Technical Report:

The Potential Health Impacts of a Casino in Peterborough

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Background

In 2012, the Ontario Lottery and Gaming Commission (OLG) released a report entitled "Modernizing Lottery and Gaming in Ontario" describing the outcome of a comprehensive strategic review of their operations. The strategic review was requested by the provincial government in an effort to explore a number of issues such as reducing the capital costs of running gaming facilities, addressing the demands from consumers for products and providing employment opportunities.[1] The recommended actions moving forward included the expansion of gaming throughout the province. OLG divided the province into zones and "gaming bundles." Peterborough is one of three identified locations in Gaming Bundle 2 (East). The other two locations include Belleville and Kingston.

A number of steps in the expansion process included:

1. Requests for Information from potential service providers published in May 2012 which closed on July 2, 2012.
2. OLG-hosted information briefings with the municipal sector in June 2012.
3. Requests for Pre-Qualification (RFPQ) from potential service providers published in November 2012 which closed on March 7, 2013.
4. Selection of Ontario Gaming East Limited Partnership as the service provider for Gaming Bundle 2 (East) in September 2015. Great Canadian Gaming Corporation holds a 50.1% share in the partnership[2].
5. OLG and Ontario Gaming East Limited Partnership signed a 20-year casino operating and services agreement ("COSA") in January 2016[3].

In the Request for Pre-Qualification, it states "*…that Gaming Bundle 2 (East) represents a valuable commercial opportunity that has not been fully exploited*."[4] To this end, OLG sought a service provider to replace or augment the existing Peterborough gaming facility (located at Kawartha Downs) to include up to 600 Electronic Gaming Machines (EGMs) and 180 Live Table Gaming Positions (18 – 36 tables). The successful service provider, Ontario Gaming East Limited Partnership, will be responsible for the operations in the three communities that make up Gaming Bundle 2. The type of facilities and where they are located is at the discretion of the service provider.

Expansion of gaming facilities cannot happen without approval from the municipal government. According to the City of Peterborough's Report PLPD13-013, "*City Council passed a resolution on April 2, 2012 endorsing the principle of Peterborough becoming a host for the new gaming facility*."[5] In early 2013, potential service providers met with municipal representatives to discuss possible locations for a casino.

A staff report[6] outlining four possible locations was presented at a Planning Committee meeting on February 11, 2013. The Planning Committee approved the three recommendations put forward which include:

1. Informing OLG of their support for a casino in the community;
2. Providing the opportunity for public consultation at a meeting on March 5, 2013, and

3. Should Council decide to go ahead, informing OLG that they are prepared to move forward with identified preferred locations.

At this point, the City of Peterborough's Planning Committee will be meeting on May 9, 2016 to discuss a possible amendment to the Official Plan and Zoning By-law for land at 1400 Crawford Dr. and 586 Harper Rd. to "permit a 'gaming establishment/casino' as a permitted use on the subject lands."[7]

Recognizing that gambling activities can lead to addiction and other health and social consequences, this report has been written to highlight the health impacts of gambling. It is anticipated that any deliberations on the risks and benefits of increasing access to gaming in Peterborough would include careful consideration of the social and health impacts on individual gamblers and the community as a whole.

Please note that for the purposes of this report, only the information relevant to on-site gaming operations will be included. Other forms of gaming such as on-line gambling, video lottery terminals (VLTs), bingo, and lotteries will not be directly addressed. In addition, a "whole of Peterborough" approach has been used in this paper and all references to populations, unless otherwise indicated, refer to the entire population of the health unit.

Rationale

As part of the analysis of the health impacts of gambling on individuals and the community, it is essential to examine the prevalence rates of gambling in our community including specific at-risk populations; the effects of access and proximity to a gaming venue on gambling behaviour; the social and health costs of gambling and the impact of gambling on broader social health issues. This report will also highlight existing and required supports for problem gamblers and strategies for reducing or mitigating the harms of gambling.

Section 1: Prevalence Rates

Adults

The Canadian Community Health Survey (CCHS) has not collected information on gambling since 2007/08. The data at that time showed that two-thirds, or 66.2% of Ontarians 18 years of age or older gambled at least once in the previous 12 months.[8] In Peterborough, nearly three-quarters, or 73.5%, of individuals 18 years of age or older reported gambling—a statistically significant difference from the Ontario average. The CCHS data also showed that "…*85% of Canadians have gambled at some point in their lifetime*."[9] Table 1 shows a demographic breakdown of self-reported gamblers in Peterborough and Ontario. Unlike the provincial average, Peterborough had slightly more females reporting gambling than males, and Peterborough had a significantly greater proportion of females gambling than the Ontario average. Provincially, a significantly greater proportion of males gambled compared to females. With respect to incomes, a significantly greater proportion of Peterborough residents with

higher incomes gambled compared to Ontario. In Peterborough, a significantly greater proportion of people with higher incomes gambled compared to those with low income—a trend consistent with the provincial average. A significantly greater proportion of Peterborough residents across all education levels gambled compared to the Ontario average. In Ontario, a significantly greater proportion of adults aged 35 through 64 gambled compared to those under the age of 35 or aged 65 and older. This trend was not found in Peterborough.

Table 1. Proportion of people who are self-reported gamblers by gender, age, income, and education, Peterborough and Ontario; 2007/2008

	Peterborough % (95%CI)	Ontario % (95%CI)
Total	73.5 (68.2-78.1)‡	66.2 (65.3-37.0)
Gender		
Males	72.9 (65.8-79.0)	68.9 (67.7-70.1)
Females	74.0 (67.8-79.4)‡	63.6 (62.5-64.6)†
Age Group		
18-34	70.1 (60.9-77.9)	62.2 (60.5-63.9)
35-49	76.3 (66.5-83.9)	70.7 (69.1-72.2)†
50-64	79.0 (71.5-85.0)	70.0 (68.4-71.6)†
65+	66.7 (58.4-74.1)	59.1 (57.5-60.6)
Income Category*		
Low Income	63.3 (51.7-73.5)	59.2 (57.2-61.1)
High Income	81.4 (76.2-85.8)†‡	72.0 (71.0-72.9)†
Education Category*		
Low Education	75.7 (68.3-81.8)‡	66.5 (65.1-67.9)
High Education	75.7 (70.0-80.6)‡	68.6 (67.5-69.5)

*See Appendix B for Explanatory Notes

- Where indicated **"*"**, estimates should be *interpreted with caution* due to large sampling variability.
- Where indicated **"†"**, estimates *within groups* (e.g., males and females; high and low income; gambler and non-gambler; etc.) are considered statistically significantly different based on confidence interval analysis.
- Where indicated **"‡"**, estimates *between Peterborough and Ontario* are considered statistically significantly different based on confidence interval analysis.

The CCHS (2007/8) asked additional questions to those respondents who indicated that they had gambled in the previous year. For Peterborough, 4.3% (95% Confidence Intervals of 2.8 – 6.5%) were determined to be at-risk for problem gambling. Due to a small sample size this estimate must be interpreted with caution. In addition, such a small sample prohibits differentiation between low-risk, moderate-risk and problem gamblers.

Many people who gamble will suffer no long-term negative financial or health consequences from their activity. Low-risk gamblers are identified by three characteristics: a) they gamble infrequently (2 - 3 times per month); b) spend under $1,000 in a year and c) risk no more than one percent of their family's gross income.[10]

A problem gambler, on the other hand, is at a much higher risk of experiencing negative financial and health consequences. There are different definitions for problem gambling. One

such definition would consider a problem gambler to be an individual who exceeds one or more of the characteristics exhibited by a low-risk gambler (as mentioned above). Another definition from the Canadian Public Health Association describes problem gambling as *"…a progressive disorder characterized by 'a) continuous or periodic loss of control over gambling; b) preoccupation with gambling and money with which to gamble; c) irrational thinking; d) continuation of the activity despite adverse consequences'."*[11]

When determining the prevalence rates for problem gamblers, various researchers use different markers and may combine at-risk and problem gamblers into one group. As a result, the prevalence rates range from 1.2% to 3.4% of gamblers.[12] For example, according to a Staff Report by Toronto Public Health (2015), a recent survey on gambling prevalence in Ontario showed "…the measured rate of problem gambling (includes moderate risk and the most severe form of problem gambling) is between 1.0% and 2.2%."[13] On the other hand, the Centre for Addiction and Mental Health puts the problem gambling rate at 2.5%.[14] Some researchers argue that the prevalence rate for problem gamblers may be even higher due to the methodology used for obtaining the information. For instance, Williams and Wood (2007) argued that the response rate for the CCHS is artificially low because the respondents are less anonymous due to the face-to-face administration of the tool.[15] The same survey questions were used in telephone surveys in various provinces in the early 2000s and resulted in a doubling of the rate of reported problem gambling. The prevalence rates from these provincial surveys ranged from 1.6% to 5.9%, averaging 3.6%.[16]

The CCHS used the following definitions for gambler and non-gambler as well as problem gambling:

- *Non-gambler:* someone who has not engaged at all in the past year in any type of the gambling activities listed
- *Gambler:* someone who has engaged in at least one type of gambling activity in the past year.
- *Problem gambling:* categorizes respondents based on the severity of their problems associated with gambling. The questionnaire and derived variables are based on the Canadian Problem Gambling Index (CPGI). A modification from the CPGI is that if respondents volunteered that "I am not a gambler", they were not asked the severity questions despite having reported gambling activity in the past 12 months. Sample questions include: *(In the past 12 months,) have you gambled as a way of forgetting problems or to feel better when you were depressed?* and *In the past 12 months, how often have you bet or spent more money than you wanted to on gambling?*

Table 2 shows that 73.5% of Peterborough gamblers were considered non-problem gamblers compared to 63.5% of Ontarians (a statistically significant difference) and that fewer than one in 20 Peterborough and Ontario gamblers were considered low to high risk for problem gambling. Furthermore, just under half of people who gambled in Peterborough and Ontario spent less than $201 per year on gambling and fewer than one in 20 Peterborough and Ontario gamblers spent $1,000 or more per year.

A characteristic of problem gamblers is that they are more likely to participate in a variety of gaming activities. Table 2 shows that just over half of gamblers engaged in two to five types of gambling activities.

Table 2. Gambling behaviour patterns among gamblers, Peterborough and Ontario; 2007/2008

	Peterborough % (95%CI)	Ontario % (95%CI)
Amount Spent On Gambling		
$1-$250	47.7 (42.9-52.6)	46.1 (45.1-47.1)
$251-$999	13.6 (10.5-17.4)	15.5 (14.9-16.3)
$1,000+	3.3 (1.9-5.7)*	4.5 (4.0-5.0)
Gambling Risk Level		
Non-Problem Gambler	73.5 (67.1-79.1)‡	63.5 (62.5-64.5)
Low to High Risk	4.3 (2.8-6.5)*	4.9 (4.5-5.3)
Number of Different Types of Gambling Activities		
1	36.1 (31.1-41.5)	39.2 (38.2-40.2)
2-5	55.7 (50.1-61.2)	53.2 (52.2-54.2)
5+	6.5 (4.4-9.4)*	6.8 (6.4-7.3)*
Spent Money on … in Past 12 Mo. (Yes)		
Instant Win / Daily Tickets	52.3 (47.3-57.3)‡	44.5 (43.5-45.4)
Lottery Tickets	80.0 (73.7-85.2)	81.5 (80.7-82.3)
Cards / Board Games	17.6 (13.4-22.8)	15.6 (14.9-16.3)
VLT at a Casino	25.5 (21.3-30.3)	27.9 (27.1-28.8)

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- Where indicated **"‡"**, estimates *between Peterborough and Ontario* are considered statistically significantly different based on confidence interval analysis.
- Where indicated **"E"**, data do not meet Statistics Canada's quality standards. Conclusions based on these data will be unreliable and most likely invalid and are therefore not included

The data also showed that problem gamblers are four times more likely than non-problem gamblers to engage in at least five different gambling activities including electronic gaming machines (EGMs).[17] According to the Toronto Public Health report,

> *"[c]ertain gambling modalities may carry a higher risk that their users will develop gambling problems or that existing gambling problems will be exacerbated. 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."*[18]

Interestingly, with greater access to the Internet, one might think that on-line forms of gaming would be high and would be contributing to the problem gambling rates. Research shows, however, that Internet gambling is low and *"…is the least common form of gambling among adult Canadian gamblers."*[19] In addition, it was reported that slot machines were the most common gambling activity among adults with gambling problems.[20] It is clear that those forms of gambling found in casinos (i.e., EGMs and tables) contribute most to problem gambling rates.[21,22]

Youth

While many youth are not of legal age to engage in gambling activities, the results from the 2011 Ontario Student Drug Use and Mental Health Survey[23] from the Centre for Addiction and Mental Health showed that many youth between the ages of 12 and 18 engaged in such activities. Students were asked to report how often they participated in the following ten gambling activities: "gambled in other ways," cards, sports pools, lottery tickets, dice, bingo, sports lottery tickets, video gambling machines, any Internet gambling, gambling in an Ontario casino. The following were some of the key findings:

- *"Among all students, 38% report at least one gambling activity during the past 12 months."*
- *"Males (47%) are more likely to report any gambling activity than females (30%)."*
- *"Males are significantly more likely to report multi-gambling activity than females (4% vs. 2% respectively)."*
- *"When we look only among students who report gambling at one or more activities in the past year, 4% may have a gambling problem."*
- *"Males (2%) are more likely than females (1%) to have a gambling problem."*[24]

While this study identified 2% of students as problem gamblers, a study of students in Lethbridge, Alberta found the prevalence rate to be as high as 7.5%.[25]

Looking at the young adult population, Trent University professor, Dr. Jim Parker, published results from a study, indicating that *"…prevalence rates for severe gambling problems were highest among young adults (where 6.9% of adults aged 18 to 24 years had moderate to severe gambling problems)."*[26] Based on 2011 Census data, we have 13,105 young adults between the ages of 18 and 24 in the City and County of Peterborough. If we assume that Peterborough young adults are comparable to other young adults, there may be as many as 900 young adults dealing with moderate to severe gambling problems.

Prevalence rates for gambling, although low, are still significant. Dr. McKeown, Medical Officer of Health for Toronto Public Health commented that a prevalence rate of 2% is similar to the prevalence rates for colorectal cancer, irritable bowel disease, and eating disorders.[27]

Section 2: Access and Proximity to Gaming Venues

The OLG is expanding their operations in an effort to generate more revenue. In 2013, Ontario sat ninth amongst the provinces in the per capita net profit returned to the province ($149 per person) as opposed to Alberta which has the highest return at $463 per person. In 2013-2014, the net revenue for government-operated gaming in Ontario was $431 per person 18 years and older.[28] Expansion means closer and greater access to gaming opportunities in our communities.

As mentioned above, certain gaming activities lend themselves to greater risk of problem gambling including electronic gaming machines (EMGs), also known as slot machines. With the

possible introduction of a casino in Peterborough, and a proposed additional 600 slot machines, it can be predicted that the prevalence of problem gamblers will rise as a direct result of having greater access to these gaming activities. Research supports that the most common gaming activities cited when seeking treatment is slot machines and gaming tables.[29]

In the shift to modernize gaming, OLG wants to bring the casinos to the people rather than make the people go to the casino.[30] Research shows, however, that when casinos are readily accessible, more people will become problem gamblers.[31,32] A study in Niagara Falls, showed that problem gambling increased following the opening of the casino.[33] This trend was found in other communities across Ontario (i.e., Sarnia, Sault Ste. Marie, Brantford, and Thunder Bay).[34]

It is important to note that the prevalence rate for problem gambling tends to level off after the first year of operation once the novelty of having a casino wears off. Toronto Public Health's Technical Report stated that, "*[w]hile 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*."[35] Adding to the issues of accessibility, many casinos remain open 24 hours a day, seven days a week making gambling accessible at all times.

The greater proximity to a casino also means that the majority of gamblers will be local. A study by the Ministry of Health in New Zealand, found that people living within 80 kilometers of a casino were at greater risk for a gambling problem than those that lived 400 kilometers away. In addition, the study found

> *"…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."*[36]

Although it can be anticipated that a new casino will be frequented by tourists, research shows that casinos are populated by local residents. One can assume then, that the majority of problem gamblers will also be local and that the social, health and economic crises that problem gamblers experience will be felt locally.

Section 3: At Risk Populations

Not all gamblers face the same risk of becoming problem gamblers. There are individual and population level factors that make some gamblers more vulnerable. At the individual level, the characteristics that may predict greater risk 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*."[37] In addition, the problem gambler is more likely to be male, young, with no more than a high school education.[38]

Research has also shown a link between alcohol and gambling. According to one study, the individual with a propensity to heavier drinking was more likely to also be a problem gambler.[39]

The results indicate a correlation between the two behaviours rather than a causal relationship. This is of particular note, given that the 2009/10 CCHS survey showed that residents of the City and County of Peterborough consumed more alcohol than the average Ontarian.[40] Since our region already has higher than average alcohol consumption rates, increased gambling in our community may lead to the risk of greater alcohol consumption as well as greater risk of problem gambling. Finally, the combination of both problem drinking and problem gambling may increase the risk of intimate partner violence.[41]

Table 3 shows the link between gamblers and non-gamblers and alcohol consumption and tobacco use. Generally, a higher proportion of gamblers drink in excess of the low-risk drinking guidelines (LRDG), binge drink more than once per month, and were over-weight or obese compared to non-gamblers. In Peterborough, a significantly greater proportion of gamblers were over-weight or obese compared to non-gamblers. In Ontario, a significantly higher proportion of gamblers drink in excess of the low-risk drinking guidelines (LRDG), binge drink more than once per month, were over-weight or obese, and were daily or occasional smokers compared to non-gamblers

Table 3. Gambling status and other health-related behaviours and outcomes among gamblers, Peterborough and Ontario; 2007/2008

	Peterborough % (95%CI)	Ontario % (95%CI)
Drink in Excess of LRDG*		
Gambler	27.2 (23.1-31.6)	24.6 (23.8-25.5)
Non-Gambler	19.4 (12.0-29.7)*	13.4 (12.5-14.5)†
Binge Drinking More than Once per Mo.*		
Gambler	21.4 (17.4-26.0)	20.2 (19.4-21.0)
Non-Gambler	16.3 (10.8-23.9)	10.7 (9.9-11.6)†
Obese/Overweight*		
Gambler	56.0 (51.3-60.6)	53.4 (52.4-54.4)
Non-Gambler	40.1 (32.2-48.6)†	42.5 (41.0-44.0)†
Daily or Occasional Smoker*		
Gambler	24.2 (19.4-29.8)	24.4 (23.6-25.3)
Non-Gambler	21.3 (13.8-31.4)	16.6 (15.5-17.8)†

*See Appendix B for Explanatory Notes

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At the population level, there are certain groups at greater risk of becoming problem gamblers including people living on low income, seniors, youth, First Nations people and New Canadians.[42] The common denominator amongst these groups is financial precariousness which leads to financial risk taking.[43]

Older Adults

It is estimated that 2.2% of older adults in Ontario are problem gamblers.[44] It is common knowledge that the City and County of Peterborough boast a larger than average population of seniors in our community. The 2011 Census shows that there are 27,050 residents over the age of 65 years in the City and County. Assuming that the older adults in Peterborough are no different than other Ontario seniors, we can estimate that there are 595 older adults in Peterborough dealing with problem gambling. At issue for older problem gamblers is that they are less likely to be able to 'bounce back' from the negative consequences. Toronto Public Health reported that,

> "*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. 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*."[45]

Youth (12 to 24 years)

In a telephone conversation with Dr. Parker from Trent University in 2013, he indicated that some research conducted in 2005 with young adults in their first year at Trent and Fleming showed that gambling at a casino has become the new rite of passage for youth who are yet "of age." [46] It is a challenge for them to see if they are able to gain entry despite being underage. He also indicated that the current youth gambling rates seen locally are similar to the youth gambling rates among young students attending colleges and universities in Las Vegas. Introducing a casino, with its easy access and proximity, may contribute to an increase in rates of problem gambling among local youth. Finally, for many people the onset of mental health and addictions issues happens in early adulthood and it appears that young problem gamblers are *"…more likely to report concurrent substance abuse problems, experience mental health problems, and attempt suicide*."[47] In the *Gambling Policy Framework* by CAMH (2014), they revealed that "…a quarter of Ontario student[s]…with gambling problems reported a suicide attempt in the past year—roughly 18 times higher than in the general student population."[48]

First Nations

Based on information taken from a book entitled, *Gambling and problem gambling in North American indigenous peoples* (2011)[49], Toronto Public Health cited that First Nations people in Canada are approximately four times as likely to become problem gamblers as non-aboriginal people.[50] Toronto's Technical Report suggests that a number of socio-demographic characteristics play a role including: a "*…younger average age and a range of disadvantageous social conditions (e.g., poverty, unemployment, lack of education, cultural stress).*"[51]

People Living on Low Income

As mentioned above, individuals living with financial insecurity are more likely to take financial risks. *"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*."[52]

Casino Workers

The number of jobs available for a casino in Peterborough was estimated to be 600 in 2013. Today, the estimated number reported in the media is 300 including the 150 existing jobs that would relocated from Kawartha Downs resulting in a projected increase of 150 new jobs. Service industry jobs are commonly considered to be quite precarious given the low wages, changing schedules, and lack of benefits. Many jobs come with certain risks of physical or psychological harm, however, casino workers run the risk of becoming problem gamblers. According to research conducted in Ontario, casino workers are three times more likely to become problem gamblers.[53,54]

Over the past few years, Peterborough has reported high unemployment rates and one might assume that many of those individuals looking for work fall into one of the other at-risk populations (i.e., youth, First Nations people and people living on low income), thus amplifying this risk to them.

Section 4: Health Impacts of Problem Gambling

Problem gamblers experience a myriad of health issues including stress, anxiety, depression, suicide, addiction, migraines, chronic bronchitis, fibromyalgia, intestinal disorders and sleep disorders.[55,56] Due to these health issues, 25% of problem gamblers report being under the care of a health care practitioner.[57] Using the work from Toronto Public Health,[58] a list of specific health issues along with supporting information have been summarized in Table 4.

In addition, the consequences of problem gambling, both financial and social, extend beyond the individual to affect family, friends, co-workers, employers, and other members of the community. One report mentioned that for every problem gambler, three to four individuals are also affected.[59] Some of the more common problems faced by problem gamblers and the people in their lives include divorce, family breakdown, compromised child development through neglect and poverty, lost productivity and job loss.[60]

It seems the impact of problem gambling will be passed along to the next generation as well. One report indicated that, *"[r]esearch also shows that the health impacts of problem gambling can be intergenerational with the children of problem gamblers being more likely to use tobacco, alcohol or drugs, and develop psychosocial problems, educational challenges, and emotional disorders throughout their lives. Children of problem gamblers are also at greater risk of becoming problem gamblers themselves*."[61]

Section 5: Financial and Social Costs of Gambling Behaviour

In 2003, Ontarians spent just over $4 billion on gambling, or $427.60 per capita that year.[62] A survey of Ontario adults in 2010-2011 showed that, "…Ontario problem gamblers spent the most money participating in casino table games and electronic gaming machines in Ontario. In contrast, non-problem gamblers spent the most money participating in Internet gambling and visiting out-of-province casinos."[63] However, gambling expenditures are not divided up equally

Table 4. Health Impacts Associated with Gambling Reported in the Literature

Health Issue	General Summary of Findings	Supporting quotes
General Health	✓ Lower self-reported general health and well-being ✓ Colds and influenza ✓ Headaches, including severe and chronic headaches and migraines ✓ Fatigue and sleep problems ✓ Health conditions such as chronic bronchitis and fibromyalgia ✓ Other miscellaneous health symptoms (including cardiovascular, cognitive, skin and gastrointestinal problems, heart burn, backache) that may be stress-related	▪ *"…61% of non-problem gamblers rated their health as excellent or very good compared to 49% of low to moderate-risk gamblers and 33% of problem gamblers. Seventy-seven percent of problem gamblers reported gambling as the cause of health problems compared to 11% of low to moderate-risk gamblers."* ▪ *"Many of the health impacts are theorized to be a function of stress and strain."*
Mental Health	✓ Stress ✓ Depression ✓ Mood, anxiety and personality disorders	▪ *"…76% of non-problem gamblers rated their mental health as excellent or very good compared to 69% of low to moderate-risk and 35% of problem gamblers."*
Co-dependencies	✓ Alcohol, tobacco and drug use ✓ Problematic substance use/addiction	▪ *"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."* ▪ *"…low to moderate-risk (30%) and problem gamblers (38%) are significantly more likely to be daily smokers compared to non-problem gamblers."* ▪ *"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."*

Health Issue	General Summary of Findings	Supporting quotes
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."*
Family and Community Impacts	✓ Financial problems (increase in bankruptcies) ✓ Alcohol or fatigue-related traffic fatalities ✓ Family breakdown and divorce ✓ Family/intimate partner violence ✓ Familial psychological problems including stress and loss of trust ✓ Child development, neglect and poverty	▪ *"…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."* ▪ *"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."* ▪ *"Research has revealed a link between the presence of a casino and an increase in driving while impaired or extremely tired."* ▪ *"In the previous 12 months, 75% of problem gamblers reported gambling as the cause of financial problems for their families, 62% of problem gamblers reported lying to their family members and others about gambling, and 30% reported gambling as the cause of problems with relationship with family or friends."* ▪ *"…indirect consequences for the problem gambler's friends and families, such as emotional distress, depression, and even suicide. It may also negatively affect child development and well-being."*

amongst all Ontarians. One study found that in 2003, problem gamblers represented 4.8% of all gamblers in Ontario yet they represented 36% of all gambling revenue.[64] Another study in 2006 found that problem gamblers accounted for between 30 and 40% of all gambling revenue.[65] More recently, the CAMH report (2014) stated that an estimated one-quarter of the revenue from gambling in Ontario comes from the 2.5% of individuals with a gambling problem.[66] Toronto Public Health added that the proportion is "…even higher for casino table games and electronic gambling machines."[67] As previously mentioned, problem gambling is more likely to occur when electronic gaming machines are accessible. Almost two-thirds of revenue generated in Ontario by these machines comes from problem gamblers.[68]

Of the $3.4 billion that OLG generated in 2014-2015, $38 million (1.1%) was directed to awareness ($9 M), treatment ($25 M) and research ($4 M).[69] An additional $16 million (0.5%) is assigned to Responsible Gaming Resource Centres. Other provincial level expenditures generated by problem gambling have not been quantified but would include additional costs for *"…medical care, policing, courts, prisons, and social assistance, all of which represent significant public costs."*[70] At the individual and community level, problem gambling costs the individual (e.g., bankruptcy, job loss, homelessness), families (e.g., divorce, family breakup), workplaces (e.g., lost productivity, job loss), and the community (e.g., fraud, theft).[71]

One report stated that the estimated *"…annual cost associated with each problem gambler ranges from $20,000 to $56,000, including loss of work and court and treatment costs*."[72]

Supports for Problem Gamblers

According to Donna Rogers, Executive Director of FourCAST, a local addictions treatment service in Peterborough, 49 problem gamblers were admitted for treatment in 2012.[73] This number is consistent with the research that shows that only 1 – 2% of problem gamblers seek treatment.[74] Ms. Rogers reported recently that the number of people seeking treatment for gambling addiction has stayed relatively consistent throughout the last few years.[75] Using Ontario Problem Gambling Helpline (OPGH) data, Toronto Public Health reported that, "…from April 2014-March 2015…that 1,068 problem gamblers seeking treatment services through the OPGH gambled at casinos, far more than those that gambled on the Internet (171 individuals), at a raceway (105) or a kiosk/outlet/store (102)."[76] They added that, of the individuals who sought treatment, over 60% reported an addiction to slot machines.

Data obtained by the OPGH on April 21, 2016 reveals that in the City and County of Peterborough for the years of 2013 to 2015, 81 individuals called the hotline seeking assistance. Family and professionals were as likely to make calls as the individuals themselves. In 2013 and 2014, there were more male callers but in 2014, seven females and six males called in. The majority of callers (40% average over the three years) named casinos as the gambling location as opposed to the raceway, Internet, or kiosk/outlet/store. The same number indicated that the slot machine was the gambling activity.

The research also shows that the problem gambler who seeks treatment does not fit the profile of the average problem gambler. Those who reach out are more like to have higher education

and to be middle-aged (35 - 44 years) while the typical problem gambler is young, has a low income and less education. Supporting this, the OPGH data revealed that 70% of the callers from the City and County of Peterborough between 2013 and 2015 were 35 years of age or older. As a result, those gamblers most at risk are slipping through the cracks. One could argue that gambling addiction is where alcohol addiction was a few decades ago where stigma and shame present barriers to seeking treatment. Interestingly, research shows that if the treatment intervention is further away than the gambling venue, the problem gambler is less likely to seek help.[77]

Section 6: Social Health of the Community

Table 5, developed by Toronto Public Health, provides a summary of a number of broader social issues that may be affected by having a casino in our community.[78]

Employment

With the strong emphasis placed on the value of bringing jobs to the Peterborough area it seems appropriate to address the health impacts of this type of employment. Employment and working conditions are social determinants of health and it is important to look at the types of jobs available in a casino to determine their impact on employee health.

First, it has already been stated that casino workers are three times more likely to become problem gamblers. The exposure and familiarity with the gambling activities may make some workers more vulnerable.

Second, a poverty reduction group in Hamilton scanned OLG job ads on-line *"…and found that many positions within the OLG pay scale fall below a living wage: part-time servers start at $10.84 per hour, coat check attendants start at $11.64, housekeepers start at $13.64."*[79] At the moment, casino workers in Ontario are employees of OLG. With OLG shifting its role as an overseer rather than employer, the workers in the new facilities will be employed by the casino operators. We do not know what the wage ranges will be and whether or not these workers will have healthy employment (i.e., full-time, permanent, with benefits and pensions). The research is very clear that workers who are precariously employed (i.e., part-time, temporary, contract work with no pension or benefits) have the worst health outcomes of all workers.[80]

Finally, casinos operate many hours (if not 24 hours) a day which requires shift work. Shift and night workers experience poorer health than workers who work during the day due to disruptions in sleep which can lead to fatigue, insomnia and other sleep disturbances. This fatigue results in greater injuries on the job and on the road commuting to work.[81] In addition, shift workers are more prone to develop certain chronic illnesses especially cancer. According to the report from the Institute for Work and Health, "*[t]he International Agency for Research on Cancer (IARC) classified 'shift work that involves circadian disruption (i.e., night shift work) as a probable human carcinogen (Group 2A)*."[82]

Table 5. A summary of the Impact of a Community Casino on Select Social Issues

Potential Area of Impact	Predicted Change	Predicted Impact	Explanatory Notes
Employment			
Local jobs	Increase	Positive	Improve health
Shift work	Increase	Negative	Decrease in benefits of increased employment
Regional unemployment rate	No change	No effect	No effect on health
Economic Development			
Tourism	Increase	Mildly positive	May be new jobs; could be good for health
Local business development	Increase or decrease (depends on cannibalization of businesses)	Inconclusive	Either positive or negative
Crime			
Property crime	No change or possible increase	Neutral or negative	Possibly worsen or leave health unchanged
Violent crime	No change or possible increase	Neutral or negative	Possibly worsen or leave health unchanged
Neighbourhood impacts			
Traffic volume and congestion	Increase	Negative	Worsen health
Air pollution (e.g., diesel from idling buses)	Increase	Negative	Worsen health
Motor vehicle collisions (from fatigue, alcohol)	Increase	Negative	Worsen health
Social safety net			
Public service funding	Increase	Positive	Improve health
Public service demand	Increase	Negative	Worsen health

In one study, a number of risk factors that could affect casino employees were identified.[83] Some of these risk factors include: normalized gambling and heavy gambling; high alcohol consumption; workplace stress creating urges to gamble; limits on social life (due to shift work); increased access to gambling; socio-demographic characteristics of staff (young which means fewer family and financial obligations). Conversely, the same study identified some protective

factors: exposure to problem and heavy gamblers; awareness of gambling losses; knowledge of responsible gambling; awareness of poor odds.

A discussion about the possibility that a casino would take jobs away from other similar businesses is not appropriate for this report but an issue that should be considered.

Section 7: Current Practices in Dealing with Gambling

A number of measures at a variety of levels are needed to prevent problem gambling, to promote responsible gambling and to help those people who are addicted to gambling.

Prevention

While one youth-based education program focused on probability and chance has shown some promise,[84] public health initiatives have shifted to focus on public policy which seems to have a broader, more sustainable impact. In the case of gambling policy, the focus would need to be at the provincial level rather than the individual casino level. Public policies change our environment *"…through the alteration of external environmental controls on the availability and provision of gambling. Typically these policies take the form of restrictions on the general availability of gambling, who can gamble, and how gambling is provided."*[85] More will be said about policies in the harm reduction section.

Problem Gambling Responses

As in many instances of health risks, early detection is paramount. Given the shame and stigma that a problem gambler may feel, it is imperative that primary health care providers stay alert to the signs of a gambling addiction.[86]

There are different treatment modalities used to support a problem gambler including cognitive-behavioural therapy, drug therapy, "talk" therapy, on-line and self-help support. Research indicates that talk and drug therapies seem be effective.[87]

The casinos also have different programs geared to supporting problem gamblers. The most notable are self-exclusion programs. The challenge with self-exclusion programs is that the problem gambler is relying on the casino staff to recognize and bar them entry to the establishment. For this reason, self-exclusion programs in general are not very effective.[88] OLG does have a number of strategies in place to keep self-excluders out of their casinos. The strategies include: *"face recognition at casino entry, removing self-excluders' names from the corporation's marketing database, and connecting individuals with available treatment providers."*[89] In addition, the program is used by a very small number of problem gamblers: *"It is estimated that 0.6 - 7.0% of problem gamblers sign up to self-exclude in Canada."*[90]

Other strategies implemented by OLG include: clocks at the gaming floors, not extending credit, 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*."[91]

In their more recent report, Toronto Public Health (2015) reported that after sharing their mitigation strategies (detailed on the next page) with OLG, "OLG reviewed the strategies and indicated that the majority of these measures were not ones that they would be willing to adopt."[92]

Funding

As previously mentioned, a portion of the gambling revenue $38 million (1.1% of net revenue) is directed to treatment, prevention/awareness and research. In 2014-2015, $38 million was divided in the following ways: treatment (66%), prevention/awareness (24%), and research (11%).[93] An additional $16 million funds various responsible gambling programs including: OLG (www.knowyourlimit.ca), Responsible Gambling Council Ontario (http://www.responsiblegambling.org/), CAMH's Problem Gambling Institute of Ontario (http://www.problemgambling.ca), the Ontario Problem Gambling Research Centre (http://www.gamblingresearch.org/), and more than 50 community agencies (including FourCAST in Peterborough) located throughout the province.[94]

Harm Reduction Strategies

As Williams and Wood stated,

> *"It is also not clear that a massive increase in the amount of money redirected to prevention and treatment is needed, as the waiting lists are short. Rather, what is needed is the implementation of effective policies to minimize the negative impacts of gambling and substantially reduce the disproportionate financial draw from problem gamblers*."[95]

Harm reduction, the practice of identifying possible risks and developing strategies to mitigate those risks, is part of a public health response. It is important to recognize that some people will take risks and that we need to provide strategies for reducing or eliminating those risks. With respect to gambling behaviour, many of the changes would be best applied at a provincial level through policy change. By adopting new public policies, we can contribute to reducing the harms of gambling at a provincial level which also benefits our community and the individuals who live in it.

Toronto Public Health has recommended the following practices for mitigating the risks of gambling:

1. *Limiting hours of casino operation: no 24-hour access to venues, closed at least 6 hours per day;*
2. *Restricting the number of electronic gaming machines (EGMs) and slowing down machine speed of play and features that promote false beliefs of the odds of winning;*
3. *Eliminating casino loyalty programs;*
4. *Prohibiting ATMs on the gambling floor;*
5. *Prohibiting casino credit and holding accounts;*
6. *Reducing maximum bet size;*
7. *Mandating a daily loss maximum;*

8. *Implementing strong casino self-exclusion programs, including a mandatory player card system;*
9. *Issuing monthly individual patron statements which include full membership medians and averages to compare against personal record of loss, frequency and duration of play;*
10. *Designating areas for alcohol purchase and not providing alcohol service on casino floors to reduce impaired judgement.*[96]

The Gambling Policy Framework (CAMH, 2014) identified three areas of focus in reducing the harm from gambling: availability, modalities and hours of operation. This document strongly advocates for curbing the hours of operation from a 24 hour time space to a maximum of 18 hours per day. The authors asserted that,

> "a disproportionate number of people with gambling problems play EGMS [electronic gaming machines] between midnight and closing, and many Ontario problem gambling treatment providers report that extended hours have negative impacts on clients, especially for those who have sleeping issues and for shift workers. Driving while impaired or while extremely tired are two additional public health concerns related to extended hours of operation.
>
> Since gambling in Ontario is operated and regulated by the provincial government, it is within the government's power to intervene at the environmental level in order to minimize the harms associated with gambling expansion, EGMs, and extended hours."[97]

The policy strategies above would reduce the risk for all gamblers. There are also harm reduction strategies that could be adopted to protect the employees working in the casino. Some of the strategies presented by Hing and Breen include: more staff training, a stronger culture of responsible gambling, promoting staff wellbeing, no gambling in the workplace, limiting access to cash, limiting exposure to gambling, having supportive management attitudes, providing alternative jobs and assisting with help-seeking.[98]

If a Peterborough municipality chooses to move ahead with hosting a casino, a "social contract" with the casino operator could be considered. The contract would include a variety of conditions that would address local economic, health and social concerns. A document from the City of Toronto describing the various components that could be included in a casino social contract has been included in Appendix B.

Conclusion

Initiated by the provincial government via OLG, it is the province that will receive the greatest benefit from revenues generated by gaming. While our local municipalities may receive a portion of the revenues, our communities will also experience greater costs as rates of problem gambling increase. These costs will not only be borne by the people who will gamble but the employees of the casino, family and friends of the gamblers, as well as co-workers and

workplaces, local businesses (especially in the service and hospitality industries), law enforcement and justice system.

When making the decision whether or not to host a gambling facility, the social and health impacts should be weighed alongside any economic and employment benefits. Gambling impacts certain vulnerable sectors of the population and takes disproportionate amounts of money away from the people who can least afford to spend it. Williams and Wood stated very clearly that *"[g]ambling revenues largely come from a transfer of wealth, rather than a creation of wealth*."[99] They also said: "*If a substantial portion of gambling revenue is derived from problem gamblers, then it creates serious ethical problems for governments involved in this business.*"[100]

A new casino in the Peterborough area could have important positive and negative community impacts. Given the evidence presented in this report, we conclude that the introduction of a casino is likely to have greater adverse health-related impacts than beneficial impacts.

Appendix A – Explanatory Notes

For the purposes, a Peterborough resident refers to an individual who lived in the City of Peterborough or Peterborough County at the time of the survey.

INCOME

High and low Income categories are derived from a combination of total household income from all sources and the number of people residing in the household. For this report, *low income* refers to the 'lowest' and 'lower middle' income categories as defined in Table 1; *high income* refers to the 'upper middle' and 'highest' categories.

Table 1. Income categories used in SDOH analysis

Household size	**Total Household Income - Categories**			
	Lowest	**Lower middle**	**Upper middle**	**Highest**
1 or 2	< $15,000	$15,000 - $29,999	$30,000 - $59,999	>= $60,000
3 or 4	< $20,000	$20,000 - $39,999	$40,000 - $79,999	>= $80,000
5+	< $30,000	$30,000 - $59,999	$60,000 - $79,999	>= $80,000

EDUCATION

High and low educational attainment categories indicate the highest level of education acquired by the respondent and are broken down as follows:

- low education: less than secondary school graduation OR secondary school graduation, no post-secondary education
- high education: some post-secondary education OR post-secondary degree/diploma

ALCOHOL

The CCHS defines an alcoholic drink as: one bottle or can of beer or a glass of draft, one glass of wine or a wine cooler, one drink or cocktail with 1 and 1/2 ounces of liquor. A "standard drink" is equal to a 341 ml (12 oz.) bottle of 5% strength beer, cider or cooler; a 142 ml (5 oz.) glass of 12% strength wine; or a 43 ml (1.5 oz.) shot of 40% strength spirits (*Butt, P., Beirness, D., Gliksman, L., Paradis, C., & Stockwell, T. [2011]. Alcohol and health in Canada: A summary of evidence and guidelines for low risk drinking. Ottawa, ON: Canadian Centre on Substance Abuse*)

In 2007/2008, those who exceed the Low Risk Drinking Guidelines (LRDG) are defined as:

- Males (>=19 years) who drank more than 14 drinks per week;
- Females (>=19 years, excluding those pregnant or breastfeeding) who drank more than 9 drinks per week; or
- People who drank more than 2 drinks on any day of the previous week.

Binge drinking refers to those individuals those who reported drinking 5 or more drinks on at least one occasion

OVER-WEIGHT

Over-weight or obese is based on the proportion of people how have a body mass index (BMI) of 25 or greater based on self-reported height and weight.

SMOKING

Daily or occasional smoker is based on the self-reported question: *At the present time, do you smoke cigarettes daily, occasionally or not at all?*

Appendix B – Toronto Casino Social Contract

Toronto CASINO Consultation

Toronto Casino Social Contract:

WHAT IS A TORONTO CASINO SOCIAL CONTRACT?

City Council's Executive Committee directed the City Manager to give consideration to the establishment of a signed "social contract" between the City of Toronto and the Ontario Lottery and Gaming Corporation (OLG), should Council decide to proceed with the establishment of a new casino in Toronto.

A Social Contract would lay out expectation and ensure commitments between government, the private sector, institutions and society on how the social benefits of a casino will be realized and the negative societal impacts will be addressed. The Contract would clearly define the relationship between a potential casino operator, the provincial and municipal governments and the greater community.

A Toronto Casino Social Contract would emphasize commitment from all parties towards:

- **Partnership** – working together to build sustainable community and city-wide relationships and initiatives which benefit Toronto residents
- **Open and Inclusive Dialogue** – identifying priorities, developing solutions and avoiding marginalization of residents throughout the development and operation of a new Toronto casino.
- **Strengthening Toronto through Investment** – supporting economic opportunities for individuals, communities and the city, with a focus on vulnerable groups disproportionately impacted by economic uncertainties (e.g. youth, unemployed and underemployed individuals and newcomers).
- **Addressing Impacts on Toronto's Social Fabric** – proactively addressing the negative impacts of problem gambling through prevention, intervention, treatment and harm mitigation initiatives based on internationally recognized 'best practices'.
- **Independent Monitoring and Analysis** – supporting regular independent monitoring and analysis of the social, health and economic impact of casino operations on Toronto communities and residents to keep the Toronto Casino Social Contract relevant, transparent and accountable to Torontonians.

The Toronto Casino Social Contract would support sustainable social development, expanded economic opportunity and contribute to the vitality of Toronto's neighbourhoods.

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Toronto CASINO Consultation

Toronto Casino Social Contract:
WHAT WOULD A CASINO SOCIAL CONTRACT ADDRESS?

SOCIAL PROCUREMENT – When businesses use their purchasing power to add social and economic benefits to communities including:

- Increased employment and training opportunities during construction and operations of a casino - Targeted employment and apprenticeship opportunities for groups disproportionately impacted by economic uncertainties as part of casino construction contracts. Employment strategies for casino operations which also provide meaningful employment and skills training opportunities for groups disproportionately impacted by economic uncertainties.

- Opportunities for local businesses to compete for the delivery of goods and services, and fair and equitable access to purchasing contracts by diverse business suppliers - Suppliers which reflect the diversity and multicultural heritage of Toronto so that diverse businesses are considered during the procurement, development and operations of a Toronto casino without compromising cost or quality.

COMMUNITY USE OF SPACE: Under planning and development legislation and related agreements, the City could seek agreement with casino operators and OLG to provide free/low-cost access to facilities such as live entertainment venues, meeting spaces and support services to communities.

HARM MITIGATION STRATEGY: The Toronto Medical Officer of Health identified a number of measures and strategies to mitigate the negative social and public health impacts of problem gambling associated with expanded gaming opportunities. As a condition of operating a casino in Toronto, a comprehensive strategy to proactively address problem gambling and its related impacts on residents will be developed and implemented by casino stakeholders including both orders of government, the casino operator, independent problem gambling experts and community service providers.

MONITORING AND ASSESSMENT: Part of the harm mitigation strategy requires the ongoing assessment of the social, economic and health impacts of a casino on Toronto communities and residents. Regular assessments by an independent body will include measuring and publicly reporting the impacts on residents and efforts to mitigate problem gambling.

The Ontario Lottery and Gaming Commission (OLG) collects data on the activities of casino patrons to support its responsible gaming programs and other business activities and provides this anonymous data to researchers as part of the Ontario Problem Gambling Strategy. As a condition of operating a casino in Toronto, the Toronto Casino Social Contract would include access to this data, funding for independent casino research and a robust independent body to monitor, analyze and support the development of 'best practices'. A monitoring body would include independent experts (e.g. the Centre for Addiction and Mental Health), the provincial and municipal governments, casino operators, private sector organizations, addiction services sector, labour sector, and community-based service planners and providers.

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