The Health Impacts of Gambling Expansion in Toronto

Technical Report

November 2012

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Centre for Addiction and Mental Health

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Reference:

Toronto Public Health. *The Health Impacts of Gambling Expansion in Toronto – Technical Report.* November 2012.

Principal Authors:

Ashleigh Dalton [1], Andi Stover [2], Loren Vanderlinden [2], Nigel Turner [3]

[1] Toronto Urban Fellow, formerly with Healthy Public Policy, Toronto Public Health
[2] Healthy Public Policy, Toronto Public Health
[3] Centre for Addiction and Mental Health, Problem Gambling Institute of Ontario

Acknowledgements: The assistance of the following people who contributed to the preparation of this report is gratefully acknowledged: Anna Pancham, Monica Campbell, Dr. David McKeown, Karen Wade, Phil Jackson, Jan Fordham, Charles Yim, Jayne Caldwell, Angela Loconte, Julie Amoroso, Mary Jo Verissimo and Dean Simikic (Toronto Public Health)

Reviewers:

Sincere thanks are also extended to our external expert peer reviewer, Dr. Robert Williams (Faculty of Health Sciences, University of Lethbridge), who provided helpful feedback on an earlier draft of this report.

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For further information:

Healthy Public Policy Directorate
Toronto Public Health
277 Victoria Street, 7th Floor
Toronto, Ontario
Canada M5B 1W2

Tel: 416-338-7030

About this Report:

This report was prepared in response to *Modernizing Lottery and Gaming in Ontario: Strategic Business Review* a report from the Ontario Lottery and Gaming Corporation (OLG), approved by the Ontario Ministry of Finance in March 2012. There are many recommendations in the OLG report that will result in increased access to gambling in Ontario. The focus of this report is on the OLG recommendation to open a casino in Toronto.

Toronto Public Health (TPH) staff collaborated with experts at the Centre for Addition and Mental Health's Problem Gambling Institute of Ontario to review the health impacts of gambling, the prevalence of problem gambling in the Greater Toronto Area and recommended strategies to prevent and mitigate harms from increasing access to gambling.

In addition to this technical report, there is a TPH staff report that summarises this technical report, presents stakeholder consultations and provides recommendations to minimise casino-related gambling addiction. Alongside these two reports, the *Toronto Public Health Position Statement on Gambling and Health* outlines policy recommendations in the context of overall gambling expansion in Ontario. The staff report, this technical report and the TPH Position Statement were presented to the Toronto Board of Health on November 19, 2012.

Copies of both reports and the TPH Position Statement can be found at:

http://www.toronto.ca/health/

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Centre for Addiction and Mental Health

The Centre for Addiction and Mental Health (CAMH) is Canada's largest mental health and addiction teaching hospital, as well as one of the world's leading research centres in the area of addiction and mental health. CAMH combines clinical care, research, education, policy development, and health promotion to transform the lives of people affected by mental health and addiction issues. CAMH's Problem Gambling Institute of Ontario (PGIO) brings treatment professionals and leading researchers together with experts in communicating and sharing knowledge. Its focus is on collaboratively developing, modelling and sharing evidence-based solutions to gambling-related problems within Ontario and around the world.

Executive Summary

This report outlines the key issues and current research on the public health impacts of gambling. Hosting a new casino in Toronto is anticipated to increase the frequency and severity of problem gambling in the city, which can produce negative health impacts on individuals, families and communities.

Gambling expansion has been identified as an issue by the public health community in Canada and internationally since the 1990s. Problem gambling is a serious public health concern because of the associated health impacts and related social impacts. Researchers who define problem gambling as including both moderate risk and the most severe form of problem gambling estimate that the prevalence of problem gambling in Ontario is between 1.2% and 3.4%. The most severe form of problem gambling affects upwards of 11,000 people aged 18+ (0.2%) in the Greater Toronto Area (GTA) and 25,000 (0.3%) in Ontario. In addition, approximately 129,000 people aged 18+ (2.8%) in the GTA and 294,000 people (3.0%) in Ontario are considered to be at risk for problem gambling. Problem gambling has a profound impact on gamblers' friends and families, thus substantially increasing the population affected by problem gambling. Evidence shows that some socio-demographic groups are over-represented as problem gamblers and are more vulnerable to negative impacts of gambling. This may include males, youth, older adults, Aboriginal peoples, and individuals and families with low income.

There can be substantial consequences of gambling behaviour on health. Problem gambling is associated with a range of negative impacts on physical and mental health, including ill health, fatigue, co-related substance use and addiction, depression and suicide among others. These impacts occur alongside others such as financial difficulties, family breakdown, divorce and compromised child development. The impacts extend beyond the gamblers themselves, and affect the health and well-being of family, friends, colleagues and communities.

Available evidence indicates that the prevalence of problem gambling increases with access to gambling, including proximity to casinos. A casino located anywhere in the GTA will likely result in increased health risks from problem gambling, with a greater effect on closer communities compared to those further away. All potential sites in the GTA have vulnerable populations nearby. Furthermore, specific features of casino operation are associated with increased risk of harm including: extended hours of operation (24 hours a day, 7 days a week) and the presence of electronic gaming machines (EGMs) such as slot machines.

While there are many interventions available for problem gambling, much remains unknown about how to treat problem gambling. Only a minority of problem gamblers (1-2% per year) seeks or receives treatment. Furthermore, there is limited evidence on the effectiveness of interventions to prevent problem gambling. There is currently a need for better evidence on how to effectively mitigate the negative health and social impacts of problem gambling.

The key findings of this report suggest that problem gambling increases with access to a casino, therefore any expansion in gambling access in the GTA over and above current levels will likely increase problem gambling rates and the associated health risks for Toronto and nearby communities. Consideration of the potential negative health impacts of establishing a new casino in Toronto must inform decision-making. A public health approach calls for a broad range of strategies and policies that prevent or mitigate gambling-related harm, promote healthy choices, and protect vulnerable or high-risk populations. In the context of gambling expansion, a comprehensive program of harm mitigation measures should be put in place to minimize the risks associated with problem gambling and reduce the associated negative health impacts to problem gamblers and their families. Finally, there is a need for ongoing and rigorous monitoring and evaluation of the health, social and economic impacts of casinos.

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1. Introduction

1.1 Overview

In its 2012 Ontario Budget, the Province directed the Ontario Lottery and Gaming (OLG) Corporation to modernize lottery and gaming operations based on OLG's *Strategic Business Review*.[1] There are currently 27 legal gambling sites in Ontario, consisting of slots, casinos and resort casinos. OLG intends to increase this to 29 sites, including adding a casino in the Greater Toronto Area (GTA). This expansion would meaningfully increase access to gambling opportunities for Toronto residents. Currently, the closest casinos are in Port Perry (80 km away from Toronto), Brantford (100 km), Niagara (130 km) and Orillia (135 km). There is also a seasonal charity casino on the Canadian National Exhibition grounds and there are slot machines, virtual table games and horse racing at Woodbine Racetrack, as well as slots at Ajax Downs (50 km) and Flamboro Downs in Hamilton (80 km).

Based on provincial regulation, OLG will proceed in developing a new casino only with support from municipalities. In light of the possibility of developing a new site in Toronto, Toronto City Council will consider the pros and cons of hosting a new commercial casino or integrated resort entertainment complex that includes gaming. Given concerns raised regarding the potential for impacts on the health of Toronto residents from the introduction of a casino in Toronto, Toronto Public Health (TPH) and the Centre for Addiction and Mental Health's Problem Gambling Institute of Ontario undertook a review of the issue.

1.2 Purpose and Scope

The purpose of this report is to outline current research that analyzes the public health impacts of gambling. This report focuses on the health and related social impacts of problem gambling at individual, family and community levels, since this is an important and direct consequence of gambling. Increased access to gambling may have other impacts on population health other than problem gambling. The health impact of changes in employment, crime, traffic or economic development may be positive or negative. A comprehensive analysis would be extremely complex and is beyond the scope of this report. The goal is to report evidence on the potential health effects of increased access to gambling on problem gambling that will enable informed policy decisions on the question of hosting a casino in Toronto.

First, the report provides information on the prevalence of gambling in Toronto, the GTA and Ontario, and describes gambling involvement and the sociodemographic characteristics associated with types of gamblers in Ontario. Second, the report reviews the literature on factors contributing to problem gambling, including the impacts of availability, access and proximity to a casino and the impacts of specific gambling modalities. Wherever possible, the report focuses specifically on casinos. Literature dealing with gambling in general has been utilized where information on casinos is not available.

Next the literature review outlines evidence on the health impacts of problem gambling, including physical and mental health impacts, substance use, addiction, suicide, and the associated impacts such as financial difficulties, divorce, family breakdown and compromised child development. Finally, the report describes intervention options and evidence of effectiveness, and includes a discussion of interventions currently available in Toronto and Ontario.

1.3 Background and Public Health Approach

When deliberating the merits of an increase in access to gambling, including new casinos, it is important to assess the potential impact to public health. The public health community in Canada and internationally has identified gambling expansion as an issue since the 1990s, around the time of rapid introduction and expansion of legal gambling opportunities.[2]

The public health perspective on gambling applies an approach for understanding the expansion of gambling which considers social and environmental determinants as well as individual risk factors in producing gambling-related problems. One of the main negative impacts of gambling introduction is an increase in the number of problem gamblers.[3] As a result, a key focus of this review is on problem gambling, a significant public health concern.

This report uses definitions from a Canadian Public Health Association (CPHA) position paper on gambling expansion in Canada.[4] CPHA defines gambling as "risking money or something of value on the outcome of an event involving chance when the probability of winning or losing is less than certain". Problem gambling is defined as gambling behaviour which includes "continuous or periodic loss of control over gambling; preoccupation with gambling and money with which to gamble; irrational thinking; and continuation of the activity despite adverse consequences". Pathological gambling is a clinically significant form of disordered behaviour that "focuses on impaired ability to control gambling-related behaviour; adverse social consequences that are disruptive to one's life and withdrawal".

The research literature uses gambling terminology in diverse and inconsistent ways. The term "gaming" is often used for instances where gambling activity has been legalized by applicable laws. As this report is only addressing legal casino gambling, it uses gambling and gaming interchangeably. In addition to problem and pathological gambling, a variety of other terms are used in the literature, including "disordered", "problematic", "compulsive", "addictive" and "excessive" gambling. The lack of standard terminology can result in ambiguity and confusion, and creates difficulties for scientific study and public discourse.[4]

This report uses the term problem gambling to describe a continuum of gambling behaviour that creates negative consequences for the gambler, others in his or her social network, or in the community.[5,6] It conceptualises problem gambling as dynamic, rather than as a clinical condition. This is in line with a public health perspective, which views behaviours along a health-related continuum (i.e. health enhancing or illness producing, rather than as the sick/well dichotomy)[7] and seeks to protect and promote the health of the whole population.[8] The practical implication of this approach is that it acknowledges the impacts of problem gambling as being wider than on those who are clinically diagnosed.

1.4 Methods and Sources

An important source of information for this technical report was the Centre for Addiction and Mental Health's (CAMH) Gambling Policy Framework.[8] This framework presents seven principles for a public health approach to gambling in Ontario and gives recommendations for action around each principle. Box 1 presents a detailed description of the CAMH Gambling Policy Framework.

Box 1: CAMH Gambling Policy Framework (2011)

Principles for an Ontario approach to gambling
Based on the evidence reviewed above and the belief that gambling should be regulated and operated with public health as its prime imperative, CAMH offers the following principles for an Ontario approach to gambling:

1. Ontarians are not exposed to high-risk gambling environments and modalities.

2. Ontarians have the right to abstain from gambling, and to establish limits on the extent of their participation.

3. Those who choose to gamble are informed of the odds of winning, and of the potential consequences and risks.

4. Ontarians whose lives are most affected by problem gambling have access to high-quality, culturally appropriate care.

5. Gambling legislation and regulation must establish a minimum duty of care.

6. Government regulation and operation of gambling should have as its primary focus the protection of populations at greatest risk of developing gambling problems.

7. Government decisions on gambling are based on best evidence, and research on gambling is supported.

Centre for Addiction and Mental Health (2011)

Toronto Public Health conducted an analysis of Canadian Community Health Survey (CCHS) data. CCHS is a joint initiative of Statistics Canada and Health Canada. It is a cross-sectional survey that collects information related to health status, health care utilization and health determinants for the Canadian population. CCHS began in 2000 with data collection every two years. In 2007, the frequency of data collection changed to every year. CCHS relies on a large, random sample of respondents and is aimed at providing health information at the regional and provincial levels.[9]

The CCHS is the main source of population-level data on gambling in Canada. Statistics Canada offers an optional gambling module in the CCHS that must be selected by provinces or territories. The gambling module assesses gambling behaviour according to how people respond to questions about types of activity, amount of spending and length of time/frequency of gambling. The classification of gambling behaviour is based on the Canadian Problem Gambling Index (CPGI). Box 2 provides a detailed description of the CPGI and gambling behaviour classification. Ontario selected the gambling module in 2002 and 2007/08. The most recent data, 2007/08, are described in this report. Due to small sample sizes for that cycle of the CCHS, prevalence by gambling type is reported for Ontario and the Greater Toronto Area (GTA); the detailed analysis of problem gambling is based on respondents in Ontario; and data for low-risk and moderate-risk gamblers have been combined. Respondents under 18 years of age were excluded from the analysis. The 2007/08 CCHS cycle included 38,233 respondents in Ontario and 10,070 respondents in the GTA.

Box 2: Canadian Problem Gambling Index (CPGI)

The **Canadian Problem Gambling Index (CPGI)** was developed in the late 1990s by a team of researchers under the Canadian Centre on Substance Abuse for the Inter-Provincial Task Force on Problem Gambling, and was designed to measure problem gambling at the population-level using a holistic approach. The CPGI operationalizes problem gambling as: "gambling behaviour that creates negative consequences for the gambler, others in his or her social network, or for the community." (Ferris & Wynne, 2001) The CPGI includes three sections: gambling involvement, problem gambling assessment and correlates of problem gambling.

The **gambling involvement** section measures the frequency of gambling participation for 13 gambling activities, including: instant win/daily lottery tickets; electronic gambling machines (EGMs) in casinos; lottery tickets, raffles, fundraising tickets; cards/board games; sports lotteries; other games (aside from EGMs) in casinos; bingo; internet/arcade; games of skills; speculative investments; EGMs outside of casinos; live horse racing and other gambling activities. This section also addresses spending on gambling in the past 12 months and duration of involvement. In the CCHS, the participation and spending questions determine whether respondents are asked the Problem Gambling Severity Index (PGSI) and contribute to the gambling classifications.

The **problem gambling assessment** includes 12 items, nine of which comprise the PGSI. These nine measures address gambling behaviour and consequences of gambling. They are asked in reference to the past 12 months, and include:

1. How often have you needed to gamble with larger amounts of money to get the same feeling of excitement?
2. When you gambled, how often did you go back another day to try to win back the money you lost?
3. How often have you borrowed money or sold anything to get money to gamble?
4. How often have you felt that you might have a problem with gambling?
5. How often has gambling caused you any health problems, including stress or anxiety?
6. 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?
7. How often has your gambling caused financial problems for you or your family?
8. How often have you felt guilty about the way you gamble or what happens when you gamble?
9. How often have you bet more than you could really afford to lose?

Responses are scored (0-3 per item, maximum score of 27), and used to classify respondents into one of five categories: Non-gamblers, Non-problem gamblers, Low-risk gamblers, Moderate-risk gamblers and Problem gamblers. Prevalence rates are produced using these classifications. See descriptions below for more detail on the gambling classifications.

The **correlates of gambling** section include questions on family history of gambling problems and using drugs or alcohol while gambling. They were designed to contribute to the development of gambling profiles.

Problem Gambling Severity Index (PGSI) – Gambling Classifications

Problem gamblers: Respondents classified as problem gamblers gamble more than five times a year and scored between 8 and 27 on the PGSI, indicating that gambling behaviours have resulted in adverse consequences on the individual, their social network or community.

Moderate-risk gamblers: Respondents in this group gamble more than five times a year, would have reported "never" to most of the behavioural questions and one or more "most of the time" or "always" responses and scored between 3 and 7 on the PGSI. Moderate-risk gamblers may or may not have experienced adverse consequences from gambling.

Low-risk gamblers: Respondents in this group gamble more than five times a year, would have reported "never" to most of the behavioural questions and one or more "sometimes" or "most of the time" responses and scored between 1 and 2 on the PGSI. Low-risk gamblers have not likely experienced adverse consequences from gambling.

Non-problem gamblers: Respondents classified as non-problem gamblers gamble less than five times a year, would have reported "never" to all behavioural questions and scored a zero on the PGSI. A score of zero indicates they have not experienced adverse consequences as a result of gambling. Ferris and Wynne (2001) noted that frequent gamblers who heavily invest time and money in gambling may be included in this classification, as would "professional gamblers".

Infrequent gamblers: Respondents in this group may have reported participating in gambling activities in the past 12 months, but self-reported "I am not a gambler". These respondents were not asked the PGSI questions.

Non-gamblers: Respondents classified as non-gamblers did not report participating in any of the listed gambling activities in the past 12 months. Non-gamblers were not asked the PGSI questions.

Note: The Canadian Consortium for Gambling Research has suggested a new scoring system for low and moderate-risk gamblers. Scores between 1 and 4 indicate low-risk gambling and scores between 5 and 7 indicate moderate-risk gambling. (Canadian Consortium for Gambling Research, http://www.ccgr.ca/cpgi.php)

For the literature review, this report draws upon a recent review of studies that examined the social and economic impacts of gambling by Williams, Rehm and Stevens (2011). The Williams *et al.* (2011) search strategy identified all studies reporting on the social or economic impacts of gambling from both the academic and non-academic or 'grey' literature.[3] They identified 492 studies, which were categorized by type of study, study quality, gambling format, location, years examined, and areas impacted. The majority of the empirical studies came from the United States, Canada, Australia and New Zealand. The review presented information on 16 different areas related to various economic and social impacts, with the areas relevant to this report consisting of problem gambling and related indices, socioeconomic inequality, and quality of life/public health.

In this report, Toronto Public Health extends the Williams *et al.* (2011) search strategy to identify studies since their review was published. We conducted a search of health and social impacts of casino gambling from both the academic and non-academic 'grey' literature since 2010.

For the review on intervention literature, this report draws upon a review of the issues and evidence by Williams, West and Simpson (2008).[10] The Williams *et al.* (2008) review summarizes the evidence on the effectiveness of problem gambling prevention initiatives. For this report, Toronto Public Health conducted a search strategy to identify intervention options and effectiveness from 2009 to present. This search included academic and grey literature that addressed prevention, early identification and treatment of problem gambling (More detail on the search strategies is found in Appendix A.).

2. Prevalence of Gambling & Problem Gambling

2.1 Prevalence

Gambling activities, as defined by the CPGI, are commonly reported by the Ontario population. In 2007/08, CCHS data shows that the prevalence of gambling, which included participation in at least one gambling activity in the past 12 months, was 66% in Ontario and 62% in the GTA.

The PGSI estimates that problem gambling seriously affects upwards of 11,000 people aged 18+ (0.2%[E]) in the GTA and 25,000 people aged 18+ (0.3%) in Ontario. In addition, there are approximately 129,000 people aged 18+ (2.8%) in the GTA and 294,000 people aged 18+ (3.0%) in Ontario who are considered low to moderate-risk gamblers, based on their gambling behaviour and likelihood of experiencing adverse consequences from gambling. The prevalence of problem gamblers and low to moderate-risk gamblers remained relatively similar between Ontario and the GTA (Table 1).

Table 1: Type of Gambler, Aged 18+, Ontario and Greater Toronto Area, 2007/08

	Ontario		Greater Toronto Area (GTA)	
Type of Gambler[1]	**Percent**	**95% CI[2]**	**Percent**	**95% CI[2]**
Problem Gamblers	0.3	(0.2, 0.3)	0.2[E]	(0.1, 0.4)
Low to Moderate-Risk Gamblers	3.0	(2.7, 3.3)	2.8	(2.3, 3.2)
Non-Problem Gamblers	42.1	(41.3, 43.0)	35.7 (L)	(34.3, 37.2)
Infrequent Gamblers	20.4	(19.7, 21.1)	23.1 (H)	(21.8, 24.5)
Non-Gamblers	28.8	(28.0, 29.6)	32.1 (H)	(30.6, 33.6)
Not Stated	5.5	(5.1, 5.9)	6.1	(5.4, 6.9)

Notes: (1) Gambling classifications are based on a modified version of the nine-item Problem Gambling Severity Index (PGSI), part of the Canadian Problem Gambling Index (CPGI). (2) 95% Confidence intervals are used on response estimates, which means that the estimate is within the range 19 times out of 20. (3) Respondents classified as "Infrequent Gamblers" may have gambled in the past 12 months, but classified themselves as Non-Gamblers.
E – Moderately high sampling variability; interpret with caution. H – Significantly higher than Ontario. L – Significantly lower than Ontario. Low-risk and Moderate-risk gamblers were combined due to small sample sizes.

Data Source: Canadian Community Health Survey, 2007/08. Statistics Canada, Share File, Knowledge Management and Reporting Branch, Ontario Ministry of Health and Long-Term Care.

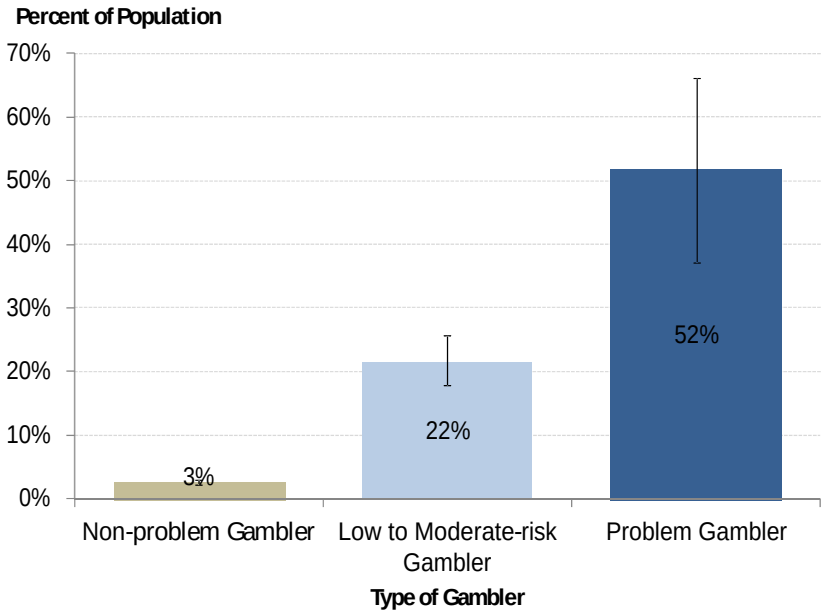
Prepared by: Toronto Public Health

Research based on gambling rates in Ontario from 2003 concluded that a small group of moderate risk and problem gamblers (4.8% of the population) generated a disproportionately large amount of gambling industry profits (36% of gambling revenue).[11] This is problematic because it suggests a large part of gambling revenue in Ontario is coming from a small group of vulnerable people.

Gambling Involvement

In 2007/08, according to CCHS data for Ontario, problem gamblers were approximately four times more likely than non-problem gamblers to participate in multiple gambling activities over the past 12 months. This involves participation in 5 or more gambling activities. Compared to non-problem gamblers, problem gamblers were significantly more likely to gamble using electronic gambling machines (EGMs) in casinos (Figure 1).

Figure 1: Monthly Participation in Gambling Using Electronic Gambling Machines (EGMs) in Casinos by Type of Gambler, Aged 18+, Ontario, 2007/08



Notes: (1) Gambling classifications are based on a modified version of the nine-item Problem Gambling Severity Index (PGSI), part of the Canadian Problem Gambling Index (CPGI). (2) Error bars (I) denote 95% confidence intervals. Low–risk and Moderate-risk gamblers were combined due to small sample sizes.

Data Source: Canadian Community Health Survey, 2007/08. Statistics Canada, Share File, Knowledge Management and Reporting Branch, Ontario Ministry of Health and Long-Term Care.

Prepared by: Toronto Public Health

Transition Between Gambling Risk Levels

While research is limited on the shift between different problem gambling risk levels, there is evidence to support the validity of "at-risk" gambling classifications in predicting future harm. As shown in Box 2, gambling classifications are based on gambling behaviour and likelihood of experiencing adverse consequences from gambling. A recent longitudinal study of gambling habits in Alberta identified gambler characteristics associated with the shift from low-risk to high-risk gambling.[12] Compared to gamblers who remained low risk, gamblers who shifted from low- to high-risk gambling were more likely to be male, older, have less education, smoke tobacco, have more friends who gamble, and play EGMs and other casino games. Some of these risk factors are fairly fixed or difficult to change, such as demographic variables and personality traits, whereas others are modifiable risk factors, such as gambling accessibility, intensity and frequency. This has implications for who may be likely to experience current or future gambling-related harm.

Emerging Issues

During the early to mid-1990s, Internet gambling (also called online gambling) had emerged as a new and popular mode of gambling. [13, 14] The Internet made gambling accessible to any person with an Internet connection and means of electronically transferring money. Even so, the prevalence of Internet gambling is low and it is the least common form of gambling among adult Canadian gamblers.[13] Because of its low prevalence, it is difficult to estimate the proportion of Internet gamblers using conventional methods such as random digit dial telephone surveys.[14] According to a national study, 3% of adult

gamblers reported participating in Internet gambling (excluding stocks) over the previous year, compared to 8% participation in casino table games, and 34% in electronic gaming machines.[13]

There is limited evidence available on the health impacts of Internet gambling, and given the relatively short history of its availability, this includes a lack of longitudinal studies. More research is needed to better understand Internet gambling and the impact of this mode of gambling. Recent research from Quebec, one of two Canadian provinces where the government operates online gambling sites, indicates that problem gambling rates are significantly higher among those who gamble online.[15] Similarly, a Canadian study indicates problem gambling prevalence of 17.1% among Internet gamblers compared to 4.1% among gamblers who frequent fixed gambling venues.[13] This study also indicates higher average spending among Internet gamblers.

Available research suggests also there may be some distinguishing features associated with those who partake in Internet gambling, including demographic characteristics, motivations and behaviours. Compared to non-Internet gamblers, Internet gamblers are more likely to be male, work full-time, be married or co-habitating, and have high incomes and high levels of educational attainment.[16] Further, Internet gamblers may have more positive attitudes towards gambling and are more highly involved gamblers, engaging in many different gambling activities in both online and offline forms.[13]

While Internet gambling appears to normalize gambling behaviour, questions around whether Internet gambling is creating a new market of gambling customers remain unanswered. The evidence that Internet gamblers have a different profile than non-Internet gamblers suggests that they may represent a different customer base.[13, 16] While there is certainly overlap between Internet and non-Internet gamblers, researchers hypothesize that Internet gambling, to some extent, opens up a new market of gamblers who may not frequent fixed gambling venues such as casinos.[16] Wood and Williams suggest also that Internet gambling is an addition to the repertoire of activities among those who seem to already be heavily involved in gambling.[13] The OLG plans to launch online gaming sites regulated by the Ontario government as part of its modernization strategy for gambling offerings in this province.

2.2 Sociodemographic Profile

There has been considerable research examining the characteristics of people affected by or at-risk for problem gambling.[17, 18, 19, 20] There is a range of individual- and population-level factors that are reported to be associated with problem gambling. At the individual-level, these include: experiencing an early big win; having mistaken beliefs about the odds of winning; experiencing financial problems; and having a history of mental health problems.[21] At the population level, specific population groups have been identified because of factors such as low socioeconomic status, health status or unique needs.[6] Evidence suggests that a number of groups may be more heavily represented as problem gamblers or disproportionately affected by problem gambling.[3, 22] This includes youth, older adults, Aboriginal peoples, and individuals and families with low-income.

According to an analysis of 2002 CCHS data, at-risk and problem gamblers are more likely to be male, younger in age, and have less than post-secondary education than non-problem gamblers.[23]

There is growing concern that adolescents represent a high risk group for gambling and gambling-related problems.[7] According to a number of studies, rates of problem gambling among youth are higher than those reported by adults.[24, 25] In the Centre for Addiction and Mental Health's (CAMH) 2009 Ontario Student Drug Use and Health Survey (OSDUHS), problem gambling was seen in 2.8% of the sample.[24] These results suggest that there are approximately 29,000 students across the province who are problem gamblers.

There is also evidence associating casinos with increased problem gambling and associated behaviours among college and university students, including increased alcohol and drug use. [26, 27] One study considered proximity of casinos, and noted that students close to a casino had more severe gambling problems than students far from a casino.[28]

Older adults have been identified as a group that may be particularly vulnerable to the impacts of problem gambling,[6] though the evidence on health impacts is mixed. While older adults do not have higher prevalence of problem gambling compared to other age groups, a number of studies report that problem gambling is associated with worse physical and psychosocial health among older adults. [18, 29] This has been theorized to be related to complex co-morbidities and co-dependencies and lessened ability and time to recover from the health complications, psychological and social problems, and financial difficulty that may follow problem gambling.[18] There is some evidence for positive or neutral impacts from *recreational* gambling among older adults, and there is at least one study finding that casinos have psychological benefits for older adults. [18, 30]

People of Aboriginal descent have significantly higher risk of problem gambling. The prevalence of problem gambling among Aboriginal peoples in Canada is reported to be approximately four times higher than found in non-Aboriginal populations.[31] It has been suggested that sociodemographic characteristics of the Aboriginal population, such as younger average age and a range of disadvantageous social conditions (e.g. poverty, unemployment, lack of education, cultural stress) may be a contributing factor to high rates of problem gambling.

A casino has the potential to contribute to or exacerbate social inequalities. There is evidence that the introduction of gambling has a differential impact on people of different socioeconomic levels. A review of gambling studies reported that lower income people contribute a higher proportion of their income to gambling than people in middle and high income groups.[3]

3. Problem Gambling

3.1 Factors Contributing to Problem Gambling

A recent review suggests that availability of gambling opportunities is related to gambling behaviour.[3] Jurisdictions that have looked at availability issues, including accessibility and proximity, on gambling and problem gambling include Ontario, Canada, the United States, Scotland and New Zealand.

Availability

Evidence suggests the availability of casinos is directly associated with gambling behaviour. A number of before and after studies suggest an increase in problem or pathological gambling rates after gambling expansion.[32, 33, 34] Of 33 studies looking at gambling rates before and after introduction of casinos, two-thirds found an associated increase in problem gambling and/or social impacts.[35] A study examining the rates of pathological gambling in Niagara Falls, Ontario reported that rates increased from 2.2% prior to the casino opening to 4.4% one-year after the casino opening.[33] Impacts of charity casinos on four Ontario communities (Lambton County - Sarnia, Algoma County - Sault Ste. Marie, Brant County - Brantford and Thunder Bay) have also been evaluated. While overall problem gambling rates remained stable at 2.4% before and after charity casino openings, there was an overall increase in pathological gambling (the most severe form of problem gambling) from 1.5% to 2.5% across all communities. Algoma was the only community to experience significant gains in both problem and pathological gambling. With the exception of Lambton, all communities reported increases in problem gambling rates for at least some subpopulations.[31] In a study that examined the impacts of gambling expansion in four communities in British Columbia (City of Vancouver, City of Surrey, City of Langley and Langley Township), the City of Langley was the only community where rates of moderate problem gambling increased from 2% prior to 5.4% two years after gambling expansion in 2005. Langley was also the only city without a previously existing casino.[36] Furthermore, high concentrations of gambling venues in the community have been associated with higher rates of problem gambling in provinces across Canada.[37]

Some studies have reported increased gambling participation but no effect of gambling expansion on problem gambling rates. Analysis of gambling rates before and after the opening of a casino in Windsor, Ontario showed that while gambling participation increased from 66% before the opening of the casino to 82% one year after the opening of the casino, rates of problem and pathological gambling remained stable.[38] Similarly, a longitudinal pre/post study with two follow-up time periods and a comparison group conducted in Quebec reported an increase in gambling participation one year after the opening of a casino; however, participation rates declined when measured two and four years later. No significant increases in problem or pathological gambling rates were reported at any time period. However, respondents who resided in Hull, where a new casino was opened, were significantly more likely to report an individual in their household with a gambling problem four years after the casino opening compared to the comparison city.[39] These findings may be less relevant to Toronto because VLTs are widely available in Quebec whereas they are not permitted in Ontario.

It is hypothesized that the effects of gambling expansion are experienced during the initial stages of expansion and are less likely to occur after extended exposure or adaptation.[3] Further support for this theory comes from the study of gambling expansion in British Columbia. The effects of pre-existing casinos in Vancouver and Surrey may explain the lack of change in problem gambling rates in those two cities.[36] It should also be noted that studies that reported no effect of gambling expansion on problem gambling rates tend to have been conducted after longer time periods compared to those reporting negative effects.

While not all studies have consistently reported negative effects associated with gambling expansion, the overall conclusion is that increased availability of gambling is associated with increased rates of problem gambling. Differences in the types of studies conducted, their geographical locations and measurement tools used do not allow for predictions on the size of the change in problem gambler rates or on how long any increase is sustained.

Proximity

Evidence suggests that gamblers gamble close to home. An Ontario study examining regional variation in access to gambling reported that problem gambling is modestly but significantly associated with proximity to casinos and racetracks with slot facilities.[40]

In New Zealand, the Ministry of Health analyzed survey data from 12,529 respondents in relation to gambling accessibility.[41] Analysis revealed that being a problem gambler was significantly associated with living closer to gambling venues. People who live in neighbourhoods within walking distance (800m) or close driving distance (5 km) to a gambling venue were more likely to have gambled in the last year, and be a problem gambler who had gambled at a gambling venue in the past year.

Higher rates of problem gambling have also been found for people who live with access to casinos at distances of 10 miles (16 km) and 50 miles (80 km) away, compared to those who live farther away. [42, 43] These studies, which have primarily been conducted through national telephone surveys in the United States, tend to report about twice the rates of problem and pathological gambling occurring within the identified perimeter as opposed to beyond those distances. This evidence provides support for an accessibility effect to problem gambling, where living close to a casino is linked to problem gambling.

Ease of Access / Getting There

A casino located anywhere in the GTA will increase access to gambling opportunities, with a greater effect on closer communities compared to those further away. Ease of access to gambling is not just an issue of physical proximity, but also an issue of getting there, such as how accessible the site is by walking, public transit and driving. Therefore the issue of access concerns not only those who reside and work in proximity to a casino, but also anyone who is able to get there with relative ease.

A Montreal Public Health (2005) report provided an assessment of the potential consequences of moving an existing casino to the Peel Basin, an area of Montreal closer to residential areas and the downtown core.[44] The residents surrounding the proposed casino site were reported to be amongst the most vulnerable in the city, with lower incomes, lower levels of educational attainment, and higher numbers of reported health problems and hospitalizations compared to the average Montreal resident. The report assessed the existing context and environmental features of the Peel Basin, such as the public transportation infrastructure (i.e. number of subway stations) compared to the existing location. It was noted that the location change would make a Montreal casino more accessible by foot and public transit, which could have increased gambling opportunities for Montreal residents overall, and for vulnerable populations in particular, because of geographic and economic accessibility.

Neighbourhood Factors

The impact of a casino can vary from locale to locale, depending on existing communities, economies and infrastructures in the area.[45] It has been suggested that existing neighbourhood factors may contribute to the potential social and health impacts on residents, and therefore, decisions on siting a new gambling

venue should take the 'local impact' into account.[46] There may be some types of neighbourhoods/communities for which a casino may have greater negative health impact than others.

Although empirical studies relating gambling to neighbourhood characteristics are sparse, within most jurisdictions the sociodemographic characteristics associated with problem gambling (outlined in section 2.2 of this report) are found disproportionately in neighbourhoods with lower socioeconomic profile. Studies have found that poorer neighbourhoods are positively associated with problem and pathological gambling.[42] The effect of neighbourhood disadvantage was found even when controlling for respondents' socioeconomic status.

Gambling Modalities and Venues

Certain gambling modalities may carry a higher risk that their users will develop gambling problems or that existing gambling problems will be exacerbated.[8] Evidence points to continuous forms of gambling, such as EGMs including slot machines and video lottery terminals (VLTs) (currently not permitted in Ontario), as most problematic. The high-risk nature of EGMs is theorized to be related to the fast speed of play and sophistication of the machines, which through mathematical algorithms and interactive technology, promote small wins, false beliefs about the amount of control the player has (e.g. near misses and stop buttons) and dissociative states.[8]

According to a study using 2002 CCHS data for Canada, the highest prevalence of gambling problems are found in the provinces with permanent casinos combined with the highest concentrations of EGMs.[37] The primary problem habits cited by problem gamblers in treatment and by callers to the Ontario Problem Gambling Helpline are slot machines and card gambling at casinos.[47]

Gambling venue features may have an impact on gambling behaviour and problem gambling. CAMH's Gambling Policy Framework expresses concern over extended hours of operation, such as casinos that are open 24 hours a day, seven days a week. Different jurisdictions vary in the policies related to hours of operation, some requiring closure of a gambling venue at specific times, others allowing all day access.[35] For example, in Winnipeg, casinos are open from 10:00 a.m. to 10:00 p.m. each day in the summer, but close at dusk during other months. Some hours of operation restrictions relate only to specific types of gambling. For example, in Alberta, EGMs are open for 17 hours each day, whereas table games are available for 14 hours.[10] The theory is that reducing hours of operation reduces availability and therefore minimizes the likelihood of harm. It has been reported that a disproportionate number of problem gamblers play EGMs, one of the most addictive gambling modalities, between midnight and closing.[8] Although evidence on the effectiveness of hours of operation policies is limited, there are parallels to reducing alcohol related harms by limiting hours during which alcohol is served.[10]

Casino Employment

It is important to acknowledge that if there is an increase in employment through a casino and associated development, there could be a benefit to health. Income and employment, can impact health in a positive way depending on the types and quality of jobs.

Studies of casino employees have found increased rates of problem gambling in this group compared to the general population.[48] A recent study in Ontario found that casino employees had problem gambling rates three times as high as the general population. Hypothesized reasons include increased rates of gambling participation among new employees because of greater exposure and people with a history of gambling being attracted to the casino industry.[49]

3.2 Health Impacts of Problem Gambling

This section explores the potential public health impacts of access to gambling through a casino. In a comprehensive review of the literature on the social and economic impacts of gambling, the most consistent social impact of gambling is increased problem gambling prevalence and its related indices (i.e. personal bankruptcy rates, divorce rates, suicide rates, numbers accessing treatment).[3] These indices are often difficult to measure and difficult to attribute to gambling alone. Nonetheless, there is fairly strong evidence that the impacts of gambling are relevant to the health of individuals, families and communities and may have serious direct or indirect consequences.[50] Much of the research literature supports the notion that gambling problems often co-exist with other conditions, such as poorer physical or mental health or substance use problems. This section outlines the evidence on the health impacts of problem gambling in five sections that cover general health, mental health, co-addictions or dependencies, suicide and family and community impacts. (For a summary of the health impacts reported in the literature and associated references, see Table 2.)

Table 2: Health Impacts Associated with Gambling Reported in the Literature and References

Health Impacts	References
General Health	
Lower self-reported general health and well-being	3,50,53 ,55
Colds and influenza	54
Headaches, including severe and chronic headaches and migraines	53,54 ,56
Fatigue and sleep problems	8,54 ,57
Health conditions such as chronic bronchitis and fibromyalgia	53,54,55,56
Other miscellaneous health symptoms (including cardiovascular, cognitive, skin and gastrointestinal problems, heart burn, backache) that may be stress-related	
Mental Health	41,50,58
Stress	50,56,58
Depression	50,58
Mood, anxiety and personality disorders	
Co-dependencies	
Alcohol, tobacco and drug use	46,56,58,59
Problematic substance use/addiction	56,58
Suicide	50,60 ,62
Family and Community Impacts	
Financial problems	3,56
Alcohol or fatigue-related traffic fatalities	63,64
Family breakdown and divorce	3,56
Family/intimate partner violence	65
Child development, neglect and poverty	56,66

Prepared by: Toronto Public Health

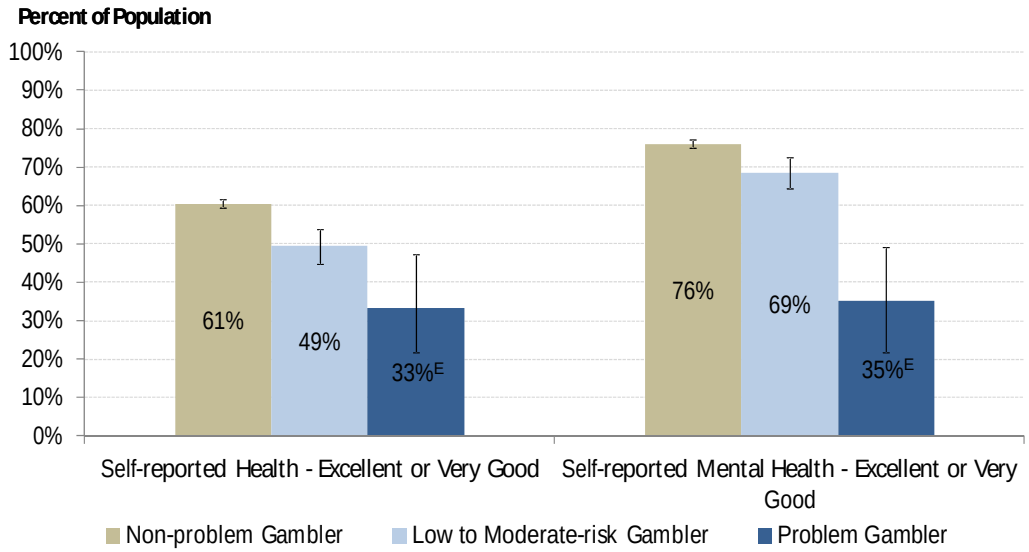
General Health

A recent review reported a well-established association between heavy involvement in gambling and lower well-being and satisfaction with life.[3, 38] Self-reported general health is widely used as an indicator for overall health and well-being. Research has shown that self-reported health status may be a predictor of future mortality[51] and the development of chronic conditions.[52] According to TPH analysis of 2007/08 CCHS data for Ontario, as the level of risk for problem gambling increases, self-reported health significantly decreases – 61% of non-problem gamblers rated their health as excellent or very good compared to 49% of low to moderate-risk gamblers and 33%[E] of problem gamblers (Figure 2). Seventy-seven percent of problem gamblers reported gambling as the cause of health problems compared to 11% of low to moderate-risk gamblers (Figure 3). (See data notes in Appendix B for more detailed information on health problems as a PGSI item).

There is evidence to suggest an association between problem gambling and physical health problems. Problem gambling research from various jurisdictions and with different subpopulations has found a broad range of negative health correlates. [50, 53, 54, 55, 56] A number of studies have reported that problem gambling is related to headaches (including chronic and severe headaches and migraines).[53, 54, 56] While data is sparse, research has also suggested a number of other physical health symptoms and conditions with possible association with problem gambling, including colds and influenza, cardiovascular, cognitive, skin and gastrointestinal problems, heart burn and backache, and chronic bronchitis and fibromyalgia.[53, 54, 55, 56] Many of the health impacts are theorized to be a function of stress and strain.[41]

Problem gambling is also suggested to be correlated with severe fatigue and sleep problems. An American study reported that decreased sleep and sleep quality is seen in problem and pathological gamblers.[57] It has been speculated that gamblers may sometimes go days without sleep to gamble, and some gamblers may experience extreme stress and loss of sleep during phases of continuous losses.

Figure 2: Self-Reported Health and Mental Health by Type of Gambler, Aged 18+, Ontario, 2007/08

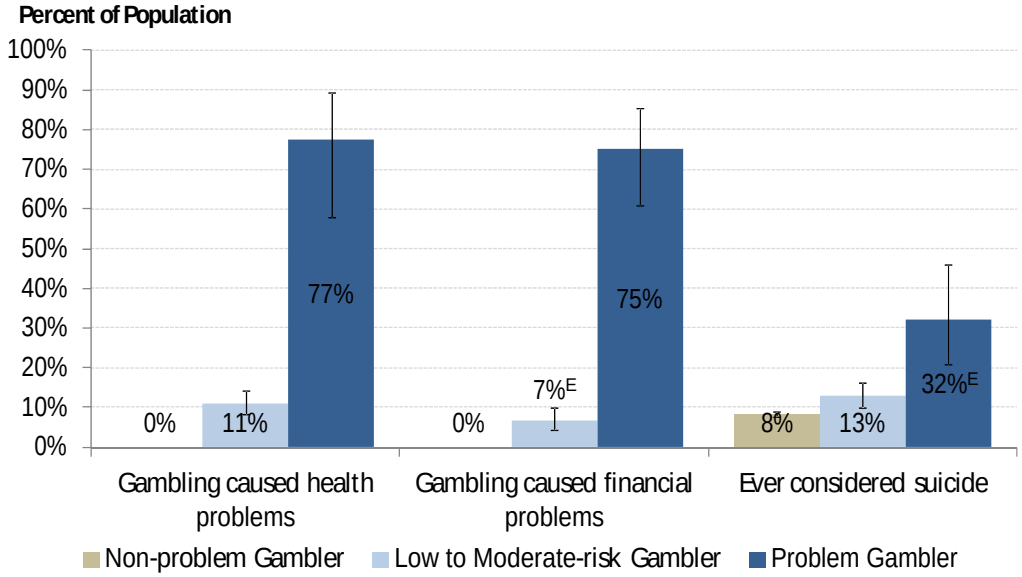


Notes: (1) Gambling classifications are based on a modified version of the nine-item Problem Gambling Severity Index (PGSI), part of the Canadian Problem Gambling Index (CPGI). (2) Error bars (I) denote 95% confidence intervals. E – Moderately high sampling variability; interpret with caution. Low-risk and Moderate-risk gamblers were combined due to small sample sizes. See Appendix for the full data table.

Data Source: Canadian Community Health Survey, 2007/08. Statistics Canada, Share File, Knowledge Management and Reporting Branch, Ontario Ministry of Health and Long-Term Care.

Prepared by: Toronto Public Health

Figure 3: Health Impacts Reported "At least Sometimes" in Past 12 Months by Type of Gambler, Aged 18+, Ontario, 2007/08



Notes: (1) Gambling classifications are based on a modified version of the nine-item Problem Gambling Severity Index (PGSI), part of the Canadian Problem Gambling Index (CPGI). (2) Error bars (I) denote 95% confidence intervals. (3) "At least sometimes" is an aggregate of almost always, most of the time and sometimes in the past 12 months. E – Moderately high sampling variability; interpret with caution. Low-risk and Moderate-risk gamblers were combined due to small sample sizes. See Appendix for the full data table. Gambling caused health problems and financial problems are part of the PGSI and were used to classify type of gambler. Given this, we would anticipate significant differences between gambler types; however, these differences are still meaningful and illustrate the level of differentiation in behaviour between problem gamblers and lower risk gamblers.

Data Source: Canadian Community Health Survey, 2007/08. Statistics Canada, Share File, Knowledge Management and Reporting Branch, Ontario Ministry of Health and Long-Term Care.

Prepared by: Toronto Public Health

Mental Health

Similar to self-reported general health, as the risk of problem gambling increases, self-reported mental health significantly decreases. In TPH analysis of 2007/08 CCHS data for Ontario, 76% of non-problem gamblers rated their mental health as excellent or very good compared to 69% of low to moderate-risk and 35%^{E} of problem gamblers (Figure 2).

There is also evidence in the literature of an association between gambling and mental health disorders. Studies using population surveys report a higher prevalence of conditions such as depression, stress, and mood, anxiety and personality disorders in problem and pathological gamblers.[50, 58] The Australian Productivity Commission's (1999) review of the gambling industry, with a specific focus on problem gambling, reported that around half the people with at least moderate gambling problems said they suffered depression as a result of gambling at some time, and a similar proportion say they have been depressed because of gambling in the last year.[56]

Co-Dependencies

Considerable attention has been paid to the relationship between gambling and substance use. According to TPH analysis of CCHS data, 33% of problem gamblers in Ontario reported using alcohol or drugs while gambling in the previous 12 months. In addition, CCHS data for Ontario shows that low to moderate-risk (30%) and problem gamblers (38%) are significantly more likely to be daily smokers

compared to non-problem gamblers (19%). The literature also supports the relationship between problem gambling and alcohol and drug use.[3, 46, 56 , 58, 59] High rates of co-morbidity have been found between gambling and problem substance use/addiction, with estimates that one in five problem gamblers suffers from alcoholism or other dependencies. [3, 56, 58] The existence of co-dependencies and related morbidities underlines the complex causality of problems experienced by problem gamblers, where problem gambling may exacerbate other dependencies, and they in turn may exacerbate problem gambling.

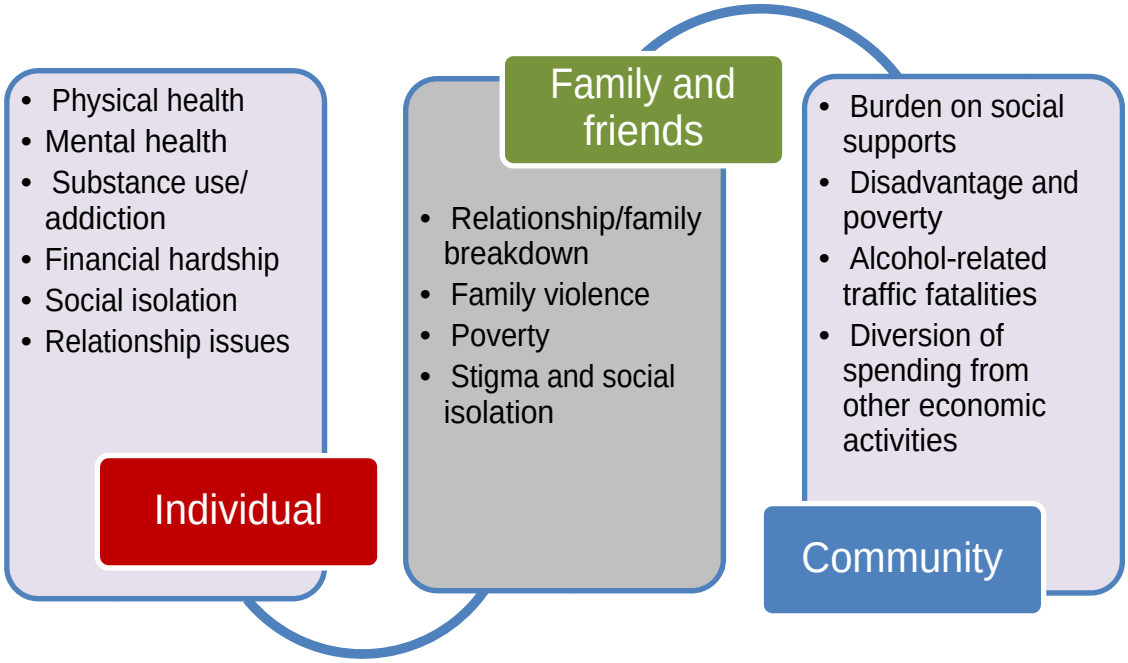
Suicide

The gambling literature examines the relationship between gambling and suicide. According to TPH analysis of 2007/08 CCHS data for Ontario, a significantly higher proportion of problem gamblers reported having thoughts of committing suicide in their lifetime compared to non-problem gamblers (Figure 3). The review by Williams *et al.* (2011) found mixed results on suicide rates: three studies reported the introduction of gambling was associated with an increase in suicides and three studies reported no impact.[3] Nevertheless, research on suicide from various jurisdictions suggests that there is reason for concern. Las Vegas has had one of North America's highest per capita suicide rates for the past 50 years. [60, 61] A study of gambling in Alberta estimated that 10% of all suicides in Alberta are gambling-related.[50] The Quebec Coroner's Office, in an examination of cases between 1994 and 2000, was able to identify 74 suicides as gambling-related since the opening of the province's first casino in Montreal in 1993.[62] While it is difficult to establish the actual number of suicides as a result of gambling, the high numbers of suicides that appear to be gambling-related suggests that this is an important public health concern.

Family and Community Impacts

While consideration of the characteristics and correlates of people directly affected by gambling is important, a complete understanding of impact is gained only by outlining the 'ripple effects' of problem gambling. Problem gambling can affect more than just the individual gambler, resulting in impacts for friends, families, colleagues, employers and communities (Figure 4).Given that some problem gamblers are married and have children, it has been estimated that the proportion of people whose quality of life may be negatively impacted by problem gambling is actually three or four times the rate of problem gambling prevalence in the general population.[3]

Figure 4: Potential Impacts of Problem Gambling



Prepared by: Toronto Public Health (adapted from Wyndham City. *Responsible Gambling Strategy 2012-2014.* http://www.wyndham.vic.gov.au/generic/file-widget/download/id/4268)

Financial difficulties are typically the most common problem reported by problem gamblers.[3] As noted earlier, an increase in bankruptcies is a consistent finding reported in a review of the impacts of gambling.[3] Financial difficulties can produce adverse effects such as the inability to pay for essentials such as food or housing, which are issues of public health concern.[56]

Research has revealed a link between the presence of a casino and an increase in driving while impaired or extremely tired.[8] One study noted an increase in alcohol-related traffic fatalities in communities close to casinos, although the authors noted that this impact decreased as regional population size increased, likely being related to the greater distances driven from casinos in rural or moderately sized counties.[63] A study from Connecticut noted that communities with close proximity to casinos experienced an increase in arrests for 'DUI', or 'driving under the influence of alcohol'. Roughly 20% of motorists arrested for DUI acknowledged to police that their last drink was at a casino.[64]

Research has found that problem gambling is associated with family breakdown, divorce rates, intimate partner violence, and a variety of familial psychological problems including stress and loss of trust.[3, 56, 65] Analysis of 2007/08 CCHS data for Ontario supports conclusions for these impacts on familial relationships and well-being. In the previous 12 months, 75% of problem gamblers reported gambling as the cause of financial problems for their families (Figure 3), 62% of problem gamblers reported lying to their family members and others about gambling, and 30% reported gambling as the cause of problems with relationships with family or friends. These types of impacts were rarely reported by non-problem gamblers.

Gambling has been reported to produce indirect consequences for the problem gambler's friends and families, such as emotional distress, depression, and even suicide.[22] It may also negatively affect child

development and well-being. The Australian Productivity Commission (1999) reported that the most immediate concern for children's welfare in problem gambling households is poverty.[55] Other studies have suggested that children in gambling families are at a greater risk for adopting health-threatening behaviours such as smoking and alcohol or drug use, psychosocial problems, educational difficulties and emotional disorders in adolescence and later in their adult lives.[66]

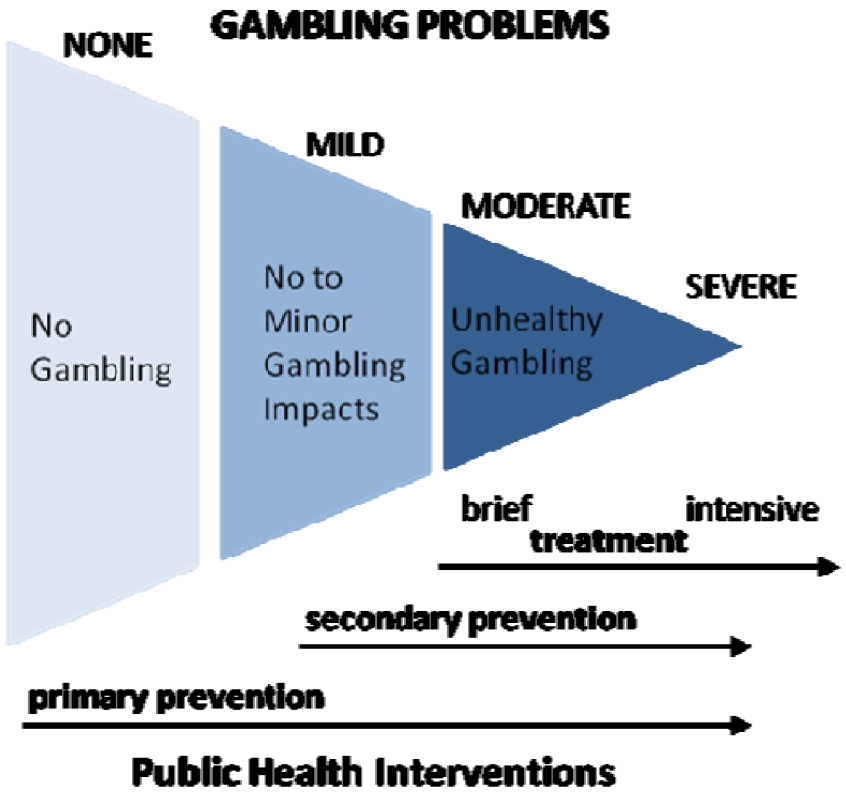
4. Intervention

4.1 Intervention Options and Effectiveness

There is a large array of problem gambling intervention options, many of which have been implemented in different jurisdictions. While there is considerable interest in preventing and mitigating the potential harm from gambling, much remains unknown about the effectiveness of individual initiatives. This section of the report outlines prevention, early identification and responses to problem gambling.

Public health approaches favour primary prevention, which aims to reduce the prevalence of and risks associated with gambling problems (Figure 5). [67] Common measures include changes to the environment (including policy and regulation), changes to the nature of the product, and changes in the understanding and views that influence patterns of consumption/participation. In contrast to the individualized focus inherent in approaches to treatment, primary prevention shifts the focus to the context and environment in which harmful consumption/exposure is occurring. It has been suggested that few jurisdictions have looked seriously at investing in public health responses to gambling expansion, and efforts tend to concentrate primarily on establishing treatment services.[67]

Figure 5: Gambling continuum and related public health interventions



Adapted from: Korn, D., Gibbins, R. & Azmier, J. (2003). Journal of Gambling Studies, 19,2: pg. 245.

Prevention

One aspect of primary prevention includes educational initiatives, which are intended to change internal knowledge, attitudes, beliefs, and skills so as to deter an individual from problem gambling.[9] This can include initiatives such as public awareness campaigns, training and programs.

Public information/awareness campaigns (and associated mass media campaigns and social marketing) tend to be a way of delivering preventive health messages to a large portion of the population.[9] There is however, limited research on impact of awareness campaigns vis-à-vis gambling. Literature suggests that public information/awareness campaigns may improve people's knowledge, but there is no direct evidence of effectiveness as a primary prevention tool for problem gambling (i.e. to prevent individuals in the general populace from becoming problem gamblers).[9]

There is an array of programmatic initiatives for youth and adults, with mixed results on the effectiveness of these programs for preventing problem gambling.[9] These programs range from being topic-specific (e.g. explaining gambling fallacies) to broad in scope (e.g. building esteem and peer resistance training). The actual impact of programs on problem gambling behaviour is difficult to measure and, as a result, largely unknown. There have been very few published evaluations of programs, and in many cases, there may be concern around the quality of studies, such as not having pre/post-measures, control groups, or examination of long-term outcomes. Nevertheless, recent experimental research gives some reason to be positive about the potential effects of educational/ programmatic interventions. A study of problem gambling prevention programs with youth in Ontario reported positive effects of a curriculum that educated students about probability and the nature of random events and their connection to problem gambling.[68]

Policy initiatives are intended to prevent problem gambling through the alteration of external environmental controls on the availability and provision of gambling.[9] Typically these policies take the form of restrictions on the general availability of gambling, who can gamble, and how gambling is provided. Examples include: restricting harmful types of gambling (e.g. EGMs); limiting speed of gambling; and restricting the location and hours of operation of gambling venues.

A policy example that has been reported to have potential as an effective intervention is restricting concurrent consumption of alcohol while gambling.[9] Casinos in Canada are not allowed to provide free alcoholic beverages as is the case in many casinos in the United States.[35] With respect to liquor sales, municipal governments assume responsibility for licensing decisions. In some jurisdictions, such as in parts of British Columbia, alcohol service is prohibited in some casinos. This is reported to hold significant potential as a harm minimization strategy.[9]

Problem Gambling Responses

There are a range of interventions designed to respond to problem gambling. This can consist of early identification, on-site interventions, and various forms of treatment, including pharmacological and psychological interventions.

Early identification of problem gambling often includes recognition of early signs by primary care providers. According to CAMH's Problem Gambling Institute of Ontario, identifying patients with gambling problems and providing information, treatment and referral is part of the overall spectrum of health care provided by physicians.[69] It has been suggested that early identification of problem gambling improves patients' outcomes and reduces the harm to themselves and their families.

Pharmacological treatments mainly involve administering drugs such as anti-depressants, opioid antagonists and mood stabilizers.[70] Psychological treatments can include different types of therapy and counselling, brief interventions, and support programs, such as Gamblers Anonymous.[71] These interventions may be administered to individuals or groups, and the duration of treatment can vary from immediate crisis intervention to ongoing long-term treatment. Online and self-help interventions have been identified as potentially effective, particularly to those problem gamblers who have earlier onset and less severe gambling problems, although Internet gamblers cite being more comfortable with face-to-face counselling rather than online interventions.[14] The overall aims of treatment may vary from abstinence to controlled gambling to prevention of relapse.

Systematic reviews of pharmacological and psychological interventions reveal that problem gambling is amenable to intervention.[71] However, evidence is limited by the lack of long-term follow up in many studies, which limits understanding of the impact of interventions over time. Furthermore, many studies are compromised by methodological limitations, such as small sample sizes, non-randomization, high drop-out rates and unrepresentative samples. Experts identify that further large-scale, well-controlled studies with long-term follow-up are needed.

On-site interventions are also frequently employed in response to problem gambling. Many casinos and jurisdictions around the world have adopted self-exclusion programs. Voluntary self-exclusion is a self-help tool offered to people who wish to limit or stop their gambling. Self-excluders make a voluntary, written commitment to stay away from all gaming facilities. The role of the gaming operator (e.g. OLG) is mainly to monitor, detect and prevent self-excluders' re-entry.[72] It is estimated that 0.6-7.0% of problem gamblers sign up to self-exclude in Canada.[3]

Evidence is limited on the effectiveness of self-exclusion programs. Self-exclusion programs are largely dependent upon the ability of casinos to identify self-excluders in order to detect and report violations of the self-exclusion agreement. A review of studies shows self-exclusion programs are often ineffective at detection and enforcement.[72] Venue security personnel are typically responsible for enforcing self-exclusion policies, yet it is common for breaches to occur and to go undetected. One study of individuals self-excluded from a casino in Quebec reported that 36% breached their exclusion contract and returned to the casino, many of whom went back numerous times (median 6 times) during this period.[73]

Reports suggest that casinos have few systematic procedures in place to implement self-exclusion.[72] Self-exclusion agreements do not generally constitute a formal contract enforceable by law. Yet a program that is not capable of enforcing self-exclusion is likely to be ineffective.

4.2 Problem Gambling Interventions in Ontario

This section provides an overview of problem gambling interventions in Toronto and Ontario, as well as an analysis of the approaches and challenges.

Funding

In 1996, Ontario introduced a Problem Gambling Strategy managed under the Ontario Ministry of Health (now the Ministry of Health and Long-Term Care).[74] Provincial policy has dedicated a proportion of gambling revenue (2%) to problem gambling interventions. It has been publicized that Ontario allocates more money for gambling intervention than any other jurisdiction in the world, with this 2% formula directing approximately $36 million annually for the prevention, treatment and research of problem gambling (Table 3).[74, 75]

Table 3: The Funding Allocation to the Ontario Problem Gambling Strategy, 2004/05

Intervention	Funding allocation (percent of total)
Treatment (including $4.2M for multiple addictions)	$24.17M (66%)
Prevention/Awareness	$8.47M (23%)
Research	$4.01M (11%)
TOTAL	**$36.65M (100%)**

Data Source: Review of the Problem-Gambling and Responsible-Gaming Strategy of the Government of Ontario. Report to the Ontario Ministry of Health and Long-Term Care and the Ministry of Economic Development and Trade by S. Sadinsky (2005).

Treatment is the top priority within Ontario's problem gambling interventions.[74] A report to the Ontario Ministry of Health and Long-Term Care and the Ministry of Economic Development and Trade by expert Stanley Sadinsky, commissioned by the Government of Ontario, analyzed the Problem Gambling Strategy. The report raised concern about the priority placed on the treatment component of the Strategy, suggesting that treatment has been over-funded to the detriment of the prevention/ awareness component.[74]

Interventions

A number of organizations and stakeholders are involved in providing gambling interventions in Toronto and Ontario. This includes initiatives by the OLG, Responsible Gaming Council Ontario, CAMH's Problem Gambling Institute of Ontario, the Ontario Problem Gambling Research Centre, and more than 50 community agencies located throughout the province, including five in Toronto.[76] Many of these organizations and initiatives receive funding from the Ontario government's Problem Gambling Strategy, while others have other sources of funding. (See Appendix D for a list of Ontario gambling organizations and descriptions.) Interventions available in Toronto and Ontario include:

Public awareness and information campaigns: There are a number of initiatives in Toronto and Ontario that focus on awareness and information around problem gambling. OLG sponsors public awareness advertising campaigns aimed at increasing awareness, changing behaviour and building public confidence.[77] Examples of OLG public awareness efforts include: the website www.knowyourlimit.ca, which provides information about how gambling works, myths and facts, game odds and other responsible gambling initiatives; and advertising campaigns to raise awareness of slot machine risk factors. OLG also engages in public outreach via presentations to community groups.

Other public awareness initiatives include mass-media social marketing campaigns by the Responsible Gambling Council, an independent non-profit organization dedicated to problem gambling prevention. Their social marketing campaigns are conducted for a range of demographic groups at risk or affected by problem gambling, including friends of young people, significant others and older adults.[78] Another public awareness initiative in Ontario was Problem Gambling Prevention Week, which took place between September 26 and October 2 in 2011.This community-based awareness program is organized by the Responsible Gambling Council in conjunction with partner organizations across Ontario.[78]

Public education: There are a variety of educational programs related to problem gambling in Toronto and Ontario, which include outreach, curriculum development, teaching and training. CAMH's Problem Gambling Institute of Ontario develops and distributes resources for people affected by problem gambling, their families and for health professionals such as by providing a curriculum for teachers, a series of information guides and the website www.ProblemGambling.ca.[79]

In addition, there are Ontario problem gambling educational programs specifically targeting youth populations. The Responsible Gambling Council runs high-school drama tours and interactive on-campus and online programs for university and college students.[78] The YMCA offers free services across Ontario focusing on knowledge-building, community involvement and youth engagement around problem gambling for youth and students starting as young as age 8 and through to 24 years.[80] Their work consists of curriculum support, harm reduction presentations and activities led by youth outreach workers, as well as workshops for parents, teachers and health care professionals.

Research: There is also a variety of research on problem gambling being conducted in Ontario. The Ontario Problem Gambling Research Centre acts as a funding body to increase capacity in Ontario to conduct research on problem gambling and disseminate research findings.[81] In addition, CAMH's Problem Gambling Institute of Ontario collaborates with other researchers at CAMH, across Canada and internationally to influence policy, prevention and treatment activities. Finally, the Responsible Gambling Council's Centre for the Advancement of Best Practices is working to identify best practices that reduce the incidence of problem gambling.[82] Currently they provide access to published research and commissioned projects, and are working toward published independent standards for responsible gambling initiatives.

Treatment*:* Treatment services for problem gambling are available in Toronto and across Ontario. The Problem Gambling Institute of Ontario at CAMH provides individual and group counselling for those affected by problem gambling and their families.[68] In addition, the Ontario Problem Gambling Treatment Providers, agencies funded by the Ministry of Health and Long-Term Care, provide several treatment options and modalities such as group counselling, individual counselling, telephone counselling and home visits. Some services are directed at special populations such as women, seniors, youth and ethno-cultural populations (e.g. COSTI Immigrant Services and the Chinese Family Services of Ontario).[76]

The Ontario Problem Gambling Helpline, funded by the Government of Ontario, provides a toll-free 24/7 province-wide helpline for those affected by problem gambling and their family and friends, service providers and the general public.[83] It links individuals with problem gambling treatment resources, provides listening and support, information about treatment, credit and debt services, family services, self-help groups and other resources.

On-site programs and policies: OLG launched a Responsible Gaming Code of Conduct in 2005. This is a corporate commitment to information, education and creating a responsible gaming environment.[84] OLG introduced Responsible Gaming Resource Centres at all gaming sites in Ontario, which are independently operated by the Responsible Gambling Council. OLG has also collaborated with the Problem Gambling Institute of Ontario at CAMH to implement Responsible Gaming Training programs that provide specialized training and support for all managers at OLG. With respect to environmental features, OLG has introduced clocks on the gaming floor at each OLG gaming site in Ontario, as a measure to help with responsible gambling practices. It has traditionally been common for casinos to not have clocks on casino floors, which makes it more difficult for gamblers to track the time they are spending participating in gambling activities.

OLG offers voluntary self-exclusion in collaboration with CAMH.[85] OLG’s self-exclusion program began at Casino Windsor in 1995, followed by Casino Rama and Casino Niagara in 1996 and 1997, respectively. In 1999, the self-exclusion program was revised and extended to apply to all OLG gaming sites, as remains the policy today. OLG's current self-exclusion practices include detecting self-excluders through face recognition at casino entry, removing self-excluders' names from the corporation’s marketing database, and connecting individuals with available treatment providers.

Other policy initiatives undertaken by OLG include refraining from extending credit at casinos, and introducing and implementing a fatigue impairment policy, which trains gaming staff to assess patrons for signs of fatigue, and respond according to escalation procedures.[9] OLG staff will also direct patrons who are seeking help to appropriate counselling services.

Utilization of Intervention Resources and Services

Research reveals that only a minority of problem gamblers seek or receive treatment.[3] In Ontario, it is estimated that only 1% to 2% of people meeting criteria for problem gambling are seeking help from specialized treatment programs per year.[86] Analyses of who is seeking help in Ontario reveal an association with age and education. Problem gamblers who seek treatment services are more likely to have some post-secondary education, and the age distribution is bell-shaped, with the largest percentage of treatment-seekers falling within the age category of 35 to 44 years.[41, 86] These results suggest that the characteristics associated with problem gambling (as outlined in section 2.2 of this report) are very different from the characteristics associated with treatment-seeking. This may mean that those most vulnerable to the negative impacts of problem gambling may not be accessing help.

Research has examined factors that contribute to reluctance to seek help for problem gambling. In a review of those who hesitate to seek help, adult gamblers in Ontario most often mentioned obstacles having to do with shame and stigma and with difficulty acknowledging the problem or its seriousness.[87] Another study suggested the role of proximity in treatment-seeking, where problem gamblers living in close proximity to a gambling venue were less likely to be in treatment if the nearest treatment program was comparatively far away.[41] To increase utilization of problem gambling treatment services, treatment providers and funders will need to determine how to reduce barriers such as stigma, cost and geographic distance.

There is a need for further study of help-seeking patterns of problem gamblers, including examination of the role of general health and social services on problem gambling. Given the co-occurrence of problem gambling with other mental health and substance use problems, it is perhaps unsurprising that some problem gamblers seek intervention or treatment through more generic health professionals and non-specialists (e.g. family physicians, general practice psychiatrists, psychotherapists, community mental health programs, family counselling, credit counselling).[76] Few studies have addressed the prevalence of treating problem gambling in health care settings or studied the knowledge of providers in diagnosis and intervention in this area.[88]

Intervention Effectiveness

Evidence is limited on the effectiveness of problem gambling interventions. While there has been some improvement in the evidence base, specifically around individual treatment programs, evaluation of interventions for problem gambling remains an area in need of further examination. To date, there have been few system-wide studies of problem gambling screening, assessment and treatment. Without this research, it is difficult to determine overall effectiveness of problem gambling interventions in Ontario.

A critical analysis of the effectiveness of problem gambling intervention in Ontario is needed to gain a better understanding of opportunities and challenges, and to identify evidence-based best practices. This could be achieved by more rigorous evaluation of current prevention and treatment services and research into gambling harm. It is critical that the Ontario government prioritize further independent research and evaluation, particularly involving population-level and longitudinal research. The research must go beneath the surface of the overall prevalence rate, to regular, systematic and adequately funded assessments of the health, social and economic impacts of gambling, and measurement of the costs on

individuals, families, treatment agencies, social services, the community and the health care system over time. This type of research would provide the data from which to monitor and evaluate overall intervention effectiveness, as well as to assess the potential over- or under- representation of particular groups (e.g. women, specific ethno-cultural groups, and youth) compared to the epidemiology of problem gambling in the community.

A shift in priorities may be required to move the current emphasis from treatment toward primary prevention, including research, education, public awareness and policy initiatives.

5. Conclusions

In this report, we have reviewed evidence on the health impacts of increased access to gambling through a casino. Though the consideration of a casino comes in the context of increasing access to gambling overall, this report concentrates on casino gambling and does not examine other gambling activities in detail, such as online gambling, lotteries, and so forth. Where information on casinos is not available, literature dealing with gambling in general has been utilized. This report drew upon data from Toronto and Ontario when possible, though some of the literature reviewed consisted of data from other jurisdictions in Canada and internationally.

Toronto is a large urban setting where there is already some access to casino gambling. The introduction of a casino in the City of Toronto will increase gambling opportunities for its residents in a meaningful way. Hosting a casino in Toronto is anticipated to increase the frequency and severity of problem gambling in the city, which can produce negative health impacts on individuals, families and communities. As this report has outlined, many individuals in Toronto and Ontario gamble, and most do so without causing problems for themselves or others. There are, however, upwards of 11,000 people aged 18+ in the GTA who are serious problem gamblers, for whom gambling behaviour results in negative consequences. This report took a public health approach and examined the potential health and social impacts of problem gambling for individuals, families and communities.

Evidence supports the notion that availability and accessibility of casinos is a factor contributing to problem gambling prevalence. Given the possibility of a casino being located in Toronto or a neighbouring jurisdiction, it is important to consider the impact of proximity. Research from jurisdictions in Canada, the United States and New Zealand have found that proximity of gambling venues is positively associated with both gambling behaviour and problem gambling, leading us to predict that a casino located anywhere in the GTA will likely increase problem gambling and associated health risks for Toronto residents. Furthermore, this relationship has been found for residents who live up to 50 miles (about 80 km) away from casinos, thus raising the concern that a casino outside Toronto but still within the GTA (e.g. Mississauga, Markham) may result in adverse health impacts in Toronto, with greater impacts on closer communities.

As reviewed in this report, the evidence about the public health risks associated with problem gambling is fairly strong. Potential impacts of problem gambling include effects on physical health and mental health, including ill health, fatigue, co-related substance use and addiction, depression and suicide among others. These impacts occur alongside others such as alcohol-related traffic fatalities, financial difficulties, family breakdown, divorce and compromised child development that also affect the health and well-being of family, friends, colleagues and communities and are relevant to public health. Furthermore, given the role of sociodemographic characteristics and the local environment on the rates and effects of problem gambling, there is good reason to be concerned that certain groups may be particularly vulnerable to the negative impacts of a casino. These harms can be experienced by a sizable portion of people and to different degrees.

This report was limited in scope to the potential impact of gambling expansion on problem gambling. Employment, economic development, crime, motor vehicle traffic, and other community impacts were outside the scope of this report, though these factors affect the health and well-being of individuals, families and communities. These impacts could be positive or negative. For example, increased net income and employment could benefit health, whereas increased motor vehicle traffic could increase injuries and air pollution related illness.

There are policy implications for the City of Toronto of a new casino anywhere in the GTA. In order to protect and promote the health of all who live in the City, discussion of the anticipated negative health impacts of establishing a new casino in Toronto must adequately inform decision-making.

The anticipated adverse health impacts of gambling should be factored into decision-making. A health-based approach would refrain from increasing local gambling opportunities altogether. However, in the context of gambling expansion, strategies such as limiting accessibility, availability, harmful gambling modalities and concurrent risk factors should be strongly considered in an attempt to minimize the harms of problem gambling. A public health approach calls for a broad range of strategies and policies that prevent or mitigate gambling-related harm, promote healthy choices, and protect vulnerable or high-risk populations. Toronto Public Health has

While there currently exists a wide array of problem gambling intervention initiatives in Ontario and other jurisdictions, there is limited evidence on what is working and not working, particularly with respect to population-level factors or long-term impacts. As a result, we do not have sufficient evidence to be confident in our ability to protect at-risk and vulnerable groups, nor in our ability to achieve meaningful behavior change with problem gamblers.

Initiatives such as the CAMH's (2011) *Gambling Policy Framework*[8] are providing a model for Ontario's approach to gambling, but more research and policy work is needed to adequately understand how best to prevent and mitigate the health and social impacts of problem gambling.

The *Toronto Public Health Position Statement on Gambling and Health* was developed to reflect key findings of this Technical Report and to provide clear policy recommendations. The Position Statement highlights the impacts of problem gambling and of gambling expansion. The recommendations proposed provide casino site specific options and address gaps in research, prevention and treatment. The Position Statement should be used as a tool in policy development and evidence-based decision making.

References Cited

[1] Ontario Lottery and Gaming Corporation (2011). Strategic business review: Modernizing lottery and gaming in Ontario. Available at: http://www.olg.ca/assets/documents/media/strategic_business_review2012.pdf

[2] Korn, D.A. (2000). Expansion of gambling in Canada: Implications for health and social policy. *Canadian Medical Association Journal,163*(1), 61-64. Available at: http://www.ecmaj.ca/content/163/1/61.full.pdf+html

[3] Williams, R.J., Rehm, J. & Stevens, R.M.G. (2011). The social and economic impacts of gambling. Final report prepared for the Canadian Consortium for Gambling Research. March 11, 2011.

[4] Canadian Public Health Association (2000). Position paper on gambling expansion in Canada: An emerging public health issue. Definitions pg 1. Available at: http://www.cpha.ca/uploads/resolutions/2000-1pp_e.pdf

[5] Ferris, J. and Wynne, H. (2001). The Canadian problem gambling index: Final report. *Canadian Centre on Substance Abuse (CCSA).*

[6] Korn, D., Gibbins, R. & Azmier, J. (2003). Framing public policy towards a public health paradigm for gambling. *Journal of Gambling Studies, 19,2:* 235-56.

[7] Korn, D. & Shaffer, H. J. (1999). Gambling and the health of the public: Adopting a public health perspective. *Journal of Gambling Studies, 15*(4), 289–365.

[8] Centre for Addiction and Mental Health (2011). Gambling policy framework. Available at: http://www.camh.net/Public_policy/Public_policy_papers/CAMH_gambling_policy_framework.pdf

[9] Statistics Canada. Canadian Community Health Survey. Available from: http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3226&lang=en&db=imdb&adm=8&dis=2#a4. Accessed on August 1, 2012.

[10] Williams, R.J., West, B.L. & Simpson, R.I. (2008). Prevention of problem gambling: A comprehensive review of the evidence. *Report prepared for the Ontario Problem Gambling Research Centre, Guelph, Ontario, Canada.*

[11] Williams, R.J., and Wood, R.T. (2007). The Proportion of Ontario Gambling Revenue Derived from Problem Gamblers. *Canadian Public Policy / Analyse de Politiques*, 33(3): 367-87.

[12] Currie, S.R., Hodgins, D.C., Casey, D.M., el-Guebaly, N., Smith, G.J., Williams, R.J. Schopflocher, D.P. & Wood, R.T. (2011). Examining the predictive validity of low-risk gambling limits with longitudinal data. *Addiction, 107,* 400-406.

[13] Wood, R.T. & Williams, R.J. (2009). Internet gambling: Prevalence, patterns, problems, and policy options. Final Report prepared for the Ontario Problem Gambling Research Centre, Guelph, Ontario, Canada. January 5, 2009.

[14] Wood, RT, Williams, RJ. (2011). A comparative profile of the Internet gambler: Demographic characteristics, game-play patterns and problem gambling status. *New Media & Society* 13(7): 1123-41.

[15] Papineau E, Leblond J. (2011) Les enjeux de l'étatisation du jeu en ligne au Canada: une analyse de santé publique. *Can J Public Health*. 102(6):417-20. .

[16] Gainsbury, S., Wood, R., Russell, A., Hing, N. & Blaszczynski, A. (2012). A digital revolution: Comparison of demographic profiles, attitudes and gambling behaviour of internet and non-internet gamblers. *Computers in Human Behavior*, *28*(4), 1388-1398.

[17] Albanese, P., Busch, J., Evans, C., Ralkowski-Ham, A., Meredith, N., Stark, S., Tepperman, L., Wong, R. & Zahlan, N. (2011). Examination of the associations between problem gambling and various demographic variables among women in Ontario. *Research report prepared for Ontario Problem Gambling Research Centre & ECHO.*

[18] Ariyabuddhiphongs, V. (2012). Older adults and gambling: A review. *International Journal of Mental Health and Addiction, 10*, 297–308.

[19] Messerlian, C., Derevensky, J. & Gupta, R. (2005). Youth gambling problems: a public health perspective. *Health Promotion International, 20*, 1: 69-79.

[20] Tse, S., Dyall, L., Clarke, D., Abbott, M., Townsend, S. & Kingi, P. (2012). Why People Gamble: A Qualitative Study of Four New Zealand Ethnic Groups. *International Journal of Mental Health and Addiction.* 10(2): 1-13. Available at: http://rd.springer.com/article/10.1007/s11469-012-9380-7/fulltext.html

[21] Centre for Addiction and Mental Health (2005). Problem gambling: A guide for helping professionals. Available at: http://www.problemgambling.ca/EN/Documents/2990PG_Pro_ENG.pdf

[22] Marshall, D. (2009). Gambling as a public health issue: The critical role of the local environment. *Journal of Gambling Issues, 23*, 66-80.

[23] Marshall, K. & Wynne, H. (2004). Against the odds: A profile of at-risk and problem gamblers. Statistics Canada – Catalogue No. 11-008. Canadian Social Trends.

[24] Cook, S., Turner, N., Paglia-Boak, A., Adlaf, E.M. & Mann, R.E. (2010). Ontario youth gambling report: Data from the 2009 Ontario student drug use and health survey. *Report Prepared for the Problem Gambling Institute of Ontario*.

[25] Shaffer, H.J. & Hall, M.N. (1996). Estimating the prevalence of adolescent gambling disorders: A quantitative synthesis and guide toward standard gambling nomenclature. *Journal of Gambling Studies, 12(2*): 193-214.

[26] Goudriaan, A.E., Slutske, W.S., Krull, J.L. & Sher, K.J. (2009). Longitudinal patterns of gambling activities and associated risk factors in college students. *Addiction, 104*(7), 1219-32.

[27] Van Brunschot, E.G. (2009). Gambling and risk behaviour: A literature review. Alberta Gaming Research Institute.

[28] Adams, G.R., Sullivan, W.M., Horton, K.D., Menna, R. Guilmette, A.M (2007). A study of differences in Canadian university students' gambling and proximity to a casino. *Journal of Gambling Issues* (19), 9-17.

[29] Tirachaimongkol, L.C., Jackson, A.C. & Tomnay, J.E. (2010). Pathways to problem gambling in seniors. *Journal of Gerontological Social Work*, 53, 531–546.

[30] Loroz, P.S. (2004). Golden-age gambling: Psychological benefits and self-concept dynamics in aging consumers. *Psychology & Marketing;* 21(5), 323-49.

[31] Williams, R.J., Stevens, R.M.G. & Nixon, G. (2011) Gambling and problem gambling in North American indigenous peoples. In Belanger, Y.D. (Ed). *First Nations Gaming in Canada*. Winnipeg: University of Manitoba Press.

[32] Volberg, R.A. (1995). Gambling and Problem Gambling in Iowa: A Replication Survey, Des Moines, IA, Iowa Department of Human Services.

[33] Room, R., Turner, N.E. & Ialomiteanu, A. (1999). Community effects of the opening of the Niagara Casino. *Addiction*, 94 (10), 1449-1466.

[34] Hann, R. G., & Nuffield, J. (2005). Local community impacts of the charity casinos. Prepared for Addiction Programs, Ontario Ministry of Health and Long-Term Care.

[35] Williams, R.J., West, B.L., & Simpson, R.I. (2012). *Prevention of Problem Gambling: A Comprehensive Review of the Evidence, and Identified Best Practices.* Report prepared for the Ontario Problem Gambling Research Centre and the Ontario Ministry of Health and Long Term Care. October 1, 2012. http://hdl.handle.net/10133/3121

[36] Blue Thorn Research, Population Health Promotion Associates, PFIA Corporation, & Williams, R.J. (2007). Socioeconomic Impacts of New Gaming Venues in Four British Columbia Lower Mainland Communities: Final Report. Submitted to the Gaming Policy and Enforcement Branch, Ministry of Public Safety & Solicitor General, Government of British Columbia. July 31, 2007. Available at: http://www.pssg.gov.bc.ca/gaming/reports/docs/rpt-rg-impact-study-final.pdf

[37] Cox, B.J., You, N., Afifi, T. & Ladouceur, R. (2005). A national survey of gambling problems in Canada. *Canadian Journal of Psychiatry, 50*(4), 213-217.

[38] Frisch, G.R. (1999). Community impact of increased gambling availability on adult gamblers - A four year follow-up. *Problem Gambling Research Group, University of Windsor*. Available at: http://web2.uwindsor.ca/pgrg/fyear.htm
[39] Jacques, C., & Ladouceur, R. (2006). A prospective study of the impact of opening a casino on gambling behaviors: 2- and 4-year follow-ups. *Canadian Journal of Psychiatry, 51*(12), 764-773.
[40] Rush, B., Veldhuizen, S. & Adlaf, E. (2007). Mapping the prevalence of problem gambling and its association with treatment accessibility and proximity to gambling venues. *Journal of Gambling Issues, 20:* 193–213.
[41] New Zealand Ministry of Health. (2008). Raising the odds? Gambling behaviour and neighbourhood access to gambling venues in New Zealand. Wellington: Ministry of Health. Available at: http://www.moh.govt.nz/notebook/nbbooks.nsf/0/E4A9E7FBD23D181CCC25748000817D08/$file/raising-the-odds-may08.pdf
[42] Welte, J.W., Wieczorek, W.F., Barnes, G.M., Tidwell, M-C. & Hoffman, J.F. (2004). The relationship of ecological and geographic factors to gambling behavior and pathology. *Journal of Gambling Studies, 20*(4): 405-423.
[43] Gerstein, D.R., Volberg, R.A., Toce, M.T., Harwood R., Christiansen, E.M., Hoffmann, J., Murphy, S.A. et al. (1999). Gambling impact and behaviour study. Report to the National Gambling Impact Study Commission. *National Opinion Research Centre at the University of Chicago, Chicago.* Available at: http://www.norc.org/PDFs/publications/GIBSFinalReportApril1999.pdf
[44] Chevalier, S., Montpetit, C., Biron, J.-F., Dupont, M.A. & Caux, C. (2006). Avis sur la modification de l'offre de jeu a Montreal. La construction d'un casino au basin Peel. *Montreal, Direction de santé publique de Montréal.* Available at : http://publications.santemontreal.qc.ca/uploads/tx_asssmpublications/2-89494-477-2.pdf
[45] Cosgrave, J.F. & Klassen, T.R. (2009). *Casino State: Legalized Gambling in Canada.* Toronto: University of Toronto Press.
[46] Williams, R.J. & Simpson, R.I. (2008). Promising practices in the prevention of problem gambling. *Report prepared for the Ontario Problem Gambling Research Centre, Guelph, Ontario*. November 14, 2008.
[47] Urbanoski, K., & Rush, B.R. (2006). Characteristics of people seeking treatment for problem gambling in Ontario: Trends from 1998 to 2002. *Journal of Gambling Issues, 16*.
[48] Williams, R.J., Volberg, R.A. & Stevens, R.M.G. (2012). The Population Prevalence of Problem Gambling: Methodological Influences, Standardized Rates, Jurisdictional Differences, and Worldwide Trends. Report prepared for the Ontario Problem Gambling Research Centre and the Ontario Ministry of Health and Long Term Care. May 8, 2012. http://hdl.handle.net/10133/3068
[49] Guttentag, D.A. (2010). *Gambling by Ontario Casino Employees: Gambling Behaviours, Problem Gambling, and Impacts of the Employment.* Master's Thesis in Environmental Studies. University of Waterloo.
[50] Williams, R.J., Belanger, Y.D. & Arthur, J.N. (2011). Gambling in Alberta: History, current status, and socioeconomic impacts. *Final report to the Alberta Gaming Research Institute.*
[51] Idler, E.L. & Benyamini, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior. 38*, 21-37.
[52] Kopec, J.A., Schultz, S.E., Goel, V. & Williams, J.I. (2001). Can the Health Utilities Index measure change? *Medical Care 39*(6), 562-574.
[53] Afifi, T.O., Cox, B.J., Martens, P.J., Sareen, J. & Enns, M.W. (2010). The Relationship between problem gambling and mental and physical health correlates among a nationally representative sample of Canadian women. *Canadian Journal of Public Health, 101*(2), 171-175.
[54] Bergh, C. & Kfihlhorn, E. (1994). Social, psychological and physical consequences of pathological gambling in Sweden. *Journal of Gambling Studies, 10*(3), 275-285.

[55] Pasternak, A.V. & Fleming, M.F. (1999). Prevalence of gambling disorders in a primary care setting. *Archives of Family Medicine, 8,* 515-520.
[56] Productivity Commission (1999). *Australia's gambling industries*. Report No. 10, AusInfo, Canberra. Available at: http://www.pc.gov.au/projects/inquiry/gambling/docs/finalreport
[57] Parhami, I., Siani, A., Rosenthal, R.J., Lin, S., Collard, M. & Fong, T.W. (2012). Sleep and gambling severity in a community sample of gamblers. *Journal of Addiction Disorders, 31(*1), 67-79.
[58] Lorains, F.K., Cowlishaw, S. & Thomas, S.A. (2011). Prevalence of co-morbid disorders in problem and pathological gambling: systematic review and meta-analysis of population. *Addiction, 106,* 490–498.
[59] Momper, S.L., Delva, J., Grogan-Kaylor, A., Sanchez, N., & Volberg, R.A. (2010).The association of at-risk, problem, and pathological gambling with substance use, depression, and arrest history. *Journal of Gambling Issues, 24:* 7-32.
[60] Phillips, D.P., Welty, W.R. & Smith, M.M. (1997). Elevated suicide levels associated with legalized gambling. Suicide & Life-Threatening Behavior 27(4): 373-8.
[61] Williams, R. (2012). Personal communication, August 7, 2012.
[62] Bureau du coroner du Québec (2004). Relevé des suicides de joueurs compulsifs. Quebec City. As cited in: Suissa, J.A. (2004). Dépendance au gambling: repères pour le médecin de famille. *Le Médecin du Québec*, 39(11): 87-96.
[63] Cotti, C.D. & Walker, D.M. (2010) The impact of casinos on fatal alcohol-related traffic accidents in the United States. *Journal of Health Economics,* 29, 788-796.
[64] Spectrum Gaming Group (2009). Gambling in Connecticut: Analyzing the economic and social impacts.193-197. Available at: http://www.ct.gov/dcp/lib/dcp/pdf/gaming/june_24_2009_spectrum_final_final_report_to_the_state_of_connecticut[1].pdf
[65] Muelleman, R.L., DenOtter, T., Wadman, M.C., Tran, T.P. & Anderson, J. (2002). Problem gambling in the partner of the emergency department patient as a risk factor for intimate partner violence. *The Journal of Emergency Medicine, 23(3),* 307–312.
[66] Shaw, M.C., Forbush, K.T., Schlinder, J., Rosenman, E. & Black, D.W. (2007). The effect of pathological gambling on families, marriages, and children. *CNS Spectrums*. 12(8), 615-622.
[67] Adams, P.J., Raeburn, J. & de Silva, K. (2008). A question of balance: prioritizing public health responses to harm from gambling. *Addiction, 104,* 688–691.
[68] Turner, N.E, Macdonald, J. & Somerset, M. (2008). Life skills, mathematical reasoning and critical thinking: A curriculum for the prevention of problem gambling. *Journal of Gambling Studies, 24,* 367–380
[69] Problem Gambling Institute of Ontario (2012). Resources for professionals. Available at: http://www.problemgambling.ca/EN/ResourcesForProfessionals/Pages/default.aspx
[70] Anderson, C., Cowlishaw, S., Dowling, N., Jackson, A., Lorains, F., Merkouris, S., Misso, M.L., Radermacher, H., Thomas, S. (2011). Pharmacological interventions for the treatment of pathological and problem gambling. *Cochrane Database of Systematic Reviews, Issue 1*.
[71] Anderson, C., Cowlishaw, S., Dowling, N., Jackson, A., Lorains, F., Merkouris, S., Misso, M.L., Radermacher, H., Thomas, S. (2011). Psychological interventions for the treatment of pathological and problem gambling. *Cochrane Database of Systematic Reviews, Issue 1*.
[72] Gainsbury, S. (2010). Self-exclusion: A comprehensive review of the evidence. *Report prepared for the Ontario Problem Gambling Research Centre, Guelph, Ontari*o. June 16, 2010.
[73] Ladouceur, R., Jacques, C., Girous, I., Ferland, F., & LeBlond, J. (2000). Analysis of a casino's self-exclusion program. *Journal of Gambling Studies, 16,* 453-460.
[74] Sadinsky, S. (2005) Review of the Problem-Gambling and Responsible-Gaming Strategy of the Government of Ontario. *Report to the Ontario Ministry of Health and Long-Term Care and the Ministry of Economic Development and Trade.* Available at: http://www.health.gov.on.ca/en/common/ministry/publications/reports/gambling_05/sadinsky.pdf
[75] Canadian Gaming Association (2011). Available at: http://www.canadiangaming.ca

[76] Problem Gambling Institute of Ontario (no date). Problem gambling treatment agencies. Available at: http://www.problemgambling.ca/EN/WebSiteLinks/Pages/OntarioProblemGamblingTreatmentServices.aspx
[77] Ontario Lottery and Gaming Corporation (2012). Responsible gaming: It pays to know. Available at: http://www.olg.ca/about/responsible_gaming/index.jsp
[78] Responsible Gambling Council (no date). Safer play. Available at: http://www.responsiblegambling.org/safer-play
[79] Problem Gambling Institute of Ontario (2012). Available at: http://www.problemgambling.ca
[80] YMCA of Greater Toronto (2012). YMCA Youth Gambling Awareness Program. Available at: http://www.ymcagta.org/en/who-we-work-with/educators/gambling/index.html
[81] Ontario Problem Gambling Research Centre (2012). Available at: http://www.gamblingresearch.org/
[82] Responsible Gambling Council (2012). RGC Centre for the Advancement of Best Practices. Available at: http://www.responsiblegambling.org/rg-news-research/rgc-centre
[83] Government of Ontario (2012). Ontario problem gambling helpline. Available at: http://www.opgh.on.ca/
[84] Ontario Lottery and Gaming Corporation (2005). Responsible Gaming Code of Conduct. Available at: http://www.olg.ca/assets/documents/responsible_gaming/code_of_conduct.pdf
[85] Ontario Lottery and Gaming Corporation (2010). Available at: http://www.olg.ca/assets/documents/media/class_action_background.pdf
[86] Rush, B.R., Shaw Moxam, R. & Urbanoski, K.A. (2002). Characteristics of people seeking help from specialized programs for the treatment of problem gambling in Ontario. *Journal of Gambling Issues, 6* doi: 10.4309/jgi.2002.6.9.
[87] Suurvali, H., Hodgins, D.C, & Cunningham, J.A. (2010). Motivators for resolving or seeking help for gambling problems: A review of the empirical literature. *Journal of Gambling Studies, 26,* 1–33.
[88] Christensen, M.H., Patsdaughter, C.A., & Babington, L.M. (2001). Health care providers' experiences with problem gamblers. *Journal of Gambling Studies, 17(1):* 71-9.

Appendix A: Search Strategy

The first step in this goal involved identifying all studies reporting on the social/health impacts of casino gambling from both the academic and non-academic 'grey' literature. The following keywords and subject terms were used in various combinations to locate resources for this review of the literature: gambling / gaming / gambler* / casino* / effect* / impact* / socioeconomic / social impact / health impact / health

Search dates: 2011-present
English only

Searches were performed in the following academic databases:
Gale databases: Academic OneFile, Expanded Academic ASAP, General Business File ASAP, General OneFile, Psychology Collection
EBSCO databases: Academic Search Premier, General Science Abstracts, Psychology and Behavioural Sciences Collection, Social Sciences Abstracts, SocINDEX
OVID database: Embase, Medline
Proquest databases: Applied Social Science Index and Abstracts, ERIC, PsycAbstracts, PsycInfo, Sociological Abstracts
PubMed

Searches were performed using the following online search tools and repositories:
CAMH Research Database
Centers for Disease Control and Prevention (CDC)
Google Scholar
Responsible Gambling Council Online Library
University of Toronto Library Catalogue

The second step involved identifying all studies reporting on intervention options and effectiveness related to casino gambling. The following keywords and subject terms were used in various combinations to located resources for this review of the literature: gambling / gaming / gambler* / casino* / intervention* / prevention* / treatment

Search dates: 2009-present
English only

Searches were performed in the following academic databases:
Gale databases: Academic OneFile, Expanded Academic ASAP, General Business File ASAP, General OneFile, Psychology Collection
EBSCO databases: Academic Search Premier, Cochrane Database of Systematic Reviews, Psychology and Behavioural Sciences Collection, Medline, SocINDEX
OVID databases: Embase
Sociological Abstracts

Appendix B: Data Notes

Methodological details regarding the CCHS (Statistics Canada, 2011) and CGPI (Ferris and Wynne, 2001) have been published elsewhere.

The CCHS analysis was based on weighted data. Respondents under 18 years of age were excluded from the analysis. In an approved CCHS modification, respondents were not asked the PGSI if they classified themselves as a non-gambler or reported gambling at most 1 to 5 times in the past 12 months for each of the 13 gambling activities measured. Questions pertaining to duration of involvement were not included in the CCHS. These estimates may under-estimate the true prevalence of problem gambling in Ontario. It has been suggested that CCHS data produces lower prevalence rates of problem gambling compared to other provincial studies due to a lack of anonymity. Unlike other provincial surveys, the CCHS collects respondent name and date of birth at the beginning of the interview (Williams, Volberg and Stevens, 2012).

Significant differences were estimated using overlapping confidence intervals. Although this method is conservative ($a < 0.01$) and most appropriate when comparing mutually exclusive groups, it was chosen as an objective way of making conclusions on survey data. Also note that the multiple comparisons performed in the analysis were not taken into consideration when choosing the level of significance to test.

Where a respondent did not respond to a survey question relevant to the analysis presented, they were excluded from both the numerator and the denominator.

'Refusal', 'Not Stated', and 'Don't Know' responses were excluded from analysis if they constituted less than 5% of the total responses; otherwise, they were reported separately.

Limitations

Estimates for Problem gamblers using CCHS in this report were based on sample sizes. In some cases, this has contributed to wide confidence intervals. These estimates should be interpreted with caution. The Statistics Canada sampling variability guidelines were followed.

Low-risk and moderate-risk gamblers were combined due to small sample sizes. A validation study recently undertaken by Currie, Hodgins and Casey (2012) found that non-problem and problem gamblers were distinct subgroups; however, when profiled, low-risk and moderate-risk gamblers were similar on a number of dimensions and did not comprise meaningfully distinct groups. Currie *et al* (2012) suggested two methods to improve the validity of these groups: (1) combine the low-risk and moderate-risk groups or (2) revise the scoring system to classify low-risk gamblers (1 to 4) and moderate-risk (5 to 7). The latter is the preferred approach and is promoted by the Canadian Consortium for Gambling Research. Due to small sample sizes, we used the first approach to address the validity concern. A limitation of this approach is that it may be too inclusive (Currie *et al* (2012).

Some items were part of the PGSI and used to classify type of gambler. Given this, we would anticipate significant differences between gambler types; however, these differences are still meaningful and illustrate the level of differentiation in behaviour between problem gamblers and lower risk gamblers.

Self-reported data from surveys have a number of limitations: (1) People do not always remember their behaviours, and/or may under- or over-report behaviours or characteristics based on perceived social desirability; (2) People living on Indian Reserves or Crown Lands, in institutions, members of the Canadian Forces and residents in specific remote regions were excluded from the CCHS sampling frame (Statistics Canada, 2011); and (3) People of low income, people with low levels of education and new immigrants are under-represented. Further, individuals with gambling concerns may be harder to contact and less likely to respond to a health survey over the telephone.

Telephone surveys have been found to underestimate the true prevalence of gambling. After weighting for age and sex, Williams & Volberg (2012) reported that the rates of problem gambling were 1.44 times higher in face to face surveys compared to telephone surveys; however, the underestimation rate is influenced by response rates. The higher the response rate, the lower the underestimation of problem gambling rates. The response rate for the 2007/08 cycle of the CCHS in Ontario was 73.6%.

References

Currie, S.R., Hodgins, D.C. & Casey, D.M. (2012). Validity of the Problem Gambling Severity Index interpretative categories. *Journal of Gambling Studies* [online].Consortium for Gambling Research.

Canadian Problem Gambling Index (CPGI). Available from: http://www.ccgr.ca/cpgi.php. Accessed on August 1, 2012.

Statistics Canada. Canadian Community Health Survey. Available from: http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3226&lang=en&db=imdb&adm=8&dis=2#a4. Accessed on August 1, 2012.

Williams, R.J., Volberg, R.A. & Stevens, R.M.G. (2012). The Population Prevalence of Problem Gambling: Methodological Influences, Standardized Rates, Jurisdictional Differences, and Worldwide Trends. Report prepared for the Ontario Problem Gambling Research Centre and the Ontario Ministry of Health and Long Term Care. May 8, 2012. http://hdl.handle.net/10133/3068

Williams, R.J., & Volberg, R.A. (2012). Population assessment of problem gambling: Utility and best practices. *Report prepared for the Ontario Problem Gambling Research Centre and the Ontario Ministry of Health and Long Term Care*. April 30, 2012.

Appendix C

Table 4: Health Impacts Reported "At least Sometimes" in the Past 12 Months by Type of Gambler, Aged 18+, Ontario, 2007/08

	Type of Gambler[1]					
	Non-problem Gambler		Low to Moderate-risk Gambler		Moderate to Problem Gambler	
In the past 12 months…	Percent	95% CIs[2]	Percent	95% CIs[2]	Percent	95% CIs[2]
General Health						
Self-reported Health - Excellent or Very Good	60.6%	(59.4, 61.7)	49.5% (L)	(44.9, 54.0)	33.2% (L)	(21.7, 47.2)
Gambling caused health problems, including stress or anxiety×	0.0%	--	11.1%	(8.4, 14.4)	77.3%	(57.8, 89.5)
Mental Health						
Self-reported Mental Health - Excellent or Very Good	76.1%	(75.1, 77.1)	68.6% (L)	(64.4, 72.5)	35.0% (L)	(23.1, 49.2)
Gambled to forget problems or feel better when depressed	1.0%	(0.7, 1.4)	15.1% (H)	(11.8, 19.1)	72.4% (H)	(58.8, 82.7)
Ever considered suicide or taking your own life	8.2%	(7.6, 8.9)	12.8% (H)	(10.0, 16.3)	32.1%[E] (H)	(20.8, 46.0)
Co-dependencies						
Used alcohol or drugs while gambling	‡	--	27.9%	(19.9, 37.7)	33.4%[E]	(21.1, 48.5)
Family Impacts						
Gambling caused financial problems for you or your family×	0.0%	--	6.7%	(4.5, 9.9)	75.2%	(61.0, 85.5)

Notes: (1) Gambling classifications are based on a modified version of the nine-item Problem Gambling Severity Index (PGSI), part of the Canadian Problem Gambling Index (CPGI). (2) 95% Confidence intervals are used on response estimates, which means the estimate is within the range 19 times out of 20. (3) "At least sometimes" is an aggregate of almost always, most of the time and sometimes in the past 12 months. ‡ Question only asked of moderate to problem gamblers. E – Moderately high sampling variability; interpret with caution. F – Very high sampling variability and/or sample size less than 10; data suppressed. H – Significantly higher than non-problem gamblers. L – Significantly lower than non-problem gamblers. Low-risk and Moderate-risk gamblers were combined due to small sample sizes. ×This item is part of the PGSI and was used to classify type of gambler. Given this, we would anticipate significant differences between gambler types; however, these differences are still meaningful and illustrate the level of differentiation in behaviour between problem gamblers and lower risk gamblers.

Data Source: Canadian Community Health Survey, 2007/08. Statistics Canada, Share File, Knowledge Management and Reporting Branch, Ontario Ministry of Health and Long-Term Care.

Prepared by: Toronto Public Health

Appendix D: Ontario Organizations Addressing Problem Gambling

Centre for Addiction and Mental Health

The Centre for Addiction and Mental Health (CAMH) is Canada's largest mental health and addiction teaching hospital, as well as one of the world's leading research centres in the area of addiction and mental health. CAMH combines clinical care, research, education, policy development and health promotion to help transform the lives of people affected by mental health and addiction issues. CAMH and the PGIO receive funding from a wide range of funders including: Canadian Institutes of Health Research, CAMH donors and the CAMH Foundation, U.S. National Institutes of Health, Health Canada, the Ontario Ministry of Health and Long-Term Care, Canada Foundation for Innovation, the Ontario Ministry of Economic Development and Innovation, and the Public Health Agency of Canada.

Problem Gambling Institute of Ontario (PGIO) at the Centre for Addiction and Mental Health brings treatment professionals and leading researchers together with experts in communicating and sharing knowledge. The PGIO serves as a hub resource by offering CAMH's diverse expertise in mental health and addiction. The focus is on collaboratively developing, modelling and sharing evidence-based solutions to gambling related problems, within Ontario and around the world. (See above for funding sources for CAMH's PGIO.)

Responsible Gambling Council

The Responsible Gambling Council (RGC) is an independent non-profit organization dedicated to problem gambling prevention. RGC creates and delivers awareness and information programs for specific age groups and communities, including adults, parents, youth and young adults, older adults, new Canadians and the aboriginal community. It also promotes the adoption of improved play safeguards through best practices research, standards development and the RG Check accreditation program. The Responsible Gambling Council receives funding for the delivery of its programs, projects and research across Canada. The Ontario government commits two per cent of annual slot revenue from charity casinos and racetracks to the Ministry of Health and Long-Term Care for the research, prevention and treatment of problem gambling. RGC's base funding for the Youth Performances, Know the Score and Newscan in Ontario, along with funding for Problem Gambling Prevention Week and social marketing campaigns, is provided by the Ontario Ministry of Health and Long-Term Care. Funding for the independent operations of the Responsible Gaming Resource Centres is provided by Ontario Lottery and Gaming Corporation. RGC undertakes programs, research and evaluations for other entities across all jurisdictions in Canada, funded on a project basis.

Ontario Problem Gambling Research Centre

Ontario Problem Gambling Research Centre (OPGRC) was created by the Ontario government in 2000, as part of its strategy to prevent and reduce harm from gambling. OPGRC operates at arm's length, with its own charter and Board of Directors. With a four million dollar annual budget funded through the Ministry of Health and Long-Term Care, OPGRC has a provincial mandate to build research capacity, fund research and disseminate findings.

Ontario Problem Gambling Helpline

The Ontario Problem Gambling Helpline opened in 1997 as a province-wide information and referral service designed to ensure that all communities in Ontario have free, confidential and anonymous access to information about and referral to problem-gambling treatment resources.

It is sponsored by and integrated within the Ontario Drug and Alcohol Registry of Treatment (DART) and utilizes DART'S telephone infrastructure, computer system, call centre workstations and staff. It operates from DART's offices in London, Ontario. DART is a not-for profit agency governed by a Board of Directors.

Ontario Lottery and Gaming (OLG)'s Responsible Gaming Resource Centres

Responsible Gaming Resource Centres have expanded from two locations to all 27 locations in OLG casino and slots venues across Ontario. The centres provide patrons with information about safer gambling practices, assistance and referrals for help, if necessary. The centres are operated and staffed by independent problem gambling prevention specialists from the Responsible Gambling Council, a non-profit organization specializing in prevention strategies. Information provided to the RGRC staff is confidential. OLG provides free space in the venue and funds operating costs.

YMCA Youth Gambling Program (YMCA)

The YMCA is a charitable organization offering personal growth through participation and service to the community. It has developed a program, the Youth Gambling Program (YGP), that is designed to implement prevention and educational strategies for problem gambling among youth in selected communities across Ontario.