

*Manitoba Gambling and
Problem Gambling
2006*

Jackie Lemaire, M.Sc.

Terri-Lynn MacKay, M.A.

&

David Patton, Ph.D.

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Addictions Foundation of Manitoba

The Addictions Foundation of Manitoba is responsible for providing rehabilitation and prevention services for Manitoba citizens relating to substance use and problem gambling. *The aim of our research is to better inform rehabilitation practice, public education, and health policy.* Research fostered by the Foundation contributes to a better understanding of how individuals, families, and communities can most effectively respond to harm associated with substance use and problem gambling.

Vision:

Manitobans living free from the harm of alcohol, other drugs and gambling.

Mission:

To enhance the health of Manitobans by reducing the harm of alcohol, other drugs and gambling through leadership in education, prevention, rehabilitation and research.

Values:

We believe our greatest strength and asset is our staff, and acknowledge their contributions and passion in supporting the following organizational values:

- The dignity and diversity of each individual;
- The capacity of clients and our community for change;
- Collaborative relationships with stakeholders, partners and the self-help community;
- Continuous improvement and best practices;
- A continuum of services and programs; and
- A safe and respectful work environment.

For more information on this report, contact Jackie Lemaire at jlemaire@afm.mb.ca.



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Executive Summary

It is part of the Addictions Foundation of Manitoba (AFM)'s mission to conduct gambling research with the goal of contributing to the reduction of harm associated with at-risk and problem gambling.

This report presents the findings of the Manitoba Gambling and Problem Gambling Prevalence Study from 2006. The purpose of this study was to explore the nature and extent of gambling and gambling problems in Manitoba in addition to describing the characteristics of individuals experiencing gambling-related problems. This telephone survey was conducted with a sample of 6,007 adults 18 years and older in the province.

The Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI) questionnaire is the current gold standard for measuring problem gambling in the general population. This 9-item index was used to identify 5 groups in the population: non-gamblers, non-problem gamblers, low-risk, moderate-risk and problem gamblers. The last prevalence report in Manitoba was completed in 2001 with a sample size of 3119. At that time, 1.1% of respondents were considered problem gamblers and 2.3% moderate-risk gamblers. Where appropriate, comparisons to the 2001 prevalence study were made. The following is a summary of the highlights from this report.

Adult Gambling Patterns

- Overall, the majority of Manitobans have gambled in the past year (85.6%). The gambling participation rate in the province has not changed since 2001.
- Men and women are equally likely to gamble. Those with lower personal incomes were less likely to report past year gambling. Manitobans who are currently married or in a common-law relationship were more likely to gamble.
- The most popular form of gambling in Manitoba is raffle and fundraising tickets, and the second most popular form is lottery tickets. Gambling on Video Lotto Terminals (VLTs) is also quite popular with 27.7% reporting to do so in the past year. Approximately 24% of gamblers play slot machines in a casino.

- The activity which gamblers spend the most money per month is dice/cards¹ in a casino at \$40/month². Lottery tickets, pools and raffles appear to cost the least amount at around \$5-\$8/month.
- On average, horse racing and card games (not in the casino or the Internet) are costing gamblers 3 hours per session.
- Approximately 91% of respondents in the Northern region of Manitoba gambled on at least one activity in the past year compared to 85% of individuals from both Winnipeg and the Western region. The most popular gambling activities are similar across the regions. These include raffles/fundraising, lottery tickets, scratch tickets/instant wins and VLTs.
- Compared to the other regions, respondents from the North were more likely to engage in VLT gambling, card games (not in the casino or the Internet) and bingo. For example, 35.3% of Northern respondents gamble on VLTs, compared to 27.9% and 24.5% in Winnipeg and the West, respectively. Respondents from the Winnipeg region were more likely to engage in slot machine gambling.

Adult Problem Gambling

- Using the PGSI, it is estimated that 9.6% of the adult population are 'low-risk' gamblers, 4.7% are 'moderate-risk' gamblers and a further 1.4% are 'problem gamblers'. The majority of Manitobans fall into the 'non-gambling' (14.4%) and 'non-problem gambling' categories (69.9%). Overall, these rates are slightly higher than the Canadian provincial average but comparable to the average figures in the Prairie Provinces.
- With regards to age, the 18-24 year olds were significantly over-represented in the problem gambling group. Approximately, 50% of problem gamblers are either 18-24 or 46-54³ years old. Younger adults in Manitoba have been known to be more at-risk of developing problems with their gambling (Patton, Brown, Dhaliwal, Pankratz & Broszeit, 2002) and this is also consistent with research in other jurisdictions (Wiebe, Mun & Kauffman, 2006).
- A higher proportion of problem gamblers reported personal income levels less than \$20,000 (37.2%) compared to 19.6%, 25.3% and 25.6% of non-problem, low-risk and moderate-risk gamblers, respectively.

¹ It should be noted that this question is typically used in prevalence surveys, and as such, was used in the Manitoba prevalence. However, Manitoba does not currently offer gambling on dice in the casino.

² The median was used to determine this monthly average.

³ This age group is most common in AFM's residential treatment program for problem gambling.

- Problem gamblers are equally likely to be male or female but males were significantly over-represented in the moderate-risk group. Being single, separated/divorced, working part-time and/or being unemployed were also over-represented in the problem gambling group. Education was also related to severity of problem gambling behaviors. Those individuals with less education (e.g. high school education or less) were more likely to have problems with their gambling.
- Although future research is warranted, problem gamblers from the general population appear to be distinct from the help-seeking clients in Manitoba.

Correlates of Problem Gambling

- There was a significant relationship between PGSI classification and consequences associated with alcohol use. Problem gamblers were more likely to report binge drinking (more than 6 drinks at one time) and more likely to having troubles stopping once they had started.
- Compared to 5.6% of the moderate-risk gamblers, 1.8% of the low-risk gamblers and 0.8% of the non-problem gamblers, 16.4% of problem gamblers have scores which are consistent with Zone IV (dependent use of alcohol) of the Alcohol Use Disorders Identification Test (AUDIT).
- Problem gamblers were more likely to report lifetime use of drugs (69.4%) compared to about half of both the moderate-risk (54.3%) and low-risk groups (52.3%), 38.5% of the non-problem gamblers and 20.2% of the non-gamblers. Likewise, problem gamblers were also more likely to report past year use of drugs in general compared to the other PGSI groups.
- Problem gamblers and those at risk of developing a problem with their gambling were more likely to report lifetime smoking, lifetime regular smoking and being a current regular smoker. Compared to 9% of non-gamblers, almost 50% of problem gamblers report being a current smoker.
- A significant relationship between PGSI category and mental health was discovered. Those at-risk for problem gambling (low-risk and moderate-risk) and problem gamblers were more likely to report feeling anxious and/or depressed in the past year.
- Of the problem gamblers, almost 43% of those experiencing depressive symptoms for two weeks were prescribed medication compared to 37.6% of those in the moderate-risk group, 25.7% of the low-risk gamblers, 28.1% of the non-problem gamblers and 27.4% of the non-gamblers.

- Problem gamblers were more likely to self-report suicidal ideation and attempts than any of the other PGSI groups. In fact, of those problem gamblers who reported suicidal ideation in their lifetime, 58% had attempted suicide compared to 30% of non-gamblers, 26.1% of non-problem gamblers, 28.4% of low-risk gamblers and 27.3% in the moderate-risk group.
- Ten respondents in Manitoba attributed their suicidal ideation or attempts to gambling behaviour with 70% of these individuals meeting the criteria for moderate-risk or problem gambling.
- Overall, the majority of respondents indicated that religion and/or spirituality was important to them. Non-gamblers were significantly more likely to identify this as important in their life.
- Problem gamblers were significantly more likely to rate their physical health as poor (17.6%) compared to all other groups (4.1%, 2.5%, 5.4% and 4.6% for non-gamblers, non-problem-gamblers, low-risk and moderate-risk, respectively).
- Almost half (45.2%) of problem gamblers reported that they had trouble sleeping because of their gambling. Past year gamblers in the moderate-risk (6.4%), low-risk (1.4%) and non-problem (0.1%) group were significantly less likely to having problems with their sleeping compared to problem gamblers.
- Level of education was inversely related to endorsement of gambling myths. For example, of those with an elementary/some high school education level, 46.1% agreed with the statement, "*The odds of winning on a slot machine or VLT change as you are playing*" compared to 30.3% with some post-secondary and 23.5% with an advanced degree. This research finding provides support for the importance of education in protecting individuals from the harmful effects of gambling.
- Problem gamblers were more likely to report playing VLTs (78.8%) in the past year compared to any other group. Problem gamblers were also more likely to play VLTs more frequently. For example, of the VLT playing problem gamblers, 68% report playing daily or weekly compared to 17% of those in the low-risk group.
- Problem gamblers spent significantly more money per month on certain gambling activities compared to the other groups.

Older Adults and Adults Affected by Gambling

- Although older adults are not over-represented in the at-risk and problem gambling groups, they tend to spend more time on specific activities compared to the non-older adult population. In addition, older adults spend more money at one time on VLT gambling.
- Overall, 35.6% of all respondents reported to know someone who may be experiencing problems with their gambling.
- There is a significant relationship between PGSI classification and knowing someone who may have a gambling problem. Approximately three-quarters of problem gamblers know someone with a potential problem compared to 57% of those in the moderate-risk group, 48% in the low-risk group, 34% in the non-problem gambling group and 26% in the non-gambling group.
- Overall, approximately 12% felt that they were affected by someone else's gambling in the past year. This proportion is significantly higher than the 8% from 2001.

Conclusions

- Preliminary results from Wiebe, Maitland, Hodgins, Davey, & Gottlieb (2007) show that low-risk and moderate-risk gamblers in Manitoba tend to move to less problematic forms of gambling over time, while problem gamblers are more likely to remain in the same group.
- This is the most extensive gambling prevalence study to be conducted in Manitoba in the past 5 years. Compared to the 2001 prevalence results, we have found an increase in low-risk and moderate-risk gambling problems in the province. However, the proportion of problem gamblers has not increased since the last study (1.1% in 2001 compared to 1.4% in 2006).
- Although the AFM will continue to monitor its gambling program client statistics in addition to conducting population studies, the gambling research agenda will need to consider the underlying causes of problem gambling. Longitudinal design will be of utmost importance in addition to any studies exploring problem gambling determinants.

Introduction

The steady expansion of legalized gambling and the introduction of many new forms and varieties have made gambling a multi-billion dollar industry in Canada. Concomitant with this increase has been growing concern about the impact of the widespread availability of gambling opportunities. In an ongoing effort to enhance the health of Manitobans, the Addictions Foundation of Manitoba (AFM) endeavors to reduce the harm and address the impact of gambling through leadership in education, prevention, rehabilitation and research. In accordance with this mandate, AFM routinely conducts surveys of gambling and problem gambling behaviours among Manitoba adults. This report summarizes the 2006 survey findings.

Gambling and Problem Gambling Prevalence in Manitoba

Cox, Yu, Afifi & Ladouceur (2005) investigated the past year prevalence of gambling problems using data from the 2002 Canadian Community Health Survey. Manitoba and Saskatchewan had the highest prevalence of gambling problems (moderate-risk and problem rates combined) at 2.9%. Quebec (1.7%) and New Brunswick (1.5%) had the lowest prevalence of problem gambling. Overall, the 12 month prevalence of gambling problems in Canada was 2.0%. The highest prevalence of problem gambling emerged in areas with high concentrations of VLTs in the community, combined with permanent casinos. Manitoba had the second highest VLT rate at 5.3 per 1000 adults, next to Newfoundland at 6.2 VLTs per 1000 adults. Many of the Maritime Provinces do not have permanent casinos and this may have impacted their lower rates.

According to Marshall and Wynne (2003)'s exploration into problem gambling through a sample of 18,887 gamblers in the Canadian Community Health Survey (CCHS 1.2), Manitoba and Saskatchewan had considerably higher proportions of at-risk and problem gamblers compared to the other provinces. For example, it was estimated that Manitoba had 0.8% problem gamblers, 3.3% moderate-risk and 5.3% low-risk gamblers. The difference between the findings of Marshall and Wynne and Cox et al. is that the former refers to a proportion of gamblers; the latter is the proportion of the population. Contributing factors that were discussed included the highest VLT participation rates in Canada, the highest casino participation rates along with Ontario and above average Aboriginal populations⁴.

The most recent AFM adult gambling prevalence survey was completed in 2001 with a telephone survey exploring gambling involvement and problem gambling with 3119 Manitobans. The survey indicated that 85% of adults reported gambling in the previous year with the most popular gambling activity being

⁴ Studies that have included Aboriginal populations have consistently identified that the prevalence of gambling and problem gambling is much higher compared to non-Aboriginal groups (for a review see Wardman, el-Guebaly & Hodgins, 2001).

lotteries/scratch tickets. The survey also found that 2.3% of adult Manitobans were at moderate-risk for developing a gambling problem and an additional 1.1% were identified as problem gamblers as measured by the Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI). The survey also found that 8% of adult Manitobans reported having been affected by someone else's gambling. For a complete list of gambling and problem gambling prevalence surveys for all populations in Manitoba please see Appendix B: Manitoba Gambling and Problem Gambling Reports: 1993 to 2005.

From a public policy perspective the concern regarding gambling in Manitoba is that many individuals are at risk of becoming problem gamblers. Although there is considerable discussion as to whether this risk results in an increased probability of a clinical diagnosis (e.g., "pathological gambling") and is therefore a public health concern, from the perspective of the AFM we need to understand the significant consequences of problematic gambling. AFM is interested in contributing to a greater understanding of problem gambling, and by doing so, reducing the harm to individuals and communities.

Objectives for the 2006 Gambling Survey

In 2006, the AFM contracted PRA Inc. to conduct a telephone survey of over 6000 Manitoba adults about their gambling activity, including the prevalence of problem gambling behaviours.

The survey was designed on the following research objectives:

- Describe and evaluate the demographic characteristics of adults who gamble and those who do not,
- Describe and evaluate the types of gambling activities that Manitoba adults engage in ,
- Examine gambling beliefs in the adult population,
- Describe and evaluate problem gambling behaviour,
- Compare the research findings to the 2001 gambling survey findings (where appropriate),
- Examine problem gambling correlates, and
- Make conclusions.

Methodology

Research Design

The purpose of this research is to examine and describe gambling behaviours, beliefs and correlates in the adult population of Manitoba. It also aims to measure the degree to which Manitobans may be at risk for developing problems with their gambling using various classifications of problem gambling risk, as outlined in the PGSI, a subscale of the CPGI. This examination forms the basis of the research questions that will be addressed in this report:

- What are the demographic differences in relation to PGSI classification?
- What are the common beliefs and misconceptions about gambling and how do these beliefs relate to problem gambling severity?
- What are the various types of gambling behaviours in which people engage, and to what extent are these behaviours causing personal and financial problems?
- How does gambling behaviour relate to alcohol use?
- How does gambling behaviour relate to use of other substances including tobacco, marijuana, cocaine, crystal meth and others?
- What is the physical health status of Manitoba adults in relation to problem gambling behaviour?
- What types of mental health problems are associated with problem gambling and to what extent are problems such as anxiety, depression and suicidality associated with problem gambling in Manitoba?
- How does spirituality affect a person's gambling behaviour?

Conclusions and the possible implications of this research will be given in response to these findings.

Sampling

Participants: A random sample of 6007 adult residents of Manitoba were contacted by PRA Inc., and asked for their agreement to complete a telephone survey. Signed consent was not required as the participants would have complete anonymity in their responding. See Appendix D for a full methodological report of the survey administration as described by PRA Inc.

Weighting: The data was weighted by gender, age and income in order to accurately represent the population of Manitoba. This means that the response of certain participants were counted as more or less than 1, in order to account for any misrepresentation that may have occurred in the randomization process.

Response rate: The survey response rate was 42.4%. The margin of error for the sample is +/- 1.29%, indicating accuracy 19 times out of 20.

Research Questionnaire

The questionnaire was developed by combining several different instruments that measure various activities, beliefs and cognitions.

The core of the questionnaire measures gambling involvement and is based on the CPGI. The complete CPGI is a 31 item measure designed to assess frequency of gambling behaviours and existence and severity of common problems associated with gambling. Within the CPGI is the 9 item PGSI. These 9 questions are used to classify people according to the severity of their gambling behaviour. This classification system will be further discussed in the subsequent section.

The remainder of the questionnaire measures several other dimensions. Demographic questions include gender, age, household and personal income, marital status, education level, employment status, and ethnicity⁵.

The Alcohol Use Disorders Identification Test (AUDIT) was included to measure degree of alcohol use, and several additional questions were asked about degree of use of other illicit substances.

Finally, a section of questions about mental health was included. These questions pertained to anxiety, depression, suicide ideation and attempts as well as spirituality.

For a summary and a brief description of all the categories of questions, see Table 1 (below). To view the complete survey tool, please refer to the author's contact information (page 2).

Table 1: Questionnaire Overview

Survey Category	Types of questions
Gambling Activity	Games played, frequency, duration per sitting, amount spent per month, largest amount ever spent, age when first played, who commonly gambled with, reasons for gambling.
Risk factors	Remembering a big win/loss, gambling myths (staying at one machine will increase you chances of winning, having a system increases chances of winning, if you've been losing for awhile you're

⁵ Due to the small number of individuals in some ethnic groups population estimates are unstable and therefore will not be presented.

	due for a win, etc).
PGSI items	Betting more than you could afford to lose, chasing losses, borrowing money to gamble, felt you have a gambling problem, been criticized for your gambling behaviour, felt guilty about your gambling, etc.
Alcohol use	AUDIT – a standardized scale used to gain information about severity of alcohol use.
Other substance use	Questions regarding use of tobacco, marijuana, cocaine, hallucinogens, heroin, crystal meth, etc.
Mental health	Questions regarding anxiety, depression, suicide ideation and attempts and prescriptions.
Spirituality	Question regarding importance of spirituality.
Demographics	Age, gender, marital status, income, education, and ethnicity.

Measurement of problem gambling and identification of gambling subtypes

The major goal of this research is to identify the prevalence rate of problem gambling in Manitoba, and to measure this information against several other dimensions. To accomplish this, problem gambling must be defined by a predetermined, valid method. Non-gamblers are defined as people who have not gambled in the past 12 months or ever. A gambler is defined as someone who has bet or spent money on any gambling activity in the past 12 months. The PGSI is used to classify gamblers into one of four possible categories: non-problem, low-risk, moderate-risk, and problem gambling. The PGSI includes 9 items, listed in the box below.

Table 2: PGSI Questions

Problem Gambling Severity Index Questions	
#	In the past 12 months how often have you...
1	bet more than you could really afford to lose?
2	needed to gamble with larger amounts of money to get the same feeling of excitement?
3	gone back another day to try to win back the money you lost?
4	borrowed money or sold something to get money to gamble?
5	felt that you might have a problem with gambling?
6	been criticized about you betting or been told that you had a gambling problem,

	regardless of whether or not you thought it was true?
7	felt guilty about the way you gamble or what happens when you gamble?
8	found that gambling caused you any health problems, including stress or anxiety?
9	found that your gambling has caused any financial problems for you or your household?

Each of these questions is answered in one of four ways: never, sometimes, most of the time and almost always. The PGSI is scored by summing the numbers associated with each response. Never = 0 points; Sometimes = 1 point; Most of the time = 2 points; Almost always = 3 points. The cutoffs for each category of problem gambling behaviour are listed in the table below.

Table 3: PGSI Scoring

PGSI Scoring	
Score	Category
0	Non-problem
1-2	Low-risk
3-7	Moderate-risk
8+	Problem gambling

Non-problem is identified as people who answered “never” to all the items on the PGSI, but said “yes” to having bet or spent money on at least one gambling activity in the last 12 months. Non-gamblers have not bet or spent money on any gambling activity in the past 12 months, and therefore, the questions on the PGSI do not apply to them.

Throughout the remainder of this report, various correlations and data is presented as a function of these classifications.

Statistical Analysis

Participant responses to each question were entered directly into a computer system by the interviewer at the point of response. Data was converted into a Statistical Package for the Social Sciences (SPSS) data file.

The data was analyzed by calculating frequencies and percentages and doing categorical comparisons. As the majority of the variables in this survey were ordinal, the chi-square test of independence was used to evaluate group differences. The adjusted standard residuals for each cell were used to identify the groups that differed from the total group (std. residual > |2|). In situations where the cells were quite small (the expected value < 1) or where 20% of the total cells were less than 5, categories were combined to increase the power of the analyses and to increase the validity of the test. Although not formally noted

within the report, if a relationship is deemed 'significant' the reader can assume statistical significance levels of at least $p < .05$.

The results of the analysis are presented in the remainder of the report in text, tables, and graphs. In some cases, the total does not equal 100% due to rounding, participants being allowed multiple responses or due to missing data such as "no response" and "I don't know" responding. Furthermore, results presented throughout this report at the overall provincial level are weighted, meaning that the n's for each response do not always add up to the total N's that are presented.

Adult Gambling Patterns

Who are the gamblers in Manitoba?

Demographics of Gamblers vs. Non-Gamblers

Overall, the majority of respondents (85.6%) gambled in the past year with only 14.4% of Manitobans reporting no gambling behaviours. For this section several demographics were explored: gender, age, income, marital status, education level, and employment status. While many of the demographic variables were similar when comparing gamblers to non-gamblers, the following section reports on some of the interesting findings noted in each of the categories.

Gender

Although there are approximately 8% more female non-gamblers than there are male non-gamblers, there were no gender differences in gambling participation rates.

Age

While there are few differences in the proportion of gamblers in different age groups there are some interesting trends. Those individuals between the ages of 25 and 64 were over-represented in gambling activities compared to the other age groups. For example, the age groups of 18-24 and 65+ were less likely to gamble. These age groups are often associated with lower incomes and/or less access to financial resources.

Income

Comparing the annual income of gamblers to non-gamblers provides information on the relationship between how much money is earned and the engagement in gambling activities. Previous prevalence research has found that those who earn less income are more likely to refrain from gambling (MarketQuest Research Group Inc., 2005).

Likewise, in Manitoba those that earn less than \$20,000 per year (30.5%) were more likely to be non-gamblers compared to their gambling counterparts. Fifty-five percents of non-gamblers earn less than \$40,000 annually. Seventeen percent of gamblers fall into the \$40,000-\$60,000 income level while only 10% of non-gamblers fall in this category. Last, 11.5% of gamblers earn over \$60,000 per year, while only 5.9% of non-gamblers earn this amount. Those who are retired or on disability leave comprise a very small proportion in both groups and those with no income are twice as prevalent in the non-gambling population as in the gambling population. Interestingly, 23.9% of non-gamblers were disinclined to divulge their income, while only 15.5% of gamblers refused this request.

Marital Status

Gamblers are more likely to be married or in a common-law relationship. A couple of notable differences include 6% of gamblers being in a common-law relationship compared to only 2% of their non-gambling counterparts. Almost 12% of non-gamblers are widowed compared to nearly double the proportion of widowed gamblers (6.3%).

Education

Level of education is significantly related to gambling participation. While over 20% of non-gamblers do not have a high school diploma, only 13% of gamblers are at the same educational level. Those who have post secondary degrees from a college, university or technical school make up 40% of the gambling population and only 30% of the non-gambling population.

Employment Status

Most gamblers are employed full time (53%), while only 36.5% of non-gamblers have full time employment. A large proportion of non-gamblers are retired (32.3%), while there are approximately 10% fewer retired gamblers (21.9%).

What are the common gambling activities in Manitoba?

Frequency of Gambling Activities

The most popular forms of gambling are buying raffle, fundraising and lottery tickets. About 75% of all gamblers bought lottery tickets or raffle/fundraising tickets in the past year. Playing Video Lotto Terminals (VLTs) is the 4th most common gambling activity among Manitobans, with nearly 28% of gamblers saying they had spent money on VLTs in the last 12 months. Nearly 24% of gamblers play slot machines in a casino. It is also important to know if these people are playing in casinos nearby or if they are heading out of the province to play. Most of the people spending money in casinos on slot machines play in Manitoba (77%). Only 23% of those players do so outside the province. Another popular form of gambling is playing card games outside of casinos (for example, poker leagues or playing cards at home with friends). Eighteen percent of Manitoba gamblers engage in this activity. An increase in the amount of online betting rooms has caused Internet gambling to be included in this survey, though it seems that only 1.5% of gamblers actually spend money on Internet gambling. Some respondents reported other forms of betting that were not included formally in the survey. Just over one percent of people bet money on various activities such as reality TV show pools, baby pools and other various informal activities. The table on the next page has gambling activities listed from most to least common in Manitoba.

Table 4: Frequency of Gambling Activities

	Gambled in the Past Year N = 5142	
	Frequency	%
Raffle / Fundraising Tickets	3874	75.3
Lottery Tickets	3826	74.4
Scratch Tickets / Instant Win	2146	41.7
Video Lottery Terminals in r/b/l ⁶	1425	27.7
Slots in a Casino	1228	23.9
<i>in Manitoba</i>	941	76.6
<i>outside of Manitoba</i>	274	22.4
<i>no response</i>	13	1.0
<i>total</i>	1228	100.0
Card Games not in Casino	928	18.0
Bingo	662	12.9
Sports Pools	627	12.2
Horse Races	374	7.3
Sport Select	341	6.6
Dice / Card Games in a Casino	328	6.4
Outcome of Professional Sporting Events	316	6.1
Internet Gambling	76	1.5
Other Forms of Gambling	66	1.3
Sports with a Bookie	8	0.2

*Note – Past year gamblers.

Several pieces of information were collected on each gambling activity (e.g. time spent per session, age first started gambling, and other contextual factors). This information is captured in ‘gambling activity profiles’ and a summary of the information is provided in Appendix C.

Gambling and Spending

One of the potential consequences of problem gambling is the financial impacts on individuals and families. These effects include using payday loans, not being able to pay the bills, taking credit card advances out and paying large interest fees and being in debt. To get a more complete picture of gambling in Manitoba it is also important to look at how much individuals are spending on their gambling activities. Tables 5 and 6 (pages 20-22) and the next summarize the median amount of money spent (out of pocket) on gambling per month and at one time on each activity. The spending data usually contains a few extreme values, as

⁶ Restaurant, bar, lounge.

there are a few individuals who report that they spend quite a large amount of money on gambling. Extreme values can skew the average or the mean, making it larger or smaller than it normally would have been without those values. As a result, the median (the number separating the higher half of a sample from the lower half) may be considered a better measure of spending than the mean. According to the median, the form of gambling which respondents spend the most per month (Table 5) is dice/cards in a casino at \$40/month. Purchasing lottery tickets, playing sports pools and fundraisers/raffles appear to cost the least amount, at around \$5-\$8/month.

Some of the sample sizes (e.g. the number of people Internet gambling, or betting on sports using a bookie) are rather small so the results should be interpreted with caution.

Table 5: Money Spent on Gambling Per Month

Money* Spent on Gambling Per Month				
Gambling Activity	Frequency	Range	Mean	Median
Instant/Scratch Tickets	2115	Less than \$1 - \$1500	\$9.89	\$5.00
Raffle/Fundraising Tickets	3771	Less than \$1 - \$1000	\$11.03	\$5.00
Sports Pools	618	Less than \$1 - \$400	\$13.29	\$5.00
Lottery Tickets	3762	Less than \$1 - \$2000	\$18.12	\$8.00
Outcome PSE ⁷	305	Less than \$1 - \$400	\$21.64	\$8.52
Card games not in casino or Internet	911	Less than \$1 - \$5000	\$46.63	\$10.00
Bet on Sports using a Bookie	8	\$4 - \$100	\$29.54	\$10.97
Sports Select	336	Less than \$1 - \$2000	\$34.53	\$12.00
Others	61	Less than \$1 - \$40000	\$976.07	\$14.08
Bingo	648	Less than \$1 - \$20000	\$50.58	\$19.40
Internet	74	Less than \$1 - \$12000	\$447.56	\$20.00
Horse Racing	366	Less than \$1 - \$1600	\$45.28	\$20.00
Slots in a casino	1190	Less than \$1 - \$5000	\$58.20	\$20.00
VLTs in a r/b/l	1384	Less than \$1 - \$50000	\$103.76	\$20.00

⁷ Professional Sporting Event.

Dice/cards in a casino	323	Less than \$1 - \$10000	\$123.87	\$40.00
*Note - Money spent is "money that is spent out of pocket, and does not include money won and then spent".				

Table 6 shows that the gambling activity which respondents spend the most at one time is betting on sports with a bookie⁸ at just over sixty dollars, however, very few individuals engage in this activity and the results should be interpreted with caution because of the small sample. The next highest amount spent at one time (\$50) was gambling on dice/cards in a casino. Lottery tickets, pools and raffles cost the least amount at around \$5-\$10 at one time. Money spent on all activities at one time ranged from less than \$1 to \$20,000.

Table 6: Money Spent on Gambling at One Time

Money* Spent on Gambling at One Time				
Gambling Activity	Frequency	Range	Mean	Median
Instant/Scratch Tickets	2134	Less than \$1 - \$500	\$9.08	\$5.00
Lottery Tickets	3799	Less than \$1 - \$416	\$10.02	\$5.00
Raffle/Fundraising Tickets	3837	Less than \$1 - \$800	\$18.69	\$8.24
Sports Pools	621	Less than \$1 - \$1000	\$18.67	\$10.00
Outcome PSE	311	Less than \$1 - \$1000	\$26.77	\$10.00
Sports Select	340	Less than \$1 - \$320	\$19.20	\$10.00
VLTs in a r/b/l	1414	Less than \$1 - \$1500	\$54.21	\$20.00
Others	61	Less than \$1 - \$20000	\$893.63	\$20.00
Horse Racing	373	Less than \$1 - \$3500	\$52.12	\$20.00
Card games not in casino or Internet	921	Less than \$1 - \$20000	\$65.14	\$20.00
Bingo	655	Less than \$1 - \$200	\$24.38	\$20.00
Internet	74	Less than \$1 - \$3000	\$119.76	\$20.57
Slots in a casino	1218	Less than \$1 - \$8000	\$72.36	\$25.00
Dice/cards in a casino	327	Less than \$1 - \$5000	\$138.97	\$50.00

⁸ Please note small sample size.

Bet on Sports using a Bookie	8	\$5 - \$300	\$82.92	\$62.26
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*Note - Money spent is "money that is spent out of pocket, and does not include money won and then spent".

Gambling and Time

Table 7 shows the time (in minutes) that gamblers in Manitoba spend per session on gambling activities. For example, horse racing and card games (not in the casino or the Internet) are costing gamblers 3 hours per session. Casino activities (slots and dice/cards), bingo and gambling on the Internet are also costing individuals a significant amount of time per session at 90 to 120 minutes. Although VLTs fit in among the lower range of time spent per session, of those individuals who spend 3 hours or more on these machines, more than half of them are moderate-risk and problem gamblers. These figures are a cause for concern considering research by Currie (2004) on low risk gambling guidelines which indicates that gambling on one activity for 60 minutes or more places an individual at greater risk of developing harms from their gambling.

Table 7: Time Spent on Gambling at One Time

Time* Spent on Gambling at One Time (minutes)			
Gambling Activity	Frequency	Mean	Median
Bet on Sports using a Bookie	8	22.88	5.30
Outcome PSE	316	141.96	15.00
VLTs in a r/b/l	1425	62.57	30.00
Sports Pools	627	169.24	30.00
Slots in a casino	1228	99.81	60.00
Dice/cards in a casino	328	116.08	90.00
Bingo	662	131.69	120.00
Internet	76	140.27	120.00
Horse Racing	374	172.20	180.00
Card games not in casino or Internet	928	192.89	180.00

*Note – Past year gamblers.

Gambling Activity by AFM Region

In order to provide services tailored to the unique needs of Manitobans, the AFM divided Manitoba into the following three regions: Winnipeg, the Western region and the Northern region. As a result, respondents in this survey were placed in a regional category that best described their location. Comparisons should be done with caution as each region is unique in regards to size, environment and many other factors.

Approximately 91% of respondents in the North gambled on at least one activity in the past year compared to 85% of individuals from both Winnipeg and the Western region of the province. Most regions report similar activities that were more popular, these included raffles/fundraising, lottery tickets, scratch tickets/instant wins and VLTs.

Compared to the other regions, respondents from the North are more likely to engage in VLT gambling, card games (not in the casino) and bingo. For example, 35.3% of Northern respondents gamble on VLTs, compared to 27.9% and 24.5% in Winnipeg and the West, respectively. About 20% of gamblers in the North play bingo, while 11.7% play in the West and 12.8% in Winnipeg.

There are a few activities that are more prevalent in the Winnipeg region than in the West and the North. Lottery tickets are played most frequently in Winnipeg (75%), this is 5% higher than the Western region and just over 7% higher than the North. Winnipeg respondents also play more slots in casinos than the other regions (25%, compared with 19% in the North and 17% in the West). Finally, 8.1% of gamblers in the Winnipeg region spend money on horse racing. Only around 3% of people in the Northern region and approximately 4% in the Western region have spent money on horse races in the past 12 months. This is likely due to the availability of large horse racing facilities in Winnipeg. The frequencies of other types of gambling activities are roughly similar among the three regions, with some small fluctuations. Table 8 on page 24 highlights the results of this section.

Table 8: Past Year Gambling Activities by Region

	Gambled in the Past Year N = 5142					
	Winnipeg n = 4228		North n = 187		West n = 727	
	f	%	f	%	f	%
Raffle / Fundraising Tickets	3128	74.0	151	80.8	594	81.7
Lottery Tickets	3189	75.4	127	67.9	510	70.2
Scratch Tickets / Instant Win	1754	41.5	84	44.9	308	42.4
Video Lottery Terminals in r/b/l	1181	27.9	66	35.3	178	24.5
Slots in a Casino	1069	25.3	36	19.3	123	16.9
Card Games not in Casino	743	17.6	51	27.3	133	18.3
Bingo	541	12.8	37	19.8	85	11.7
Sports Pools	524	12.4	22	11.8	81	11.1
Horse Races	343	8.1	5	2.7	26	3.6
Sport Select	300	7.0	12	6.4	29	4.0
Dice / Card Games in a Casino	277	6.6	13	7.0	38	5.2
Outcome of PSE	259	6.1	14	7.5	42	5.8
Internet Gambling	63	1.5	2	1.1	11	1.5
Other Forms of Gambling	52	1.2	10	5.4	4	0.6
Sports with a Bookie	8	0.2	0	0	0	0

*Note – Past year gamblers.

Problem Gambling in Manitoba

This section of the report explores the prevalence of problem gambling in Manitoba. It will also provide a profile of non-problem gamblers, low-risk, moderate-risk and problem gamblers in order to increase our understanding of those who may be at risk. Correlates of problem gambling such as substance use and abuse, mental health, physical health, gamblers' fallacies and myths, and remembering big wins and losses will also be discussed.

The PGSI Questions

The PGSI is a nine item instrument designed to measure the severity of gambling problems. The PGSI is part of a larger questionnaire (CPGI) exploring gambling and problem gambling involvement. The nine questions are used to classify people according to the severity of their gambling behaviour, ranging from levels classified as non-problem gambling to problem gambling. For more information on the questions, please see Table 2 on page 14.

The CPGI has received extensive psychometric testing and reliability has been shown to be good, with a co-efficient alpha of 0.84 (Ferris & Wynne, 2001). Test-retest reliability was acceptable at 0.78. In addition to other tests, the CPGI was compared to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and the South Oak Gambling Screen (SOGS). The CPGI was highly correlated with these measures at 0.83.

Prevalence of Problem Gambling in Manitoba Adults

As is shown by Figure 1 on page 28, the majority (84.3%) of Manitobans fall into the non-gambling (14.4%) and non-problem gambling categories (69.9%). Almost one in every ten (9.6%) Manitobans are considered low-risk gamblers, 4.7% are classified as moderate-risk gamblers, and 1.4% are considered problem gamblers. These rates are very comparable to the average rates within the Prairie Provinces from 2001 to 2006 (see Table 9 on page 26).

Comparison of Manitoba with other Canadian Provinces

Compared with other provinces these rates are slightly higher than the Canadian average. This is consistent with previous studies done across Canada which often report Manitoba and Saskatchewan with the highest rates gambling and also at-risk and problem gambling. Cox et al. (2005) and Marshall & Wynne (2002) have attributed the high rates to several reasons including the high concentration of VLTs in the province and the presence of permanent casinos (see Tables 9 and 10 on pages 26 and 27). However, that being said, the contributors to changes in gambling and problem gambling over time is a very complex issue and beyond the scope of this study.

Table 9: Prevalence of Gambling and Problem Gambling in Canada

Prov & Year	N	Non-gamb.	Non-prob.	Low risk	Mod risk	Prob.	Total
		%	%	%	%	%	%
NF/2005	2596	15.6	74.9	6.1	2.2	1.2	100
NB/2001	800	19.0	72.9	4.9	1.8	1.4	100
NS/2003	2800	10.7	82.4	4.8	1.3	0.8	100
PEI/2005	1000	18.1	79.1	1.2	0.7	0.9	100
QC/2002	4225	19.6	78.6 (score = 0-3)	1.0 (score = 4-7)		0.7	100
ON/2005	3604	36.6	54.1	5.8	2.6	0.8	100
MB/2006	6007	14.4	69.9	9.6	4.7	1.4	100
SK/2001	1848	13.4	71.4	9.3	4.7	1.2	100
AB/2001	1804	18.0	67.0	9.8	3.9	1.3	100
BC/2002	2500	15.0	69.3	11.1	4.2	0.4	100
Prairie Prov Average	n/a	15.3	69.4	9.6	4.4	1.3	100
Canadian Prov Average	n/a	18.0	72.0	6.3	2.7	1.0	100

However, direct comparisons between provinces should be interpreted with caution due to differences in sampling frame, years of data, response rates and weighting procedures. For more information on the differences between the provinces in terms of how the data was collected see Appendix F.

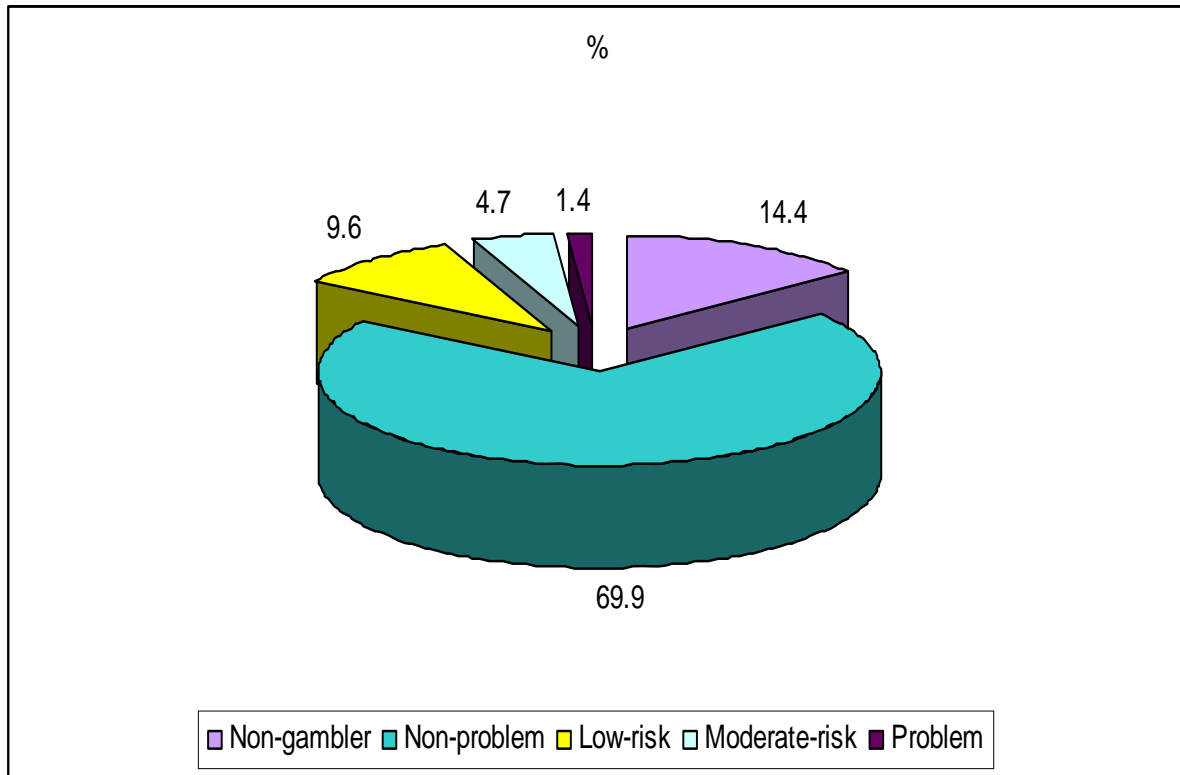
There is a statistical difference between the Manitoba and Canada rate but no statistical difference between the rate for Manitoba and most other provinces. Differences in rates must be interpreted with caution given the comparability issues identified.

Table 10: Electronic Gambling Machines (EGMs) and Venues per 100,000 18+⁹

Prov	EGMs	EGM venues
NL	638	137.3
NB	523	67.9
NS	458	60.9
PEI	438	104.5
QC	321	51.6
ON	240	0.3
MB	936	61.7
SK	792	90.8
AB	587	44.1
BC	221	0.6
Canadian Average	515	62

⁹ Source: Canadian Partnership for Responsible Gambling (2005/06).

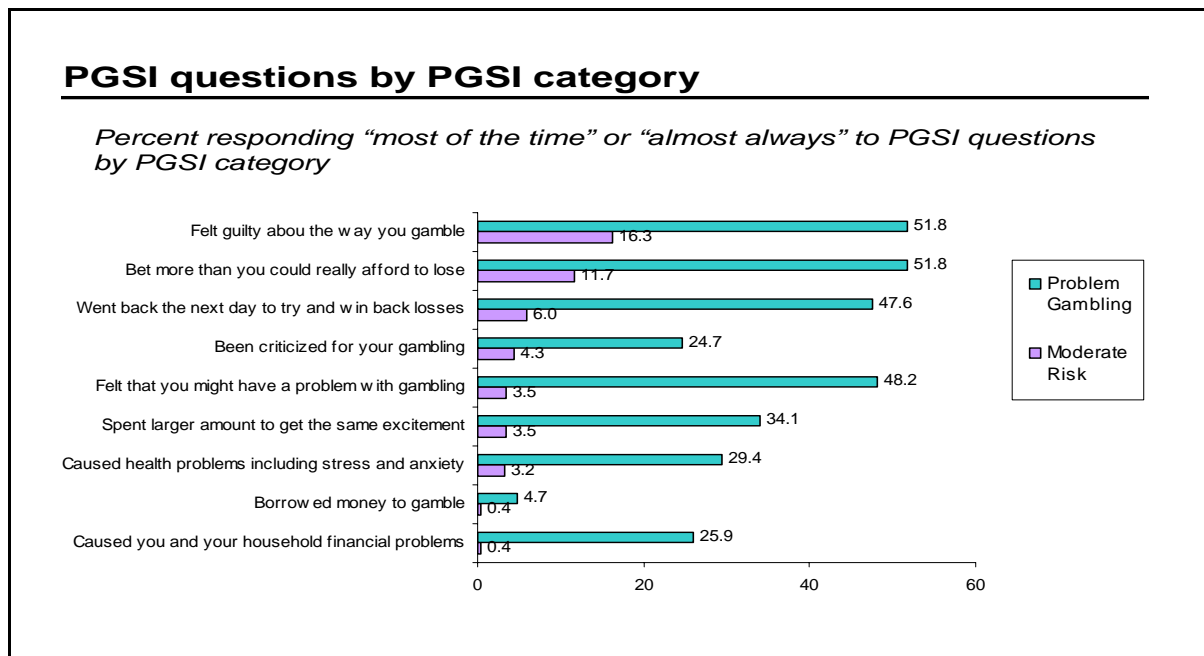
Figure 1: PGSI Classification in Manitoba



Since there are nine questions that inform the scoring criteria of the CPGI (the PGSI), it is of interest to compare the responses of problem and moderate risk gamblers on each of the PGSI questions. As shown in Figure 2 on page 29 the top three endorsed PGSI questions by problem gamblers are also the top three in the moderate risk group, although they are much more likely to be endorsed by problem gamblers. These indicators are feeling guilty about gambling, betting more than one can afford, and going back the next day to try and win back losses (chasing). Very few individuals in the other groups endorse these questions, whereas almost 50% of problem gamblers indicate that these are characteristics of themselves.

In addition, problem gamblers were more likely than low risk and moderate risk gamblers to report health problems due to their gambling, to have personal and household financial problems, to feel that they had a problem with their gambling and spending larger amounts of money when gambling to get the same excitement. Although problem gamblers may chase their losses and experience guilt like some of the moderate-risk gamblers, this group is unique in many behaviors and consequences.

Figure 2: PGSI Item Distribution by Moderate Risk and Problem Gamblers



Problem Gambling Profile

This section summarizes the demographic characteristics of past year gamblers by PGSI classification. As shown in Table 11 on page 31-32, some relationships were observed between PGSI classification and demographics. For the most part, these findings are consistent with many other prevalence reports on gambling and problem gambling (Patton et al., 2002; Wiebe et al., 2006; Wynne, 2002).

Although there were a higher proportion of males in the problem gambling group, there were no significant gender differences. That being said, men were over-represented in the moderate-risk gambling group compared to females.

With regards to age, the 18-24 year olds were significantly over-represented in the problem gambling group. Approximately, 50% of problem gamblers are either 18-24 or 46-54¹⁰ years old. Younger adults in Manitoba have been known to be more at-risk of developing problems with their gambling (Patton, Brown, Dhaliwal, Pankratz & Broszeit, 2002) and this is also consistent with research in other jurisdictions (Wiebe, Mun & Kauffman, 2006).

Overall, one-third of all problem gamblers were from the lowest income group. A higher proportion of problem gamblers reported personal income levels less than

¹⁰ This age group is most common in AFM’s residential treatment program for problem gambling.

\$20,000 (37.2%) compared to 19.6%, 25.3% and 25.6% of non-problem, low-risk and moderate-risk gamblers, respectively.

Similar to other studies, problem gamblers are more likely to be single (approximately 40%) compared to 21.4%, 34.0% and 32.7% of non-problem, low-risk and moderate-risk gamblers, respectively. Problem gamblers were also more likely to be separated or divorced.

An inverse relationship between problem gambling and level of education was found. Those with an elementary education or some high school were more likely (34.1%) to have problems with their gambling, compared to 11.8%, 12.7% and 19.6% of the other PGSI groups (non-problem, low-risk and moderate-risk, respectively). In addition, having completed post-secondary education placed one at less risk of developing problem with their gambling. For example, 41.8% of non-problem gamblers had completed post-secondary education compared to 18.8% of problem gamblers.

Lastly, problem gamblers were slightly more likely to be employed part-time and more likely to be unemployed. Again, considering the low number of problem gamblers (n=85), it is important to interpret these findings with caution.

How are the problem gamblers from this study different from AFM's client groups?

The AFM offers a variety of services to individuals who are having problems with their gambling in addition to a Family Program that supports loved ones who are affected. Based on the most recent demographic data from the client files of the residential treatment facility in Brandon (Lemaire & Patton, 2004) and the community services offered throughout the province (Addictions Foundation of Manitoba, 2005-06), there appears to be distinct differences between individuals who come forward for help and the problem gamblers that have been identified in the 2006 prevalence study. Problem gamblers in the general population are more likely to be single¹¹, between the ages of 18-24, working part-time and reporting incomes of less than \$20,000/year compared to the clients from the AFM.

¹¹ No tests of significance were completed.

Table 11: Demographics by PGSI Classification

	PGSI Classification N = 5096							
	Non-Problem n = 4159		Low Risk n = 570		Moderate Risk n = 282		Problem Gambling n = 85	
	f	%	f	%	f	%	f	%
Gender								
Male	1960	47.1	301	53.8	165	58.5	49	57.6
Female	2199	52.9	269	47.2	117	41.5	36	42.3
Total	4159	100.0	570	100.0	282	100.0	85	100.0
Age								
18 – 24	450	10.8	108	18.9	57	20.3	19	22.6
25 – 34	728	17.5	128	22.5	42	14.9	11	13.1
35 – 44	768	18.5	104	18.2	56	19.9	14	16.7
45 – 54	798	19.2	79	13.9	50	17.8	20	23.8
55 – 64	620	14.9	66	11.6	29	10.3	9	10.7
65 – 74	503	12.1	41	7.2	29	10.3	4	4.8
75+	211	5.1	32	5.6	11	4.0	2	2.4
No Response	82	2.0	12	2.1	7	2.5	5	6.0
Total	4160	100.0	570	100.0	281	100.0	84	100.0
Income Level								
less than 20,000	815	19.6	144	25.3	72	25.6	32	37.2
20,000 – 39,999	1272	30.6	200	35.1	98	34.9	25	29.1
40,000 – 59,999	752	18.1	77	13.5	43	15.3	12	14.0
60,000 – 79,999	287	6.9	47	8.3	13	4.6	4	4.7
80,000 – 99,999	117	2.8	10	1.8	4	1.4	1	1.2
100,000 or more	90	2.2	3	<1	7	2.5	1	1.2
Retired	105	2.5	18	3.2	10	3.6	1	1.2
Disability	6	<1	0	0	2	<1	0	0
No income	36	<1	8	1.4	0	0	2	2.3
No response	680	16.4	62	10.9	32	11.4	8	9.3
Total	4160	100.0	569	100.0	281	100.0	86	100.0
Marital Status								
Single (never married)	892	21.4	194	34.0	92	32.7	34	39.5
Married	2373	57.1	245	43.0	114	40.6	21	24.4
Common-law	226	5.4	51	8.9	25	8.9	14	16.3
Divorced or separated	370	8.9	44	7.7	32	11.4	13	15.1

Widowed	267	6.4	30	5.3	16	5.7	3	3.5
Don't know/No response	31	<1	6	1.0	2	<1	1	1.0
Total	4159	100.0	570	100.0	281	100.0	86	100.0
Highest Completed Education Level								
No schooling	1	<1	0	0	0	0	0	0
Elementary school or some high school	486	11.8	72	12.7	55	19.6	29	34.1
High school	1034	25.0	169	29.8	87	31.1	24	28.2
Some post-secondary	606	14.7	98	17.3	52	18.6	16	18.8
Completed post-secondary	1727	41.8	199	35.1	73	26.1	16	18.8
Advanced degree	277	6.7	29	5.1	13	4.6	0	0
Total	4131	100.0	567	100.0	280	100.0	85	100.0
Employment Status								
Employed full-time	2220	53.4	305	53.4	145	51.2	39	45.9
Employed part-time	443	10.7	66	11.6	20	7.1	20	23.5
Unemployed	87	2.1	13	2.3	21	7.4	6	7.1
Student	190	4.6	45	7.9	19	6.7	3	3.5
Retired	945	22.7	99	17.3	58	20.5	10	11.8
Homemaker	157	3.8	25	4.4	8	2.8	3	3.5
On leave / other	97	2.3	15	2.6	11	3.9	4	4.7
No response	20	<1	3	<1	1	<1	0	0
Total	4159	100.0	571	100.0	283	100.0	85	100.0

*Note – Past year gamblers minus missing.

Correlates of Problem Gambling

Substance Use and Abuse

Several studies have investigated the relationship between substance use and gambling. A consistent finding in research on at-risk/problem gambling and harmful substance use is that they often co-occur (Stewart & Kushner, 2005; Welte, Wieczorek, Barnes & Tidwell, 2006). This relationship is particularly true for men compared to women. Unfortunately, the nature of the link between various addictions is still not fully understood by substance use and gambling researchers. The direction of cause and effect (substance use results in gambling problems or gambling problems produce substance use), has not been determined. The notion of some underlying contribution to both gambling and other addictions (individual differences or other, unknown factors, contribute to both substance use and gambling), has yet to be clarified.

Alcohol Use and Abuse

Alcohol can have devastating effects on individuals and their families. Although most Canadians drink in moderation, nearly a quarter of former and current drinkers report that their drinking has caused harm to themselves and to others at some point in their lifetime (Adlaf, Begin, & Sawka, 2005). Furthermore, recent Canadian research estimates that the economic costs of alcohol are \$14.5 billion which translated into approximately \$460 per person annually.

Respondents were asked about their lifetime and past year alcohol use. Overall, 93% had consumed alcohol in their lifetime and 82.3% had drunk in the past year. Of the past year drinkers, 47% consumed 6 drinks or more at one time and 7.1% had trouble stopping once they started drinking. According to the Centre for Addiction and Mental Health (CAMH), three drinks or more on any given day is in excess of the low risk drinking guidelines¹².

As Table 12 shows on the following page, there is a significant relationship between PGSI classifications and consequences associated with alcohol use. Problem gamblers were more likely to drink more than 6 drinks at one time (in the past year) and to have trouble stopping drinking once they started. Problem gamblers were five times more likely to be unable to stop drinking once they started than non-gamblers and non-problem gamblers.

¹² Available at the following link:

http://www.camh.net/About_Addiction_Mental_Health/Drug_and_Addiction_Information/low_risk_drinking_guidelines.html.

Table 12: Alcohol Use by Gamblers and Non-gamblers (%)

	Non gambler	Gamblers			
		Non problem	Low risk	Moderate risk	Problem gambling
Ever Drank	79.0	95.9	96.7	94.3	95.3
Drank in the last 12 months	57.8	86.5	88.4	83.9	87.1
6 drinks at one time – last 12 months	25.5	43.5	59.6	64.4	66.7
Could not stop once started – last 12 months	6.3	5.1	12.2	18.0	31.5

*Note – All respondents.

The AUDIT (Alcohol Use Disorders Identification Test) was used to identify hazardous and harmful drinking, alcohol dependence and some specific consequences of harmful drinking. The AUDIT was developed and evaluated over a period of two decades and it has been found to provide an accurate measure of risk across various groups including gender, age and culture (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). Respondents are placed into one of four zones which represent a specific level of risk. Zone I (score 0-7) refers to low risk drinking or abstinence, Zone II (score 8-15) refers to drinking that is in excess of the low risk guidelines, Zone III (score 16-19) suggests harmful drinking and Zone IV (score 20-40) suggests alcohol dependence. The appropriate intervention in the Zone IV group is to refer the patient to a specialist for diagnostic evaluation and treatment. It should be noted that a score of 8 or more is suggestive of hazardous and harmful alcohol use and possible alcohol dependence.

Overall, 85% of past year drinkers are consuming alcohol at a low risk level and are classified as Zone I. Approximately one in ten (11.7%) past year drinkers are classified into Zone II (exceeding low risk guidelines), 1.5% into Zone III (harmful drinking) and 1.4% into Zone IV (alcohol dependence). Men are more likely to be in Zones II, III and IV compared to female drinkers. Although the majority of men and women drank at low risk levels, females were more likely to do so (92%) compared to men (78.5%).

There is also a relationship between PGSI and AUDIT score (see Table 13). Almost one in six (16.4%) of problem gamblers have scores which are consistent with Zone IV: compared to 5.6% of moderate-risk, 1.8% of low-risk and 0.8% on the non-problem gamblers. Therefore, problem gamblers are far more likely to be alcohol dependent than other groups.

Table 13: AUDIT by PGSI Classification (%)

AUDIT	PGSI Classification			
	Non problem	Low risk	Moderate risk	Problem gambling
Low risk/abstinent	89.1	74.5	63.6	52.1
Exceed guidelines	9.4	20.2	26.4	21.9
Harmful	0.8	3.6	4.3	9.6
Dependent	0.8	1.8	5.6	16.4

*Note – Past year gamblers.

Drug Use

Respondents were asked various questions about lifetime and past year use of several different substances. Overall, past year drug use among all of the respondents was approximately one in ten (see Table 14). A significant relationship was found between PGSI and drug use (lifetime and past year). Problem gamblers were more likely to report using drugs in their lifetime (69.4%) compared to about half of both the moderate and low-risk groups, 38.5% of the non-problem gamblers and 20.2% of the non-gamblers. Likewise, problem gamblers were also more likely to report past year use of drugs in general compared to the other PGSI groups.

Marijuana was the most common drug used in the past year. Approximately one in ten respondents reported past year use of marijuana. Almost 33% of problem gamblers reported past year use of marijuana compared to 25.5% of moderate-risk, 21.1% of low-risk, 8.5% of non-problem and just over 5% of non-gamblers. Past year use of all other drugs was extremely rare for all respondents, however, 17.6% of problem gamblers reported cocaine/crack use and just over ten percent reported to use hallucinogens. The use of crystal meth and heroin/smack was rarely reported, however, a small number of problem gamblers did report the use of these drugs.

These results clearly demonstrate that problem gamblers are more likely to be involved in risky behaviours such as using drugs like marijuana, cocaine/crack and hallucinogens. It should be noted that the sample sizes in some of the cells are quite small, and as such, should be interpreted with caution.

Table 14: Drug Use by PGSI Classification (%)

	PGSI Classification					
	Non gamblers	Non problem	Low risk	Moderate risk	Problem gambling	Total
Ever used other drugs	20.2	38.5	52.3	54.3	69.4	38.4
Used other drugs in the past 12 months	5.6	8.9	22.1	27.3	34.1	10.9
Used marijuana in the past 12 months	5.3	8.5	21.1	25.5	32.9	10.4
Used cocaine/crack in the past 12 months	.	.	.	.	17.6	1.5
Used hallucinogens in the past 12 months	.	.	.	.	10.6	1.8
Used heroin/smack in the past 12 months	.	.	.	.	.	.
Used crystal meth in the past 12 months	.	.	.	.	.	.

*Note – Small numbers of respondents in some cells have resulted in numbers too small to be reliably reported and therefore have been replaced with “.”

Tobacco Use

At-risk and problem gamblers were more likely to report ever smoking, ever smoking regularly and being a current regular smoker. Compared to 9% of non-gamblers, almost 50% of problem gamblers report being a current smoker. These findings are not surprising as tobacco use has been correlated with gambling behaviour for several decades. Current provincial efforts at maintaining smoke-free gambling venues could be met with resistance, as many of those who gamble the most are also heavy smokers.

Table 15: Cigarette Use by PGSI Classification (%)

	PGSI Classification				
	Non gambler	Non problem	Low risk	Moderate risk	Problem gambling
Ever smoked	52.2	71.7	77.9	81.6	88.2
Ever a regular smoker	28.5	47.7	51.9	57.8	65.9
Currently a regular smoker	8.8	16.8	25.8	34.8	45.9

*Note – All respondents.

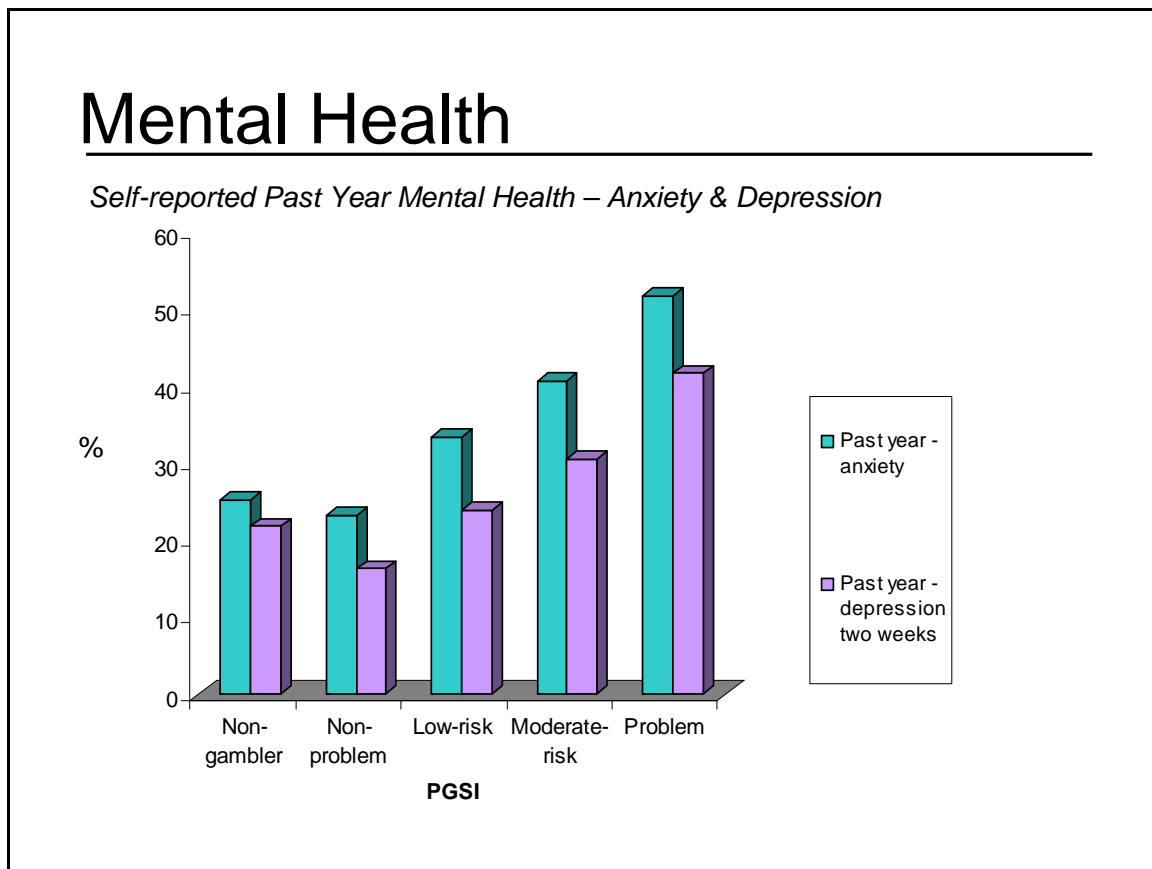
Mental Health

Many addictive behaviours (including gambling) are correlated with depression, anxiety and suicidal ideation. Although this link has been known for quite some time, the causal nature of the relationship is unclear, and precursors of both gambling problems and mental health issues make it quite difficult to disentangle various effects.

Studies have found problem gamblers to exhibit a wide range of problem behaviours and mental health issues, such as a higher frequency of suicide attempts and alcohol abuse (Bland, Newman, Orn & Stebelsky, 1993). In addition, gamblers are more likely to experience several psychological problems such as major depressive disorder, dysthymia, anxiety/somatoform disorder and antisocial personality disorder, compared to non-gamblers.

In order to monitor for mental health issues, respondents were asked questions about feeling worried, tense or anxious and feeling depressed for two weeks or more. If respondents were feeling anxious or depressed in the past year, they were asked additional questions about their use of prescription medications. Finally, respondents were asked about suicidal ideation, suicide attempts and whether or not their gambling was related to suicidal ideation and attempts.

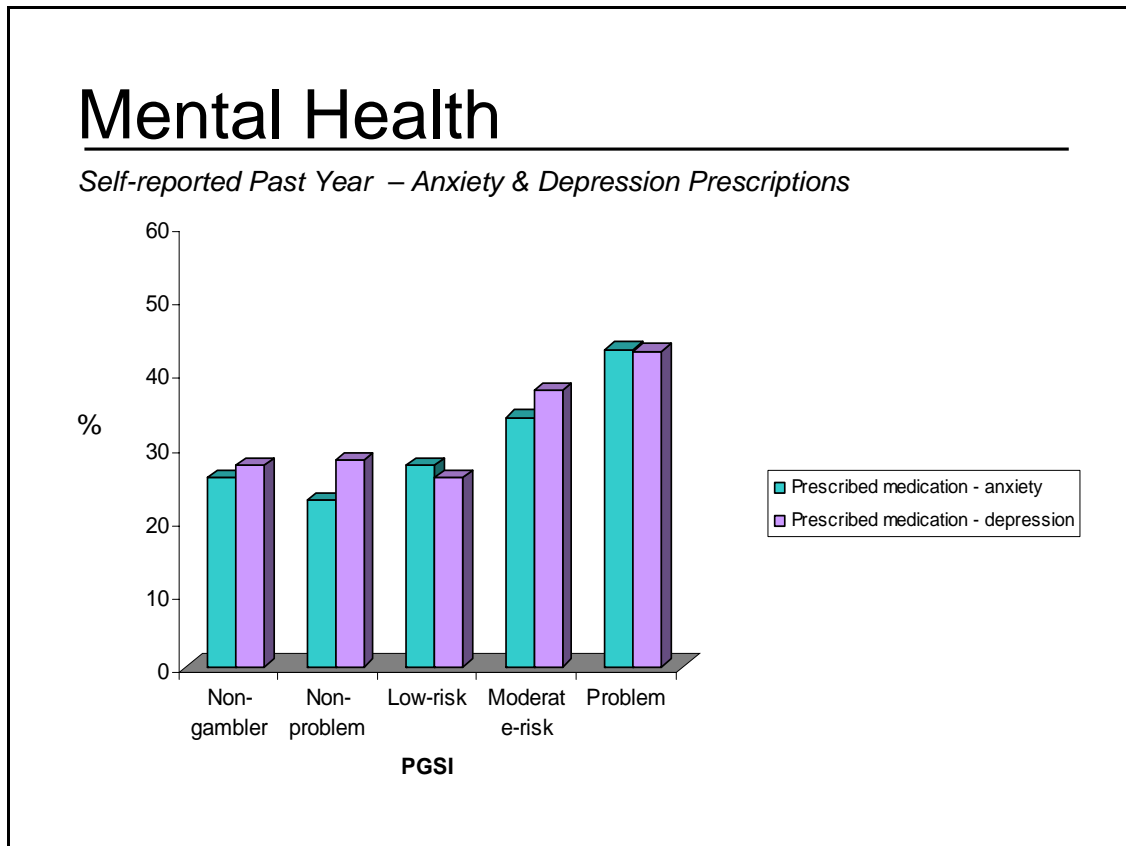
Figure 3: Self-reported Past Year Mental Health – Anxiety & Depression



As Figure 3 (above) illustrates, there is a significant relationship between PGSI category and mental health concerns. Those at-risk for problem gambling (low-risk, moderate-risk and problem gamblers) were more likely to report feeling anxious and/or depressed for at least two weeks in the past year.

Of those individuals who reported mental health issues in the past year, several of them were also prescribed medication as a form of treatment. Figure 4 on the next page describes this relationship by PGSI category. Problem gamblers were more likely to have received medication for their anxiety and depression compared to all other groups.

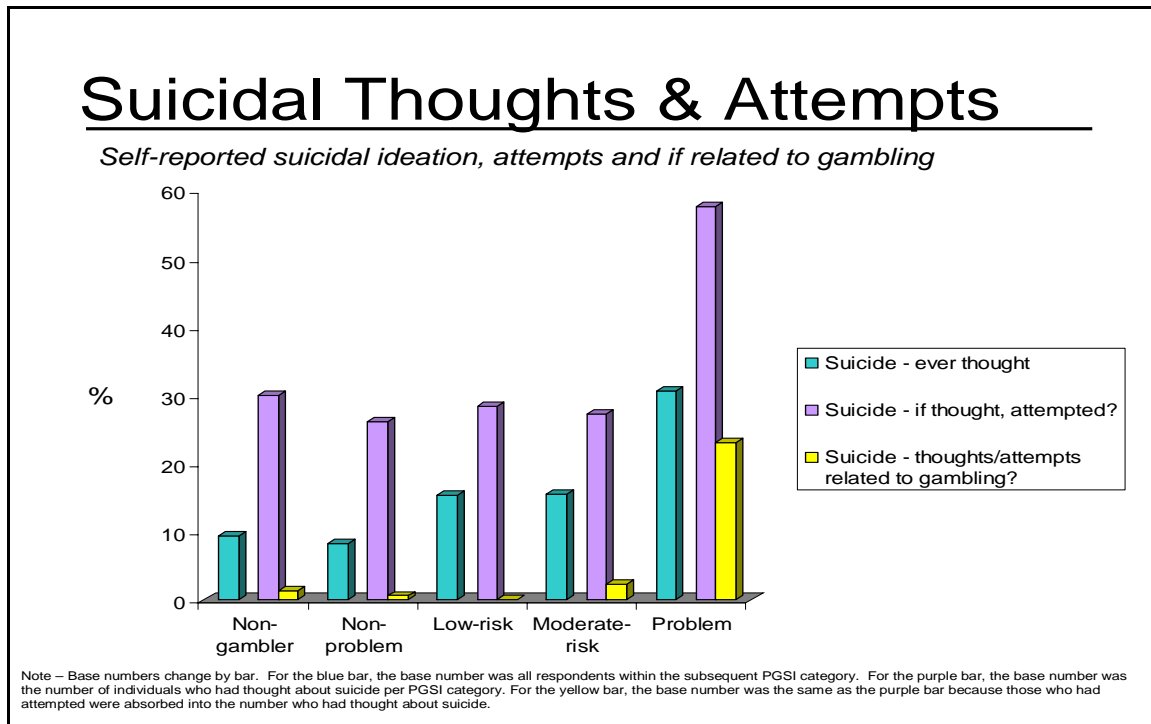
Figure 4: Self-reported Past Year Mental Health – Anxiety & Depression Prescriptions



Overall, just over one quarter of all respondents felt worried, tense and anxious in the past year. Of this 25%, approximately a further one-quarter were prescribed medication for mental health issues. When this was correlated with PGSI category, a significant relationship was found with a higher proportion of problem gamblers (43.2%) reporting prescription medication for anxiety compared to non-gamblers (25.7%), non-problem gamblers (22.6%), low-risk (27.4%) and moderate-risk gamblers (33.9%).

The same relationship was found with PGSI category and prescription medications for depression. Of the problem gamblers, almost 43% of those experiencing depressive symptoms for two weeks were prescribed medication compared to 27.4% of non-gamblers, 28.1% of non-problem gamblers, 25.7% low-risk and 37.6% of moderate-risk gamblers.

Figure 5: Self-reported Suicidal Ideation, Attempts and Relation to Gambling



According to Health Canada's Report on Mental Illness in Canada (2002), the prevalence of suicidal ideation and suicide attempts in the general population is estimated at 5-18% and 1-5%, respectively. Consistent with what is found in the general population, the rates of suicidal ideation and attempts in this study were found to be 9.8% and 2.8%, respectively. Of those who had thought about suicide, females were more likely to do so compared to men (56.5% versus 43.5%). Females were also more likely than men to report suicide attempts.

Figure 5 shows that, similar to previous findings, suicidal ideation and attempts were related to PGSI category. Problem gamblers were more likely to self-report suicidal ideation and attempts than any of the other PGSI groups. In fact, of those problem gamblers who had thought about suicide at some point during their lifetime, 58% had attempted suicide compared to 30% of non-gamblers, 26.1% of non-problem gamblers, 28.4% low risk gamblers and 27.3% in the moderate risk category who had suicidal thoughts. It seems, therefore, that problem gamblers are not only at increased risk of suicide, they are more likely to have sought treatment, and are more likely to have tried to kill themselves.

The next few questions asked about the role of gambling in their suicide attempts. A total of ten respondents attributed their attempted suicide to gambling behaviour; 7 of these were from the moderate and problem gambling

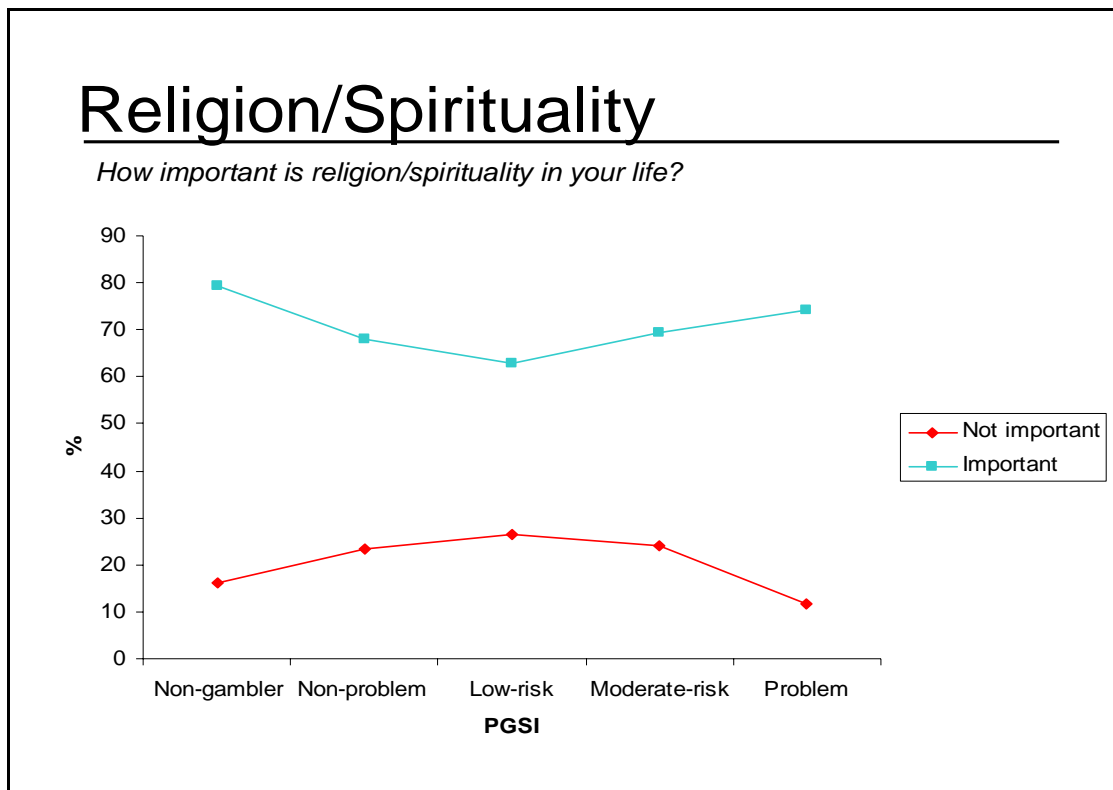
categories. Unfortunately, the extent to which gambling and suicide are correlated remains largely unknown as police/forensic investigators rarely ask about gambling unless someone specifically mentions it as a contributing factor. A recent report released by the Canada Safety Council suggests that the number of suicides in Canada related to gambling is likely over 200 a year (Canada Safety Council, 2005).

Problem gamblers are at a much higher risk of suicide than non-problem gamblers. As a provincial agency that provides both rehabilitation and counseling for gambling addictions, the AFM offer the Applied Suicide Intervention Skills Training (ASIST) program to all staff.

Religion/Spirituality

One of the objectives of the Manitoba prevalence survey was to explore the relationship between religion and/or spirituality and the severity of gambling. Respondents were asked to identify how important religion/spirituality was in their life. Non-gamblers were significantly more likely to rate their religion/spirituality as important compared to all other groups. This relationship is certainly worthy of future research with over 4100 Manitobans reporting religion/spirituality to be important.

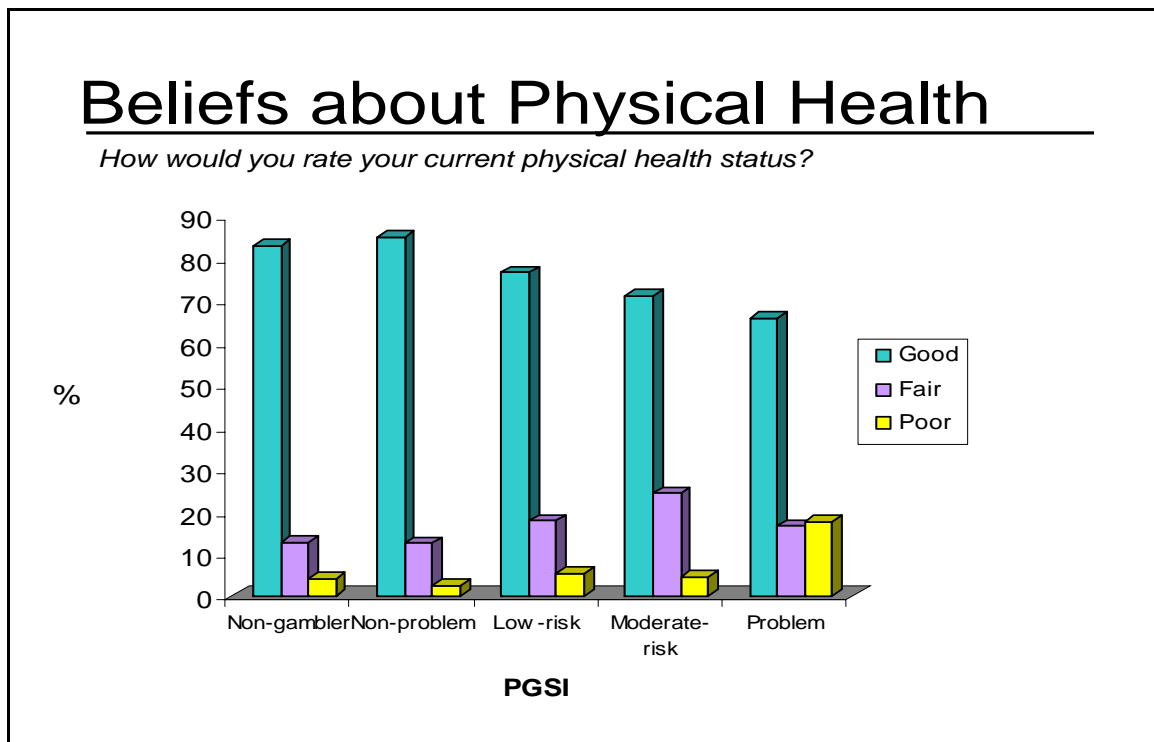
Figure 6: Importance of Religion/Spirituality by PGSI Classification



Physical Health

Respondents were asked to rate their current physical health status. As shown in Figure 7, problem gamblers were significantly more likely (17.6%) to rate their physical health as poor compared to all other groups (4.1%, 2.5%, 5.4% and 4.6% for non-gamblers, non-problem-gamblers, low-risk and moderate-risk, respectively). Almost half (45.2%) of problem gamblers reported that they had trouble sleeping because of their gambling. Past year gamblers in the moderate (6.4%), low-risk (1.4%) and non-problem (0.1%) group were less likely to have problems with their sleeping compared to problem gamblers. These statistics support the anecdotal evidence from counselors who often see clients who present with sleeping disorders and poor nutrition.

Figure 7: Rating of Physical Health Status by PGSI Classification



Gambler's Fallacies

A plethora of research has found that individuals who have problems with their gambling are more likely than those who gamble at a non-problem/low-risk level to endorse gambling myths and fallacies. Gambling myths and fallacies are the types of erroneous thinking that puts people at increased risk for gambling problems because they may be using faulty logic in a futile attempt to beat the odds and win their money back. It is still common to find members of the general public who believe in several of the gambling myths. In fact, random surveys in Manitoba have found that even people who gamble at a non-problem/low-risk level still believe in many of the myths about gambling and problem gambling. For those worried about the harmful effects of gambling, the belief in incorrect statements about gambling is a cause for concern. Although it is highly unlikely that information alone can not protect someone from developing a gambling problem, some research suggests that having the correct information in combination with other factors can lead to healthy choices about gambling.

The current Manitoba prevalence survey asked adults to report on their level of understanding about gambling myths and fallacies. The Manitoba Gaming Control Commission also measures gambling myths and fallacies using the same questions that are used here.

A significant relationship was found between being classified as a problem gambling according to the PGSI and the endorsement of gambling myths. For example, for three out of the five myth statements, problem gamblers were more likely to agree with the fallacy compared to individuals in other gambling categories. Compared to 31.3% of non-problem gamblers, over half of the moderate risk and problem gamblers thought that the odds of winning on a VLT or slot machine change as you play, which is evidence of erroneous beliefs. In a similar vein, problem gamblers were also more likely to think that after losing for a while, one should expect to win, and they were also more likely than all other groups to think that having a "system" increases the odds of winning. The belief in these statements suggests a misunderstanding of the randomness of the machines, and are examples of the faulty cognitive thoughts that may encourage gamblers to continue playing, in spite of the end result.

Table 16: Gambling Myths by PGSI Classification (%)

	Non-gambler	Non problem	Low Risk	Mod Risk	Problem gambling
The odds of winning on a slot machine or VLT change as you are playing	27.5	31.3	38.5	55.3	54.2
It is important to understand exactly how a slot machine or VLT works in order to play better	36.3	31.6	38.2	39.5	37.3

Having a system when playing slot machines or VLTs increases the chances of winning	13.4	10.3	14.0	13.7	25.0
Staying at the same slot machine or VLT will improve your chances of winning	17.8	18.3	20.4	20.5	23.5
If you have been losing for awhile, odds are you're due for a win	12.5	11.3	18.6	20.3	29.4

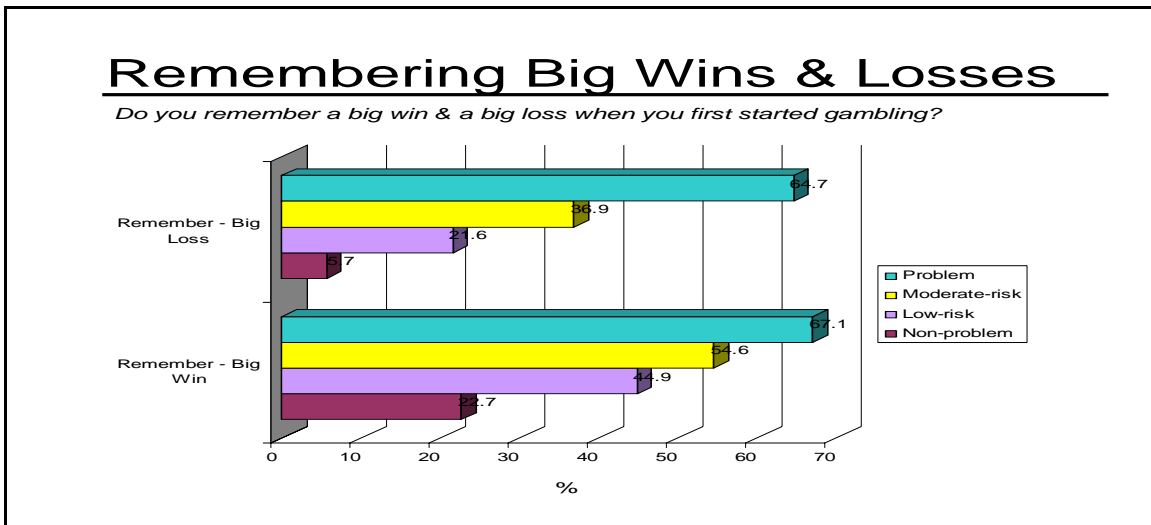
The AFM, like many other addictions agencies, has an interest in educating the public about gambling and problem gambling. As such, the Foundation offers prevention and counseling services on-site in several schools in Manitoba. In addition, information sessions are held routinely on understanding problem gambling for the general public. Gambling prevention experts facilitate workshops in various communities across Manitoba and sometimes even outside of the province. In recent years, Manitoba became home to the first Responsible Gambling Information Center located within a casino in Winnipeg. Evaluation results reveal that the public is using this service and receiving information about problem and problem gambling. In fact, several provinces have since added information centers in their casinos and have also found them to be effective. It would appear that these efforts are well-founded, and will need to be continued in order to educate Manitobans about the reality of how gambling works.

Big Wins and Losses

Previous gambling research has suggested that problem gamblers may have been overly influenced by an early “big win”, and this experience may have contributed to their development of a gambling problem. The thinking is that this reward will have had such reinforcing capacity; the individual begins to think that they must be good at causing these ‘random’ outcomes. They mistakenly think that they are responsible for the early success, they must “be a natural” or “good at gambling”, which encourages them to think that they could become good at doing this for a living.

Overall, about one-quarter of respondents remembered a big win when they first started gambling. Only 9% remember a big loss from gambling. This shows a bias towards remembering good events and forgetting bad events. When we compare the different gambling groups, it is interesting to see how different they are in regards to their gambling memories. Figure 8 shows that problem gamblers are more likely than other gamblers to recall a big win and a big loss when they first started gambling. For example, 67.1% and 64.7% of problem gamblers remember a big win and a big loss (respectively) compared to 54.6% and 36.9% of moderate-risk gambler, 44.9% and 21.6% of low-risk gamblers and 22.7% and 5.7% of non-problem gamblers. It is not surprising that more respondents remember a big win compared to a big loss.

Figure 8: Remembering Big Wins and Big Losses by PGSI Classification



Gambling Activities

Analysis of gambling activities by PGSI revealed that problem gamblers are more likely to gamble on most activities compared to all other groups. In particular, problem gamblers were more likely to report playing VLTs (78.8%) in the past year compared to 21.6% and 47.9% of non-problem and low-risk past year gamblers, respectively (see Table 17 below). That is, problem gamblers are almost twice as likely to play VLTs then those in the low-risk group and almost 4 times as likely compared to non-problem gamblers. They are also more than twice as likely to play cards or dice in a casino compared to low-risk gamblers. Of the VLT playing problem gamblers, most (68%) play daily or weekly and 26% gamble monthly compared to 17% of low-risk VLT players who gamble daily or weekly and 41.5% who gamble on a monthly basis. Overall, respondents who are problem gamblers and those at-risk are more likely to report gambling on many activities compared to non-problem and past year gamblers overall.

Table 17: Past Year Gambling Activities by PGSI Classification (%)

	Non-Prob Gamb. (n=4160)	Low Risk (n=570)	Mod. Risk (n=282)	Prob. Gamb. (n=85)
Activity	%	%	%	%
Lottery Tickets	72.9	79.5	81.2	91.8
Instant Win	37.5	58.6	61.7	74.1
Sports Select	4.5	14.2	18.8	22.4
Raffles/Fundraisers	76.9	73.2	63.5	57.6
Bingo	10.4	22.5	23.8	30.6
VLTs in r/b/l	21.6	47.9	61.3	78.8
Slots in Casinos	19.4	39.8	47.9	57.6
Dice/Cards in Casinos	3.1	14.9	18.4	34.1
Internet	<1	4.7	6.4	5.9
Card Games not in Casinos or Internet	15.3	31.2	29.8	30.6
Sports Pools	11.1	17.7	17.4	14.1
Outcome PSE ¹³	4.5	12.5	15.6	17.6
Bookie	<1	<1	<1	0
Horse Racing	6.3	11.2	12.8	12.9
Other	<1	3.0	3.2	1.2

*Note – Past Year Gamblers.

Of course, engaging in the various gambling activities does not mean that one will become a problem gambler per se. Time spent on the activity, and perhaps more importantly, money spent, are likely causes of additional negative consequences. In fact, research based on national population data has identified empirically derived “risk points” for gambling harm predictors. Currie (2004) identified that individuals who spend \$75 or more per month, gamble 2% or more of their monthly income, gamble more than 2-3 times per month and gamble for duration more than 60 minutes per session are more at-risk for developing problems with their gambling. Table 18 shows the mean and the median amounts that the different groups of gamblers spend per month. Clearly problem gamblers are spending far more money per month than any other group. Combined with their lower level of income reported earlier, problem gamblers are spending a significantly larger proportion of their income on gambling activities than other gamblers, and they are much less able to afford to do this. Comparing these results to Currie (2004)’s risk points for harm predictors, it is clear that problem gamblers are spending over and above 2% of their monthly income.

Table 18: Monthly spending on gambling by PGSI Classification

Money* Spent on Gambling¹⁴ Per Month			
PGSI Category	Frequency	Mean	Median
Non-problem	4160	\$28.00	Less than \$1.00
Low-risk	570	\$88.00	\$25.00
Moderate-risk	282	\$381.00	\$70.00
Problem	85	\$685.00	\$350.00

*Note - Money spent is “money that is spent out of pocket, and does not include money won and then spent”.

¹⁴ The gambling activities included in this analysis were the following: bingo, VLTs, slots, horse racing, dice/card games in casino and card games not in casinos or the Internet.

Older Adults in Manitoba

The older adult population in Manitoba continues to grow at a rapid pace. The current cohort of older adults are less likely to access problem gambling support services due to barriers with transportation, social isolation, stigma about problem gambling and help seeking, reluctance to venture beyond familiar geographic boundaries, disability and mobility concerns and mental health barriers. A 1999 informant report on seniors and gambling indicated that older adults were more likely to gamble on VLTs, slot machines, bingo and scratch and win tickets. Although this study was helpful it did not provide any empirical data on problem gambling within this age group. In 2000 a prevalence study was completed with 1000 older adults (60 years+) in Manitoba (Wiebe, 2000). The results indicated that about 77% gambled in the previous year, mostly buying lottery or raffle tickets. According to SOGS, 1.6% of older adults were gambling at problematic levels and 1.2% were considered problem pathological gamblers. In 2001 a provincial prevalence study was completed with separate analyses on older adults and gambling. The following are some of the findings from this provincial survey:

- Older adults were less likely to engage in several types of gambling compared to other age groups including: scratch tickets, Sport Select, keno, table games at the casino, horse racing, and Internet gambling.
- A slightly larger percentage of people over 50 reported to play bingo compared to those between the ages of 25 and 49. Older adults were more likely to spend more money monthly on bingo compared to their younger counterparts.
- Older adults were more likely to play slots than middle-aged people; but they reported to spend less than the middle-aged group.

Therefore, it was concluded that older adults experience fewer problems due to gambling than the younger population in Manitoba. Although the older adults were found to play bingo and slots more frequently than any other age group, they did not report spending more money on these activities. In addition, it was reported that older adults may have greater difficulty accessing services for gambling problems and are less likely to seek out family or friends for help than younger respondents. In addition, older adults were also least likely to suggest AFM as a resource for gambling problems. Since 2001 several initiatives have occurred in the province which has sought to increase AFM's visibility as a helping partner in the older adult community. In particular the work of *Partners Seeking Solutions with Seniors* has been very creative in reaching out to older adults in the community and establishing credibility as a helping network. AFM also has several staff members dedicated to providing education and outreach services to this group in the province.

The current prevalence study also explored gambling within the older adult population in Manitoba. Overall, the older adults are gambling at a similar rate to the general population and are engaging in similar activities. The rate of at-risk and problem gambling is lower compared to the overall sample at 0.7% problem gamblers and 4.2% and 6.7% gambling at moderate and low-risk rates, respectively. It should be noted that these numbers are based on a different measurement instrument from 2000 and should not be used in comparisons. The problem gambling rates for Manitoba, overall, were 1.4% problem gamblers, 4.7% moderate and 9.6% low-risk for developing problems with their gambling.

Other highlights from analyses with older adults and gambling in 2006 include:

- The most common forms of gambling among older adults were lottery tickets, raffles/fundraising, scratch tickets/instant win and slot machines in casinos.
- Older adult gamblers are slightly more likely to gamble on slot machines compared to those under the age of 60 in Manitoba.
- As measured by the mean, older adults spend more money at one time on VLTs compared to the rest of the sample. For example, older adults report spending \$64 on VLTs at one time compared to \$54 for the overall sample.
- For some activities (e.g. VLTs and slots), older adults are significantly more likely to spend more time gambling compared to non-older adults.

Although older adults in 2006 appear to gamble without significant problems, there are several areas of concern. To begin, although older adults are gambling on similar activities and engaging in these activities less so compared to the other age groups, it appears that for some activities, they are spending slightly more money at one time. As this age group is primarily composed of individuals who are retired and, as a result, have more limited and finite access to funds, the amount of money spent on gambling is a cause for concern. In addition, older adults are also spending more time on certain gambling activities compared to the other age groups. Given the adequate resources, and because the last prevalence study on older adults was several years ago, a specific older adult prevalence study in Manitoba might be worth exploring. The population in Manitoba is currently aging and in the next ten years it will be of interest to continue to monitor individuals over the life-span, including pre and post retirement phases.

Adults Affected by Other's Gambling

All respondents were asked if they knew someone who they felt may have a problem with gambling. Overall, approximately 35.6% (n=2141) reported knowing someone who may be experiencing problems with their gambling. Friends (44%) were most likely to be the individual of concern. Acquaintances (11%), co-workers (8.4%) and siblings (8%) were also identified. This information suggests that many Manitobans are concerned about the gambling behaviour of a close friend or family member.

It is also interesting to note the relationship between problem gambling classification and knowing someone who may have a gambling problem. Approximately three-quarter of problem gamblers know someone with a potential problem compared to 57% of those in the moderate risk group, 48% in the low risk group, 34% in the non-problem gambling group and 26% in the non-gambling group. These findings are consistent with the results from other provincial reports, for example British Columbia (Ipsos-Reid & Gemini Research, 2003) and Newfoundland and Labrador (MarketQuest Research Group, Inc., 2005).

Respondents were also asked whether they had experienced problems as a result of someone else's gambling in the past year. Overall, approximately 12% felt that they were negatively affected by someone else's gambling in the past year. As show in Table 19, the likelihood of experiencing problems from someone else's gambling increased with the severity of PGSI classification. Just over one-third (36.5%) of individuals from the problem gambling category reported difficulties as a result of someone else's gambling. In comparison, 23% of those in the moderate risk experienced difficulties from another's gambling and 21.8%, 10.4% and 8.7% for low risk, non-problem and non-gamblers, respectively.

Table 19: Affected by Someone Else's Gambling by PGSI Classification

Experienced problems from someone else's gambling	Non-gambler	Non-problem	Low risk	Mod risk	Problem	Total
%No	91.0	89.5	78.2	76.7	62.4	87.6
%Yes	8.7	10.4	21.8	23.0	36.5	12.2
%Don't know/No Response	0.3	0.0	0.0	0.4	1.2	0.2
N	855	4160	570	283	85	5953

*Note – All respondents.

Of those who felt they were affected by someone else's gambling, 37.1% indicated that they were worried about their friends. Affected respondents were also impacted by family such as cousins, aunts/uncles and grandparents (14.2%), work colleagues (12.9%), and a parent (12.8%). Overall, affected



Manitobans were more likely to have troubles with their own gambling and to be concerned about the gambling behaviour of their friends and family.

Changes in Gambling: 2001 and 2006

Due to different response options, methods and gambling environments between the 2001 and the 2006 report, any comparisons should be interpreted with caution. Where appropriate, tests of statistical significance with unweighted data were completed between the two studies. The table below highlights some unique findings between the two studies. Note that the gambling prevalence rate in 2001 is not based on the full sample, the CPGI was administered to about 450 individuals and the South Oaks Gambling Survey was also administered to about 500 individuals.

Table 20: Gambling and Problem Gambling in Manitoba: 2001 and 2006

	2001 n=3119	2006 n=6007
Past Year (PY) gamblers**	85%	86%
PY Lottery gambling participation rate**	61%	64%
PY Raffles gambling participation rate*	59%	65%
PY Scratch Ticket/Instant Win*	23%	36%
PY VLT gambling participation rate*	28%	24%
PY Slots gambling participation rate**	18%	20%
Problem gambling prevalence rate**	1.1%	1.4%
Moderate risk prevalence rate*	2.3%	4.7%
Problem and moderate risk rates*	3.4%	6.1%
Median \$/month on VLTs (gamblers only)***	\$10	\$20
Median \$/month on Slots (gamblers only)***	\$10	\$20
Affected by someone else's gambling*	8%	12%

* sig. $p < .05$.

** not sig $p < .05$.

*** tests of sig could not be completed.

Between 2001 and 2006, the number of Manitobans who report past year gambling has remained the same. Gambling participation rates of popular forms of gambling such as lotteries, slots and bingo have also remained comparable. Gambling participation with raffles and scratch and instant win tickets has increased since 2001. Although slightly fewer individuals are gambling on VLTs, it appears they are spending twice as much per month. With regards to the prevalence of problem gambling, the number of people in the low risk and moderate risk groups has almost doubled since 2001. The proportion of individuals experiencing the most severe problems with their gambling has not changed over the years. In addition, the percentage of Manitobans who are affected by someone else's gambling has increased and this was significant.

It is not exactly clear why any of these changes have occurred. Based on research that has linked the availability of gambling (VLTs and the presence of casinos) to problem gambling (Cox et al., 2005), the changes in the gambling environment in Manitoba since 2001 (more VLTs, replacement of all existing VLTs and two more permanent casinos¹⁵) may have played a factor in the increased low-risk and moderate-risk gamblers. The contributors to increases and/or decreases in gambling and problem gambling over time are complex and are beyond the scope of this prevalence study.

¹⁵ Between 2002 and 2005, two permanent casinos were opened in Manitoba (Aseneskak Casino in The Pas and South Beach Casino in Scanterbury).

Validation of Research

Changes in the prevalence of disorders in the general population are always a cause for concern. AFM engaged a three-part strategy to confirm and explore the changes in the prevalence of problem gambling since 2001. To begin, the AFM completed a mini-prevalence to confirm the problem gambling rate from 2006. Secondly, expert researchers in the gambling and problem gambling field were asked to complete separate analyses on the data and lastly, several research projects are being undertaken to obtain a great understanding of gambling and problem gambling in the province of Manitoba. It should be noted that due to the three-part strategy, the release of the 2006 numbers was slightly delayed.

Part 1

In 2007 the AFM commissioned a research firm to do another snap-shot of gambling in Manitoba on a smaller level using the same questions and methodology from the 2006 study. Results from the validation study confirmed the 1.4% problem gambling rate from the prevalence study.

Part 2

In addition, AFM asked several experts in the gambling research field to complete separate and objective analyses on the data. All researchers identified the same prevalence rates as is found in this document.

Part 3

The AFM has also become involved in research that will increase our understanding of gambling and problem gambling¹⁶. Although AFM recognizes the value of prevalence studies, there has been a growing concern that this type of enquiry does not provide any information on change or stability in gambling behaviour over time at the individual level. Of the current research, the results suggest that rather than being a stable state, problem gambling is more episodic and transitory at the individual level than has been previously supposed.

Numerous calls have been made for the use of longitudinal research to gain a more precise understanding of the development of problem gambling and, in turn, to obtain empirically-derived direction for the development of prevention and treatment initiatives. Therefore, AFM has engaged expert researchers to conduct follow-up research on the at-risk and problem gamblers from the current prevalence study to examine gambling involvement over time and predictors of various levels of involvement.

¹⁶ For an overview of other research projects that AFM is involved in, please see Appendix E.

The research is guided by two overriding objectives: (1) To monitor transitions of problem gambling behaviours over a one year period; and (2) To examine factors underlying the stability and transition of gambling states. The study design is longitudinal in nature, following-up adults from the 2006 prevalence study who were classified as at-risk or who had a problem with their gambling in addition to a sample of AFM gambling orientation clients. The *AFM Orientation to Problem Gambling Services* is a group session for people having problems because of their own involvement with gambling, as well as for those having problems because of someone else's gambling activities. An AFM counsellor provides information about problem gambling and describes the help that is available at AFM and in the community.

Data from both samples are being collected using multiple data points. Three-quarters of the gambling prevalence sample are contacted every 6 weeks, for a total of 9 collection points. The remaining 25% are contacted every 3 months, for a total of 5 collection points. Participants attending the gambling orientation sessions are contacted on 2 occasions 3 months apart.

According to their mid-term report (Wiebe, Maitland, Hodgins, Davey & Gottlieb, 2007), preliminary results indicate that problem gambling in Manitoba appears to be more episodic versus progressive and static. In most instances, individuals in this research have transitioned to a less problematic level of gambling at follow-up. Highlights of these transitions include¹⁷:

- The majority of individuals classified as at-risk (n=218) at baseline are classified as non-problem at time 1 (72.5%), time 2 (81.5%), time 3 (83.2%) and time 4 (81.5%). None of the at-risk baseline participants are classified as having severe gambling problems approximately one year later.
- The majority of individual classified as moderate-risk (n=98) decreased their gambling to less problematic levels. The proportion of individuals with moderate gambling problems at baseline who transitioned to severe problem gambling levels ranged from 1.4% to 10.2%.
- The greatest amount of stability in gambling level from baseline to follow-up is among individuals initially classified as having severe gambling problems (n=31). For instance, from baseline to time 1, 45.2% remained in the severe gambling category. Approximately one-third to one-quarter moved from severe gambling problems to moderate problems over the 4

¹⁷ Note - It should be noted that the information is based on group data and that more advanced models will examine changes in individual trajectories at the completion of the study. As well, the non-problem category in the statements above includes non-gamblers.

waves of follow-up. Approximately 30% to 40% are gambling at non-problem or at-risk levels at follow-up.

Next steps will involve looking at protective factors and risk factors by testing models to determine what predicts movement to more problematic levels of gambling and what predicts transitions away from problems. The results of this study will be released in the upcoming year.

Strengths & Limitations

With a sample of over 6000 respondents, the Manitoba Gambling and Problem Gambling Survey is one of the larger surveys conducted to date. The use of standardized instruments such as the PGSI and the AUDIT, including Computer-Assisted Telephone Interviewing (CATI) by a highly reputable local research firm, likely reduced any potential bias and enhanced the validity of the results presented in this report. Several efforts were also made (e.g., interview protocols to encourage participation, weighting the sample, to name a few) to recruit a sample that is representative of Manitoba.

However, this survey, akin to other prevalence designs, is not without its limitations. Most significantly, was the fact that the survey was restricted to adults living in households with telephone. Therefore, the sample does not include people who are currently homeless, individuals with cell-phone service only and adults living in group quarters. Telephone surveys are also based on self-reports, and as such, may be slightly biased due to social desirability issues.

In addition, response rates for telephone surveys in general have been on the decline and this trend may have impacted the sample obtained in this study. It should also be noted that the 2006 Manitoba Gambling and Problem Gambling survey is a cross-sectional snap-shot of gambling and problem gambling in the province. As such, causal inferences can not be drawn from the associations reported within this document.

Conclusion

Gambling in Manitoba remains to be a very popular form of entertainment with 86% of the general population reporting to gamble in the past year. The majority of Manitoban gamblers are still choosing to gamble on raffle tickets and lotteries. Less common gambling activities include sports gambling with a bookie and using the Internet. The rates of moderate-risk and problem gambling are consistent with previous studies in that they are higher than the Canadian average but comparable to the Prairie Provinces.

We know that the demographics of those with gambling problems and those at-risk of developing problems with their gambling have remained relatively stable since 2001. Problem gamblers are equally likely to be male or female, within the age group of 18-24, more likely to be employed part-time or to be unemployed and coming from a lower personal income level. Problem gamblers are also more likely to experience mental health and substance abuse issues. In addition, those with problems and at-risk of developing problems are also more likely to endorse some of the gambler's fallacies such as "the odds of winning on a slot machine or VLT change as you play" or "having a system when playing slot machines or VLTs increases the chances of winning". Lastly, problem gamblers are more likely to participate in specific gambling activities such as electronic machine gambling (slots in casinos or VLTs in restaurants, bars or lounges).

Research presented in this report identifies problem gamblers as quite distinct from at-risk gamblers and clients from AFM's community and residential treatment programs. In addition to several demographic differences, problem gamblers in the general population are more likely to be single and from lower personal incomes. Problem gamblers are also more likely to be spending a significant amount of money on their gambling and experiencing severe consequences due to their gambling such as mental health and financial problems compared to at-risk gamblers. While low-risk and moderate-risk gambling rates have risen significantly since 2001, the rate of problem gambling has not changed in the past five years.

Preliminary results from research by Wiebe et al. (2007) show that problem gambling in Manitoba appears to be more episodic versus progressive and static. In most instances, individuals in this research have transitioned to a less problematic level of gambling at follow-up. The greatest amount of stability in gambling level from baseline to follow-up is among individuals initially classified as having severe gambling problems. Again, these conclusions seem to indicate that problem gamblers are quite distinct from their at-risk counterparts.

In addition, the proportion of Manitobans reporting to be affected by someone else's gambling has increased significantly from 8% in 2001 to 12% in 2006. At a rate of 37%, friends were the most common group of people to cause problems

due to their gambling. Overall, 36% of Manitoban respondents reported to know someone who may be experiencing problems with their gambling. This may suggest that many residents in the province are concerned about the gambling behaviour in a friend or family member.

According to Shaffer, La Brie, La Plante, Nelson & Stanton (2004), prevalence studies of gambling and problem gambling have, “matured sufficiently for this strategy to be no longer fruitful” (p.514). Although the authors do not recommend a complete desertion of prevalence research, it is emphasized in the article that a movement towards the studies of gambling determinants would be the preferred path in the future.

The AFM is making several efforts to reach out to populations traditionally known to not access our services (e.g. different cultural groups, older adults). It is hoped that these efforts will improve AFM services and ultimately reduce harm from problem gambling in Manitoba. Although the AFM will continue to monitor its gambling program client statistics in addition to conducting population studies, the research agenda for the future will certainly be open to investigations into more detailed examinations of the causes of problem gambling and to explore the pathways of those individuals who are at-risk but do not experience problems with their gambling.

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Appendix A

History of Gambling in Canada & Manitoba

In 1969, amendments to the Criminal Code of Canada legalized gambling and gave provinces the authority to license and operate lotteries and casinos. After this date, each province developed gaming policies and practices independently. Lotteries were the primary gambling activity for the first 20 years after gambling was legalized. That changed dramatically with the establishment of Canada's first permanent government casino in Winnipeg in 1989 and the introduction of the first legal Video Lottery Terminals (VLTs) in New Brunswick in 1990.

Based on summary data from the Canadian Partnership for Responsible Gambling (2005/06), Canada's ten provinces have a total of 40,567 gambling venues. Seven of the ten provinces have casinos (exceptions being New Brunswick, Prince Edward Island, Newfoundland) while eight of the ten provinces have VLT sites (exceptions being Ontario and British Columbia). The total number of electronic gaming machines (EGMs), including both slots in casinos and VLTs, is 88,615. As a result of increased access to these activities, Canadians have been spending substantial amounts of money on their favorite gambling activities.

Overall gambling revenues in Canada have risen from \$2.7 billion in 1992 to approximately \$13.3 billion in 2005/06. This represents a 393% increase during a twelve year span for the Canadian gambling industry.

History of Gambling in Manitoba

Gaming has a 37 year history in Manitoba. It started to develop after the 1969 amendments to the Criminal Code legalized gambling. Some of the key dates and events that have occurred in Manitoba since the mid-1980s include:

1989

- The Crystal Casino, Canada's first permanent gambling venue, opens in Winnipeg. It features slot machines, blackjack, roulette and baccarat, replacing operations at the Convention Centre and the majority of rural locations. Proceeds are directed to special health care projects in the province.

1991

- Video lottery terminals (VLTs) are introduced in rural Manitoba.

1993

- The Club Regent Casino and the McPhillips Street Station Casino open in Winnipeg, offering bingo, slot machines, and table games.
- The number of VLTs in age-restricted locations outside Winnipeg reaches 2,100. In Winnipeg, 1,800 VLTs are introduced.

-
- The province's first problem gambling prevalence study is undertaken; the study reveals a problem gambling prevalence rate of 4.2%.
 - The Addictions Foundation of Manitoba is authorized to establish a problem gambling program budget \$2.5 million over the next 4.5 years.

1995

- Additional funding is provided to the Addictions Foundation of Manitoba (approximately \$1 million annually).
- A second prevalence study is completed; the study reveals a problem gambling prevalence rate of 4.3%.

1997

- The Crystal Casino closes in spring 1999 and casino operations are consolidated with the expansions of the Club Regent Casino and the McPhillips Street Station Casino.

1998

- 40,000 square foot additions to the Club Regent and McPhillips Street Station casinos are completed in time for the Pan Am Games

2001

- Manitoba Lotteries Corporation's Responsible Gaming Policy and Strategy was developed; the first of its kind in Canada.

2002

- Owned by a consortium of six First Nations, the Aseneskak Casino opens in February 2002 on the Opaskawayak Cree Nation, just outside of the community of The Pas.
- The Responsible Gaming Information Centre (RGIC) officially opens up for business at the end of 2002 in McPhillips Street Station Casino. This leading edge program was the first in North America.
- A provincial prevalence study reveals a problem gambling prevalence rate of 1.1% and a moderate-risk rate of 2.3%.

2005

- In May of 2005, the South Beach Casino, Manitoba's second First Nations owned casino, opened for business. Located in Scanterbury, Manitoba, the casino is owned by the Brokenhead Ojibway First Nation.

2007

- The Manitoba Gaming Control Commission (MGCC) began accepting applications for charitable Texas Hold'em Poker Tournaments February 1, 2007.

Regulation of Gambling in Manitoba

The licensing, operation, and regulation of gambling in Manitoba are handled by two agencies: The Manitoba Lotteries Corporation (MLC) and The Manitoba Gaming Control Commission (MGCC).

The Manitoba Lotteries Corporation (MLC) is responsible for the management and operation of gaming in the province including the Club Regent and McPhillips Street Station casinos, the Video Lottery Terminal (VLT) network, sales and distribution of Lottery products, Bingo paper and Break open tickets. The MLC works in partnership with a network of Lottery Retail Centres, Manitoba's hotel and restaurant industries, and veteran's organizations throughout the province.

The Manitoba Gaming Control Commission (MGCC), established in October, 1997, is an independent Crown agency whose primary purpose is to monitor and enforce compliance with the Gaming Control Act. The MGCC regulates and controls specific gaming activities in Manitoba such as bingo, break-open tickets, raffles and sports draft lotteries. As of February 1, 2007 the MGCC began licensing Texas Hold'em Poker Tournaments. The MGCC works in cooperation with charitable fundraising groups, restaurants and hotels, gaming industry employees, players, and First Nations casinos.

Gambling Opportunities in Manitoba

Currently, Manitoba has 4 permanent casinos (two in Winnipeg and two on First Nations reserves) which offer a total 2880 slot machines (including electronic bingo) and 76 table games. There are 547 VLT sites (usually in lounges or in bars) across the province (5642 total VLTs) and 840 lottery ticket centers. The Assiniboia Downs in Winnipeg offers live pari-mutuel horse racing and there are also several off-track betting facilities in the city. Other legalized gambling in the province includes raffles, sports pools, and similar events which must be licensed through the MGCC. In the past several years there have been some changes to the electronic gambling machines including a variety of new games and responsible gambling features (these features include permanent on-screen clocks, player choice of time limits, coin-in shown as cash not credits, bill acceptor limits, on-screen responsible gaming information displays, and Gambling Helpline messages).

According to their annual report (Manitoba Lotteries Corporation, 2007), the Manitoba Lotteries Corporation generated \$282.720 million in gambling revenue (net) for the 2006/2007 fiscal year. The largest contributor was VLT revenue (\$191.263 million), followed by lottery products revenue (\$59.490 million) and casino revenue (\$31.967 million).

Appendix B

Manitoba Gambling and Problem Gambling Reports: 1993 to 2005

Report Title, Author, Year	Description	Results
Student Gambling Report (Mackay et al., 2005)	<p>This report provides an overview of the findings of 6673 students from junior and senior high schools.</p> <ul style="list-style-type: none"> -38% of students in grade 7 to senior 4 reported gambling in some form. -Males reporting gambling significantly more than females. -Problem gamblers were more likely to have started gambling at a younger age. -Problem gamblers were more likely to have consumed alcohol, to be heavy drinkers, to show signs of alcohol dependence, to have used marijuana, smoked cigarettes, used other illicit drugs, have lower grades, to be skipping classes, failing school and engaging in acts of delinquency. -A higher percentage of problem gamblers had been prescribed medication for mental health and behavioural problems (depression, anxiety, ADHD, ADD and eating disorders). 	<p><u>6673 students</u> Problem G 2.3% Social Gambler 32.7% Non-Gambler 65.2% (DSM-IV-MR-J)</p>
Manitoba Youth Gambling Behaviour: Follow-up to the 1999 AFM Report (Lemaire, 2004)	<p>This report provides an overview of the findings of a follow-up study on 410 youth in Manitoba from the Winnipeg Urban and Rural regions.</p> <ul style="list-style-type: none"> -Males were more likely to participate in sports-related gambling while females were more likely to play bingo. -No significant differences between problem gambling and age, education, employment, cultural or living arrangement. -Significant differences emerged between psychological factors and problem gambling. -More at-risk/problem gamblers indicated low levels of family functioning, parental gambling and gambling because of family problems than their non-gambling counterparts. -Most youth did not change their gambling behaviour from time 1 (1999) to time 2 (2002/03) – however, 19% reported to get “worse” at time 2. -Most youth problem gamblers at time 1 moved to non-gambling and at –risk levels at time 2. -Although numbers are small, a higher proportion of youth reported help-seeking behaviour for their gambling as compared to 1999. 	<p><u>410 youth</u> (follow up from 1999) Problem G 1.2% At-risk G 6.1% (SOGS-RA)</p>
Addictions Foundation of Manitoba Problem Gambling Help-Line Review 2001-2002 (Heater & Smitheringale, 2003)	<ul style="list-style-type: none"> -A large increase in the numbers of calls were made to the help-line from the fiscal year of 2000-01 to 2001-02 (almost twice as many calls). Increases in advertising and new data collection forms may have contributed to this change. 	<p><u>3747 calls</u> (50% of these calls were for help)</p>



	<ul style="list-style-type: none"> -There was about twice as many women calling concerned about someone else’s gambling than there are men. -There was a small gender difference in callers calling about their own gambling problem (57% of men, versus 43% of women). -Most callers have been either concerned about their own or another’s gambling behaviour for several years. -The type of gambling that the majority of callers phoned about was VLTs and the most prevalent gambling locations were the Winnipeg casinos or hotels/bar locations. -There were a greater number of calls being made during the weekdays (Mon to Fri during the daytime) than there were at any other times of the week. 	
<p>Gambling Involvement and Problem Gambling in Manitoba (Brown et al., 2002)</p>	<p>This report provides an overview of findings from two studies conducted in 2001. The first was a survey of over 4,500 students sampled from a cross-section of Manitoba high schools. The second was a survey of over 3,000 adults sampled randomly from across the Province.</p> <p><u>Highlights – 4,500 students</u></p> <ul style="list-style-type: none"> -50% of all students said they had gambled or bet on something in the last 12 months. -15% of all students said they had played either VLTs or slot machines in the last 12 months. Of these, 48% were under 17 years of age at the time (about 7% of all high school students). -3% of high school students reported that their gambling has been a moderate or serious problem for them and another 7% said they had moderate or serious problems resulting from involvement of other family members in gambling. <p><u>Highlights – 3119 adults</u></p> <ul style="list-style-type: none"> -85% of adults gambled in one form or another over the past years. -Older gamblers, those from lower income households, and those from First Nation groups were more likely to spend over 10 hours per month and \$100 per month on gambling than others. -Male gamblers, adult gamblers under 25 years of age, and those having household incomes under \$30,000 per year appear to be more at risk for having problems from their gambling than others. -25% of all respondents did not know where to go or where to refer someone else for help with gambling problems. -Respondents who could name a source of assistance were by far most likely to identify the Addictions Foundation of Manitoba (40% of all respondents named the AFM in this regard). 	<p><u>3119 adults</u> Problem G 1.1% Mod Risk G 2.3% Low Risk G 6.0% (CPGI)</p>



<p>Prevalence of Gambling and Problem Gambling Among Older Adults in Manitoba (Wiebe, 2000)</p>	<p>This report provides an overview of findings from two phases of research with the senior population in Manitoba. Phase 1 of the research process was completed by telephone with 1,000 older adults (60 years and older). In Phase 2, in-depth telephone interviews were conducted with 61 older persons identified in Phase 1 as experiencing gambling-related problems and 22 individuals who were experiencing problems from another person's gambling.</p> <ul style="list-style-type: none"> -77.5% of respondents gambled at least once in the year prior to the study. -The large majority are not experiencing any problems related to their gambling as measured by the SOGS-R. -Compared to other social and recreational activities, older adults do not view gambling as an important activity. -1.6% of participants were gambling at problem levels and 1.2% were gambling at a probable pathological level. -Reasons associated with problem gambling included entertainment, winning money, passing time and forgetting problems. -5% reported being negatively impacted by someone's gambling (usually their child). -Older problem gamblers are unlikely to access services – embarrassment, shame and denial often prevent an older adult from seeking assistance. 	<p><u>1000 older adults</u> Problem G 1.6% Probable Path G 1.2% (SOGS-R)</p>
<p>Manitoba Youth Gambling Prevalence Study (Wiebe, 1999)</p>	<p>This report provides an overview of the findings from a survey of 1,000 youth between the ages of 12 and 17 in 1999.</p> <ul style="list-style-type: none"> -78% of respondents have gambled in the past year with 22% classified as non-gamblers. -The most common gambling activities are purchasing raffle tickets, betting on cards, board games, dice and coins and betting on games of skill. -Youth with gambling problems wager on significantly more types of activities than youth in the non-problem gambling category. -Most adolescents gamble with friends either at a friend's house or at home. -Youth problem gamblers spend more time on gambling and more time thinking about gambling than non-problem gambling youth. -Youth gamble because it is fun and entertaining, to win money, for the excitement and challenge and to do something with friends. -Youth problem gamblers were more likely to feel that their parents gambled too much, and to report being negatively impacted by others' gambling. -Most youth (82%) report having a parent or other adult in their life that they can talk to about problems. -Adolescents with gambling problems were the least likely group to have someone to talk to, however, the 	<p><u>1,000 youth</u> Problem G 3% At-risk G 8% (SOGS-RA)</p>



	<p>majority indicated that an adult was available some of the time or most of the time.</p> <p>-Problem gamblers have more difficulties in school, are less happy, more anxious, upset and depressed, have greater involvement with the police and use greater amounts of substances compared to non-problem gambling youth.</p>	
<p>Problem Gambling Study (September, 1995)</p>	<p>This report was prepared by Criterion Research Corp for Manitoba Lotteries Corporation.</p> <p>-92% of adult Manitobans reported having participated in at least one gambling activity in their lifetime.</p> <p>-Gamblers are significantly more likely to have at least a high school education and annual household incomes in excess of \$25,000 than non-gamblers.</p> <p>-Most Manitoban residents gamble for fun or entertainment (71%). Sixty percent gamble to win money or to support worthy causes.</p> <p>- Problem and probable pathological gamblers are significantly more likely than the total sample to be under 30 years of age and have household incomes in excess of \$25,000.</p>	<p><u>1207 adults</u> Problem G 2.4% Probable Path G 1.9% (SOGS)</p>
<p>Problem Gambling Study (1993)</p>	<p>This report was prepared by Criterion Research Corp for Manitoba Lotteries Corporation.</p>	<p><u>1212 adults</u> Problem G 2.9% Probable Path G 1.3% (SOGS)</p>

Appendix C Gambling Activity Profiles: 2006

Raffle and Fundraising Tickets

- 75% of all gamblers have bought raffle/fundraising tickets in the last 12 months.
- 54% of females purchase raffle and fundraising tickets.
- The majority of raffle ticket purchasers play less than monthly (82%).
- Most purchase raffle tickets in order to support a charity or a good cause (71%).
- 61% participate alone and 17.2% with a spouse or partner.
- Only 14% buy raffles tickets to win and 11% buy because they feel obligated or pressure to buy a ticket.
- 70% recall their first raffle ticket purchase before the age of 25.
- 6.3% of raffle ticket purchasers have spent more than \$100 at one time, 83% of raffle ticket purchasers spend \$20 or less at one time.

Lottery Tickets

- 74% of Manitoba gamblers purchase lottery tickets.
- 45% play less than once a month, and 55% purchase tickets weekly or monthly.
- Most purchase lottery tickets alone (73%), 9% play the lotteries with co-workers and 12% with spouse/partner.
- About 60% play to win, and 10% play for fun/entertainment.
- Almost 10% report playing the lottery when the draws have large pots.
- Many people started buying lotto tickets before age 25 (46%), and just over 70% had bought their first lotto ticket before age 35.
- Almost 50% spend \$5 or less per month on lottery tickets with 83% spending \$20 or less per month.
- Only 5.6% have spent more than \$20 in lottery tickets in one day.

Scratch and Instant Win Games

- 42% of gamblers in Manitoba play instant win and scratch games, 55% female and 45% male.
- 61% are yearly players, while 29% play monthly.
- 80% of these people play alone. 43% play to win, while 21% play for fun/entertainment.
- The majority of scratch players bought their first ticket before age 25 (55%)
- 46% spend less than \$5 per month. Only 8% spend more than \$20 per month.
- 66% recall the largest amount spent at one time as less than \$10. 1.9% have spent more than \$40 at one time.

Video Lottery Terminals

- 28% of gamblers in Manitoba play Video Lottery Terminals (VLT).
- 65% play yearly, 22% play monthly, 12% play weekly and just under 1% of VLT gamblers are daily players.
- The majority of VLT gamblers play with friends or a spouse (63%). 27% play alone.
- 61% of gamblers play VLTs for recreation or as a hobby. 22% play to win.
- 52% began playing VLTs between the ages of 18 and 25.
- The top five ages where VLT gambling began included: 18 (n=589), 30 (n=174), 25 (n=168), 40 (n=163), 20 (n=125) and 50 (n=103).
- 26% spend between \$20 and \$40 per month, but 31% spend \$5 or less per month. Approximately 12% have spent between \$100 and \$300 per month and only 3% have spent \$500 or more per month on VLTs.

- 42% of those who have played VLTs in the past year have spent between \$20 and \$40 at one time, but 15% recall the most they've ever spent at one time as being greater than \$100.
- The median time spent on VLTs per session is 30 minutes and the mean is 62.57 minutes. Although a small proportion of individuals spend 3 hours or more on VLTs at one time, those individuals are more likely to experience harms from their gambling.

Slots in a Casino

- 24% of gamblers play slots in a casino, 55% female; 45% male.
- Most slot players play less than once per month (82%)
- Nearly 70% of gamblers who play slots play with a spouse or friends. Only 16% play alone.
- 45% play for entertainment/fun, and nearly 20% play to win.
- 37% began playing slots before age 25. 30% began playing between age 25 and 35.
- 23% spend less than \$5 per month, another 29% spend between \$20 and \$40 per month. Nearly 10% of those who gamble on slot machines spend \$100-\$150 per month and 6% spend more than that.
- 8% recall the largest amount ever spend on a slot machine at one time as being greater than \$150, but most have spent \$20 or less at once (49%).
- The median time spent on slots per session is 60 minutes and the mean is 99.81 minutes.

Card Games NOT in a Casino or on the Internet

- 18% of gamblers play card games (other than in a casino or on the Internet).
- 64% of gamblers who play card games outside of casinos and the Internet are male.

- 69% play less than once a month, 21% play monthly.
- 72% play with friends, 9% play cards with a spouse and 12% play with family members.
- 56% play for fun/entertainment and 26% play for the enjoyment of socializing. Only 5% play looking to win. This type of gambling generated the highest proportion of people that were playing to socialize.
- Almost 40% began playing card games before age 18. The majority of players (83%) have started playing cards outside of the casino and the Internet by the time they reach 25 years old.
- The majority of players spend \$10 or less per month (54%)
- Almost 70% spent less than \$20 at one time. 13% consider \$50 to \$100 as the largest amount spent in one day.
- The median time spent on this gambling activity per session is 180 minutes and the mean is 192.89 minutes. This activity (in addition to horse racing) costs gamblers the most time per session.

Bingo

- 13% of gamblers play bingo.
- The majority of bingo players are female (71%)
- 64% play less than monthly; 20% play weekly; 16% play monthly.
- 35% play bingo with friends, while 20% play alone. 17% play bingo with their spouse/partner.
- Most play for entertainment (32%), many just play for something to do (19%). 18% play to win.
- 63% played their first bingo game by the time they turned 20 years old.
- 43% spend \$10 or less on bingo per month, 19% spend \$50 or more per month.
- Most people (80%) claim the largest amount spent in one sitting to be under \$30. Only 3% have spent more than \$100 in a day.
- The median time spent on bingo per session is 120 minutes and the mean is 131.69 minutes.

Sport Pools

- 12% of gamblers play sport pools.
- Males are more likely to play sport pools than female gamblers (76%).
- Most play yearly (91%)
- 60% play with friends and coworkers, 28% play alone.
- Most players consider sport pools as fun and entertaining (38%). 13% bet money because it is challenging and competitive. 15% play to win.
- Most began playing between age 18 and 24 (39%); 87% recall their first pool by age 34.
- Most people spend \$5 or less per month (57%); 94% spend less than \$50 per month.
- The majority (82%) consider \$20 or less as the most they have ever spent at one time. Very few have spent \$100 or more (3%).
- The median time spent on sports pools per session is 30 minutes and the mean is 169.24 minutes.

Horse Races

- 7% of gamblers bet on horse racing events.
- 56% of people betting on horse races are male.
- The large majority play less monthly (88%).
- 35% go to the track with a spouse, 34% with friends, and 13% alone.
- Most just play for fun/entertainment (57%).
- Almost 50% started placing bets by age 24; by age 35 just over 80% had started betting on horse races.
- 36% spend between \$20 and \$40 per month; 9% spend over \$100 per month.
- 69% say the largest amount spent at once was \$30 or less. 6% have spent more than \$100 in one day.

- The median time spent on horse racing per session is 180 minutes and the mean is 172.20 minutes.

Sport Select

- 7% of gamblers have played Sports Select.
- Sports Select is mostly played by males (88%)
- 47% play less than monthly; 26% play once or twice a week.
- Sports Select is largely a solitary game – 66% play alone
- 36% play to win, 24% play for fun/entertainment and 17% play for the challenge.
- 33% began playing Sports Select by the time they were 18 years old. At the age of 30 most (79%) had placed their first bet on a Sports Select activity.
- Most spend \$20 or less per month (72%); 15% spend \$50 or more per month.
- 52% recall between \$5 and \$20 as the largest amount ever spent at one time on sport select. Only 3% consider \$100 or more as the most spend at one time.

Dice or Card games IN a Casino

- 6% of gamblers have bet on dice or card games in a casino.
- 75% of dice or card gamblers are male.
- 76% play fewer than once a month.
- Most play with friends (47%) and 22% play alone.
- Interestingly, 52% play for fun/entertainment and 24% play to win.
- 55% began playing between the ages of 18 and 24. Just over 80% started playing dice or card games in a casino by the time they turned 30 years old.
- Many dice or card game players (45%) recall spending \$20 or less per month. 26% spend between \$50 and \$100 per month.

- While almost half have spent \$40 or less at one time, 32% have spent \$100 or more in one day betting on dice or card games.
- The median time spent on dice or card games in a casino per session is 90 minutes and the mean is 116.08 minutes.

Outcome of Professional Sporting Events

- 6% of gamblers have bet on the outcome of professional sporting events.
- 78% males gamble on this type of activity.
- Usually played on a yearly basis (86%)
- 52% bet on sporting events with friends. 25% play alone.
- While 36% play for fun/entertainment, 18% play for the challenge and 16% play to win.
- Many players started before age 18 (36%).
- 6% spend \$100 or more per month, but most spend \$10 or less (66%).
- 2% have spent more than \$150 at one time. Most (78%) have spent \$20 or less at one time on professional sporting events.
- This activity costs gamblers the least amount of time per session (5.3 minutes - median and 22.88 minutes - mean) compared to all other forms of gambling.

Internet Gambling

- Internet gambling is the least popular activity with the endorsement of only 1.5% of past year gamblers.
- Most are male, with only 11% of females using the Internet to gamble.
- 40% play yearly; 29% play a couple of times a week.
- 94% gamble online alone.
- Most people play for entertainment (54%), although 20% play to win.
- Before the age of 18 only 4% used the Internet for gambling. Between the ages of 18 and 24, 43% gambled on the Internet for the first time.

-
- 22% spend between \$20 and \$35 per month. Many spend more than \$100 per month (27%)
 - 65% recall the largest amount spent at once being \$50 or less, but 22% have spent \$100 or more at one time.
 - The median time spent on Internet gambling per session is 120 minutes and the mean is 140.27 minutes.

Appendix D PRA Inc.'s Methodology Report 2006

1.0 How this research is conducted

The Survey about Adult Gambling was conducted in April, May, and June 2006. Telephone interviews on a range of issues were conducted with 6,007 Manitoba residents, 18 years of age and older. These issues included: personal gambling behaviour and prevalence; the Canadian Problem Gambling Index series of questions on problem gambling behaviours; alcohol consumption; illicit drug and cigarette usage; personal and mental health; and background or demographic information.

The respondents were selected by random digit dialing, which allows us to include those with unlisted or new numbers. This technique produces a random sample that includes the highest possible percentage of eligible respondents.

Table 1: Summary of methodology	
Survey About Adult Gambling	
Pre-test	March 15 and 16, 2006
Survey dates	March 24 to June 22, 2006
Sample size	n=6,007
Interviewing method	Telephone
Sample selection	Random digit dialing
Approximate error rate (theoretical)	+/- 1.29, 19 times out of 20

1.1 Weighting

In the general population data file, we have included a weighting model for Manitoba residents in order to correct for differences in the demographics of the population.

In some cases, when the random sample produces a divergence from Canadian census data, we correct for slight discrepancies in gender, age, and income. For example, since men tend to refuse to participate more often than women, and since younger respondents are often more difficult to find at home, we re-weight the data to conform more closely to Statistics Canada information.

Since this technique assigns a percentage "weight" to a respondent, the number of weighted respondents may be slightly different from the total number interviewed.

We applied a quota sampling methodology near the end of the fielding period in order to increase the proportion of 18 to 24 year-old and male respondents so we did not have to apply as high of a weighting schema to these populations. However, while we used a quota sampling methodology, we still weighted the data by age and gender. Even when we applied quota sampling, we did not achieve the required number of 18 to 24 year-old or male respondents to align with the 2001 Census information.

Table 2 (next page) has not been weighted.

1.2 Objectives of the research

With the growth of gambling opportunities, the Addictions Foundation of Manitoba (AFM) was interested in understanding the prevalence of gambling (especially problem gambling) in the province. Thus, the purpose of this research was to “identify the number of gamblers and the prevalence of problem gambling in Manitoba.” A secondary goal was to “provide AFM with a contact list of range of future projects related to gambling”.

1.3 Demographic profile

Table 2 provides a demographic profile of respondents in the Adult Gambling Survey and compares it with 2001 Census information (this is unweighted data).

Table 2: Profile of respondents compared to Census data – unweighted data		
Variable	Sample % (n=6,007)	Manitoba population (based on 2001 Census)
Gender		
Male	37%	48%
Female	63%	52%
Age		
18 to 24 years	9%	12%
25 to 39 years	25%	28%
40 to 64 years	51%	41%
65 and over	13%	19%
No response	2%	N/A
Household income		
Under \$30,000	17%	24%
\$30,000 to \$49,999	21%	25%
\$50,000 to \$69,999	16%	21%
\$70,000 to \$99,999	14%	18%
\$100,000 or greater	11%	12%
Don't know/No response/Not applicable	21%	NA
Region		
Winnipeg	60%	60%
Outside Winnipeg	40%	40%

Appendix E

Current Gambling Research Projects: AFM

Internal: Data Collection/Monitoring and Program Evaluation

AFM collects and monitors data from gambling-related programs in order to increase their understanding of the client population, to explore trends over time and to support the needs of clinical programs. In addition, AFM conducts evaluations on pilot projects to identify their effectiveness and to make evidence-based recommendations.

Gambling and Problem Gambling Prevalence Studies

Every 4-5 years, AFM conducts prevalence research with youth and adults in Manitoba. The purpose of this research is to explore the nature and extent of gambling and gambling problems in Manitoba in addition to describing the characteristics of individuals experiencing gambling-related problems. Monitoring these statistics over time also provides some information about potential trends in the province.

Manitoba Longitudinal Study of Young Adults (MLSYA)

Several years ago the Addictions Foundation of Manitoba (AFM) partnered with the Manitoba Gaming Control Commission (MGCC) and Manitoba Lotteries Corporation (MLC) to develop the Manitoba Longitudinal Study of Young Adults (MLSYA). The study will follow a sample of 18 to 20 year old Manitobans over a five-year span in order to provide a picture of their changing gambling behaviours and attitudes and to identify biological, psychological and sociocultural factors that can be linked to these changes. The study is currently under-way and will follow a minimum of 400 young adults in the province over a five year period.

Review of the Canadian Problem Gambling Index (CPGI)

The CPGI was launched in 2001 and is currently recognized as one of the most valid and reliable measures of problem gambling on a national and international level. Since its launch, the CPGI has been used in all ten Canadian provinces and in other countries such as Iceland and Norway. Several years ago, an inter-provincial group was created to oversee a review of the CPGI. The final report included valuable information about the utility of the instrument with recommendations for the future. The AFM continues to work with other organizations collaboratively (including the MGCC and other provincial organizations across Canada) in the continuous review and refinement of the CPGI.

The Canadian Adolescent Gambling Inventory (CAGI)

The AFM works collaboratively with an inter-provincial group of funding partners to oversee the development of an instrument for assessing gambling risk and problem gambling in adolescent populations, the Canadian Adolescent Gambling Inventory (CAGI). This work is important as it is creating a measure that will allow Canadian jurisdictions to conduct consistent and comparable baseline studies of adolescent problem gambling and to monitor changes over time. The project is currently in its third phase, which involves the further validation and refinement of the instrument. The end goal is a gold standard measure of gambling risk and problem gambling for the adolescent cohort.

Social Economic Impacts of Gambling

The AFM is involved in a national committee to oversee the development of a framework for measuring the social and economic impacts of gambling (SEIG). Measuring the social and economic impacts of gambling is complex and involves several phases, experts from a variety of areas and a collaborative team designed to oversee the work. Recently, the “*Socio-Economic Impacts of Gambling Assessment Framework for Canada*”¹⁸ was reviewed by the national oversight committee and several experts in gambling research and economics. It is anticipated that the final framework will be published in late 2007/early 2008. The committee is beginning to plan the next phases of this project. The next steps may involve a future symposium of international experts discussing the merits of the proposed document as research progresses with the framework. The symposium may also serve as an avenue to explore revising the framework and developing international guidelines for its use.

¹⁸ Authored by Anielski Management Inc.

Appendix F

Methodological Comparisons with other Provincial Surveys

Prov	Year	Sample Size	Age	Time-line	Response Rate	Weighting Procedures	Sampling Method	Source
BC	2003	2500	18+	Nov-Dec	27%	Weighted by age, gender and regional district according to BC's 2001 census population.	Random Telephone	Ipsos-Reid & Gemini Research (2003). British Columbia problem gambling prevalence survey
AB	2002	1804	18+	Aug-Oct	63.6%	By gender and location to AB's 1996 census population	Random Telephone	Smith, G.J. & Wynne, H.J. (2002). Measuring gambling and problem gambling in Alberta using the Canadian problem gambling index.
SK	2002	1848	19+	April-May	60%	By gender and location to SK's 1996 census population	Random Telephone	Wynne H. J. (2002). Gambling and problem gambling in Saskatchewan.
ON	2005	3604	18+	6mo	46.4%	Weighted by gender to StatsCan Pop estimates for ON 04/05	Random Telephone	Weibe, J., Mun, P., & Kauffman, N. (2006) Gambling and problem gambling in Ontario.
QC	2002	4225	18+	May-Nov	60.8%	Weighted to QC's 2001 census population	Random Telephone	Ladoeur, R., et. al (2004) Prevalence des habitudes de jeu et du jeu pathologique au Quebec en 2002.
NB	2001	800	19+	July-Aug	63%	Weighted by age and home language to NB's 1996 census population	Random Telephone - for males and females separately	Focal Research Consultants (2001) 2001 Survey of Gambling and Problem gambling in New Brunswick.
NS	2003	2800	19+	April-June	68%	Not weighted (used non-random sampling)	Obtained random samples for each age/sex group	Focal Research (2004). 2003 Nova Scotia gambling prevalence survey.
PEI	2006	1000	18+	Spring	38%	Not weighted (used non-random sampling)	Respondents selected to be representative of the PEI population (age/sex/region)	Doiron, J. (2006). Gambling and problem gambling in Prince Edward Island.
NL	2005	2596	19+	Sept-Oct	?	Weighted to overall provincial level	Disproportionate Random Sampling	Market Quest Research Group, Inc. (2005). 2005 Newfoundland and Labrador gambling prevalence study.
MB	2006	6007	18+	April-June	42.4%	Weighted by gender, age and income to MB pop in 2001 census	Random Sampling	

Appendix G

Provincial Problem Gambling Rates and 95% Confidence intervals

Prov.	Problem Gambling Rate	Low estimate	Upper estimate
NF	1.2	0.78	1.62
NB	1.4	0.59	2.21
NS	0.8	0.47	1.13
PEI	1.6	0.82	2.38
QC	0.7	0.45	0.95
ONT	0.8	0.51	1.09
MB	1.4	1.10	1.70
SK	1.2	0.70	1.70
AB	1.3	0.78	1.82
BC	0.4	0.15	0.65