Governments' conflict of interest in treating problem gamblers

Provincial governments may be glossing over the societal and health costs of problem gambling, including depression and suicide, because of the significant income they gain from gambling, claim several public advocacy and mental health organizations. They are calling for more research into the prevalence of depression and suicide among problem gamblers. (For more, see the Public Health column on page 1208.)

"The normal system that provides checks and balances around this area is compromised because government in every province is responsible for alcohol and gaming regulation of the industry — and the welfare of those with gambling problems," says Neasa Martin, a researcher at the Mood Disorders Society of Canada. "Their revenues are closely tied to the gambling industry, putting a pall on normal advocacy around the issue."

Rob Simpson, CEO of the Ontario Problem Gambling Research Centre (OPGRC), similarly decries government's "direct financial conflict of interest" as the recipients of gambling revenue. "Effective treatment implies reduction of users, bringing down revenue," he says. "Why would you put government in the position of choosing between health and profit?"

Gambling-related revenues constituted 5.1% of provincial revenues in 2003, or $11.8 billion, according to Statistics Canada's 2003 Canadian Community Health Survey.

Martin says 35% of those revenues come from problem gamblers. "The number one area of generation of income is video lottery terminal (VLT) slots and that's where most problem gamblers are."

The Toronto-based Centre for Addiction and Mental Health defines problem gambling as a "pattern of gambling behaviour that causes harm to an individual's personal or family life, work, finances or health."

Provincial governments do provide services for people with gambling problems. The Ontario government, for example, allocates 2% of gross revenues ($36 million in 2003–04) from slots in charity casinos and racetracks to problem gambling prevention, research and treatment, including a help-line. In fact all the provinces and the Yukon Territory have help-lines for problem gamblers.

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Video lottery terminals have been shown to be highly addictive.

But programs in general vary across Canada and it's difficult to know if they are sufficient, given the paucity of data on the addiction's cost to the individual and society. The Canada Safety Council advocates quantifying such factors as medical care, policing, courts, prisons, social assistance and business losses. It has linked gambling addiction to depression and suicide, bankruptcy, family breakup, domestic abuse, assault, fraud, theft and homelessness.

There are also various data on the prevalence of the problem. The *National Survey of Gambling Problems in Canada* (*Can J Psychiatry* 2005;50:213-7) estimates 2% of Canadians aged 15 or more are considered to have gambling problems. The *Demographics of Gaming Revenue* cites a prevalence of 3.8%. And Simpson says if nongamblers are eliminated from the sample, 4.7%, or 1 in 20 people, are problem gamblers. This translates to 559 187 Ontarians, where 83% of the population gambles.

The Canadian Health Network states that 1 in 4 moderate or severe problem gamblers report being under a doctor's care for emotional or physical problems due to stress, and more than 1 in 3 report feeling depressed at times. Researchers estimate the annual cost associated with a compulsive gambler ranges from $20 000 to $56 000, including loss of work, and court and treatment costs.

The *National Survey of Gambling Problems in Canada* concludes that the highest prevalence of gambling problems "emerged in areas with high concentrations of VLTs in the community combined with permanent casinos."

VLTs have been shown to be highly addictive and are marketed to young people — the same segment of the population with the highest incidence of suicide. Suicide accounts for 24% of all deaths among Canadians aged 15 to 24, according to the Mood Disorders Society of Canada.

Young people are twice as likely as their adult counterparts to develop serious gambling problems, reports the Centre for Addiction and Mental Health.

But Ontario's Chief Coroner, Dr. Barry McLellan, says that problem gambling as a contributor to suicide is difficult to measure. "Family and friends may be reluctant to talk about problem gambling and coroners don't always pose the question. So we are not necessarily capturing all the information."

There are some data. In Alberta, gambling was listed "in the files" of

suicides about 10% of the time; 46 out of a total of 482 suicides in 2001, and 54 out of 430 suicides in 2000.

A Nova Scotia study by the non-profit research group GPI Atlantic released in October 2004 showed problem gambling as a factor in 6.3% of suicides. In addition, Nova Scotia's Office of Health Promotion, Focal Research Consultants found that almost 50% more residents in that province are at potential risk for gambling problems than 10 years ago.

Nova Scotia is now conducting Canada's first study of the socioeconomic costs of gambling, due for completion in September 2007. Australian and US federal governments are conducting similar studies.

In a June 2004 paper (*Psychol Addict Behav* 2004;18:49-55) on the tendency to suicide and depression among youth gamblers, authors Lia Nower and colleagues analyzed the incidence of suicide, depression and problem gambling among middle and high school students in Ontario and Quebec.

Among 3941 students in a 1996 study in Quebec, 49.2% of the problem and pathological gamblers had thoughts of suicide, as compared to 28.4% of non-gamblers, and 29.9% of social gamblers. A 2001 Ontario study of 2142 students showed that the 4.8% classified as problem gamblers, and that pathological gamblers had significantly higher levels of depression and suicidal tendencies (28.2%). That number jumped to 60% among females, with a significantly high proportion of suicide attempts (13.6%).

Nower, an associate professor at Rutgers University, says, "Canada does more than any other country in the world about problem gambling and treatment. The only thing that will help long-term will be to take ATM and credit card machines out of the gambling venues and to launch campaigns to deglamourize gambling, especially among adults. Most kids who gamble, started at home and clearly, the adults facilitate this."

Nower has divided problem gamblers into 3 types, one of which is predisposed to anxiety, depression and gambling (*Addiction* 2002;97[5]:487-99). "This group, which we suspect is the largest," Nower says, "is prone to the risk-taking behaviour and superstitious beliefs that escalate the gambling addiction."

Nower is developing screening instruments to more easily identify problem gamblers for treatment. "Right now, everyone is being treated with a broad brush," she says. — Margot Andresen, Ottawa

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More data needed on drug to delay the onset of diabetes

A Canadian-led phase 3 trial has shown that taking 8 mg of rosiglitazone (Avandia) daily, coupled with lifestyle counselling, can reduce the risk of developing Type 2 diabetes by 62% in individuals at high risk.

The study results made headlines worldwide, but a drug expert argues that lifestyle changes can do the same thing and that more data are needed before widespread use of the drug.

In the 3-year DREAM (Diabetes REduction Assessment with ramipril [Altace] and rosiglitazone Medication) randomized controlled trial, led by Dr. Hertzel Gerstein of McMaster University in Hamilton, 5269 middle-aged, overweight adults from 21 countries, all with poor glucose regulation but no heart disease, were randomly assigned to receive either rosiglitazone, a drug currently used to treat of Type 2 diabetes, or a placebo.

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Rosiglitazone has been shown to delay the onset of Type 2 diabetes, but critics say lifestyle changes do the same thing.

Among the 2635 taking rosiglitazone (*Lancet* 2006;368:1096-105), 306 developed diabetes or died, compared to 686 of the 2634 in the placebo group. As well, 51% of those taking the drug had their blood sugar levels return to normal, compared to 30% in the placebo group. Positive liver function results were also noted. The ramipril (15 mg daily) arm of the study (*N Engl J Med* 2006;355: 1551-62) showed increased regression to normoglycemia (16%), but no effect on the risk of developing diabetes or dying.

"Five years ago we had no way of preventing diabetes," Dr. Gerstein told *CMAJ*. "Now we know that we can prevent diabetes through diet and exercise and pharmacotherapy, and this is so far the most powerful pharmacotherapy agent that we have. It has risks associated with it; whether it gets used in an individual patient is part of a doctor–patient discussion and assessment of the risks and benefits for that person."

But several observers argue that similar results can be attained through diet and exercise, and more research is needed on the drug's side effects. They note that 14 participants on rosiglitazone developed non-fatal heart failure, compared with 2 cases in the placebo group, and the group gained 3% (2.2 kg) more in body weight than the placebo group.

The study authors say heart failure was easily managed with drugs, and conclude the weight gain was "favourable" because it was focused on hips rather than waist (abdominal obesity is a strong diabetes indicator).

But pharmacologist Dr. Jim Wright, managing director of UBC's Therapeutics Initiative, called the results "nonsensical." Evidence that rosiglitazone lowers blood sugar was known, he says. And while the drug might delay when someone at high risk crosses the "threshold" and is labelled diabetic, the study results do not measure whether diabetes-related problems, such as heart disease, are prevented.

In fact, he says, the study's negative cardiovascular outcomes make him suspicious about the benefits of having people with non-diabetic hypoglycemia take a costly ($2.88/day) drug daily rather than focus on diet and exercise. Wright says hospitalization and