

Fighting the odds

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OVER THE PAST DECADE the gambling industry has flourished. Canadians have steadily increased their wagering—from an estimated \$2.7 billion in 1992 to about \$11.3 billion in 2002 (Marshall 1996, 1998, 2003). While increased GDP, employment and government revenue¹ may be the upside of gambling, rising social and health consequences of problem gambling are the downside. Although most 6/49 players or casino visitors indulge purely for fun and entertainment (and the dream of a jackpot), the gambling behaviour of a small segment of the population will be problematic.

In the American Psychological Association's *Diagnostic and Statistical Manual IV*, pathological gambling is defined as an impulse control disorder. The Canadian Problem Gambling Index (CPGI), used to screen for problem gamblers in the general population, defines problem gambling as "gambling behaviour that creates negative consequences for the gambler, others in his or her social network, or the community" (Ferris and Wynne 2001, p. 2). These consequences can be as severe as bankruptcy, job loss, marital breakdown or suicide.

Cycle 1.2 of the Canadian Community Health Survey—Mental Health and Well-being (CCHS 1.2), offers first-time information on problem or pathological gambling across Canada. Gambling behaviour and socio-economic characteristics of non-problem, at-risk, and problem gamblers can now be examined. Issues associated with problem gambling, such as income, health, and social relations can also be explored (see *Data source and definitions*).

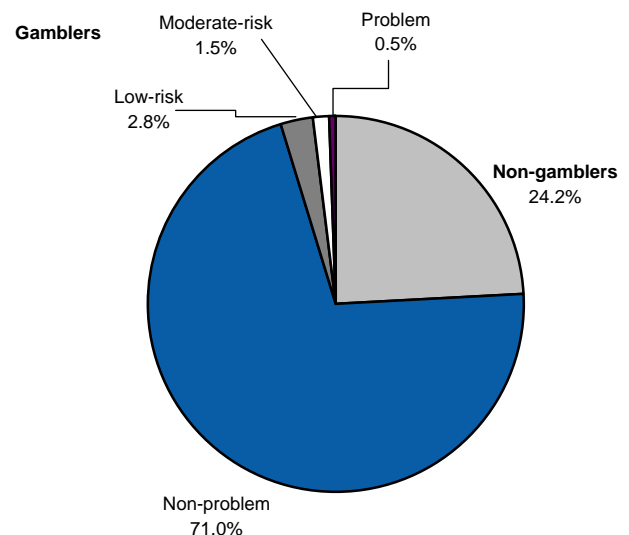
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Majority gamble, but minority at risk

Where there is gambling, there will be people with a problem.² Of the estimated 18.9 million Canadians who gambled in 2002, 17.7 million were non-problem gamblers, while 1.2 million (5% of the adult population) had the potential to become problem gamblers or were already (Chart A). By definition, problem gamblers have suffered adverse effects from their gambling behaviour.

According to the Problem Gambling Severity Index (PGSI), part of the CPGI, 700,000 gamblers were low-risk, 370,000 were moderate-risk, and 120,000 were problem gamblers. Low-risk gamblers scored between 1 and 2 on the PGSI, moderate-risk between 3 and 7, and problem gamblers 8 or more. Scores

Chart A: Gambling was a problem or potential problem for 5% of the adult population.



Source: Canadian Community Health Survey 1.2, 2002

Data source and definitions

The Canadian Community Health Survey (CCHS) provides regular and timely cross-sectional estimates of health determinants, health status, and health system utilization. The initial year (2000) and every odd year thereafter (from 2001) collects generic health information from 130,000 respondents. During the even years, the survey sample is smaller (roughly 30,000) and addresses a specialized topic. Cycle 1.2, on Mental Health and Well-Being, was held in 2002. Its main objective was to provide national and provincial estimates of major mental disorders and problems, and to illuminate the issues associated with disabilities and the need for and provision of health care. The survey contained questions on a wide range of disorders and problems, including a section on 'pathological gambling.'

The target population of the CCHS 1.2 excludes those living in the three territories, individuals living on reserves or crown land, residents of institutions, full-time members of the Armed Forces, and residents of some remote regions.

The **Problem Gambling Severity Index (PGSI)** is part of the Canadian Problem Gambling Index (CPGI), an instrument developed over a three-year period in the late 1990s by a group of researchers in response to an interprovincial task force on problem gambling. The CPGI is considered a more appropriate measure for the general population than two other well known clinical instruments: the South Oaks Gambling Screen and the American Psychological Association's medical diagnostic measure DSM-IV (Ferris and Wynne 2001). Based on numerous questions on gambling involvement, problem gambling behaviour, and adverse consequences (disruption of personal, family or professional life), the CPGI classifies respondents as non-gamblers, non-problem gamblers, low-risk gamblers, moderate-risk gamblers, or problem gamblers.

In a CPGI modification, respondents who seldom gambled in the previous year (less than five times) or who clearly stated that they were not gamblers were not asked the gambling severity questions. Also, gambling activities were regrouped into fewer categories than used in the original CPGI. The PGSI assesses gambling problems using a nine-item scale. Each item carries a score of 0 to 3, making the total index range from 0 to 27. All nine items refer to the past 12 months.

- How often have you bet more than you could really afford to lose?
- How often have you needed to gamble with larger amounts of money to get the same feeling of excitement?
- How often have you gone back another day to try to win back the money you lost?
- How often have you borrowed money or sold anything to get money to gamble?

- How often have you felt that you might have a problem with gambling?
- How often have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?
- How often have you felt guilty about the way you gamble or what happens when you gamble?
- How often has your gambling caused you any health problems, including stress or anxiety?
- How often has your gambling caused any financial problems for you or your household?

Non-problem gamblers gamble infrequently (less than five times per year), declare themselves not gamblers, or score zero on the PGSI.

Low- or moderate-risk gamblers gamble more than five times a year and show some indication of problem gambling behaviour. Low-risk gamblers scored between 1 and 2 on the PGSI and have most likely not yet experienced any adverse consequences from gambling. Moderate-risk gamblers scored between 3 and 7 on the PGSI and may or may not have experienced adverse consequences.

Problem gamblers gamble more than five times a year, and the gambling behaviour creates negative consequences for them, others in their social network, or the community. Problem gamblers scored between 8 and 27 on the PGSI.

Alcohol dependence is measured by the responses to questions on alcohol use, behaviour, and attitudes towards drinking. The definition includes alcohol-related withdrawal, loss of control, or social or physical problems. The questions are based on an international instrument that provides diagnostic estimates for psychoactive substance use disorder.

Distress scale is a rating based on the responses to questions on psychological distress during the one-month period prior to the survey. This analysis used the K6-Distress Scale, whose definition and criteria are based on the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R) used by the American Psychiatric Association.

Major depression is a period of two weeks or more with persistent depressed mood and loss of interest or pleasure in normal activities, accompanied by symptoms such as decreased energy, changes in sleep and appetite, impaired concentration, and feelings of guilt, hopelessness, or suicidal thoughts. The definition and criteria are from the *Diagnostic and Statistical Manual of Mental Disorders* used by the American Psychiatric Association.

were based on a combination of gambling involvement, problem gambling behaviour, and adverse consequences.

No trend data exist on problem gambling rates, but research has shown that increased access to gambling contributes to an increase in the prevalence of gambling-related problems (Volberg 1994). Increased accessibility, poverty, low socio-economic status, and substance abuse have been linked with problem gambling.

Gambling continues to expand; three-quarters (76%) of people 15 and over spent money on some form of gambling in 2002—with 38% doing so at least once a week (Table 1).³

Gambling in its various forms

Buying lottery tickets was by far the most popular gambling activity (65% participation rate), followed by instant win tickets (36%), and going to a casino (22%).⁴ Many ticket buyers participated regularly—37% of lottery and 23% of instant win players on a weekly basis.

Table 1: Participation in gambling activities

	Population 15 and over	At least one activity	Lotteries	Instant win	Casinos	Bingo	VLTs not in casinos	Horse racing	Other*
Total ('000)	24,997	18,911	16,225	9,039	5,420	2,099	1,514	1,040	5,276
%	100	76	65	36	22	8	6	4	21
	'000					%			
Men	12,286	78	68	34	22	5	7	5	27
15 to 17	706	50	18	12	F	4 ^E	2 ^E	1 ^E	39
18 to 24	1,406	73	52	40	31	7	13	5	39
25 to 44	4,769	81	73	39	24	4	9	6	30
45 to 64	3,774	84	78	34	22	4	6	5	23
65 and over	1,632	74	65	28	19	5	3	4	15
Women	12,710	73	62	38	21	12	5	3	15
15 to 17	660	34	12	13	F	6 ^E	3 ^E	1 ^E	21
18 to 24	1,366	68	45	44	25	13	8	2 ^E	20
25 to 44	4,738	77	68	44	21	13	6	4	16
45 to 64	3,852	78	70	38	24	12	4	4	13
65 and over	2,095	70	59	29	20	12	3	3	11
Province									
Newfoundland and Labrador	439	75	64	36	6	13	12	1 ^E	23
Prince Edward Island	112	75	61	43	9	11	7	11	20
Nova Scotia	756	78	67	41	19	11	12	1 ^E	22
New Brunswick	608	76	65	40	11	13	10	2 ^E	21
Quebec	6,041	79	71	32	18	9	7	2	17
Ontario	9,656	75	64	38	26	8	2	6	22
Manitoba	865	74	63	30	29	11	21	5	23
Saskatchewan	759	76	64	36	25	9	15	2 ^E	25
Alberta	2,429	72	61	31	18	8	12	4	24
British Columbia	3,332	75	63	44	21	6	3	3	23
Gambling frequency**	18,911	100	100	100	100	100	100	100	100
1 to 7 times a week	7,271	38	37	23	3	21	11	5	15
1 to 3 times a month	4,374	23	23	26	8	17	18	6	18
1 to 11 times a year	7,266	38	40	51	88	62	71	89	68

Source: Canadian Community Health Survey 1.2, 2002

* Includes betting on cards outside casinos, Internet gambling, speculative investments or other forms of gambling.

** Of those who gambled in the specified activity.

Table 2: Personal characteristics and gambling behaviour

	Total gamblers	Non-problem	At-risk and problem gamblers				
			Total	At-risk			
				Low	Moderate	Problem	
Total ('000)	18,887	17,699	1,188	697	373	118	
%	100.0	93.7	6.3	3.7	2.0	0.6	
Men	9,610	100.0	92.2	7.8	4.4	2.6	0.7
Women	9,277	100.0	95.2	4.8*	2.9	1.4	0.5
Average age**	44	45	40*	40	39	41	
Personal income							
Less than \$20,000	6,392	100.0	93.3	6.7	3.9	2.0	0.8
\$20,000 or more	11,289	100.0	93.8	6.2	3.6	2.0	0.6
Level of education							
Less than postsecondary	9,689	100.0	92.4	7.6	4.5	2.4	0.7
Postsecondary	9,047	100.0	95.2	4.8*	2.8	1.5	0.5 ^E
Racial background							
Non-Aboriginal	18,593	100.0	93.8	6.2	3.7	1.9	0.6
Aboriginal	217	100.0	81.5	18.5*	7.2 ^E	8.3 ^E	2.9 ^E
Province							
Newfoundland and Labrador	330	100.0	93.7	6.3	3.7 ^E	1.9 ^E	F
Prince Edward Island	83	100.0	95.2	4.8 ^E	2.5 ^E	1.8 ^E	F
Nova Scotia	588	100.0	94.3	5.7	3.3	1.4 ^E	1.1 ^E
New Brunswick	463	100.0	94.7	5.3	3.2 ^E	1.5 ^E	F
Quebec	4,787	100.0	95.4	4.6*	2.6	1.6 ^E	0.4 ^E
Ontario	7,213	100.0	93.5	6.5	3.8	2.1	0.6 ^E
Manitoba	642	100.0	90.6	9.4*	5.3	3.3	0.8 ^E
Saskatchewan	575	100.0	90.7	9.3*	5.4	2.5 ^E	1.5 ^E
Alberta	1,731	100.0	92.2	7.8*	4.7	2.3	0.7 ^E
British Columbia	2,474	100.0	93.1	6.9	4.3	1.9	0.7 ^E
Gambling frequency							
Daily	278	100.0	69.7	30.3*	16.4 ^E	7.9 ^E	6.0 ^E
2 to 6 times a week	2,784	100.0	85.7	14.3*	7.2	5.4	1.6
Once a week	4,198	100.0	91.3	8.7	5.1	2.9	0.7 ^E
Once a month	4,370	100.0	94.1	5.9*	4.2	1.2	0.5 ^E
Once a year	7,257	100.0	98.9	1.1*	0.7	0.4 ^E	F
Gambling activity							
Lotteries	16,202	100.0	93.5	6.5	3.8	2.1	0.6
Instant win	9,027	100.0	90.6	9.4*	5.5	2.9	1.0
Casinos	5,413	100.0	86.7	13.3*	7.6	4.4	1.4
Bingo	2,098	100.0	84.5	15.5*	9.1	5.0	1.4
VLTs outside casinos	1,512	100.0	74.4	25.6*	13.2	9.0	3.4
Horse racing	1,038	100.0	84.2	15.8*	7.0	6.7	2.1 ^E
Average activities**	1.9	1.9	3.0*	2.9	3.2	3.2	

Source: Canadian Community Health Survey 1.2, 2002

* Statistically significant difference at the .05 level. Tests were done between the at-risk proportion of the [reference category] and other categories within each variable (except for the provinces, which were compared with the Canada total).

** Significance tests were done between the non-problem and at-risk gambling populations.

Only 3% of those who visited a casino in the past year did so weekly. Although bingo was played by relatively few gamblers (8%), it was the third most frequently played game—one in five played at least once a week.

Participation in gambling was high among both men (78%) and women (73%), and was 70% or higher among each age group over 24. Despite the legal age restriction of 18 in most provinces, one-half of young men and one-third of young women (aged 15 to 17) gambled in 2002. Indeed, a considerable number of these adolescents purchased provincially sanctioned lotteries and instant win games. Youth participation rates were highest in the ‘other gambling’ category—predominantly betting on cards or board games outside casinos, or on games of skill (such as pool or darts).

Differences in provincial participation rates reflect both accessibility to particular types of gambling and provincial cultural preferences. For example, VLTs in age-restricted locations, such as racetracks and bars, are permitted in Manitoba but not in Ontario, producing vastly different participation rates—21% and 2% respectively. Although bingo is permitted in all provinces, it is generally more popular in the Atlantic region. Betting on horse racing, also available nationwide, has relatively low participation rates. However, 11% of Prince Edward Islanders bet on the ponies in 2002, well above the national average of 4%, perhaps because harness racing is closely connected to the culture in that province (Jepson and Patton 1999).⁵

Those most at risk

Men who gambled were significantly more likely than women to be at-risk or problem gamblers—8% versus 5% (Table 2). Some claim this difference exists because men and women tend to gamble for different reasons and in different activities. Men were more likely to play VLTs (7% versus 5%) and bet on horse racing (5% versus 3%); women were more likely to play bingo (12% versus 5%) (Table 1). The cultural image of a gambler may also play a role. The archetypal gambler portrayed in movies, fiction and music has always been male (Castellani 2001).

At-risk and problem gamblers were also, on average, younger than non-problem gamblers (40 versus 45). While gamblers with less than postsecondary schooling were significantly more likely than those with more education to be at-risk or problem gamblers (8% and 5% respectively), low-income gamblers (under \$20,000) were not significantly different from higher-income gamblers (\$20,000 or more).⁶

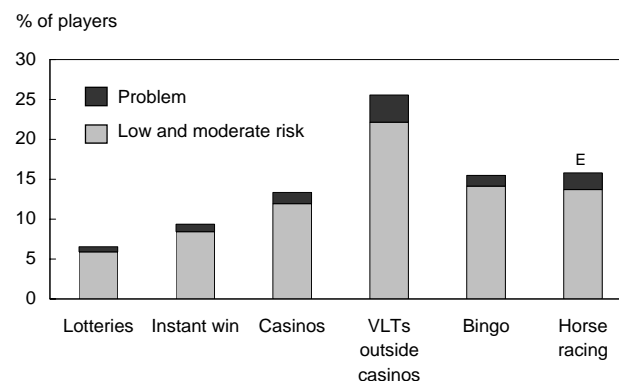
Off-reserve Aboriginal gamblers were significantly more likely to be at risk than non-Aboriginal gamblers—18% versus 6%.⁷ The factors associated with problem gambling raise concerns for the Aboriginal population. “First Nations communities in Canada likely will be at greater risk, as many of their communities experience high rates of substance abuse and have lower than average levels of income and education.” (Kelley 2001, p. 6).

Manitoba and Saskatchewan had considerably higher proportions of at-risk gamblers (9.4% and 9.3% respectively) than other provinces. Contributing factors may include the highest VLT participation rates in the country; the highest casino participation rates along with Ontario (Table 1); and above average Aboriginal populations.⁸

Almost one in three daily gamblers were either at risk (30%) or already problem gamblers (6%). Those who gambled two to six times a week were also significantly more likely to be at risk or to have a problem (14%).

Finally, at-risk and problem gambling rates varied considerably by the type of game played, suggesting that some games are more alluring than others (Chart B). For example, one in four of those whose playing included VLTs were at risk or already problem gamblers, confirming the much-reported notion that VLTs

Chart B: One-quarter of VLT players were at risk or had a problem.



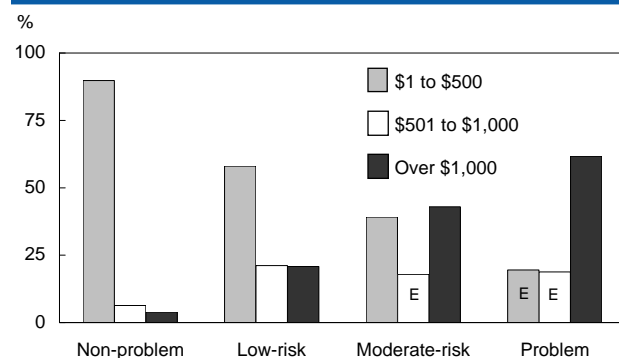
Source: Canadian Community Health Survey 1.2, 2002

are the ‘crack cocaine’ of gambling. By contrast, buyers of lottery tickets, the game of choice for 16 million people, had the smallest proportion of at-risk and problem players (7%).⁹

Gambling takes money

Inevitably, frequent gambling lightens the wallet. Problem gamblers were by far the most likely to spend more than \$1,000 per year—62%, compared with 4% of non-problem gamblers (Chart C).

Chart C: Six in 10 problem gamblers spent over \$1,000 per year.



Source: Canadian Community Health Survey 1.2, 2002

Moderate-risk gamblers at 43% were next highest, followed by low-risk gamblers at 21%. The vast majority of non-problem gamblers (90%) spent \$500 or less per year, with 33% spending only \$50 or less.

Overall, 6% of gamblers spent over \$1,000, the same proportion reported by one-person households in the Survey of Household Spending (SHS). Although it is not possible to identify problem gamblers from the SHS, exact gambling expenditures are available. The median value for those who spent more than \$1,000 was \$2,280 for men and \$1,900 for women in 2001.¹⁰

Constant gambling and excessive spending can take its toll in many facets of life—particularly personal and family finances. The majority of problem gamblers (62%) reported that they always or most of the time spent more money on gambling than they wanted to (Table 3). Only 3% of non-problem gamblers reported that they only sometimes spent more than they had planned (data not shown). Furthermore, 85% of problem gamblers said they sometimes or most of the time bet more than they could afford to lose, compared with 47% of moderate-risk and 14% of low-risk gamblers. Without doubt, constant out-of-control and unaffordable spending can lead to debt and unpaid bills, thus adding further emotional and financial strain. Indeed, among problem gamblers, 53% said their gambling habits sometimes caused financial problems, and another 17% reported that they always or almost always did. Finally, 39% of problem gamblers claimed that they sometimes borrowed money or sold things in order to continue gambling, a desperate action that risks further financial hardship.

Problem gamblers burdened with stress and health issues

Relentless preoccupation with gambling consumes both time and money, and can also have a negative effect on physical and mental health. Problem gamblers were twice as likely (22% versus 11%) to report poor or fair health compared with non-problem gamblers (Table 4). The likelihood of alcohol dependence increased as

Table 3: Money issues related to gambling

	Type of gambler		
	Low-risk	Moderate-risk	Problem
	%		
Spent more than wanted to			
Sometimes	52	64	30
Always/most of time	5 ^E	24	62
Bet more than could afford to lose			
Sometimes	14	44	47
Always/most of time	0	3 ^E	38
Gambling caused financial problems			
Sometimes	F	22	53
Always/most of time	0	F	17 ^E
Borrowed money or sold things to gamble			
Sometimes	5 ^E	18	39
Always/most of time	F	F	F

Source: Canadian Community Health Survey 1.2, 2002
 Note: The responses do not add up to 100 because the 'never' category is not shown.

Table 4: Health, social and stress issues among gamblers

Within past 12 months (unless otherwise stated)	All gamblers	Non-problem	Low-risk	Moderate-risk	Problem
Total	18,887	17,699	697	373	118
	'000				
	%				
Fair or poor health	11	11	10	14	22 ^E
Alcohol dependence [†]	3	2	7*	12*	15*
Family problems from gambling	1	F	4 ^E	16*	49*
Gambling interfered with ability to do job**	57	55
High or extreme stress	24	23	27	21	42*
High distress level in past month [†]	10	9	16*	17*	29*
Had ever had clinical depression	11	11	12	15	24 ^E

Source: Canadian Community Health Survey 1.2, 2002
 * Statistically significant difference from the non-problem group (.05 level).
 ** Of those employed, which included roughly 90% of all gamblers aged 25 to 55.
[†] See Data source and definitions for full explanation of derived variables.

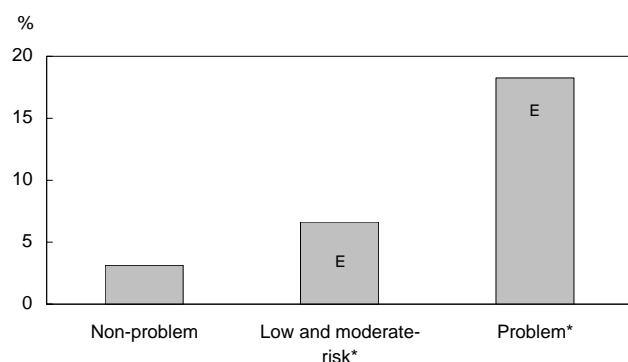
the at-risk gambling level increased. Only 2% of non-problem gamblers were afflicted with alcohol dependence, compared with 7% of low-risk and 15% of problem gamblers. Although methodology and definitions vary, other studies have also found a correlation (co-morbidity) between alcohol dependence and pathological gambling (Kidman 2002).

Obsessive gambling can also lead to social problems. Half of all problem gamblers reported that their gambling caused relationship problems with their family or friends. Such problems were also reported by 16% of moderate-risk gamblers, but by virtually no non-problem gamblers. Furthermore, more than half of employed moderate-risk and problem gamblers reported that their gambling had previously interfered with their ability to do their job.

Stress is an inevitable outcome of the financial and social pressures created by problem gambling. Although gambling may not be the sole cause, 42% of problem gamblers reported a high or extreme level of stress in their life, compared with 23% of non-problem gamblers. Also, based on a number of psychological distress questions, 29% of problem gamblers were considered highly distressed, compared with just 9% of non-problem gamblers.

Persistent stress can be related to depression. The likelihood of ever having had a major clinical depression was significantly higher among problem gamblers.

Chart D: Almost one in five problem gamblers contemplated suicide in past year.



Source: Canadian Community Health Survey 1.2, 2002
 * Statistically significant difference from non-problem group (.05 level).

Only 11% of non-problem gamblers had ever had clinical depression during their life, compared with 24% of problem gamblers. Major depression is a key risk factor for suicide (Newman and Thompson 2003). CCHS 1.2 found that a significantly higher proportion of problem gamblers than non-problem gamblers had contemplated suicide in the past year (18% versus 3%) (Chart D).

“In light of the high rates of anxiety and depression, it is no wonder that pathological gamblers have very high rates of suicidal ideation” (Lesieur 1998, p. 158). Some studies have pointed out, however, that although mental disorders, pathological gambling and suicide attempts are associated, cross-sectional data do not permit an examination of cause and effect (Newman and Thompson 2003). However, causation aside, finding that one in five problem gamblers considered suicide in 2002 is startling and worrisome.¹¹

Problem gamblers know they're in trouble

In 2002, more than one-third of a million Canadians (2% of all gamblers) at least occasionally thought that they might have a gambling problem (Table 5). Four in 10 problem gamblers almost always felt they had a problem. In some ways it is surprising that 15% of problem gamblers did *not* think they had a problem.

Table 5: Indications of difficulty with gambling

	Low-risk	Moderate-risk	Problem
			'000
Difficulties in past 12 months	697	373	118
Felt they might have a gambling problem			%
Sometimes	10 ^E	46	47
Always/most of time	F	3 ^E	38
Wanted to stop but thought they could not			
Sometimes	5 ^E	22	36
Always/most of time	F	5 ^E	27 ^E
Tried to quit, but unable			
Sometimes	4 ^E	21	30
Always/most of time	F	5 ^E	25 ^E

Source: Canadian Community Health Survey 1.2, 2002
 Note: The responses do not add to 100 because the 'never' category is not shown.

The insidiousness of excess gambling is revealed by the 27% of moderate-risk and 64% of problem gamblers who had wanted to stop gambling in the previous year, but believed they could not. Furthermore, a strikingly high proportion of moderate-risk (26%) and problem gamblers (56%) had tried to quit, but could not. It is not known what means they tried nor why they failed.

Conclusion

The surge in the gambling industry began in the 1990s when provincial governments began legalizing permanent casinos and VLTs. In 2002, 76% of Canadians reported gambling in the previous year—4 in 10 on a weekly basis. The continuous expansion of the industry has led to much debate. In 2000, the Canadian Public Health Association adopted the position that the expansion of gambling is a public health issue and that work must be done towards “minimizing gambling’s negative impacts while balancing its potential benefits” (Korn and Skinner 2000). However, estimating the health and socio-economic costs and benefits of gambling is difficult, and no study has yet done it (Wynne and Shaffer 2003).

CCHS 1.2 adds new information on the health and social costs associated with gambling. It identified 700,000 low-risk, 370,000 moderate-risk, and 120,000 problem gamblers—5% of the total population and 6% of all gamblers. Those significantly more likely to be in the at-risk or problem categories were men, Aboriginal persons, people with less education, and VLT and very frequent players.

The consequences of being an at-risk or problem gambler included higher rates of financial and relationship problems. Problem gamblers in particular suffered elevated levels of alcohol dependence, stress, emotional distress, and past episodes of depression. However, the vast majority of problem gamblers recognized they had a problem, and most (56%) had tried—unsuccessfully—to quit in the previous year. The many problems associated with gambling, including the inability to stop may partly account for the 18% of problem gamblers who contemplated suicide in the previous year. Ultimately, suicide in an irreversible consequence with immeasurable cost, and contemplating it is certainly a cry for help.

■ Notes

- 1 Gambling revenue as a percentage of total government revenue increased from 1.9% in 1992 to 5.1% in 2001 (Marshall 2003).
- 2 Research is ongoing into the root cause of problem or pathological gambling—that is, whether it is biological, genetic or behavioural. Although this article does not address the reasons for problem gambling, they are important in determining successful treatments.
- 3 Similar to alcohol consumption, frequency and expenditure rates for gambling are regularly under-reported.
- 4 Instant win tickets include Keno, Pick 3, Encore, Banco, and Extra. Lottery tickets include 6/49, Super 7, Sports Select, and Pro-Line.
- 5 The provincial differences mentioned in this paragraph are all statistically significant at the .05 level, as are the differences by sex in the types of games played that are listed in the next paragraph.
- 6 Although at-risk and problem-gambling rates were quite similar for the various income groups, gambling participation rates differed. For example, 69% of individuals with less than \$20,000 gambled in 2002, compared with 82% of those with \$20,000 or more.
- 7 These figures exclude the on-reserve Aboriginal population.
- 8 Overall, the off-reserve Aboriginal population represents 1% of the population, but in Manitoba it represents 6%, and in Saskatchewan 5%.
- 9 A more precise way to measure the addictive tendencies of each activity would be to look at those who played one activity exclusively. In 2002, this was the case for 40% of gamblers overall, 42% of non-problem gamblers, and 4% of problem gamblers. However, even with this bias, non-problem gamblers made up 99% of those who bought only lottery tickets, compared with 90% of those who played only VLTs.
- 10 For more information on gambling expenditure by type of gambling activity from the Survey of Household Spending, see Marshall (2003).
- 11 Due to community pressure, as of June 2003, coroners across the country began coding suicides due to gambling. Although most provinces now keep track of gambling-related suicides, their methodologies and measurement differ, thus making comparability difficult (Bailey 2003).

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