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Medical Health Officer's advice to Vancouver City Council on the rezoning application for 777 Pacific Boulevard

Advice to Council

- That, given the uncertainty of the effect on problem gambling (PG) in the community, the rezoning request to expand gambling capacity at 777 Pacific Boulevard over that presently allowed at Edgewater Casino not be approved.
- That the Casino operator's contribution to the City of Vancouver's Social Responsibility Fund be increased in proportion to any increase in gambling revenue at the present or future site of the Edgewater Casino.

Problem gambling and Public Health

While problem or "pathological" gambling has been recognized as a medical disorder since the early 1980's, it has more been the domain of mental health clinicians and researchers rather than departments of public health or Medical Health Officers. Along with increasing involvement of public health with prevention of chronic disease, the social determinants of health and health inequities, came the reframing of problem gambling as a public health concern by researchers in the 1990's. In 2000, the Canadian Public Health Association published a position paper underlining of the impact of problem gambling and of taking a public health approach (prevention and harm reduction) to address it (1).

In Québec, this involvement of public health culminated in the official public health advice (*Avis de santé publique*) from the Public Health Director in Montreal, Dr. Richard Lessard, in 2006, concerning the relocation of the *Casino de Montréal* to downtown Montreal as part of a large hotel and entertainment development (2). In British Columbia, researchers have been active the area of gambling and problem gambling. There have been provincial surveys concerning gambling behavior starting in the early 1990's. The latest was done in 2007 (3).

The Health Officers Council of British Columbia, the association of physicians working in public health as Medical Health Officers or in other roles, has recently empanelled a working group to examine problem gambling in BC and recommend what position the Council should take to promote prevention. Finally, and most germane to this report, since 2009, Article 73 of the BC Public Health Act requires Medical Health Officers advise local governments "on public health issues, including health promotion and health protection". It is in this context that I am advising the City of Vancouver about the proposed expansion of the Edgewater Casino in the development at 777 Pacific Boulevard.

In preparing this report, I reviewed the peer reviewed medical research on the relation between access to gambling venues and problem gambling. I also reviewed the commissioned surveys on gambling in BC.

I spoke on two occasions with Mario Lee, Senior Social Planner at the City of Vancouver, who has both academic and long professional experience with the question. Finally, I spoke with Dr. Rachel Volberg, one of pre-eminent researchers and theorists on the prevalence of problem gambling and its relation to exposure to gambling opportunities. As well as her international work worldwide, Dr. Volberg has been contracted to co-author most of the BC prevalence studies, so she is very aware of the history and development of gambling in BC. Both Mr. Lee and Professor Volberg were invaluable in guiding me to local research and providing the most up to date expert opinion on problem gambling research.

Problem gambling in BC

The most recent provincial survey, in 2007, 4.6 % of British Columbians was identified as problem gamblers on the Canadian Problem Gambling Index. This proportion was significantly higher than Manitoba (3.4%), Ontario (3.4%), Quebec (1.7%), PEI (1.6%), Nova Scotia (2.1%) and Newfoundland-Labrador (3.4%), and slightly, though not significantly, lower than Alberta (5.2%) and Saskatchewan (5.9%) (1). Almost 1% (0.9%) was identified as severe problem gamblers. This was slightly higher than Québec and Ontario (0.8%), and lower than Alberta (1.3%) (4).

Problem gambling has been recognized as a serious health and social problem for almost thirty years. In its most severe form, PG leads to significant social, physical, and emotional health problems, family rupture, legal troubles, crime, and even suicide. Problem gambling, like many other health problems, is not distributed equitably in the population. Aboriginal peoples, cultural communities, youth, those with lower income, and people with mental health and substance abuse problems are more affected than others. Most estimates of severe problem gambling are around 1% of the population (Volberg, personal communication). In short, PG is very common, the source of much suffering, and ought to be an important target for prevention.

Casino expansion at 777 Pacific Boulevard and problem gambling

Will the expansion the increase in clientele promised following the casino expansion (more than doubling the number of slot machines and gambling tables and the addition of Off Track Betting) increase the number of problem gamblers and/or the severity of problem gambling in Vancouver and British Columbia?

Most recent data from the Lower Mainland and elsewhere confirms that most gamblers gamble close to home. Among Edgewater Casino patrons, 85.9% come from less than 20km away (5). “Destination” casinos are not much different. For example, Montreal has a ‘destination’ casino (high end restaurants, theatre, 120 game tables, and 3,200 slot machines) and no local or regional casino competition. Initial predictions by the provincial gambling authority were that 25% of clients would be tourists from outside Québec. In fact, the highest proportion attained has been 11.9% (2).

Much of the increase in casino trade at 777 Pacific is expected to come from those living in Vancouver, the Lower Mainland, and the rest of BC. It is impossible to quantify in advance what proportion of that increase will be gamblers diverted from other regional casinos, new gamblers, or gamblers from outside Vancouver or BC, but given the size of the expansion, it is logical to assume there will be a significant increase in new casino gamblers.

Does the scientific literature support the argument that new gambling sites increase the number of problem gamblers in the community?

Most studies have focused on the attributes of problem gamblers, their diagnosis or their treatment. Some have examined the relationship of place, of geographic accessibility or exposure, to problem gambling. Since PG was recognized as a health problem, there have been many hundreds of scientific articles on the subject, but a much smaller number dealing directly or indirectly with the relationship of PG to geographic exposure to casinos, electronic gaming machines, or other gambling venues. Research of this kind is methodologically challenging. Measures of exposure to gambling must take into account different types of gambling (casinos, electronic game machines, off or at track betting, legal bookmaking outlets, lottery ticket sale points etc.), as well as controlling for differences in the communities examined and the history of the development of legal gambling in the jurisdictions studied. These are ecological studies, examining the correlation between survey data on the prevalence of PG in the population and various measures of exposure to gambling venues. These kinds of study cannot, in and of themselves, prove or disprove a causal relationship between gambling exposure and PG.

Two theoretical models have been proposed to explain the relationship between availability of gambling venues and problem gambling. The first is the “access” or “exposure” theory: as exposure to gambling opportunities increase, so does the degree of problem gambling in the community (6). Many studies support this hypothesis. However, not all studies do, and the strength of the evidence is insufficient to definitively establish a causal relationship between exposure and PG. Two studies in the past six years designed to more accurately measure exposure to gambling support the theory that geographic exposure is related to PG, as does a recent meta-analysis published in 2008 (6, 7, 8).

In the last few years, some experienced researchers have proposed that “social adaptation” theory better describes this relationship. According to this theory, an initial increase in exposure to gambling venues causes an increase in PG, but individuals and communities eventually adapt to the wider presence of gambling and PG rates plateau or may even decrease over time (6). While fewer studies support this hypothesis, there is no consensus yet on which one better reflects the truth. At times, different aspects of the same study support each theory (as does the meta-analysis mentioned above).

How does the research on exposure and problem gambling apply to the 777 Pacific proposal?

BC data show that the percentage of problem gamblers (4.6%) in the population remained stable between 2002 and 2007, a period during which casino gambling expanded considerably in the Lower Mainland. However, in the same period, the proportion of severe problem gamblers more than doubled, from 0.4% to 0.9%. This data can be used to support either theory, depending whether one looks at overall PG or severe PG. To complicate things further, if one only looks at severe PG, the first two BC surveys of gambling in 1993 and 1996 also showed levels of severe PG around 1%. A possible interpretation is that there was no effect on PG associated with the **increase** in casinos with gaming tables during the early to mid 1990's, a **decrease** during the period when the number of slot machines started increase, and an **increase** at the time of more rapid expansion of slot machine exposure between 2002 and 2007. Alternatively, the lower prevalence found in 2002 may be an underestimate. However, there is no methodological reason to believe this measure is any less or more accurate than the other three measures.

According to the exposure theory, one would expect a steady increase from the early 1990's until the present, and under the adaptation theory, an initial increase, followed by a steady state or decrease, if saturation had been reached. The observed results for severe problem gambling support features of both theories and neither. A further complexity with the adaptation theory is that it posits an initial increase in PG associated with wider gambling opportunity before any plateau is reached. How long the period might be before a plateau is reached is unclear, and would depend on numerous variables which differ between jurisdictions.

An evaluation in 2007 of the socioeconomic impact of new gaming venues in the Lower Mainland did not show an increase in PG in Vancouver following the opening of the Edgewater Casino, but few Vancouverites had yet used it and there was little expansion of capacity in Vancouver during the study period (5).

How to reconcile this contradictory evidence

As mentioned above, there are many methodology challenges in this research. The margin of error in all of the BC survey results is not insignificant, particularly as the studies were not powered to distinguish between small differences in subcategories (like severe PG, the smallest subgroup). Response rates are low to surveys about gambling, and it is not clear whether those who choose not to respond are more or less likely to be problem gamblers.

Little is known about the response of the Chinese community to survey items, but most researchers believe underreporting of PG may be a problem in this community (9). There is little specific information about other cultural communities. Lastly, none of the surveys of BC gambling behavior were specifically designed to test the relationship of gambling exposure and PG using precise measures of exposure.

Dr. Volberg, who supports the social adaptation theory, feels that research has not yet shown which theory, or combination of theories, best reflect the truth. More sophisticated research is needed, with better and more specific measures of gambling exposure. At present, more studies support the exposure theory, but the question is still open.

As a result, while there is no certainty that casino expansion at 777 Pacific will cause an increase in problem gambling, there is no certainty it will not.

What about the positive health impact of expansion of gambling?

Expansion of gambling opportunities brings economic benefit. Direct benefits accrue to government, mainly provincial governments, but also the federal government and municipalities through a share in gambling profits. In some provinces, profits are included in general revenue. In BC, these monies have been directed to specific areas: charities, human and social services, public safety, the environment, arts, sports, and culture, and parent advisory councils.

The sums are considerable. In 2008-2009, over \$156,000,000 was distributed in BC, the most of any province. This amount also includes money targeted at PG and the promotion of responsible gambling. BC spends the lowest percentage (0.49%) of gambling revenue of all the provinces, which average 1.5%. This is equivalent to \$1.49 per adult 18 and over, compared with a national average of \$3.69. Saskatchewan (\$6.00) and Nova Scotia (\$6.29) spend the most (4).

Indirect economic benefits accrue as well. Construction of new facilities and casino work contribute to the community. In Vancouver, particular undertakings to hire workers from disadvantaged neighbourhoods were put in place as part of the current Edgewater operations, and the operator donates \$200,000 to Vancouver's Social Responsibility fund. This amount would increase to \$300,000 if the casino expands. As well, property and business taxes accrue to the municipality. These are important considerations but extremely difficult to balance against a possible increase in PG. Economic benefits accrue from non-gambling development as well.

In the case of gambling venues, the City of Vancouver has been laudably cautious in its approach to casinos and slot machine installation. Other municipalities derive substantially more gambling income than Vancouver. It may seem unfair to object to **this** project, when others have not been subject to the same scrutiny in other municipalities. There are already several casinos and thousands of slot machines in the Lower Mainland and over 10,000 slot machines in BC. However, because of the size of the increase requested by the developer (900 more slot machines, 75 more gambling tables, and a new Off Track Betting theatre), we cannot ignore potential negative health effects.

What can we conclude?

There is no simple way to balance the economic benefits with the risk to health. It may be easier to see the difficulty of these tradeoffs if we consider a different scenario. Suppose a developer were to propose construction of a new factory next a disadvantaged neighbourhood. There is some suggestion in the medical literature that emissions might result in an increase in illness among the residents there, but other evidence suggests no effect. The proponent offers to build a new hospital to serve the community and promises its residents many jobs in its construction and after, in the kitchen and housekeeping departments. How would we view this scenario?

These decisions are difficult. They are particularly so when the question of harm relates to health problems that appear on the surface to be less concrete and significant than heart disease or cancer.

In this situation, faced with a potential hazard to health, I believe Council should be guided by caution. Research evidence is contradictory, but there exists the possibility of harm. Should the casino expansion proceed in the hope it will do no harm to our community's health, but later evidence shows the contrary, it will be very difficult to undo the damage. We must also remember that it is our most vulnerable citizens, those of lower economic means, aboriginal people, the young, and those with mental health and substance use problems, whose health would be damaged the disproportionately.

It is therefore my advice to Council to refuse approval of the third component of the proposed zoning changes. I believe it would not be prudent to increase the number of slot machines and gambling tables or add Off Track Betting in the casino development at 777 Pacific Boulevard.

Further, the operator's contribution to the City's Social Responsibility Fund should increase in proportion to any increase in gambling revenue at the present or future site of the Edgewater Casino.

My mandate under the Public Health Act does not give me latitude to advise authorities outside my jurisdiction. However, I do have some further comments. The proportion of provincial gaming revenues targeted to problem and responsible gambling, the lowest in the country, is inadequate, as are funds identified for research into prevention. Part of the difficulty in coming to a definitive conclusion on this evidence is because it is so sparse. It is astonishing that a serious condition affecting up to 1% of the adult population receives so little research attention. Although BC has made efforts to follow gambling behaviour better than many other jurisdictions, the design and size of the surveys have not given the clear answers we need to make the best decisions.

The proportion of provincial government revenue targeting problem gambling and responsible gambling must increase at least to the national average. A predictable and sufficient part of this income should be reserved for research on prevention. I will transmit this message to the Provincial Health Officer and to my colleagues on the Health Officers Council of British Columbia.

John Carsley MD CM MSc FRCPC
Medical Health Officer - Vancouver

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