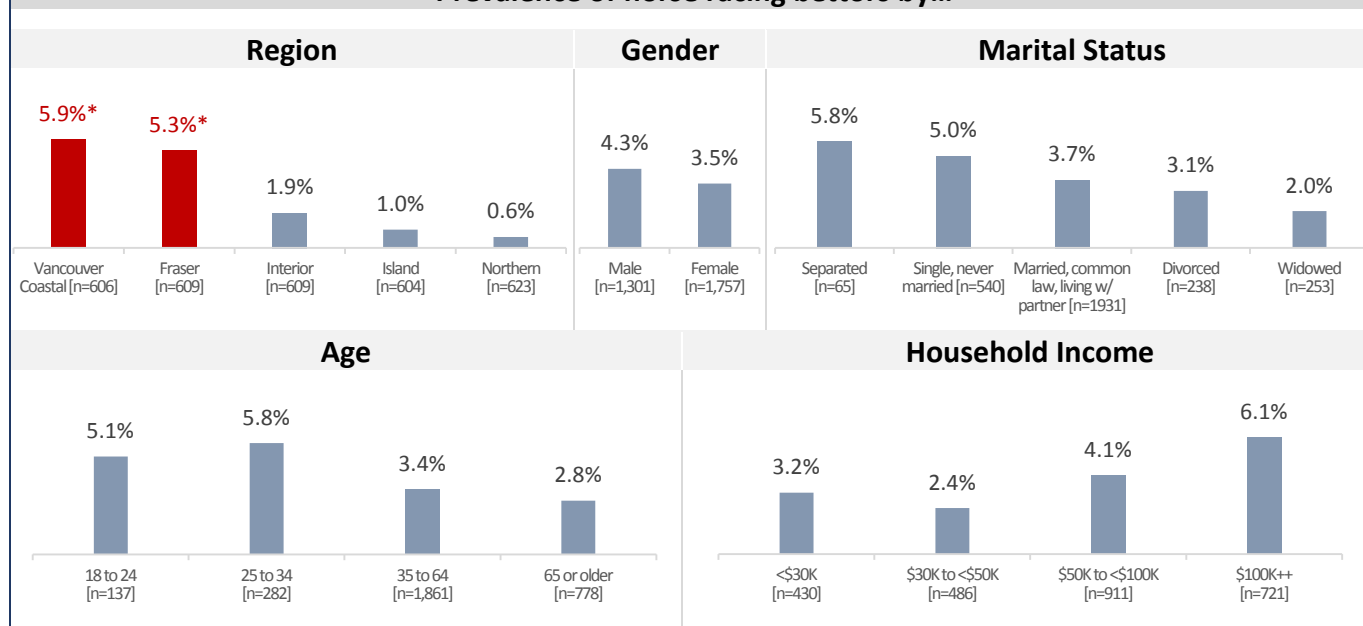
## Horse Races – 2014 Profile

Only about **1 in 25** British Columbians bet on **Horse Races**.<sup>1</sup>  
Of those who do, about **4 out of 5** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
Horse Racing Bettors [n=80]	79.2%	9.2%	6.7%	5.0%
All Gamblers [n=2,241]	84.6%	10.9%	3.6%	1.0%

### Prevalence of horse racing bettors by...

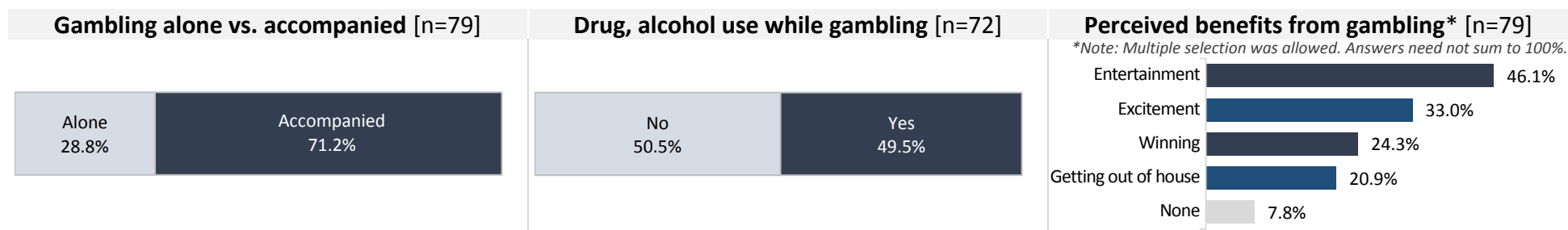


Most likely profile of horse racing bettors:

**Males** who are **18 to 24 years old** and with a **household income of \$100k or more**.

*The prevalence rate of horse racing bettors in this segment [27.0%] is statistically higher than the provincial rate of 3.9%.*

### Horse racing bettors' behaviour and perspectives on gambling



<sup>1</sup>Base: Total Sample, n=3,058

\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.

Source: 2014 BC Problem Gambling Prevalence Study

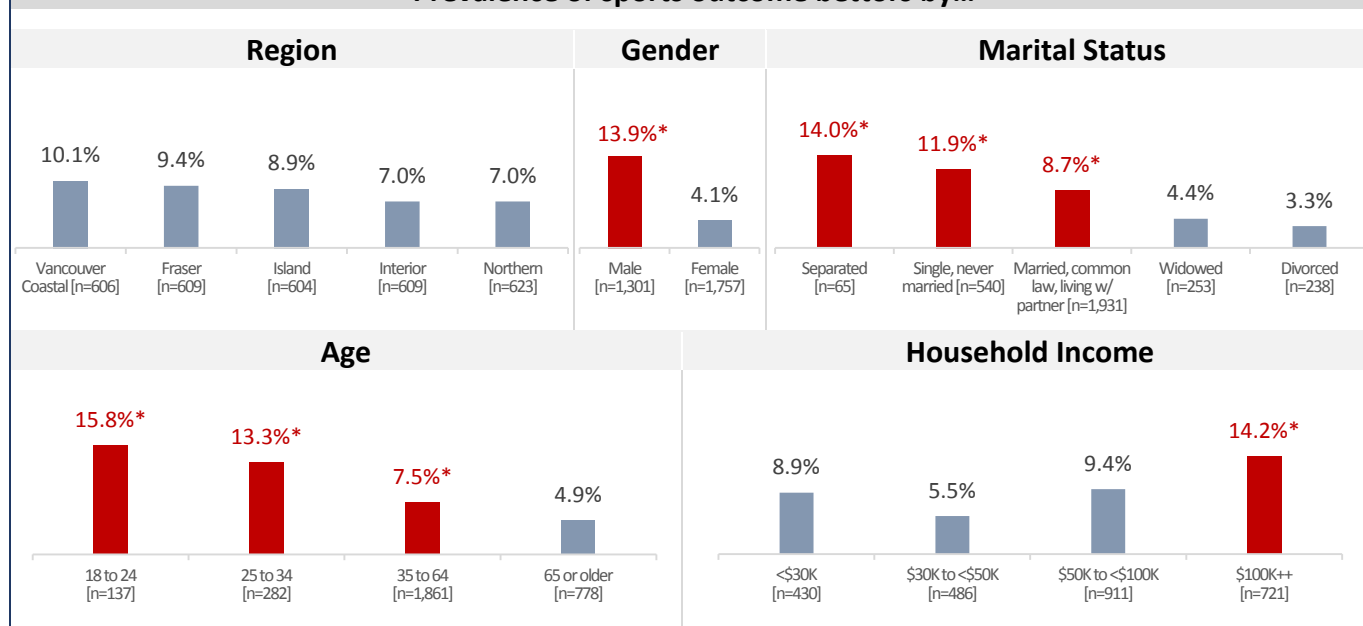
## Outcomes of Sports or Other Events – 2014 Profile

About **1 in 10** British Columbians bet on **Outcomes of Sports or Other Events** with friends, etc.<sup>1</sup>  
Of those who do, almost **3 out of 4** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Sports Outcome Bettors</b> [n=217]	70.3%	19%	5.9%	4.8%
<b>All Gamblers</b> [n=2,241]	84.6%	10.9%	3.6%	1.0%

### Prevalence of sports outcome bettors by...



**Most likely profile of sports outcome bettors:**

**Males who are 18 to 34 years old.**

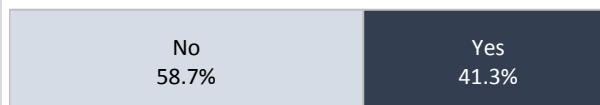
*The prevalence rate of sports outcome bettors in this segment [21.8%] is statistically higher than the provincial rate of 9.1%.*

### Sports outcome bettors' behaviour and perspectives on gambling

#### Gambling alone vs. accompanied [n=216]

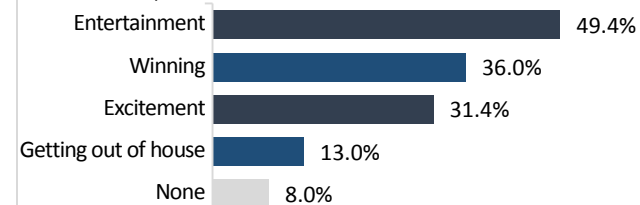


#### Drug, alcohol use while gambling [n=196]



#### Perceived benefits from gambling\* [n=212]

\*Note: Multiple selection was allowed. Answers need not sum to 100%.



<sup>1</sup>Base: Total Sample, n=3,058

\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.

Source: 2014 BC Problem Gambling Prevalence Study

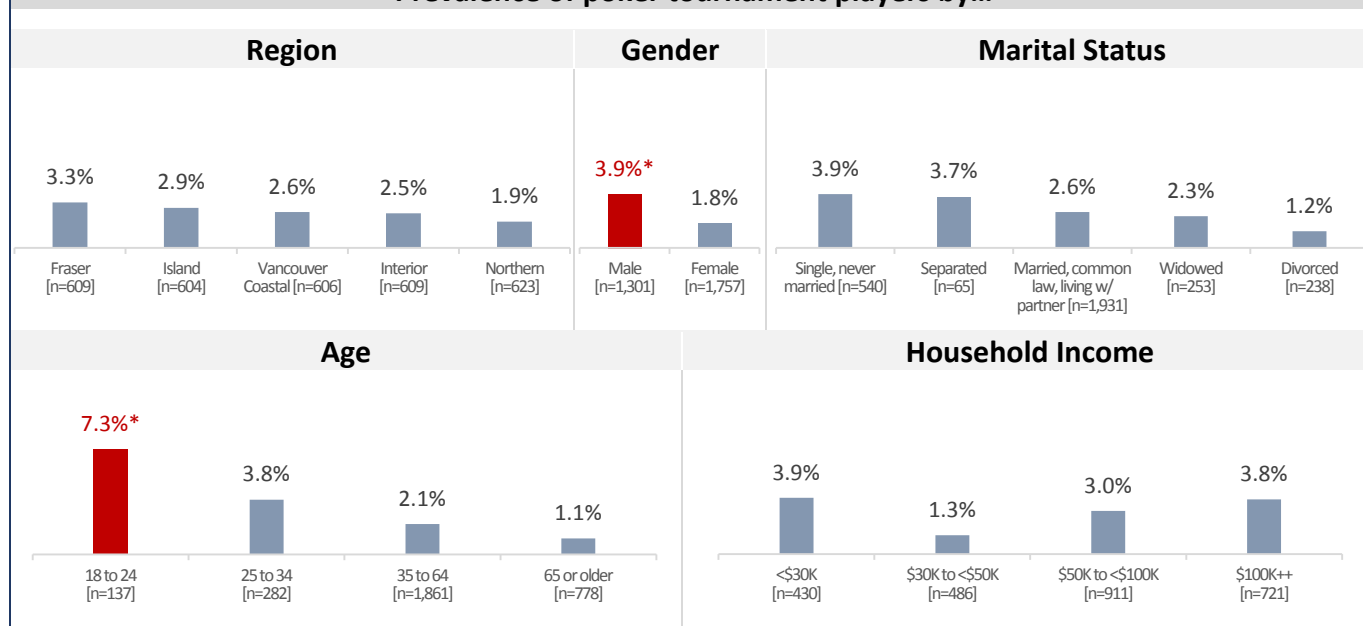
## Poker Tournaments – 2014 Profile

Only about **1 in 35** British Columbians play at **Poker Tournaments**.<sup>1</sup>  
Of those who do, over **3 out of 5** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Poker Tournament Players [n=63]</b>	64.0%	18.6%	4.7%	12.8%
<b>All Gamblers [n=2,241]</b>	84.6%	10.9%	3.6%	1.0%

### Prevalence of poker tournament players by...

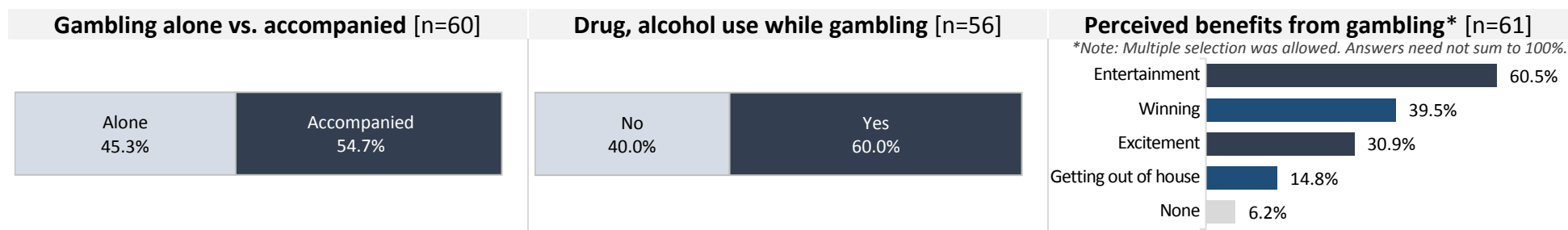


Most likely profile of poker tournament players:

**Single males who are 18 to 24 years old.**

*The prevalence rate of poker players in this segment [9.0%] is statistically higher than the provincial rate of 2.5%.*

### Poker tournament players' behaviour and perspectives on gambling



<sup>1</sup>Base: Total Sample, n=3,058

\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.

Source: 2014 BC Problem Gambling Prevalence Study

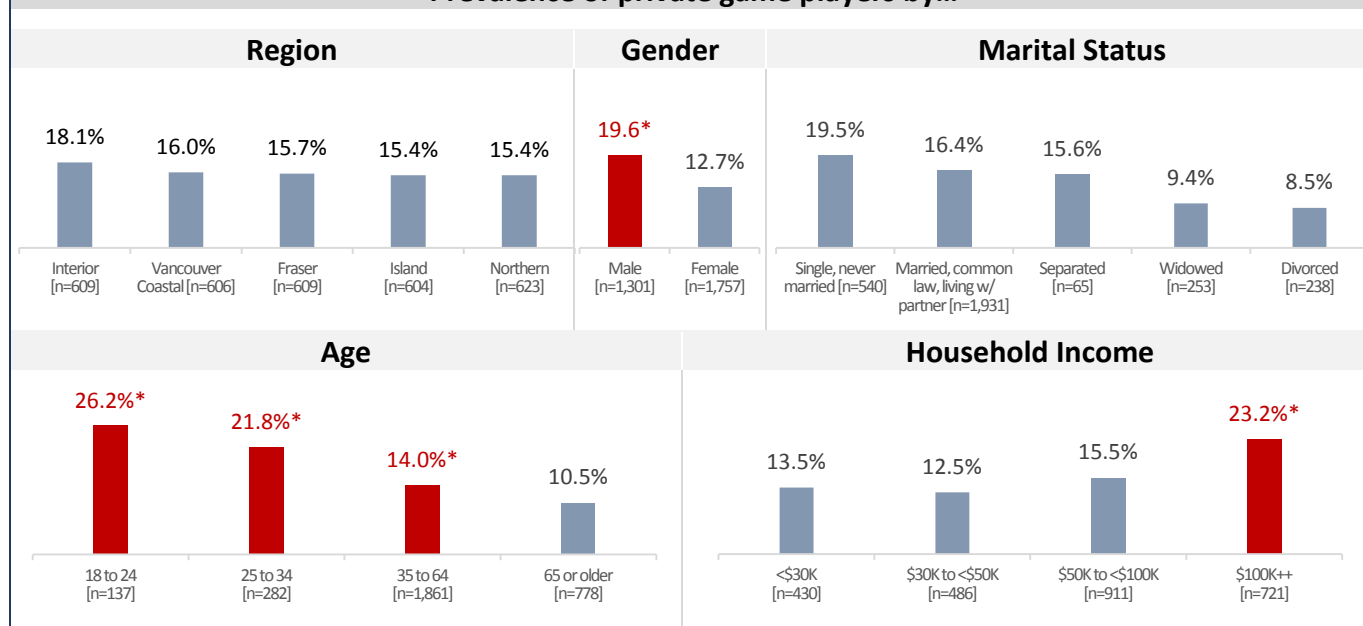
## Private Games – 2014 Profile

About **1 in 6** British Columbians play **Private Games** (e.g. Cards, Dice, or Dominoes).<sup>1</sup>  
Of those who do, over **3 out of 4** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Private Game Players</b> [n=432]	77.7%	14.4%	6.3%	1.6%
<b>All Gamblers</b> [n=2,241]	84.6%	10.9%	3.6%	1.0%

### Prevalence of private game players by...



Most likely profile of private game players:

**Males** who are **18 to 24 years old**.

The prevalence rate of private game players in this segment [34.0%] is statistically higher than the provincial rate of 16.6%.

### Private game players' behaviour and perspectives on gambling

#### Gambling alone vs. accompanied [n=427]

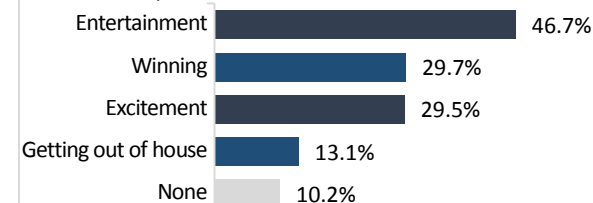


#### Drug, alcohol use while gambling [n=390]



#### Perceived benefits from gambling\* [n=424]

\*Note: Multiple selection was allowed. Answers need not sum to 100%.



<sup>1</sup>Base: Total Sample, n=3,058

\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.

Source: 2014 BC Problem Gambling Prevalence Study

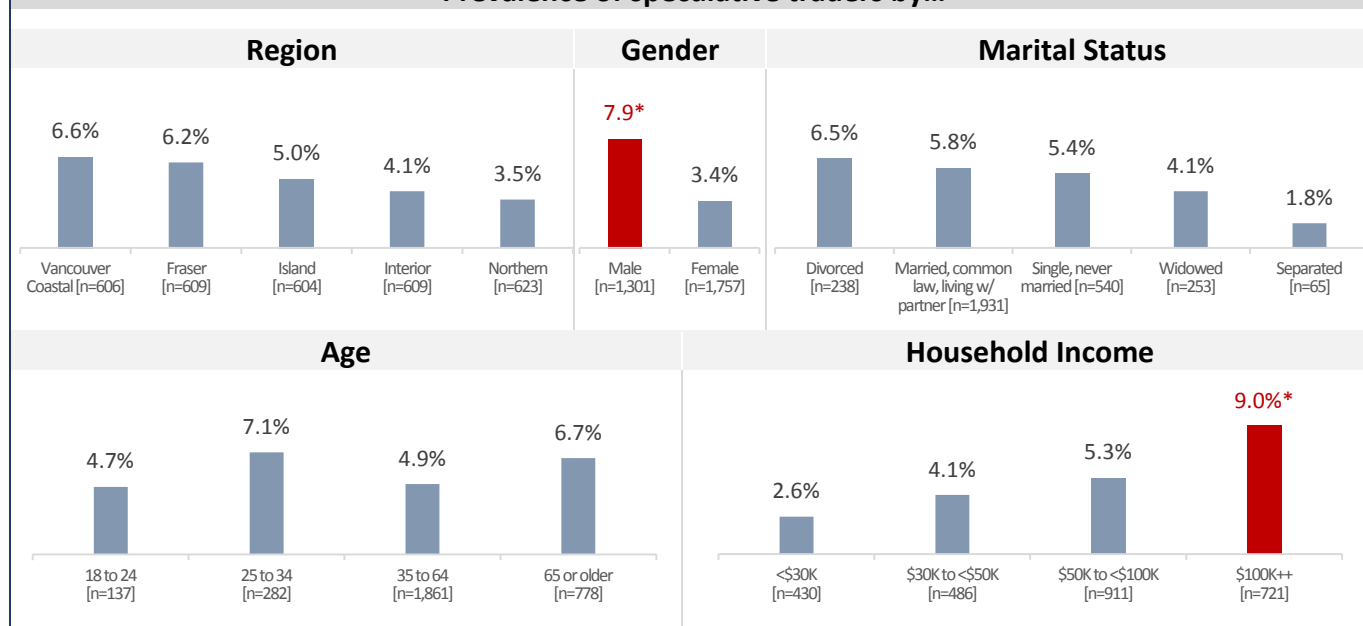
## Short-term Speculative Trading – 2014 Profile

About **1 in 20** British Columbians engage in **Short-Term Speculative Trading**.<sup>1</sup>  
Of those who do, over **2 out of 3** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Speculative Traders</b> [n=145]	69.0%	18.7%	12.3%	0.0%
<b>All Gamblers</b> [n=2,241]	84.6%	10.9%	3.6%	1.0%

### Prevalence of speculative traders by...

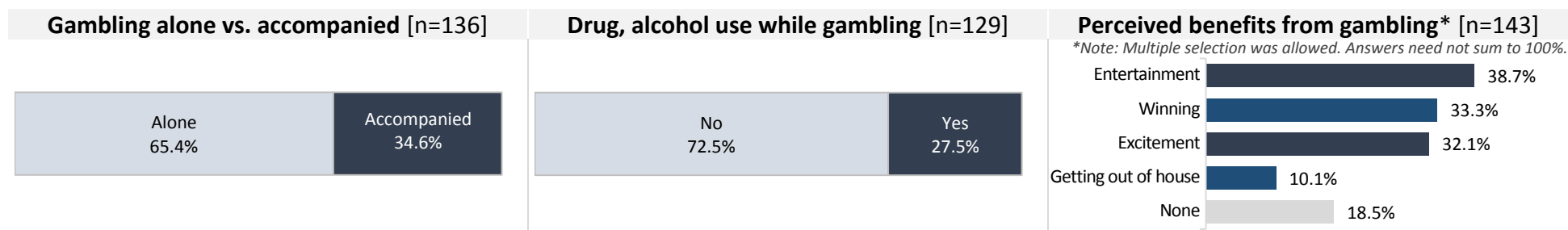


**Most likely profile of speculative traders:**

**Single males with a household income of \$100K or more.**

*The prevalence rate of speculative traders in this segment [21.0%] is statistically higher than the provincial rate of 5.6%.*

### Speculative traders' behaviour and perspectives on gambling



<sup>1</sup>Base: Total Sample, n=3,058

*\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.*

Source: 2014 BC Problem Gambling Prevalence Study



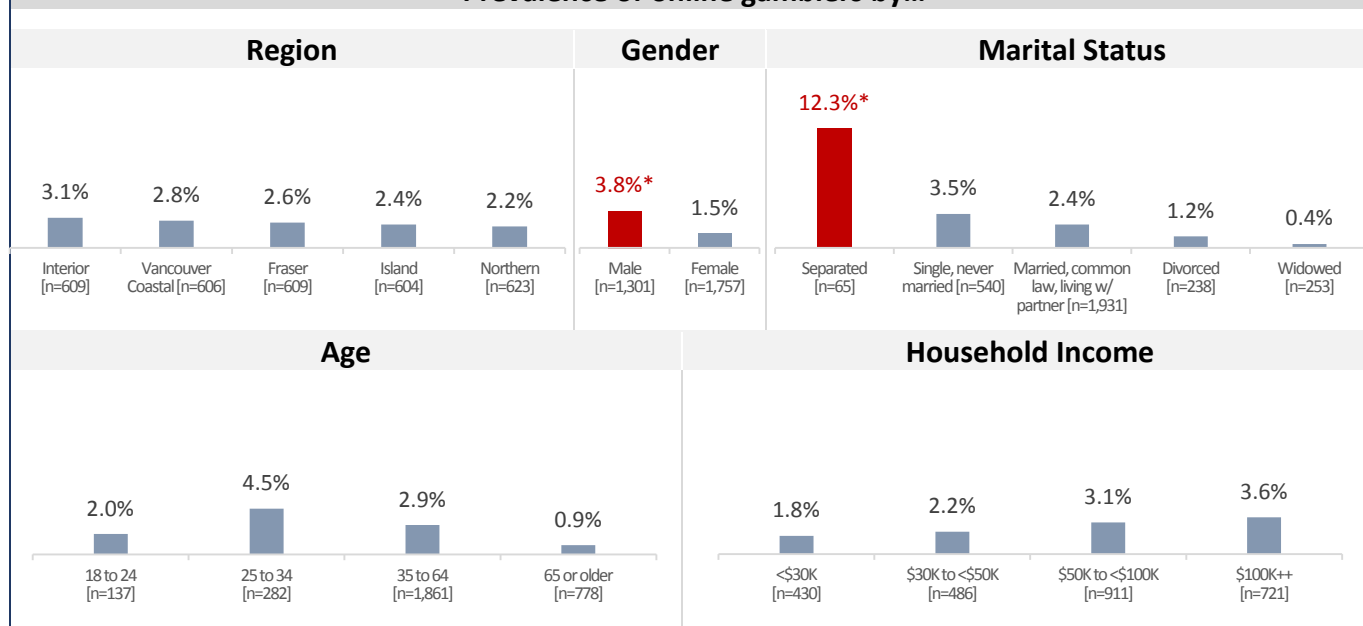
## Internet Gambling – 2014 Profile

About **1 in 35** British Columbians gamble using the **Internet**.<sup>1</sup>  
Of those who do, almost **3 out of 4** do so responsibly.

### Problem gambling prevalence among...

	Non-problem gamblers	Low-risk gamblers	Moderate-risk gamblers	Problem gamblers
<b>Online Gamblers</b> [n=70]	70.4%	11.1%	12.3%	6.2%
<b>All Gamblers</b> [n=2,241]	84.6%	10.9%	3.6%	1.0%

### Prevalence of online gamblers by...

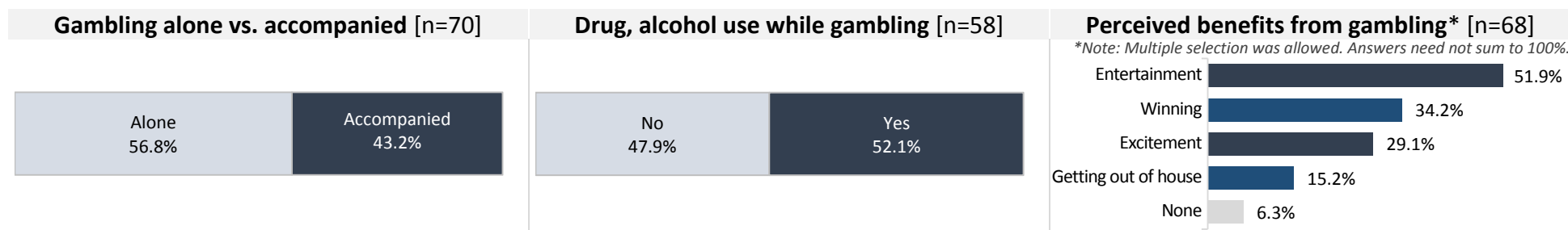


Most likely profile of online gamblers:

**Single males with a household income of \$100K or more.**

*The prevalence rate of online gamblers in this segment [12.7%] is statistically higher than the provincial rate of 2.8%.*

### Online gamblers' behaviour and perspectives on gambling



<sup>1</sup>Base: Total Sample, n=3,058

*\*Note: Red bars indicate a statistically higher percentage than that of other sub-groups.*

Source: 2014 BC Problem Gambling Prevalence Study

## **Appendix D: Problem Gambling Severity Index Scores**

## Problem Gambling Severity Index (PGSI)

The Problem Gambling Severity Index (PGSI) is a 9-item assessment tool designed to identify problem gambling risk and is derived from the CPGI. PGSI scoring is based on a 4-point scale, where “never” scores 0, “sometimes” scores 1, “most of the time” scores 2, and “almost always” scores 3. Based on the summed value of these scores, problem gambling risk assessment categories for this report are assigned as follows:

- 0 = Non-problem gambling
- 1-2 = Low level of problems with few or no identified negative consequences (low-risk)
- 3-7 = Moderate level of problems leading to some negative consequences (moderate-risk)
- 8 or more = Problem gambling with negative consequences and a possible loss of control (high-risk)

### PGSI Question 1

Thinking about the last 12 months, have you bet more than you could really afford to lose?

Scale	All Gamblers (n = 2,244)	Non-problem Gamblers (n = 1,918)	Low-risk Gamblers (n = 225)	Moderate-risk Gamblers (n = 80)	High-risk Gamblers (n = 19)
Never	94.5%	100.0%	75.4%	49.2%	11.1%
Sometimes	4.7%	--	24.1%	41.0%	65.1%
Most of the time	0.2%	--	--	4.9%	3.1%
Almost always	0.4%	--	--	4.9%	20.8%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data.

Note: "--" denotes insufficient data available to report.

### PGSI Question 2

Thinking about the last 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?

Scale	All Gamblers (n = 2,244)	Non-problem Gamblers (n = 1,918)	Low-risk Gamblers (n = 225)	Moderate-risk Gamblers (n = 80)	High-risk Gamblers (n = 19)
Never	96.7%	99.8%	89.5%	66.5%	33.1%
Sometimes	2.3%	--	10.1%	28.1%	20.9%
Most of the time	0.3%	--	--	4.6%	9.3%
Almost always	0.4%	--	--	0.9%	36.7%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data.

Note: "--" denotes insufficient data available to report.

### PGSI Question 3

Thinking about the last 12 months, when you gambled, did you go back another day to win back the money you lost?

Scale	All Gamblers (n = 2,244)	Non-problem Gamblers (n = 1,918)	Low-risk Gamblers (n = 225)	Moderate-risk Gamblers (n = 80)	High-risk Gamblers (n = 19)
Never	94.4%	99.9%	70.8%	57.3%	35.4%
Sometimes	4.4%	--	27.1%	38.4%	11.6%
Most of the time	0.3%	--	1.5%	2.3%	6.7%
Almost always	0.5%	--	--	2.0%	40.3%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data.

Note: "--" denotes insufficient data available to report.

### PGSI Question 4

Thinking about the last 12 months, have you borrowed money or sold anything to get money to gamble?

Scale	All Gamblers (n = 2,244)	Non-problem Gamblers (n = 1,918)	Low-risk Gamblers (n = 225)	Moderate-risk Gamblers (n = 80)	High-risk Gamblers (n = 19)
Never	98.7%	99.9%	98.5%	87.6%	98.7%
Sometimes	1.1%	--	1.4%	10.6%	1.1%
Most of the time	--	--	0.1%	--	--
Almost always	0.1%	--	--	1.8%	1.3%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data.

Note: "--" denotes insufficient data available to report.

### PGSI Question 5

Thinking about the last 12 months, have you felt that you might have a problem with gambling?

Scale	All Gamblers (n = 2,244)	Non-problem Gamblers (n = 1,918)	Low-risk Gamblers (n = 225)	Moderate-risk Gamblers (n = 80)	High-risk Gamblers (n = 19)
Never	98.0%	100.0%	96.1%	73.4%	46.9%
Sometimes	1.4%	--	3.2%	23.1%	22.5%
Most of the time	0.1%	--	--	1.7%	8.8%
Almost always	0.3%	--	--	1.9%	21.8%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data.

Note: "--" denotes insufficient data available to report.

#### PGSI Question 6

Thinking about the last 12 months, has gambling caused you any health problems, including stress or anxiety?

Scale	All Gamblers (n = 2,244)	Non-problem Gamblers (n = 1,918)	Low-risk Gamblers (n = 225)	Moderate-risk Gamblers (n = 80)	High-risk Gamblers (n = 19)
Never	97.1%	100.0%	91.4%	67.4%	31.0%
Sometimes	1.9%	--	8.4%	24.2%	14.8%
Most of the time	0.3%	--	--	4.5%	18.0%
Almost always	0.5%	--	--	3.8%	36.2%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data.

Note: "--" denotes insufficient data available to report.

#### PGSI Question 7

Thinking about the last 12 months, have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?

Scale	All Gamblers (n = 2,244)	Non-problem Gamblers (n = 1,918)	Low-risk Gamblers (n = 225)	Moderate-risk Gamblers (n = 80)	High-risk Gamblers (n = 19)
Never	97.7%	100.0%	94.2%	67.0%	62.8%
Sometimes	1.8%	--	5.2%	30.6%	14.5%
Most of the time	0.1%	--	0.6%	1.6%	1.0%
Almost always	0.2%	--	--	0.8%	21.7%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data.

Note: "--" denotes insufficient data available to report.

#### PGSI Question 8

Thinking about the last 12 months, has your gambling caused you financial problems for you or your household?

Scale	All Gamblers (n = 2,244)	Non-problem Gamblers (n = 1,918)	Low-risk Gamblers (n = 225)	Moderate-risk Gamblers (n = 80)	High-risk Gamblers (n = 19)
Never	98.6%	99.9%	97.9%	92.5%	29.3%
Sometimes	0.6%	--	2.1%	5.7%	21.8%
Most of the time	0.2%	--	--	--	22.4%
Almost always	0.3%	--	--	1.8%	26.5%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data.

Note: "--" denotes insufficient data available to report.

**PGSI Question 9**

**Thinking about the last 12 months, have you felt guilty about the way you gamble or what happens when you gamble?**

<b>Scale</b>	<b>All Gamblers (n = 2,244)</b>	<b>Non-problem Gamblers (n = 1,918)</b>	<b>Low-risk Gamblers (n = 225)</b>	<b>Moderate-risk Gamblers (n = 80)</b>	<b>High-risk Gamblers (n = 19)</b>
Never	92.7%	99.9%	61.7%	43.9%	1.0%
Sometimes	5.9%	--	37.6%	36.4%	51.0%
Most of the time	0.4%	--	0.7%	6.5%	11.7%
Almost always	0.8%	--	--	13.1%	36.2%

Source: 2014 B.C. Problem Gambling Prevalence Survey. All reported n's are unweighted values. All estimates and rankings are based on weighted data.

Note: "--" denotes insufficient data available to report.

## **Appendix E: Regression Model Statistics**



### Logistic Regression - At Risk/Problem Gambler (1) versus Non-Problem Gambler (0)

		Odds Ratio	95% C.I.		p value
			Lower	Upper	
Health Region	Vancouver Coastal				.845
	Fraser	.956	.679	1.344	.794
	Interior	.839	.547	1.287	.422
	Island	.952	.631	1.438	.816
	Northern	1.174	.667	2.064	.578
Age Group	18 to 24				.023
	25 to 34	.680	.396	1.167	.162
	35 to 64	.466	.274	.795	.005
	65 or older	.396	.195	.804	.010
Gender (male)		1.838	1.379	2.448	.000
Marital Status	Married or common law				.588
	Living with partner, but not common law	1.258	.350	4.519	.725
	Widowed	1.497	.840	2.669	.171
	Divorced	.996	.558	1.777	.988
	Separated	1.395	.605	3.218	.435
	Single or never married	.842	.559	1.269	.411
Ethnicity	European				.000
	Aboriginal, Inuit, Métis	1.592	.922	2.746	.095
	Asian (Eastern)	2.304	1.362	3.900	.002
	Asian (Southern)	1.975	1.049	3.717	.035
	Canadian	.889	.414	1.907	.762
	Other	3.596	2.090	6.189	.000
Education Level	High school or less				.204
	Post-secondary trade or technical school	.756	.456	1.256	.280
	Some college or university	.915	.597	1.404	.686
	Completed college	1.111	.733	1.685	.619
	Completed university	.695	.467	1.032	.071
	Post-graduate degree	.678	.395	1.162	.157

		Odds Ratio	95% C.I.		p value
			Lower	Upper	
Employment status	Employment full-time				.022
	Employment part-time	1.746	1.062	2.869	.028
	Self-employed	1.150	.718	1.841	.560
	Unemployed	1.341	.670	2.681	.407
	Student	1.271	.637	2.535	.496
	Retired/Semi-retired	1.941	1.186	3.179	.008
	Homemaker	2.865	1.480	5.544	.002
	Other	1.342	.601	2.994	.473
Number of Dependent		1.030	.895	1.185	.682
Household Income	\$100,000 or more				.239
	Under \$30,000	1.089	.666	1.780	.734
	\$30,000 to \$49,999	.953	.606	1.500	.836
	\$50,000 to \$99,999	.764	.532	1.095	.143
	No Reported Income	.699	.423	1.154	.162
Mood Disorder		2.130	1.401	3.238	.000
Anxiety Disorder		1.920	1.246	2.959	.003
Suicide		1.887	1.251	2.847	.002
Drink 5 or more		1.017	.763	1.356	.908
Used Drug	Never in your lifetime				.328
	Used in the past 12 months	1.350	.878	2.076	.172
	Never in the past 12 months	1.173	.875	1.574	.286

Model Summary: Model Chi-Square = 183.468, df = 41,  $p < .001$ , n = 2,118.