

The Lower Risk Gambling Guidelines:

Development, Evaluation, Adoption, & Impact since 2021

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Canadian Centre
on Substance Use
and Addiction

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Centre canadien sur
les dépendances et
l'usage de substances

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UNIVERSITY OF
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Chat GPT prompt

Create image: Canadian gambling researcher arriving in Norway to attend a gambling conference



Chat GPT prompt

Give the man a grey beard and round glasses



About



Greo Evidence Insights is an independent, not-for-profit research, knowledge translation and exchange organization with over two decades of international experience generating, synthesizing, and mobilizing research into action across the health and wellbeing sectors, with a particular expertise in gambling.

About



The Canadian Centre on Substance Use and Addiction (CCSA) is a non-governmental organization established by an Act of Parliament in 1988. Its mission is to provide national leadership and advance solutions to address alcohol- and other drug-related harms. CCSA works collaboratively with partners to improve the health and safety of Canadians by fostering a knowledge exchange environment where research informs policy and evidence-based actions enhance effectiveness in the field.

Conflicts of interest declaration

- The Lower Risk Gambling Guidelines project was funded by Mise Sur Tois a now defunct, independent, not-for-profit organization that received an annual contribution from the Quebec state monopoly in charge of conducting managing gambling in the province of Quebec, Canada.
- The Canadian Centre on Substance Use and Addiction receives funding from the Government of Canada
- Greo has received funds in the last five years from the Government of Canada, Canadian and international non-profits, charities, and post-secondary institutions and the New Zealand Ministry of Health. Greo has also received funds from social responsibility arms of Canadian crown corporations (i.e., state monopolies) that conduct and manage provincial/territorial gambling, regulatory settlement funds (Great Britain), third-sector charities (Great Britain), and international regulators.
- Neither Greo nor CCSA have received funding from the gambling industry (i.e., for-profit, private companies or corporations that profit directly from gambling) either directly or indirectly through voluntary donations.

Overview of the Presentation

Three parts:

- 1 Why Lower Risk Gambling Guidelines
- 2 About the Lower Risk Gambling Guidelines
 - a) How they were Developed
 - b) Scientific Publications
 - c) Knowledge mobilization products
- 3 Implementation of the Lower Risk Gambling Guidelines



Lower-Risk Gambling Guidelines Scientific Working Group

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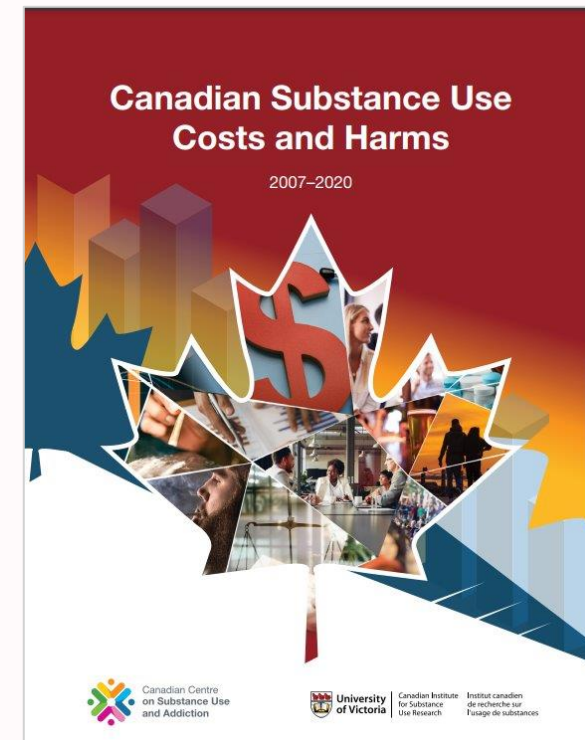
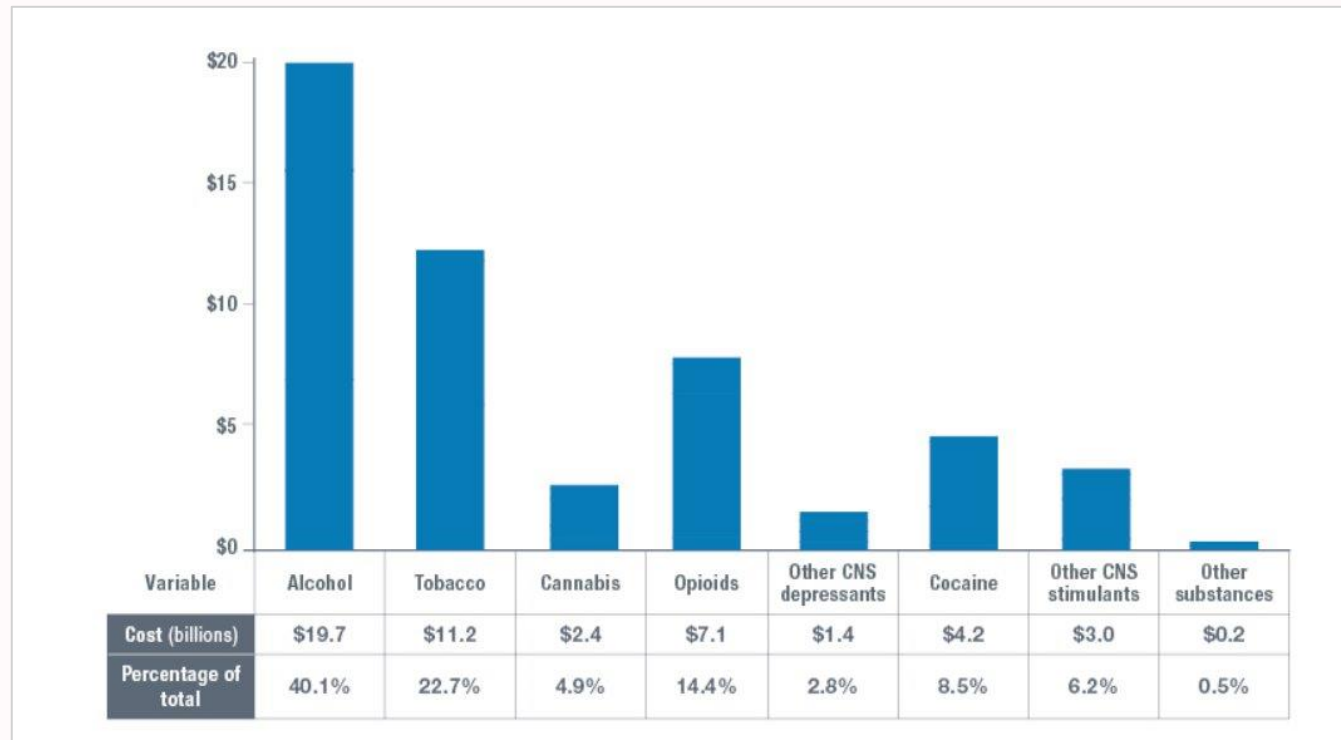
PART 1: Why Lower Risk Gambling Guidelines?

Why is this project necessary?

- Gambling is a legal activity/product.
- It is an “unhealthy commodity”
- Like alcohol or cannabis (in Canada), it is associated with risk of harm and possible addiction.



Legal substances are responsible for greatest costs to society



Drinking less is better

We now know that even a small amount of alcohol can be damaging to health.

Science is evolving, and the recommendations about alcohol use need to change. Research shows that no amount or kind of alcohol is good for your health. It doesn't matter what kind of alcohol it is—wine, beer, cider or spirits. Drinking alcohol, even a small amount, is damaging to everyone, regardless of age, sex, gender, ethnicity, tolerance for alcohol or lifestyle. That's why if you drink, it's better to drink less.

Alcohol consumption per week

Drinking alcohol has negative consequences. The more alcohol you drink per week, the more the consequences add up.



Aim to drink less

Drinking less benefits you and others. It reduces your risk of injury and violence, and many health problems that can shorten life.

Here is a good way to do it

Count how many drinks you have in a week.



Set a weekly drinking target. If you're going to drink, make sure you don't exceed 2 drinks on any day.

Good to know

You can reduce your drinking in steps! Every drink counts: any reduction in alcohol use has benefits.



The Canadian Centre on Substance Use and Addiction was established by the Government of Canada to provide Canadians with information and support on substance use and addiction. This document is a summary for the public of the new guidance. For more information, please call 1-877-337-2222.

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The UK Chief Medical Officers recommend adults do not regularly drink more than 14 units per week

BUILDING A HEALTHY AUSTRALIA

Alcohol Guidelines

Australian guidelines to reduce health risks from drinking alcohol

1: HEALTHY ADULTS

Drink no more than 10 standard drinks a week AND no more than 4 standard drinks on any one day to reduce the risk of harm from alcohol. The less you drink, the lower your risk of harm.

2: CHILDREN AND PEOPLE UNDER 18 YEARS OF AGE

Should not drink alcohol to reduce the risk of harm from alcohol.

3: WOMEN WHO ARE PREGNANT OR BREASTFEEDING

Should not drink alcohol to prevent harm from alcohol to their unborn child or baby.

www.nhmrc.gov.au/alcohol

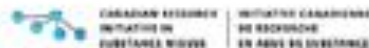
Canada's Lower-Risk Cannabis Use Guidelines (LRCUG)



Recommendations

- Cannabis use has health risks best avoided by abstaining
- Delay taking up cannabis use until later in life
- Identify and choose lower-risk cannabis products
- Don't use synthetic cannabinoids
- Avoid smoking burnt cannabis—choose safer ways of using
- If you smoke cannabis, avoid harmful smoking practices
- Limit and reduce how often you use cannabis
- Don't use and drive, or operate other machinery
- Avoid cannabis use altogether if you are at risk for mental health problems or are pregnant
- Avoid combining these risks

The LRCUG are an evidence-based intervention project by the Canadian Research Initiative in Substance Misuse (CRISM).



Reference: American Journal of Public Health, 2017

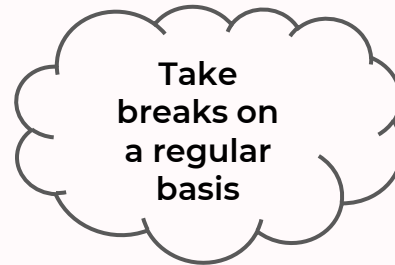
The LRCUG have been endorsed by the following organizations:



Reproduced with permission from CAMH, source: <https://www.eurekalert.org/multimedia/pub/143855.php?from=362979>

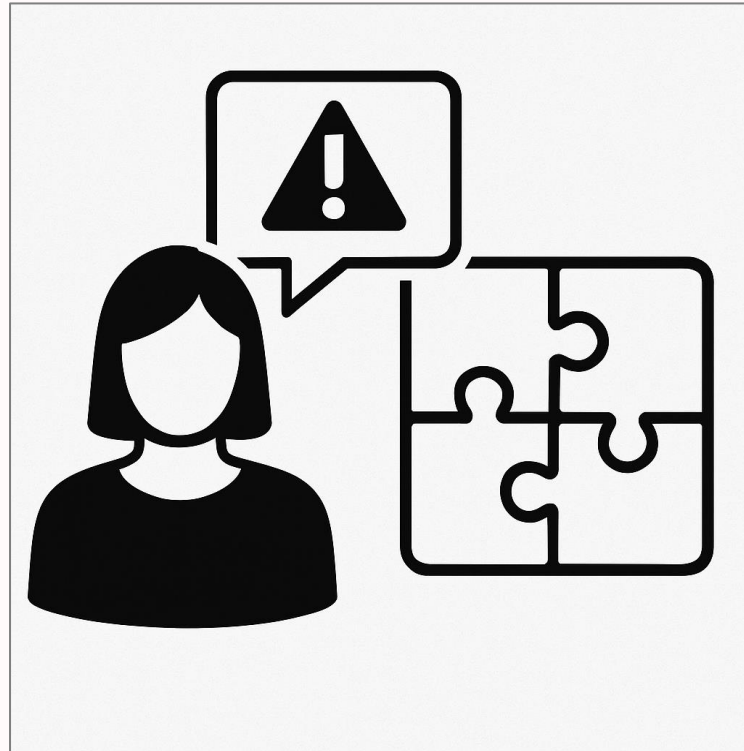
Why the project was necessary

- Until now, there has been a lack of evidence-based guidelines about how to gamble in a manner that poses minimal risks to the gamblers and those around them.



Just one piece of the puzzle

Individual based guidelines are an important tool yet are insufficient to reduce gambling-related harm in a population.



Regulation/Control vs Social and Health Harms



Regulation/Control vs Social and Health Harms

POLICY OPTIONS POLITIQUES



ECONOMY | HEALTH

Pulling levers to mitigate health costs of cannabis

Legalizing cannabis might reduce criminal justice system costs, but will it raise health care costs? Policy levers can help mitigate the impacts.



by Rebecca Jesseman, Matthew Young
August 20, 2018

Legalization of cannabis in Canada has potential benefits — lower criminal justice costs, new government and private revenue sources — but we must also recognize the public health costs of cannabis use. It's vital to ensure that governments at all levels use the available policy levers to reduce these costs.

Table 1

Public health policy levers

Policy lever	Public health objectives	Evidence
Product format restrictions	Promote lower-risk consumption through lower potencies and alternatives to smoking	Experience with the accidental overconsumption of cannabis edibles in Colorado proved the need to ensure that dosage is clearly marked and intuitive (for example, single-serving products such as cookies or brownies should not include multiple dosages).
	Limit product appeal to youth	Youth are particularly susceptible to product promotion, and similarity between cannabis and non-cannabis products increases the chance of accidental ingestion. Before the state implemented restrictions, products that appealed to youth and packaging that mimicked non-cannabis branding (such as "Pot Tarts") were common in Colorado.
Quality control	Provide a product of known composition and potency	Product recalls by Canadian licensed producers of medical cannabis because of the presence of pesticides or inaccurate labelling of THC levels indicate the need for a systematic approach to product testing.
Private versus public retail	Provide adults with reasonable but controlled access to regulated products	Experience with alcohol sales indicates that private retail is associated with increased levels of consumption.
Age of access	Restrict youth access	Evidence from alcohol regulation indicates that increased age of access reduces youth consumption and traffic accidents. Youth aged 24 and under have the highest rate of cannabis use in Canada. Setting the age of access too high would continue to bring youth into contact with the criminal justice system.
	Reduce youth criminal justice involvement	
Marketing and advertising	Restrict promotion of use, particularly among youth	Experience with the commercialization of medical retailing in Colorado, and with the sale of alcohol and tobacco in Canada, indicates that marketing and advertising influence rates of use, and that youth are particularly vulnerable to this influence.
Packaging	Educate consumers	Health warnings and graphic images on tobacco products have proven to be effective in educating consumers and reducing use.
	Ensure product security	
Pricing and taxation	Restrict promotion of use, particularly among youth	Evidence from alcohol regulation indicates that establishing minimum prices, indexing minimum prices to the annual rate of inflation and increasing price according to potency reduce overall and high-risk levels of consumption.
	Reduce levels of consumption, particularly high-risk consumption	
Directing sales and taxation revenue into programming	Support public health programs, including prevention and treatment, and research	Evidence-informed prevention and treatment programs, which can be paid for with revenue collected from sales and taxation, reduce negative health and social impacts of substance use.
		Experience in Colorado and Washington indicates the importance of proactive, sustained and protected investment in prevention, health promotion, treatment, research, and administrative and enforcement capacity.
Places of use	Reduce visibility and normalization	Prohibiting public use can reduce visibility and levels of consumption. However, public use prohibitions can put some populations at greater risk of police contact (such as those without access to private premises).
	Limit second-hand exposure	

The Advantage of State Monopolies

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Opinion: Dangers of going all-in on online gambling

Opinion: B.C. should maintain its monopoly over the licensing and regulation of legal gambling. In Ontario, gambling-related problems seem to be rising since the online gambling market was opened to private companies

By W. Spencer Murch, Luke Clark

Published Apr 03, 2025 Last updated 1 week ago 5 minute read [Join the conversation](#)

 World Health Organization

 eurocare

 European Alcohol Policy Alliance

WEBINAR OVERVIEW

Alcohol monopolies: what does it take for alcohol monopolies to work?

18 October 2023 | 13:00–14:00 CET

Background

There is solid and compelling evidence that alcohol monopolies hold significant advantages for public health and welfare by way of limiting the availability of alcohol (1-3). An alcohol monopoly is a government-controlled system for all or a segment of the alcohol supply chain (i.e., import, production, distribution, sales and/or export of alcohol) (1, 4). Retail alcohol monopolies are widespread and implemented in varied ways for distilled spirits, beer and/or wine (1).

Despite their known advantages, alcohol monopolies are somewhat of a unicorn among alcohol policy interventions actively implemented. Monopoly systems are found in only a handful of contexts. This includes most prominently the Nordic area (Sweden, Norway, Finland, Iceland, and the Faroe Islands), where the model of monopolies implemented serves as the backbone of their alcohol control policies for the betterment of public health. Other contexts with varied models of monopoly systems include the United States of America and Canada (2, 5). Each context has taken a tailored approach to design its monopoly systems through state-owned retailers like *Alko* in Finland (6), *Systembolaget* in Sweden (7), or jurisdiction-specific liquor corporations in Canada like the *Liquor Control Board of Ontario*. The regulation of retailers in this way enables the use of other mechanisms, such as restrictions on opening hours, bans on advertising, and the strict enforcement of age limits (3).

Alcohol retail monopolies evolve over time. There has been a tendency towards increased private ownership of retail locations, either entirely or through the gradual increase in the share of private retailers (i.e., grocery stores) for beer and/or wine sales (8, 9). There is also growing pressure to introduce other changes, such as to allow alcohol sales via the Internet. Advocates of these changes present them as seemingly minor exceptions. However, these changes ultimately risk eroding the unique advantages of an alcohol monopoly (2).

About the webinar

The consequences of deviating from a true monopoly system are well-studied. The evidence suggests the continued public ownership of alcohol retail systems leads to substantial improvements in population health and reduced economic costs (8, 10, 11). In contrast, deregulating the alcohol market risks considerable increases in the selling points for alcohol and, ultimately, increasing economic burdens on healthcare and criminal justice systems, among other known consequences of increasing the accessibility of alcohol. Novel modelling and scenario forecasting have also been used to quantify these effects, demonstrating increases in sales volume, alcohol use per capita, and increased hospital admissions and deaths (e.g., 2, 8, 12).

This webinar sets out to spotlight alcohol monopolies and the contemporary challenges they must overcome to ensure these systems remain fit for purpose. It continues the dialogue initiated earlier in the Less Alcohol Webinar Series on restricting alcohol availability and alcohol consumption and socioeconomic inequalities. Leading experts on alcohol monopolies will share the best available evidence and discuss these systems in different contexts, including Canada, Finland, Sweden and other Nordic countries. We will discuss the threats monopolies face at present and ultimately reflect on the global mechanisms, including the 2030 Sustainable Development Agenda (13) and global action plan on alcohol (14), that can support countries in their continued implementation of alcohol monopoly systems.

What do we aim to achieve?

This webinar aims to raise awareness of the unique advantages of alcohol monopolies, highlight the latest scientific evidence, and create a platform for discussing the future of monopoly systems.

1



Part 2: About the Lower-Risk Gambling Guidelines



LRGG

Lower-Risk Gambling Guidelines

These guidelines were developed using the most current and highest quality scientific evidence available.

To reduce your risk of experiencing harms from gambling, follow all three of these guidelines:

1

HOW MUCH

Gamble no more than **1%** of household income before tax per month

Yearly household income	Maximum monthly amount
\$10,000	\$8
\$30,000	\$25
\$50,000	\$42
\$70,000	\$58
\$90,000	\$75
\$110,000	\$92
\$130,000	\$108
\$150,000	\$125

4

HOW OFTEN

Gamble no more than **4 days** per month

2

HOW MANY

Avoid regularly gambling at more than **2 types** of games

WHAT YOU PLAY MATTERS

- ▶ Fast-paced games that involve quick and repeated betting can more quickly and easily lead to problems.
- ▶ For example, with many forms of online gambling, slot machines, electronic gaming machines and poker, people can spend large amounts of money in a short time.

GAMBLING TYPES INCLUDE THE FOLLOWING:



HOWEVER, these limits may not be suitable for you. You should consider gambling less than these guidelines recommend or not at all if you ...

- ▶ Experience problems from **alcohol, cannabis or other drug use**
- ▶ Experience problems with **anxiety or depression**
- ▶ Have a **personal or family history** of problems with gambling

SAFER GAMBLING TIPS

- Try to **limit your consumption of alcohol**, cannabis and other drugs while gambling. This will make it easier to stick to the guidelines.
- Try to **limit your access to money**. Consider leaving credit and debit cards at home. There are also apps that can prevent your phone from making payments.
- Try to **schedule activities** right after gambling sessions, which can set a limit on the amount of time you have to gamble.
- **Gambling with other people can affect how you gamble**. Think about how having gambling companions or gambling alone might impact you.
- **Entertainment money**. It is important to keep in mind how much money you are able to spend on entertainment when deciding how much to gamble.
- **Set limits**. If you have a big trip or special event coming up where you'll be gambling, plan ahead, remember the guidelines and set limits.

Visit www.gamblingguidelines.ca
for more information.



WHAT ARE THE NEGATIVE CONSEQUENCES (HARMS) RELATED TO GAMBLING?

Losing money is the gambling harm that first comes to mind. But gambling can lead to other harms:

- Relationship conflicts, such as neglect of relationship, social isolation, arguing with your spouse
- Emotional distress, such as feelings of guilt, loneliness and isolation.
- Health problems, such as problematic use of alcohol or other drugs

Following these guidelines can help reduce your risk of gambling harms.

THINK ABOUT YOUR REASONS FOR GAMBLING

Is it for fun? If you're gambling to escape problems, you're more likely to experience harm from gambling and might find it harder to stick to the suggested limits.

These guidelines were developed for people of legal gambling age who want to make more informed choices about their gambling.



IF YOU THINK YOU ARE NOT IN CONTROL OR FEEL UNCOMFORTABLE WITH YOUR GAMBLING, PLEASE VISIT WWW.GAMBLINGGUIDELINES.CA/GETTING-HELP FOR A LIST OF RESOURCES IN YOUR REGION.

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How They Were Developed

The Plan

Phase 1: Quantitative Risk Curve Analyses

Phase 2: Refinement and Validation

Phase 3: Implementation

Perspectives

A research plan to define Canada's first low-risk gambling guidelines

Shawn R. Currie * and the Low Risk Gambling Guidelines Scientific Working Group[†]

Addiction and Mental Health, 10101 Southport Rd SW, Calgary, AB T2W 3N2, Canada

*Corresponding author. E-mail: scurrie@ucalgary.ca

[†]The Low Risk Gambling Guidelines Scientific Working Group is composed of Shawn Currie (Department of Psychology, University of Calgary), Marie-Claire Flores-Pajot (Canadian Centre on Substance Use and Addiction), David Hodgins (co-chair) (Department of Psychology, University of Calgary), Louise Nadeau (Department of Psychology, University of Montreal), Catherine Paradis (Canadian Centre on Substance Use and Addiction), Chantal Robillard, Matthew Young (co-chair).

Summary

From a public health perspective, gambling shares many of the same characteristics as alcohol. Notably, excessive gambling is associated with many physical and emotional health harms, including depression, suicidal ideation, substance use and addiction and greater utilization of health care resources. Gambling also demonstrates a similar 'dose-response' relationship as alcohol—the more one gambles, the greater the likelihood of harm. Using the same collaborative, evidence-informed approach that produced Canada's Low-Risk Alcohol Drinking and Lower Risk Cannabis Use Guidelines, a research team is leading the development of the first national Low-Risk Gambling Guidelines (LRGGs) that will include quantitative thresholds for safe gambling. This paper describes the research methodology and the decision-making process for the project. The guidelines will be derived through secondary analyses of several large population datasets from Canada and other countries, including both cross-sectional and longitudinal data on over 50 000 adults. A scientific committee will pool the results and put forward recommendations for LRGGs to a nationally representative, multi-agency advisory committee for endorsement. To our knowledge, this is the first systematic attempt to generate a workable set of LRGGs from population data. Once validated, the guidelines inform public health policy and prevention initiatives and will be disseminated to addiction professionals, policy makers, regulators, communication experts and the gambling industry. The availability of the LRGGs will help the general public make well-informed decisions about their gambling activities and reduce the harms associated with gambling.

Key words: risk curves, low-risk gambling limits, problem gambling, total consumption theory, gambling-related harm

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Lower Risk of What?

Table 1: Harm categories and how they are operationalized using items from the Problem Gambling Severity Index	
Harm category	PGSI Item
Financial	“Have you bet more than you could really afford to lose?” (PGSI 1) “Have you borrowed money or sold anything to get money to gamble?” (PGSI 4) “Has your gambling caused any financial problems for you or your household?” (PGSI 9)
Relationship disruption, conflict or breakdown	“Have you felt people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?” (PGSI 7)
Emotional distress	“Have you felt that you might have a problem with gambling?” (PGSI 5) “Have you felt guilty about the way you gamble, or what happens when you gamble?” (PGSI 6)
Health problems	“Has your gambling caused you any health problems, including a feeling of stress or anxiety?” (PGSI 8)

Source: Langham, E., Thorne, H., Browne, M., Donaldson, P., Rose, J., & Rockloff, M. (2016). Understanding gambling related harm: a proposed definition, conceptual framework, and taxonomy of harms. *BMC Public Health*, 16, 80.

Quantitative Risk Curve Analyses

- Risk curve analyses of over 60,000 people who gamble from eight different countries;
- Collaboration with an international group of experts;



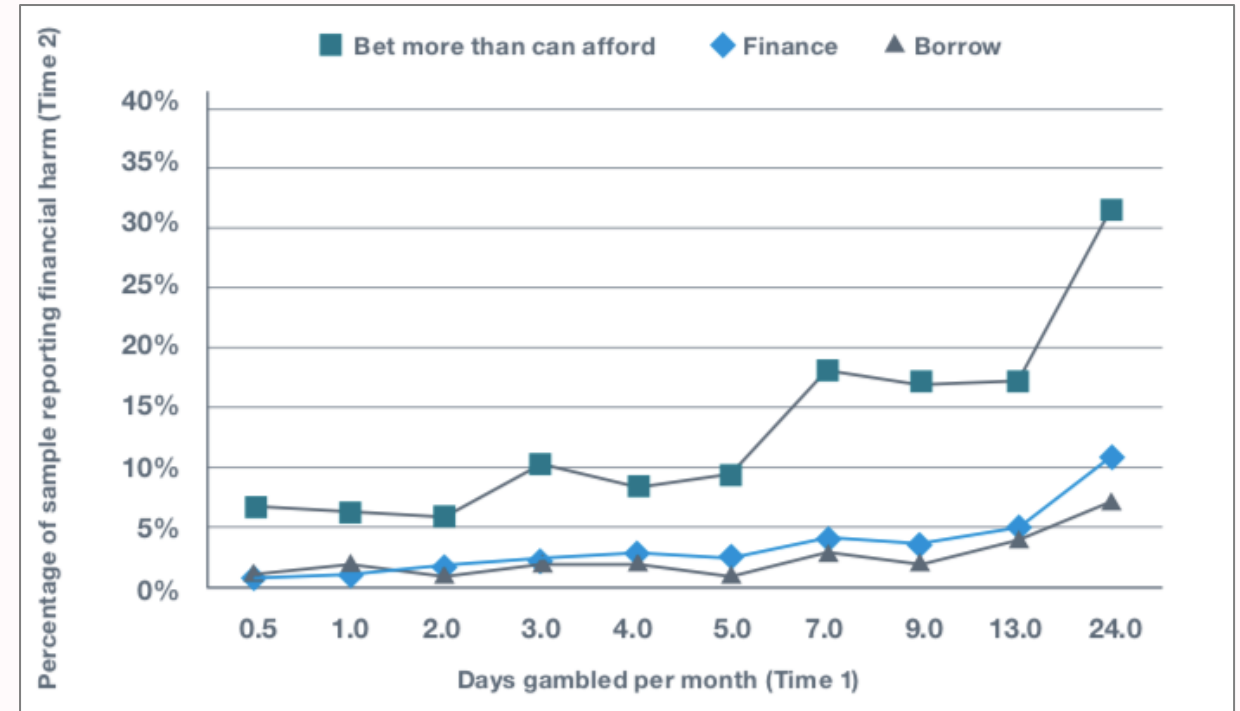
Quantitative Risk Curve Analyses



Risk Curve Analyses

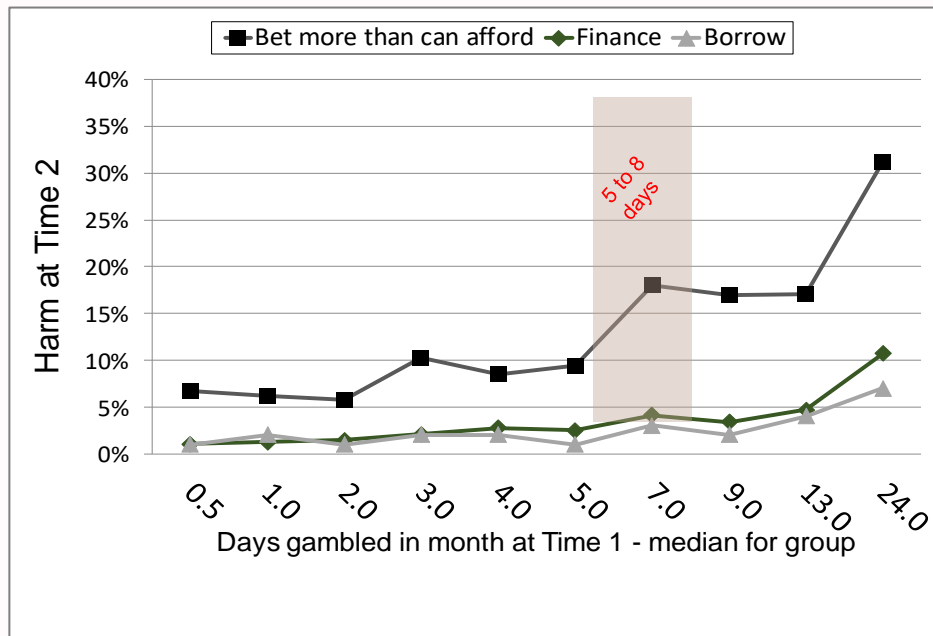
Gambling involvement

- Expenditure
 - percent of gross monthly income spent on all forms of gambling in a month
- Frequency
 - number of gambling (days) in a typical month
- Types of gambling
 - number of gambling types played in the past year

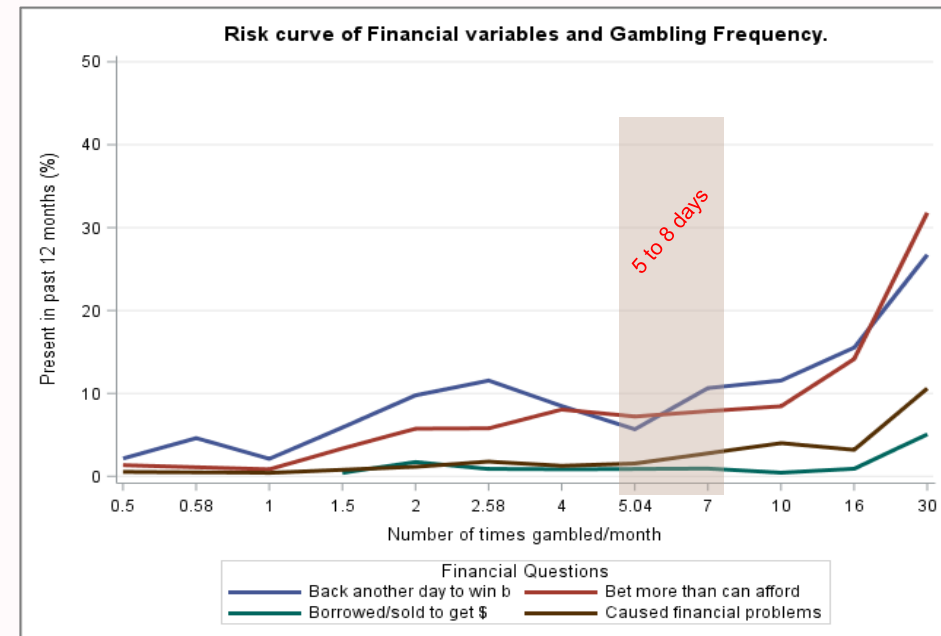


Example: Gambling Frequency and Financial Harms, North American Data

Canada (longitudinal) – Alberta & Ontario.



United States (longitudinal) – Massachusetts.



Broad Lower-Risk Ranges

Table 3. Lower-risk gambling ranges derived from risk curves developed using 11 datasets from eight different countries

Gambling involvement indicator	Lower-risk gambling range
Expenditure	
- as CAD per month	\$60 to \$120 per month
- as percentage of income	1.0% to 3.0% of gross monthly income
Frequency	5 to 8 days per month
Number of gambling types	3 to 4 different game types in a month
Duration	Insufficient quality data to assess at present

Change in Risk of Harm Associated with Increased Monthly Gambling Expenditure

Table 4. Change in risk from reference group (i.e., $\leq 0.1\%$) occurring when gambling expenditure (%) per month predicts financial, relationship, emotional and psychological, and health harms (N=59,099)

	$\leq 0.1\%$	0.11 to 0.50	0.51 to 1.00	1.1 to 2.0	2.1 to 3.0	3.1 to 4.0	4.1 to 5.0	5.1 or more
Sample size in category	17,634	15,926	7,708	6,250	2,988	1,700	1,082	5,811
HARM								
Financial								
Sample reporting harm (n)	335	535	429	507	337	221	144	1,510
% reporting harm	1.9%	3.4%	5.6%	8.1%	11.3%	13.0%	13.3%	26.0%
Risk relative to reference group		1.8X	3.0X	4.3X	5.9X	6.8X	7.0X	13.7X
Relationship								
Sample reporting harm (n)	173	249	207	287	178	129	99	1,045
% reporting harm	1.0%	1.6%	2.7%	4.6%	6.0%	7.6%	9.1%	18.0%
Risk relative to reference group		1.6X	2.7X	4.7X	6.1X	7.7X	9.3X	18.3X
Emotional/psychological								
Sample reporting harm (n)	441	638	460	616	374	250	178	1,551
% reporting harm	2.5%	4.0%	6.0%	9.9%	12.5%	14.7%	16.5%	26.7%
Risk relative to reference group		1.6X	2.4X	3.9X	5.0X	5.9X	6.6X	10.7X
Health problems								
Sample reporting harm (n)	142	221	157	219	133	87	76	776
% reporting harm	0.8%	1.4%	2.0%	3.5%	4.5%	5.1%	7.0%	13.4%
Risk relative to reference group		1.6X	2.5X	4.4X	5.5X	6.4X	8.7X	16.6X

Refinement and Validation

1. Commissioned two literature reviews to assess:
 - a. The effect of substance use on gambling behaviour
 - b. The factors associated with elevated risk of gambling harm
2. Conducted an online survey of over 10,000 Canadians who gamble
3. Conducted five interviews and nine focus groups

EFFECT SIZES FOR PROBLEM GAMBLING RISK FACTORS

Large Effect Size	Medium Effect Size		Small Effect Size
Internet gambling	Attempted suicide	Games of skill	Sports pools
EGM and slot machines (excluding casino)	Casino table games	EGM and slot machines (casino only)	Instant win/scratch
EGM and slot machines (including casino)	Cardrooms		Sports events
Poker	Daily lottery	Ever been incarcerated	Poor physical health
	Problems due to alcohol/drugs	Horse, harness, or greyhound races	Out-of-province casino
	Keno		Ethnicity
	Problems due to alcohol	Internalizing symptoms	Age
	Casino gambling (EGM, slots, table games)	Depression issues	Ever filed bankruptcy
	Suicidal thoughts	Illicit drug use	Gender
	Card games	Daily tobacco use	All lottery games (weekly, pulltab, instant)
	Pulltabs	Ever been arrested or detained	Marital status
	Pari-mutual (sports/races)	Any mental health problem	Education
	Cocaine use	Sports select	
	Sports (all)	Binge drinking	
	Anxiety issues	Marijuana use	
	Family member ever had a gambling problem	Private betting: card/board games with friends/family	
		Bingo	

	Gambling Activity
	Psychosocial
	Substance Use
	Socio-Demographic

<p>ADDITION</p> <p>REVIEW</p> <p>doi:10.1111/add.15449</p> <p>A meta-analysis of problem gambling risk factors in the general adult population</p> <p>Youssef Allami^{1,2}, David C. Hodgins³, Matthew Young^{4,5}, Natacha Brunelle⁶, Shawn Currie³, Magali Dufour⁷, Marie-Claire Flores-Pajot⁴ & Louise Nadeau⁸</p> <p>ALLY Addiction Consulting, Montréal, QC, Canada; ¹ Centre de Réadaptation en Dépendance de Montréal, Institut Universitaire, CIUSSS du Centre-Sud-de-l'Île-de-Montréal, Montréal, QC, Canada; ² Department of Psychology, University of Calgary, Calgary, AB, Canada; ³ Canadian Centre on Substance Use and Addiction, Ottawa, ON, Canada; ⁴ Department of Psychology, Carleton University, Ottawa, ON, Canada; ⁵ Département de psychopédagogie, Université du Québec à Trois-Rivières, Trois-Rivières, QC; ⁶ Département de psychologie, Université du Québec à Montréal, Montréal, QC, Canada; ⁷ and Département de psychologie, Université de Montréal, Montréal, QC, Canada</p> <p>ABSTRACT</p> <p>Background and Aims Few meta-analyses have been conducted to pool the most constant risk factors for problem gambling. The present meta-analysis summarizes effect sizes of the most frequently assessed problem gambling risk factors, ranks them according to effect size strength and identifies any differences in effects across genders. Method A random-effects meta-analysis was conducted on jurisdiction-wide gambling prevalence surveys on the general adult population published until March 2019. One hundred and four studies were eligible for meta-analysis. The number of participants varied depending on the risk factor analyzed, and ranged from 5 327 to 273 946 (52% female). Weighted mean odds ratios were calculated for 57 risk factors (socio-demographic, psychosocial, gambling activity and substance use correlates), allowing them to be ranked from largest to smallest with regard to their association with problem gambling. Results The highest odds ratio (OR) was for internet gambling [OR = 7.59, 95% confidence interval (CI) = 5.24, 10.99, $P < 0.000$] and the lowest was for employment status (OR = 1.03, 95% CI = 0.87, 1.22, $P = 0.718$). The largest effect sizes were generally in the gambling activity category and the smallest were in the socio-demographic category. No differences were found across genders for age-associated risk. Conclusions A meta-analysis of 104 studies of gambling prevalence indicated that the most frequently assessed problem gambling risk factors with the highest effect sizes are associated with continuous-play format gambling products.</p> <p>Keywords Epidemiology, gambling, gambling disorder, general population, meta-analysis, odds ratio, problem gambling, relative risk, risk factor.</p> <p>Correspondence to: Youssef Allami, ALLY Addiction Consulting, 315-950, Notre-Dame St W, Montréal H3C0K3, QC, Canada. E-mail: yallami@allyconsulting.ca Submitted 29 May 2020; initial review completed 21 September 2020; final version accepted 2 February 2021</p>
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Meta-analysis of 104 gambling prevalence studies assessing which risk factors are most strongly associated with PG

Source: [The WAGER, Vol. 26\(12\) – Problem gambling risk factors in the general adult population across 104 studies: How do they rank? - The Brief Addiction Science Information Source \(BASIS\) \(basisonline.org\)](#), based on information presented in Allami, Y., Hodgins, D., Young, M., Brunelle, N., Currie, S., Dufour, M., Flores-Pajot, M., & Nadeau, L. (2021). A meta-analysis of problem gambling risk factors in the general adult population. *Addiction*.

Scientific Publications

The Science Behind the Guidelines

While developing the *Lower-Risk Gambling Guidelines*, the development team conducted several research projects in support of their work. The following table describes the research projects and provides a link to publications where more information can be found.

If you have questions about these projects, please complete the [Contact Us](#) form to submit your inquiry.

Research Project	Methods and Results	Reference Information
Research protocol	The research protocol was developed in 2016 and published in 2018.	Currie, S. R., & Low Risk Gambling Guidelines Scientific Working Group. (2019). A research plan to define Canada's first low-risk gambling guidelines. <i>Health Promotion International</i> , 34(6), 1207-1217. https://doi.org/10.1093/heapro/day074
Risk curve analyses	Receiver operator curves plotting gambling involvement (i.e., percentage of monthly household income, frequency per month and number of gambling types played in last year) compared with gambling related harms (as defined by items on the Problem Gambling Severity Index) were developed for 11 representative population datasets from eight countries. Each curve generated a lower limit by applying the Youden Index and a higher limit by maximizing specificity, while ensuring that sensitivity was fixed at 0.5 or higher. The ranges were collectively analyzed using a modal analysis and an assessment of the mean of the upper and lower range limits to develop an overall range. Overall range validation was conducted via visual inspection of each risk curve.	Hodgins, D. C., Young, M. M., Currie, S. R., Abbott, M., Billi, R., Brunelle, N., ... Nadeau, L. (2022). Lower-risk gambling limits: linked analyses across eight countries, <i>International Gambling Studies</i> , 1-17. https://doi.org/10.1080/14459795.2022.2143546

Assessing cumulative change in risk of harm across the range of possible gambling limits	Calculated how the cumulative change in risk of experiencing gambling-related harms (e.g., financial, relationship, emotional and psychological, health) increases incrementally as the limit for gambling involvement (i.e., percentage, frequency, and gambling types) increases.	Young, M. M., Hodgins, D. C., Currie, S. R., Brunelle, N., Dufour, M., Flores-Pajot, M.-C., Nadeau, L. (2022). Not too much, not too often, and not too many: the results of the first large-scale, international project to develop lower-risk gambling guidelines. <i>International Journal of Mental Health and Addiction</i> . https://doi.org/10.1007/s11469-022-00896-w
Online survey of gambling	In collaboration with the Alberta Gambling Research Institute, survey responses from a sample of people who regularly gamble were recruited from a pool of online panelists associated with the survey firm Leger360. Phase I responses were collected in August 2018 (n=10,054). Phase II responses were collected in August 2019 via a follow-up survey of those who completed Phase I (n=4,707).	Currie, S. R., Brunelle, N., Dufour, M., Flores-Pajot, M.-C., Hodgins, D., Nadeau, L., & Young, M. (2020). Use of self-control strategies for managing gambling habits leads to less harm in regular gamblers. <i>Journal of Gambling Studies</i> , 36(2), 685-698. https://doi.org/10.1007/s10899-019-09918-0 And Young, M. M., Hodgins, D. C., Currie, S. R., Brunelle, N., Dufour, M., Flores-Pajot, M.-C., & Nadeau, L. Not too much, not too often, and not too many: the results of the first large-scale, international project to develop lower-risk gambling guidelines. <i>International Journal of Mental Health and Addiction</i> . https://doi.org/10.1007/s11469-022-00896-w https://doi.org/10.1007/s11469-022-00896-w
Interviews and focus groups with people who gamble	Among the 10,054 participants who completed Phase I of the online survey, 5,018 reported using one self-control strategy at least sometimes. Among these respondents 56 people (27 males and 29 females) participated in nine focus groups and five individual interviews in Montreal (in French), Calgary and Toronto (in English). Each participant reported gambling more than once in the month before the survey was administered.	Flores-Pajot, M.-C., Atif, S., Dufour, M., Brunelle, N., Currie, S. R., Hodgins, D. C., Nadeau, L., & Young, M. M. (2021). Gambling self-control strategies: A qualitative analysis. <i>International Journal of Environmental Research and Public Health</i> , 18(2), Article 586. https://doi.org/10.3390/ijerph18020586
Literature review and meta-analysis of special risk populations and contextual factors associated with risk of problem gambling	A systematic search of the published and grey literature was conducted to identify all population prevalence surveys conducted world-wide until March 2019. In total, 255 studies were identified, of which 181 contained information about problem gambling correlates useful for analyses. Of those, 104 contained information sufficient to meta-analyze and calculate an odds ratio, reflecting the size of the bivariate relationship between the correlate and problem gambling.	Allami, Y., Hodgins, D.C., Young, M., Brunelle, N., Currie, S., Dufour, M., Flores-Pajot, M., & Nadeau, L. (2021). A meta-analysis of problem gambling risk factors in the general adult population. <i>Addiction</i> , 116, 2968-2977. https://doi.org/10.1111/add.15449

Perspectives

A research plan to define Canada's first low-risk gambling guidelines

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[†]The Low Risk Gambling Guidelines Scientific Working Group is composed of Shawn Currie (Department of Psychology, University of Calgary), Marie-Claire Flores-Pajot (Canadian Centre on Substance Use and Addiction), David Hodgins (co-chair) (Department of Psychology, University of Calgary), Louise Nadeau (Department of Psychology, University of Montreal), Catherine Paradis (Canadian Centre on Substance Use and Addiction), Chantal Robillard, Matthew Young (co-chair).

Summary

From a public health perspective, gambling shares many of the same characteristics as alcohol. Notably, excessive gambling is associated with many physical and emotional health harms, including depression, suicidal ideation, substance use and addiction and greater utilization of health care resources. Gambling also demonstrates a similar 'dose-response' relationship as alcohol—the more one gambles, the greater the likelihood of harm. Using the same collaborative, evidence-informed approach that produced Canada's Low-Risk Alcohol Drinking and Lower Risk Cannabis Use Guidelines, a research team is leading the development of the first national Low-Risk Gambling Guidelines (LRGGs) that will include quantitative thresholds for safe gambling. This paper describes the research methodology and the decision-making process for the project. The guidelines will be derived through secondary analyses of several large population datasets from Canada and other countries, including both cross-sectional and longitudinal data on over 50 000 adults. A scientific committee will pool the results and put forward recommendations for LRGGs to a nationally representative, multi-agency advisory committee for endorsement. To our knowledge, this is the first systematic attempt to generate a workable set of LRGGs from population data. Once validated, the guidelines inform public health policy and prevention initiatives and will be disseminated to addiction professionals, policy makers, regulators, communication experts and the gambling industry. The availability of the LRGGs will help the general public make well-informed decisions about their gambling activities and reduce the harms associated with gambling.

Key words: risk curves, low-risk gambling limits, problem gambling, total consumption theory, gambling-related harm

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Use of Self-control Strategies for Managing Gambling Habits Leads to Less Harm in Regular Gamblers

Shawn R. Currie¹ · Natacha Brunelle² · Magali Dufour³ · Marie-Claire Flores-Pajot⁴ · David Hodgins¹ · Louise Nadeau⁵ · Matthew Young^{4,6}

Published online: 11 December 2019

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Abstract

There is little research on the control strategies used by the general public to self-manage gambling habits and avoid harmful consequences. The current study sought to identify the most common self-control strategies of people who gamble regularly, the characteristics of those who use them, and assess the effectiveness of limit-setting strategies in reducing gambling-related harm. We recruited a large sample (N = 10,054) of Canadian adults who reported gambling activity in the past 12 months. Participants completed a survey that assessed gambling habits, use of control strategies including quantitative limit setting, and gambling related harm. The most common control strategies were setting predetermined spending limits, tracking money spent, and limiting alcohol consumption. The number of self-control strategies used by gamblers was positively associated with gambling involvement, annual income, problem gambling severity and playing electronic gaming machines. Approximately 45% of respondents failed to adhere to self-determined quantitative limits for spending, frequency, and time spent gambling. People who stayed within their gambling limits were less likely to report harm even after controlling for other risk factors. However, the effectiveness of remaining within one's personal spending limit decreased for those whose limits exceed \$200CAN monthly. The findings support public health interventions that promote lower-risk gambling guidelines aimed at helping gamblers stay within spending, frequency and duration limits.

Keywords Self-control strategies · Gambling-related harm · Prevention · Expenditure limits · Protective strategies

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Article

Gambling Self-Control Strategies: A Qualitative Analysis

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Abstract: There is limited research exploring the perceptions of people who gamble on the self-control strategies used to limit their gambling. This qualitative study examines self-control strategies used to limit money spent gambling, frequency of gambling, and time spent gambling. A total of 56 people who gamble (27 males and 29 females) participated in nine focus groups and five individual interviews in Montreal, Calgary, and Toronto (Canada). Self-control strategies used to limit their gambling expenditure were more common than frequency or time limiting strategies. Strategies to limit expenditure included: restricting access to money; keeping track of money allocated to gambling activities; and avoiding certain types of gambling activities. Various contextual factors were identified to influence those strategies, including social influences; winning or losing; using substances. Findings from this study emphasize the importance of communicating clear gambling limits to people who gamble, as well as the value of developing individual self-control strategies to limit frequency, time and money spent gambling.

Keywords: gambling guidelines; qualitative; public health messaging; self-control strategies; substance use

1. Introduction

Numerous epidemiological studies have shown that problem gambling is affecting up to 5.8% of the general population worldwide, and 2% to 5% of the general population in North America [1]. In 2018, a total of 66.2% of people reported engaging in some type of gambling in Canada, and 0.6% of the population were identified as people with gambling problems [2]. Though legalized gambling is a common activity, a minority of people experience a wide range of harmful consequences as a result [3–5].

Gambling may have deleterious consequences or harms. According to Langham et al., a gambling-related harm is defined as “any initial or exacerbated adverse consequence due to an engagement with gambling that leads to a decrement to the health or wellbeing of any individual, family unit, community or population.” The authors categorized harms into seven areas of life: financial difficulties, relationship disruptions, emotional or psychological distress, physical health problems, cultural harms, reduced performance at work or study, and criminal activity ([6], p. 4).

People who gamble frequently are at greater risk of experiencing gambling-related harms [7,8]. However, even those who gamble infrequently can also experience adverse



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A meta-analysis of problem gambling risk factors in the general adult population

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ABSTRACT

Background and Aims Few meta-analyses have been conducted to pool the most constant risk factors for problem gambling. The present meta-analysis summarizes effect sizes of the most frequently assessed problem gambling risk factors, ranks them according to effect size strength and identifies any differences in effects across genders. **Method** A random-effects meta-analysis was conducted on jurisdiction-wide gambling prevalence surveys on the general adult population published until March 2019. One hundred and four studies were eligible for meta-analysis. The number of participants varied depending on the risk factor analyzed, and ranged from 5327 to 273 946 (52% female). Weighted mean odds ratios were calculated for 57 risk factors (socio-demographic, psychosocial, gambling activity and substance use correlates), allowing them to be ranked from largest to smallest with regard to their association with problem gambling. **Results** The highest odds ratio (OR) was for internet gambling [OR = 7.59, 95% confidence interval (CI) = 5.24, 10.99, $P < 0.000$] and the lowest was for employment status (OR = 1.03, 95% CI = 0.87, 1.22, $P = 0.718$). The largest effect sizes were generally in the gambling activity category and the smallest were in the socio-demographic category. No differences were found across genders for age-associated risk. **Conclusions** A meta-analysis of 104 studies of gambling prevalence indicated that the most frequently assessed problem gambling risk factors with the highest effect sizes are associated with continuous-play format gambling products.

Keywords Epidemiology, gambling, gambling disorder, general population, meta-analysis, odds ratio, problem gambling, relative risk, risk factor.

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INTRODUCTION

The significant social costs associated with pathological gambling highlight the need for effective intervention programs. This study aims at establishing a rank order in the evidence-based problem gambling (PG) individual-level risk factors identified in the general population. PG is defined as an accumulation of negative consequences, spanning all aspects of life, related to one's gambling behavior in a given period. According to a systematic review of 202 international jurisdiction-wide surveys, the prevalence of PG among adults ranges from 0.4–8.1% [1]. Numerous factors are associated with the risk of experiencing gambling problems, including environmental factors,
















such as access to gambling opportunities, and product characteristics, such as speed of reinforcement and individual risk factors. Although a wide range of individual-level risk factors have been identified over the years, their relationship with PG has not always been consistent across studies. These factors can be of various types, such as socio-demographic, psychosocial or substance- and gambling-related. Young age and male gender are the most frequently observed risk factors [1]. Nonetheless, there is some indication that other demographic subgroups, such as middle-aged women [2], are also vulnerable. They may, however, go unnoticed when participants are not split according to age and gender, because of the stronger effect size of being a young male.



Developing Lower-Risk Gambling Guidelines



Lower-risk gambling limits: linked analyses across eight countries

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ABSTRACT

A common public health initiative in many jurisdictions is provision of advice to people to limit gambling to reduce the risk of gambling-related harm. The purpose of this study is to use consistent methodology with existing population-based prevalence surveys of gambling and related harms from different countries to identify quantitative limits for lower risk gambling. Risk curve analyses were conducted with eleven high quality data sets from eight Western countries. Gambling indicators were monthly expenditure, percentage of income spent on gambling, monthly frequency, and number of different types of gambling. Harm indicators included financial, emotional, health, and relationship impacts. Contributing data sets produced limit ranges for each gambling indicator and each harm indicator, which were compared. Gender differences in limit ranges were minor. Modal analysis, an assessment of the mean of the upper and lower range limits, indicated that the risk of harm increases if an individual gambles at these levels or greater: \$60 to \$120 CAD monthly, five to eight times monthly, spends more than 1 to 3% of gross monthly income or plays three to four different gambling types. This study provides further evidence that lower-risk gambling guidelines can be based upon empirically derived limits.

ARTICLE HISTORY

Received 16 December 2021
Accepted 27 October 2022

KEYWORDS

Gambling; responsible gambling; risk curves; lower risk guidelines; gambling-related harms

Introduction


The purpose of this project is to identify levels of gambling involvement that predict increased risk of experiencing gambling-related harms. Although the gambling industry

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Not Too Much, Not Too Often, and Not Too Many: the Results of the First Large-Scale, International Project to Develop Lower-Risk Gambling Guidelines

Matthew M. Young^{1,2,3}  · David C. Hodgins⁴ · Shawn R. Currie⁴ · Natacha Brunelle⁵ · Magali Dufour⁶ · Marie-Claire Flores-Pajot² · Louise Nadeau⁷

Accepted: 25 July 2022
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Abstract

Until now, there has been no evidence-based, specific advice for people who gamble who want to reduce their risk of experiencing gambling harms. This paper presents the results from the first large-scale, comprehensive, international project to develop lower-risk gambling guidelines. Specifically, we calculated relative risk estimates to determine risk of harm across the range of possible limits for gambling frequency, expenditure, and number of types of gambling engaged in; conducted an online survey ($n=4583$) of people who gamble to assess whether they understood and found credible the proposed quantitative limits; conducted a series of interviews and focus groups with people who gamble to assess self-control strategies and reactions to proposed quantitative limits; conducted a meta-analysis of problem gambling risk factors in the general population; and consulted with a pan-Canadian, multi-sectoral committee of stakeholders. Project outcomes were examined and deliberated by a working group of scientists who decided upon a set of recommendations for lower-risk gambling. This paper presents these recommendations.

Keywords Gambling · Harm-reduction · Prevention · Gambling harm · Lower-risk guidelines



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LRGG

Lower-Risk Gambling Guidelines

These guidelines were developed using the most current and highest quality scientific evidence available.

To reduce your risk of experiencing harms from gambling, follow all three of these guidelines:

1

HOW MUCH

Gamble no more than **1%** of household income before tax per month

Yearly household income	Maximum monthly amount
\$10,000	\$8
\$30,000	\$25
\$50,000	\$42
\$70,000	\$58
\$90,000	\$75
\$110,000	\$92
\$130,000	\$108
\$150,000	\$125

4

HOW OFTEN

Gamble no more than **4 days** per month

WHAT YOU PLAY MATTERS

- ▶ Fast-paced games that involve quick and repeated betting can more quickly and easily lead to problems.
- ▶ For example, with many forms of online gambling, slot machines, electronic gaming machines and poker, people can spend large amounts of money in a short time.

2

HOW MANY

Avoid regularly gambling at more than **2 types** of games

GAMBLING TYPES INCLUDE THE FOLLOWING:



HOWEVER, these limits may not be suitable for you. You should consider gambling less than these guidelines recommend or not at all if you ...

- ▶ Experience problems from **alcohol, cannabis or other drug use**
- ▶ Experience problems with **anxiety or depression**
- ▶ Have a **personal or family history** of problems with gambling

GAMBLING HARMS

LOSING MONEY IS THE GAMBLING HARM THAT FIRST COMES TO MIND.
BUT GAMBLING CAN LEAD TO OTHER HARMS:



**RELATIONSHIP
CONFLICTS**
such as neglect of
relationship, social isolation,
arguing with your spouse



**EMOTIONAL
DISTRESS**
such as feelings
of guilt, loneliness
and isolation



**HEALTH
PROBLEMS**
such as problematic
use of alcohol or
other drugs

LRGG Lower-Risk Gambling Guidelines

These guidelines were
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most current and
highest quality scientific
evidence available.

TO REDUCE YOUR RISK OF EXPERIENCING HARMS FROM GAMBLING,
FOLLOW ALL THREE OF THESE GUIDELINES:



1% Gamble **no more than
of household income**
before tax per month



4 Gamble no more than
days per month



2 Avoid regularly
gambling at **more than
types of games**

FOR THESE GUIDELINES, GAMBLING MEANS ...

playing a game of chance for money. Popular forms of gambling include lotteries, sports betting,
table games, slot machines, video lottery terminals (VLTs) and online forms of gambling like poker.

The guidelines were developed by **analyzing data from over 60,000 people** who gamble from eight
countries, as well as interviews, focus groups, surveys and literature reviews. The most comprehensive
and evidence-based description of harms related to gambling defines them as a decline in the health or
wellbeing of any individual, family unit, community or population due to gambling.*

*Browne, M., Langham, E., Rawat, V., Greer, N., Li, E., Rose, J., Rockloff, M. ... Best, T. (2018). *Assessing gambling-related harm in Victoria: A public health perspective*. Melbourne, Australia: Victorian Responsible Gambling Foundation.

Visit www.gamblingguidelines.ca for more information.

These guidelines were developed for people of legal gambling age who want to make more informed choices about their gambling.



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IF YOU THINK YOU ARE NOT IN CONTROL OR FEEL UNCOMFORTABLE WITH
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FOR A LIST OF RESOURCES IN YOUR REGION.

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WHEN GAMBLING, WHAT YOU PLAY MATTERS

GREATER RISK



Some types of gambling, such as electronic gaming machines or online poker, are faster paced, involve frequent betting and encourage you to play more often and for longer periods of time, and to spend more money.

LESS RISK



Other types of gambling, such as lottery tickets, are slower paced, less intense and involve less spending. For example, someone might buy a ticket weekly or monthly.

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Lower-Risk Gambling Guidelines

WHEN YOU GAMBLE,

think about the type of game you're playing. The choices you make can make it easier or harder to stick to Canada's Lower-Risk Gambling Guidelines.



TO REDUCE YOUR RISK OF EXPERIENCING HARMS FROM GAMBLING, FOLLOW ALL THREE OF THESE GUIDELINES:



1% Gamble **no more than**
of household income
before tax per month



4 Gamble no more than
days per month



2 Avoid regularly
gambling at **more than**
types of games

FOR THESE GUIDELINES, GAMBLING MEANS ...

playing a game of chance for money. Familiar forms of gambling include lotteries, sports betting, table games, slot machines, video lottery terminals (VLTs) and online forms of gambling like poker.

Visit www.gamblingguidelines.ca for more information.

These guidelines were developed for people of legal gambling age who want to make more informed choices about their gambling.



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FOR A LIST OF RESOURCES IN YOUR REGION.**

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SOME PEOPLE ARE MORE LIKELY TO EXPERIENCE HARMS FROM GAMBLING

TO REDUCE YOUR RISK, FOLLOW ALL THREE OF THESE GUIDELINES:

-  **1** Gamble no more than of household income before tax per month
-  **4** Gamble no more than days per month
-  **2** Avoid regularly gambling at more than types of games

FOR THESE GUIDELINES, GAMBLING MEANS ...
playing a game of chance for money. Familiar forms of gambling include lotteries, sports betting, table games, slot machines, video lottery terminals (VLTs) and online forms of gambling like poker.

LRGG Lower-Risk Gambling Guidelines

These guidelines were developed using the most current and highest quality scientific evidence available.

WHEN DEVELOPING
THE LOWER-RISK
GAMBLING GUIDELINES,
A REVIEW
OF OVER 250
STUDIES
FOUND THAT SOME
PEOPLE ARE AT
GREATER RISK
OF HARMS.

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for more information.



SPECIFICALLY, IF YOU

Experience problems with anxiety or depression

Experience problems from alcohol, cannabis or other drug use

Have a personal or family history of problems with gambling

Gamble to escape problems

... you should consider gambling less than these guidelines recommend or not at all.

These guidelines were developed for people of legal gambling age who want to make more informed choices about their gambling.



IF YOU THINK YOU ARE NOT IN CONTROL OR FEEL UNCOMFORTABLE WITH YOUR GAMBLING, PLEASE VISIT WWW.GAMBLINGGUIDELINES.CA/GETTING-HELP FOR A LIST OF RESOURCES IN YOUR REGION.

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How Much to Gamble



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How Many Games to Gamble



- [Facebook](#)
- [Twitter](#)
- [LinkedIn](#)
- [Instagram](#)

How Often to Gamble



- [Facebook](#)
- [Twitter](#)
- [LinkedIn](#)
- [Instagram](#)

What You Play Matters



- [Facebook](#)
- [Twitter](#)
- [LinkedIn](#)
- [Instagram](#)

Harms of Gambling



- [Facebook](#)
- [Twitter](#)
- [LinkedIn](#)
- [Instagram](#)

Interactive Risk Assessment Tool



- [Facebook](#)
- [Twitter](#)
- [LinkedIn](#)
- [Instagram](#)

Part 3: Implementation of the Lower Risk Gambling Guidelines

REACTIONS TO THE LOWER RISK GAMBLING GUIDELINES



Gambling consumption and harm: a systematic review of the evidence

Viktorija Kesaite ✉, Heather Wardle & Ingeborg Rossow

Received 21 Dec 2022, Accepted 13 Jul 2023, Published online: 02 Aug 2023

Review

➤ [Nordisk Alkohol Nark.](#) 2019 Apr;36(2):66-76. doi: 10.1177/1455072518794016.

Epub 2018 Aug 30.

The total consumption model applied to gambling: Empirical validity and implications for gambling policy

Ingeborg Rossow ¹

REACTIONS TO THE LOWER RISK GAMBLING GUIDELINES



Implementation

Since release in September 2021

- D. Hodgins and M.M. Young have conducted >30 presentations to various Canadian and international groups
- Developed a tool for people to compare their gambling to that recommended by the LRGGs
- Began research project to develop a framework to evaluate the Lower-Risk Gambling Guidelines (LRGGs): Lessons learned from evaluating other public health guidelines

**Use of the guidelines to provide
personalized feedback to people
who gamble**

Lower-Risk Gambling: Self-Assessment Tool

Using the most current and highest quality scientific evidence available, the Lower-Risk Gambling Guidelines were developed for people of legal gambling age who want to make more informed choices about their gambling.

[Start](#)





HOW MANY



Which of the following types of gambling do you regularly play? Please check all that apply.



**Lottery and
raffle tickets**



**Electronic
gaming
machines**



including:
- slot machines
- video lottery terminals
- electronic racing
machines



Sports betting



including:
- professional sporting
events
- sports pools
- fantasy sports betting



Horse racing



**Casino table
games**



including
- poker
- black-jack
- baccarat
- roulette



Bingo



Online gambling



**Other types of
games**



Did you know

A selection of resources about lower-risk gambling were created for the public, researchers, policy makers, health service providers and the gambling industry. View them in the resource section.

Close

HOW MANY

DID YOU KNOW?

To reduce your risk of experiencing harms from gambling, the Lower-Risk Gambling Guidelines recommend that you avoid regularly gambling at more than **2 types of games**.

Based on the number of gambling types you regularly play, your risk of gambling-related harms is almost 3 times higher than someone who doesn't gamble very much.

Next



HOW MUCH



How much do you typically spend per month on these games?



Lottery and
raffle tickets

\$20



Electronic
gaming
machines

\$100



Online
gambling

\$100

Calculate



This represents

3.30%

of your household income

Next

HOW MUCH

DID YOU KNOW?

To reduce your risk of experiencing harms from gambling, the Lower-Risk Gambling Guidelines recommend gambling no more than **1% of household income before tax per month**.

Based on your monthly spending, your risk of gambling-related harms is almost 6 times higher than someone who doesn't gamble very much.

Next



Summary

Since you indicated that **you have experienced problems from alcohol, cannabis or other drug use, you had experienced problems with anxiety or depression**, you may be at elevated risk of harms from your gambling and the Lower-Risk Guidelines might not be suitable for you. You should consider gambling less than these guidelines recommend or not at all.

- Based on your monthly spending, your risk of gambling-related harms is almost 6 times higher than someone who doesn't gamble very much.
- Based on the number of gambling types you regularly play, your risk of gambling-related harms is almost 2 times higher than someone who doesn't gamble very much.
- Based on your number of days spent gambling per month, your risk of gambling-related harms is almost 3 times higher than someone who doesn't gamble very much.

Based on your answers, you are gambling above the recommended guidelines for: **spending, gambling type limit, and frequency.**

Next

Developing a framework to evaluate the Lower-Risk Gambling Guidelines (LRGGs): Lessons learned from evaluating other public health guidelines

Funded by:



Project Overview

To develop a framework to evaluate the LRGGs we are conducting

- 1 Scoping review
- 2 Surveys
- 3 Interviews

Scoping Review

Primary Research Question

- 1 What outcomes have been measured in research assessing the implementation and effectiveness of public health guidelines? What do the results indicate?
- 2 What are the barriers and facilitators to the implementation of public health guidelines?

Primary Research Question

- 3 Was a theory of change used to guide the implementation of public health guidelines? What were those theories?

Surveys & Interviews

Objectives

- To assess awareness, use, barriers and facilitators to use, and what outcomes are important for evaluation



Surveys & Interviews

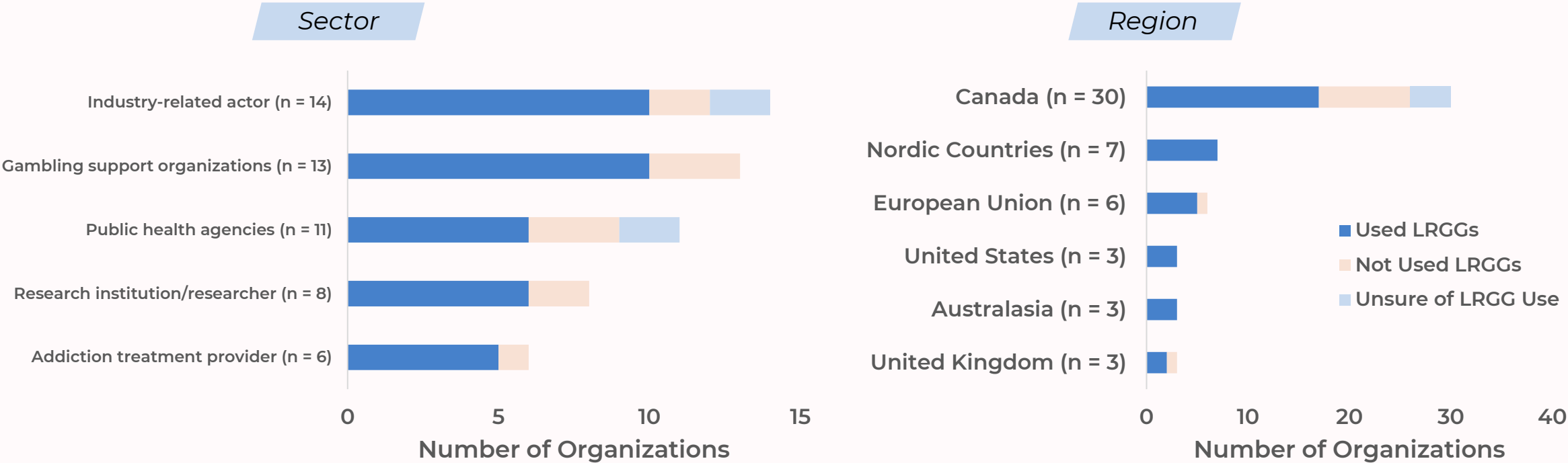
Data collection

- 1) Conducted environmental scan of promo activity
 - a) Copyright requests, google searching, known contact with developers
- 2) Surveyed organizations where gambling harm prevention or reduction is, or could reasonably be, part of their mandate
 - a) Between February 24 and March 17 2025
 - b) Survey distributed to 152 organizations/individuals
 - c) 52 responses (34.2% response rate)



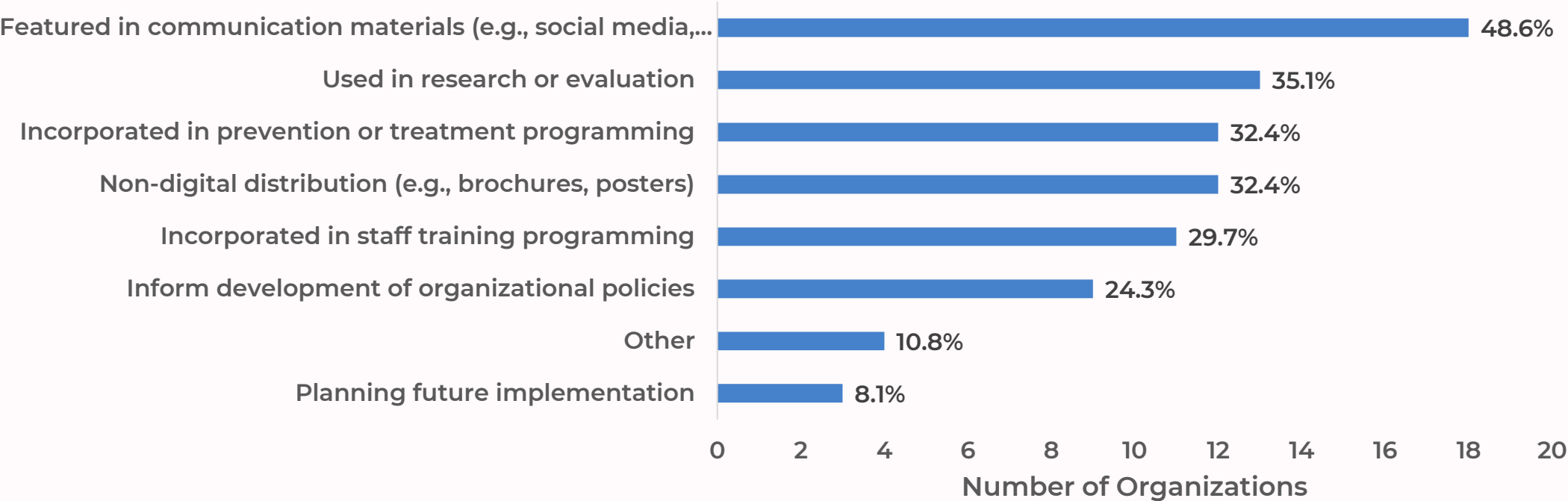
Surveys & Interviews

Sample Characteristics



Surveys & Interviews

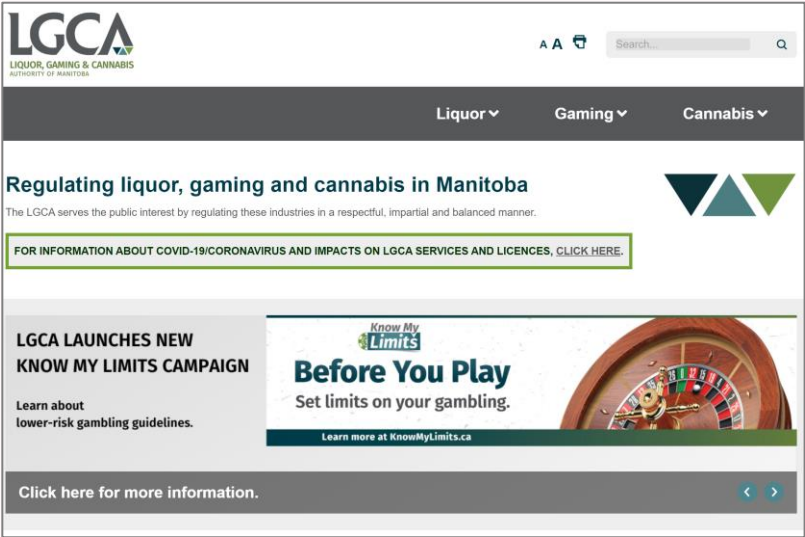
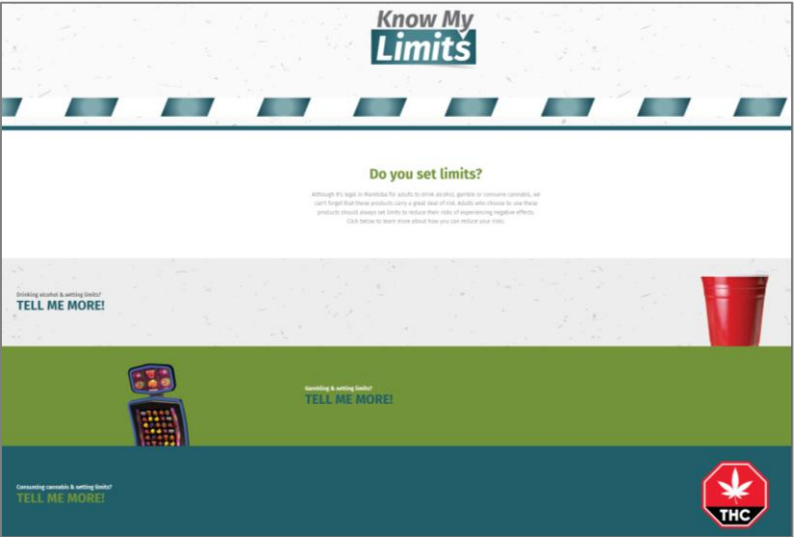
71.2% (37/52) organizations have “used” the LRGGs



Examples of use of the LRGs

Featured in communication materials

Liquor, Gaming, and Cannabis Authority of Manitoba



Before You Play

Find out how much you can afford to gamble.

[Learn more](#)

Do you set limits before you gamble?

LGCA research indicates that a portion of Manitobans do not regularly set limits before participating in gambling activities. People who always set limits have a lower risk of experiencing gambling harm, such as overspending and negative impacts to family and well-being.

In February 2022, the LGCA launched our Know My Gambling Limits campaign to promote lower-risk gambling guidelines. The new public education messaging encourages adult Manitobans to think about their gambling before they play and to set limits for their gambling.

The lower-risk gambling guidelines were developed by the Canadian Centre for Substance Use and Addiction (CCSA) after a multi-year research project and the LGCA has incorporated these guidelines within our Know My Gambling Limits public education. [Click here](#) to visit the CCSA's lower-risk gambling guidelines website.

The lower-risk gambling guidelines are:

- Gamble no more than 1% of household income before tax per month.
- Gamble no more than 4 days per month.
- Avoid regularly gambling at more than 2 types of games.

The campaign links the lower-risk gambling guidelines with familiar gambling activities to show how the guidelines can be followed and to make informed choices when gambling.

Plan to gamble once a week or less.

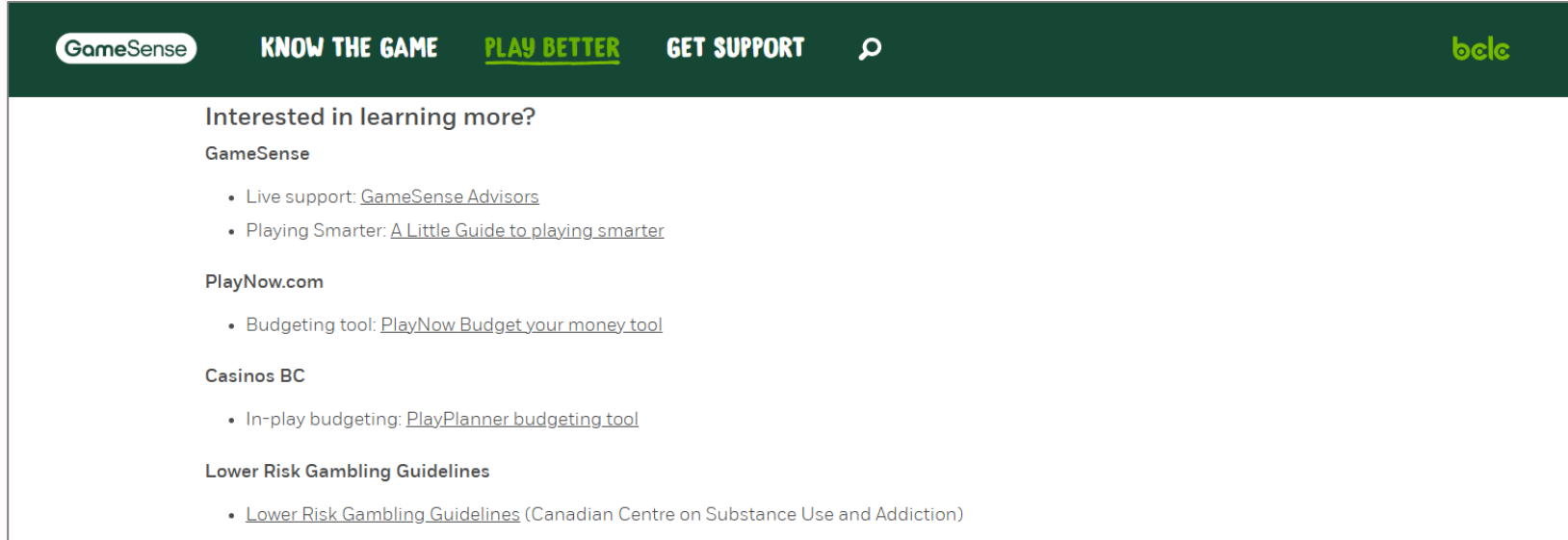
[Learn more](#)

Online or not, set limits on your gambling.

[Learn more at KnowMyLimits.ca](#)

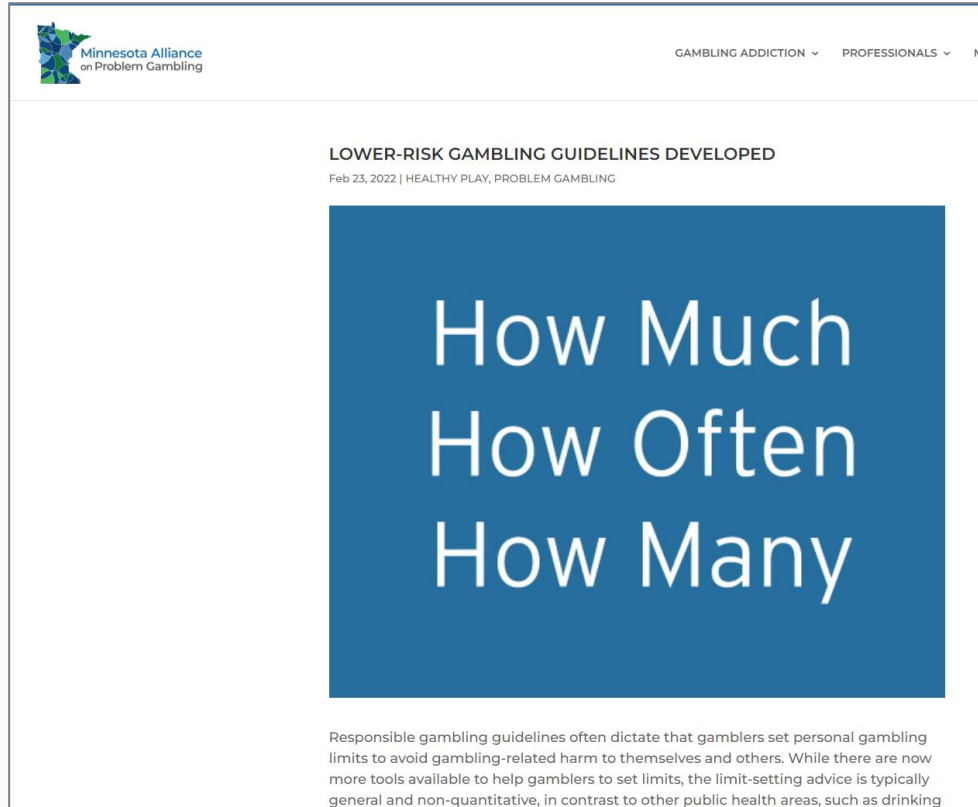
Featured in communication materials

British Columbia Lottery Corporation



Featured in communication materials

Minnesota USA



Minnesota Alliance on Problem Gambling

GAMBLING ADDICTION ▾ PROFESSIONALS ▾

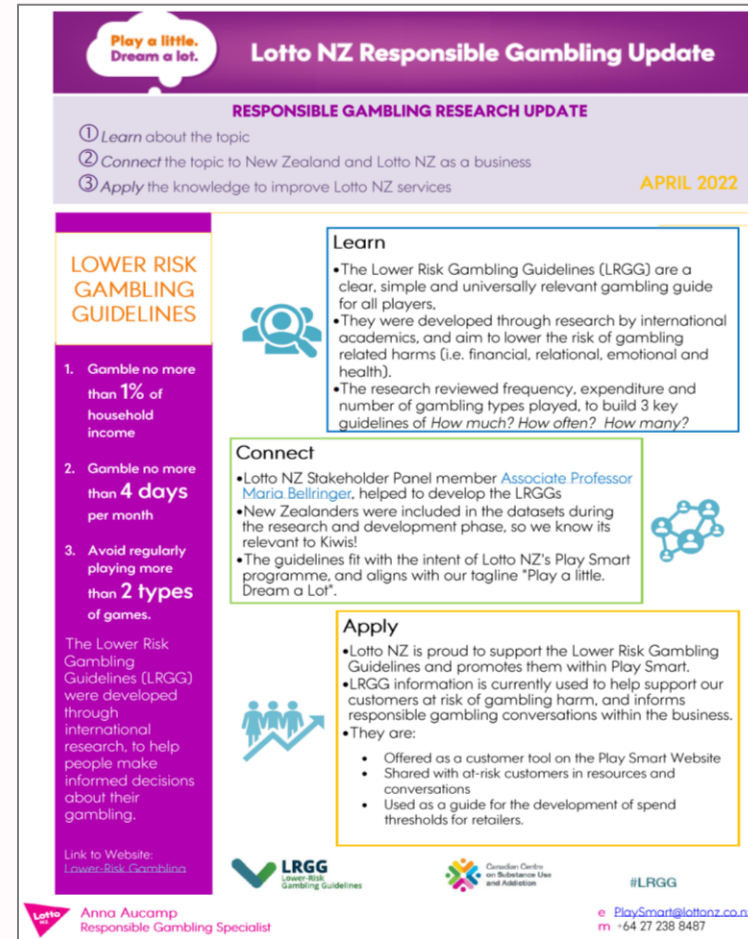
LOWER-RISK GAMBLING GUIDELINES DEVELOPED

Feb 23, 2022 | HEALTHY PLAY, PROBLEM GAMBLING

How Much How Often How Many

Responsible gambling guidelines often dictate that gamblers set personal gambling limits to avoid gambling-related harm to themselves and others. While there are now more tools available to help gamblers to set limits, the limit-setting advice is typically general and non-quantitative, in contrast to other public health areas, such as drinking

New Zealand



Play a little. Dream a lot. **Lotto NZ Responsible Gambling Update**

RESPONSIBLE GAMBLING RESEARCH UPDATE

- Learn about the topic
- Connect the topic to New Zealand and Lotto NZ as a business
- Apply the knowledge to improve Lotto NZ services

APRIL 2022

LOWER RISK GAMBLING GUIDELINES

- Gamble no more than **1%** of household income
- Gamble no more than **4 days** per month
- Avoid regularly playing more than **2 types** of games.

The Lower Risk Gambling Guidelines (LRGG) were developed through international research, to help people make informed decisions about their gambling.

Link to Website: [LowerRisk.Gambling](#)

Learn




- The Lower Risk Gambling Guidelines (LRGG) are a clear, simple and universally relevant gambling guide for all players.
- They were developed through research by international academics, and aim to lower the risk of gambling related harms (i.e. financial, relational, emotional and health).
- The research reviewed frequency, expenditure and number of gambling types played, to build 3 key guidelines of *How much? How often? How many?*

Connect

- Lotto NZ Stakeholder Panel member [Associate Professor Maria Bellringer](#), helped to develop the LRGGs
- New Zealanders were included in the datasets during the research and development phase, so we know its relevant to Kiwis!
- The guidelines fit with the intent of Lotto NZ's Play Smart programme, and aligns with our tagline "Play a little. Dream a Lot".

Apply

- Lotto NZ is proud to support the Lower Risk Gambling Guidelines and promotes them within Play Smart.
- LRGG information is currently used to help support our customers at risk of gambling harm, and informs responsible gambling conversations within the business.
- They are:
 - Offered as a customer tool on the Play Smart Website
 - Shared with at-risk customers in resources and conversations
 - Used as a guide for the development of spend thresholds for retailers.

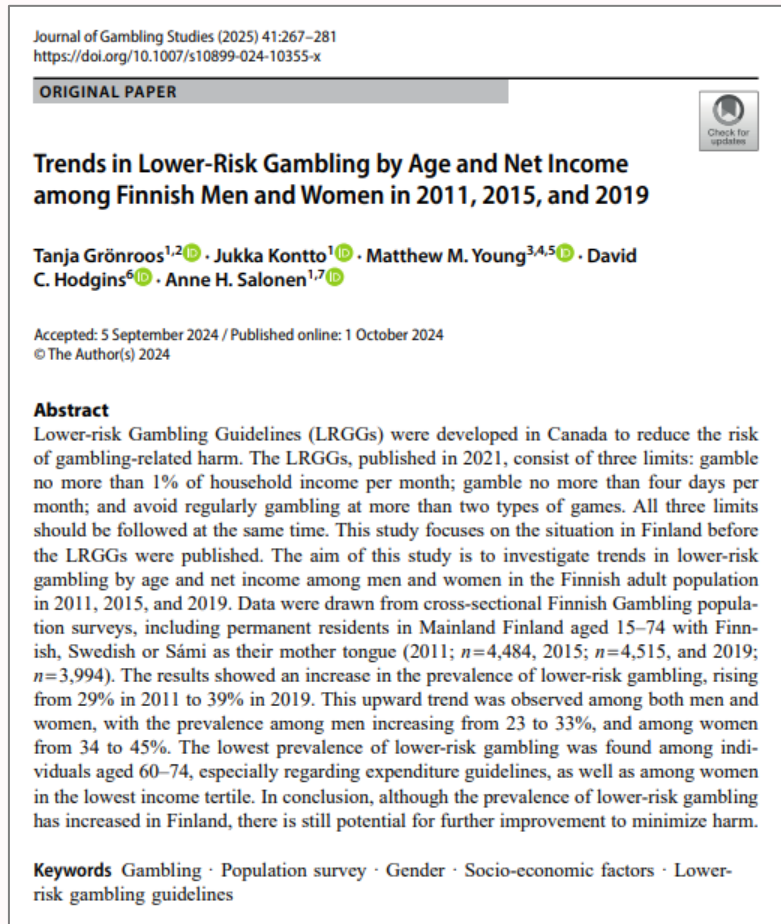




Anna Aucamp
Responsible Gambling Specialist

#LRGG
 e PlaySmart@lottomnz.co.nz
 m +64 27 238 8487

Used in research or evaluation

Use as an indicator of risk and harm



Used in research or evaluation

Use as an indicator of risk and harm

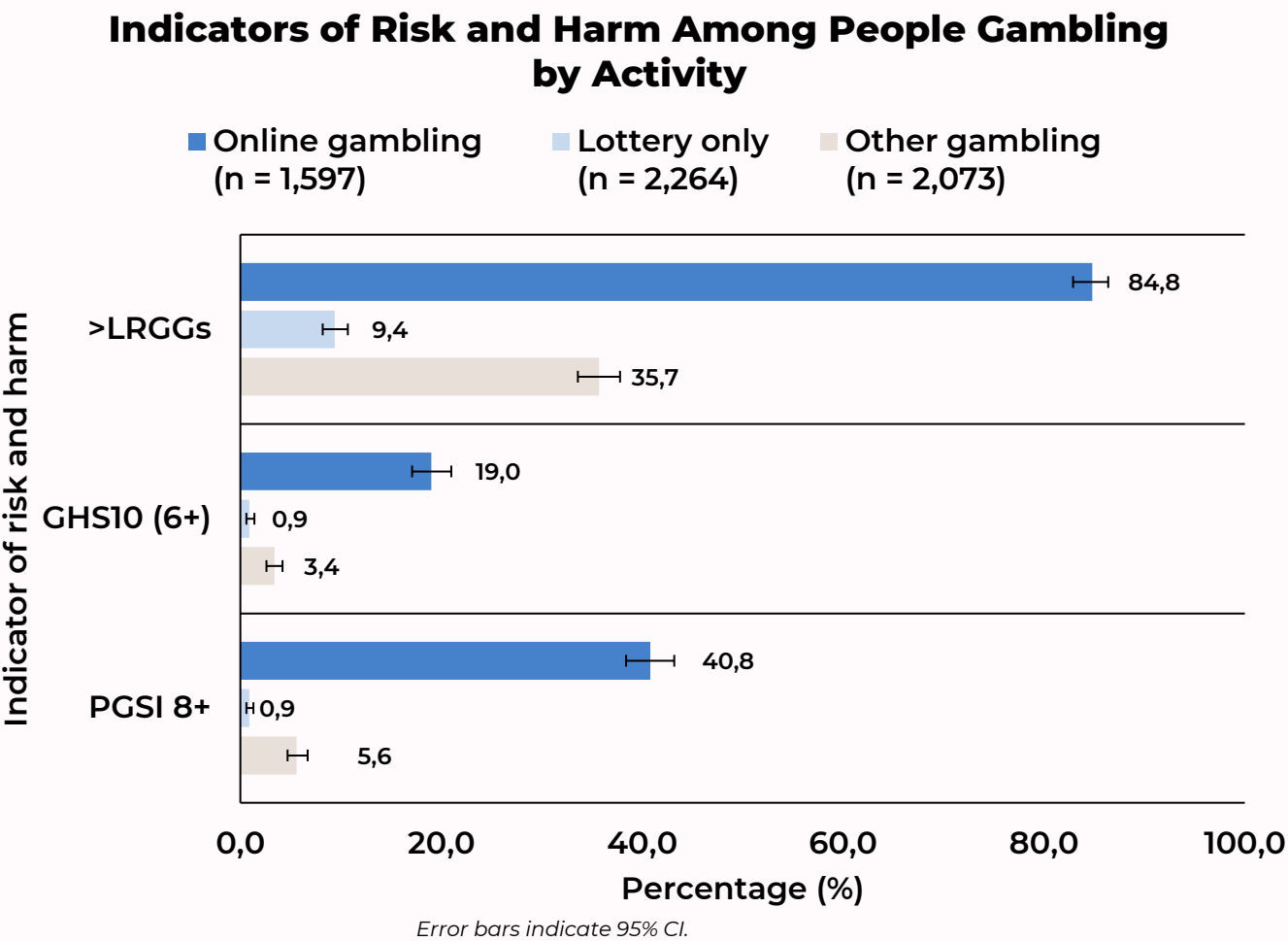
Tuico et al., 2025 (in preparation)

We assessed 3 harm indicators:

- 1) % gambling above the LRGG recommendations
- 2) % scoring 6+ on the 10-item Gambling Harms Scale (GHS10)
- 3) % scoring 8+ on the Problem Gambling Severity Index

Among adults engaged in online gambling in the past year (*n* = 1,597):

- 84.8% exceed the LRGGs
- 19.0% indicate 6 or more gambling-related harms
- 40.8% score 8+ on the PGSI



Used in research or evaluation

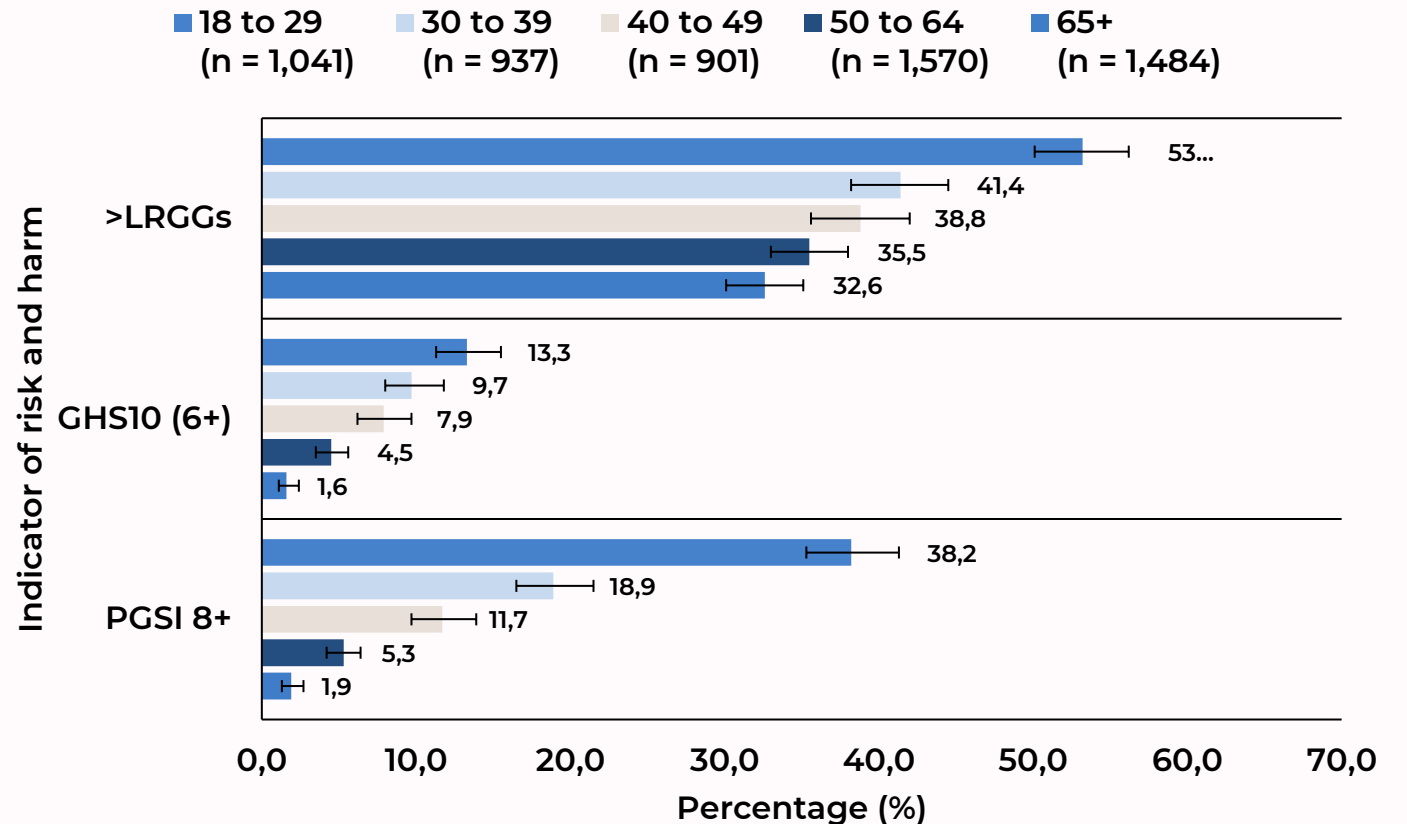
Use as an indicator of risk and harm

Tuico et al., 2025 (in preparation)

Among adults aged 18 to 29 who gambled in the past year ($n = 1,041$):

- 53.2% exceed the LRGGs
- 13.3% indicate 6 or more gambling-related harms
- 38.2% score 8+ on the PGSI

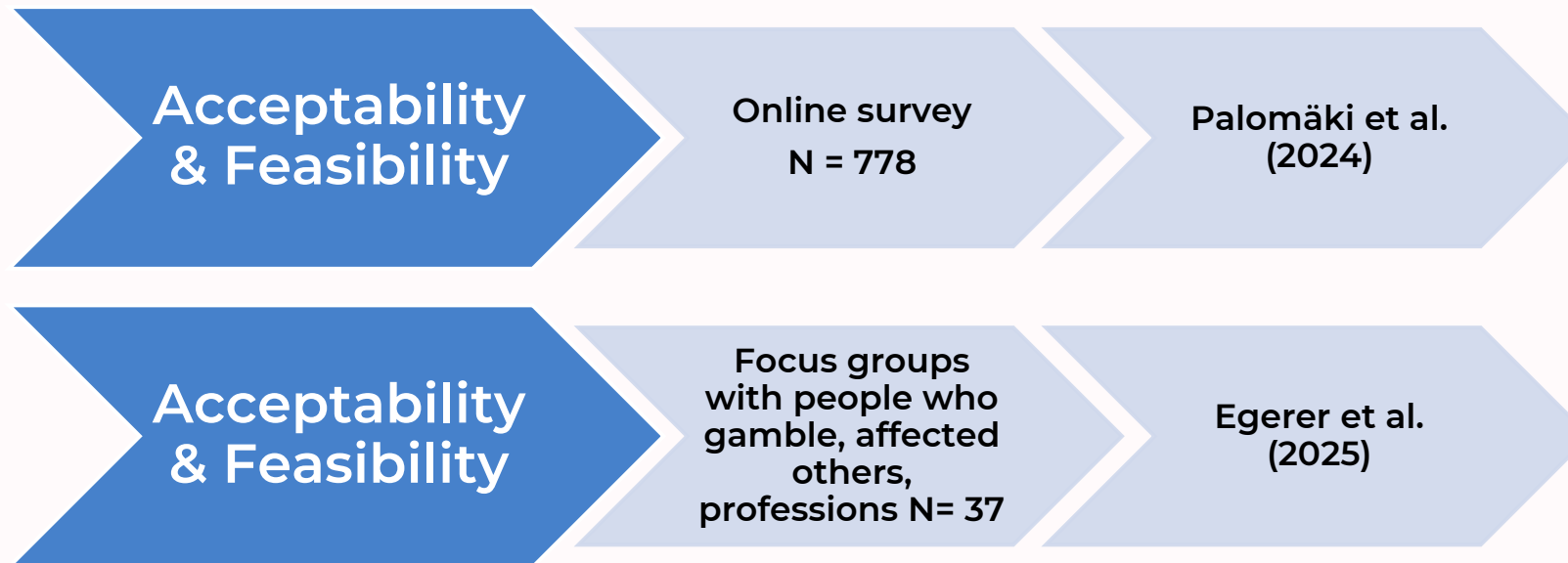
Indicators of Risk and Harm Among People Gambling by Age Group



Error bars indicate 95% CI.

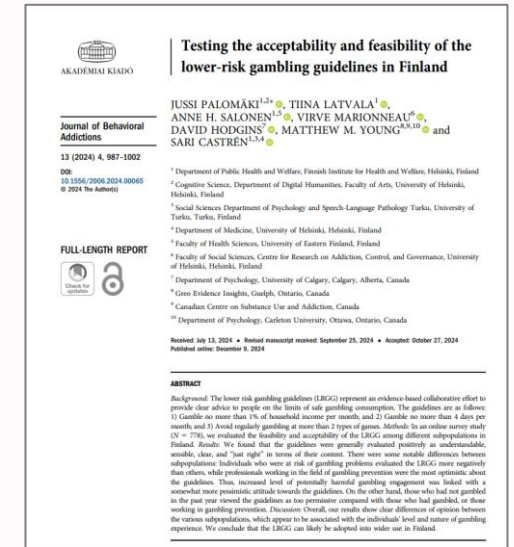
Used in research or evaluation

Validation work In Finland



Work conducted by:

- Finnish Institute for Health and Welfare.
- EHYT Finnish Association for Substance Abuse Prevention.
- University of Helsinki Centre for Research on Addiction, Control, and Governance.



Used in research or evaluation

Other research



AKADÉMIAI KIADÓ

In search of lower risk gambling levels using behavioral data from a gambling monopolist

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³ Department of Psychology, University of Calgary, Canada
⁴ Playscan, Svenska Spel, Sweden
⁵ Canadian Centre on Substance Use and Addiction, Ottawa, Canada
⁶ Department of Psychology, Carleton University, Ottawa, Canada
⁷ Department of Psychosocial Science, University of Bergen, Bergen, Norway
⁸ Norwegian Competence Center for Gambling and Gaming Research, University of Bergen, Bergen, Norway
⁹ Optentia, The Vaal Triangle Campus of the North-West University, Vanderbijlpark, South Africa

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Published online: September 19, 2022

ABSTRACT

Background and aims: Lower-risk recommendations for avoiding gambling harm have been developed as a primary prevention measure, using self-reported prevalence survey data. The aim of this study was to conduct similar analyses using gambling company player data. *Methods:* The sample ($N = 35,753$) were Norsk Tipping website customers. Gambling indicators were frequency, expenditure, duration, number of gambling formats and wager. Harm indicators (financial, social, emotional, harms in two or more areas) were derived from the GamTest self-assessment instrument. Receiver operating characteristics

Journal of Behavioral Addictions

11 (2022) 3, 890–899

DOI: 10.1556/2006.2022.00062
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FULL-LENGTH REPORT

Check for updates

Journal of Gambling Studies (2024) 40:21–28
<https://doi.org/10.1007/s10899-022-10186-8>

ORIGINAL PAPER

Check for updates

Applying the Canadian Low-Risk Gambling Guidelines to Gambling Harm Reduction in England

Eleanor Rochester¹ · John A. Cunningham^{1,2,3}

Accepted: 23 December 2022 / Published online: 8 January 2023
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Abstract

There is a need for evidence-based guidelines for gamblers who wish to reduce their risk of harm by setting self-directed limits on their gambling. Recognizing this, the Canadian Low-Risk Gambling Guidelines were developed using data from 8 countries to establish the relationship between gambling behaviour and harm. The guidelines include recommended limits on gambling spending as a percentage of income, gambling frequency, and number of types of games played. However, the developers of the LRGG's did not include UK data in their analysis. This study analyzes data from Health Survey England to assess the applicability of the Canadian Low-Risk Gambling Guidelines to gamblers in England. Using HSE data from 2016 to 2018, we generated risk curves for the relationship between 2 dimensions of gambling behaviour—frequency of gambling sessions and number of types of games played—and gambling harm. We defined harm as a score of 1 or above on the Problem Gambling Severity Index. HSE does not include questions on gambling spending, therefore this was not assessed. The relationship observed between frequency and types of gambling and harm among HSE respondents was similar to the risk curves generated for the development of the Canadian LRGG's. Gamblers in England who gambled twice weekly or more, or who played 3 or more types of games, were significantly more likely to experience harm from gambling than those who gambled below these limits. The Canadian LRGG's may potentially be applied to gambling harm reduction efforts in England. More research is needed to determine the acceptability of these guidelines to people who gamble in England.

Keywords Problem gambling · Responsible gambling · Low-risk gambling guidelines · Harm reduction

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³ Department of Psychiatry, University of Toronto, Toronto, Canada

Springer

Lower-risk gambling guidelines

09.09.22

THE BEHAVIOURAL INSIGHTS TEAM

PREDICTIV

THE CANADIAN LOW-RISK GAMBLING GUIDELINES



United Kingdom



Incorporated in prevention or treatment programming

Massachusetts Gaming Commission



WANT TO KEEP YOUR GAMBLING FUN?
The 4-2-1 Guidelines can increase your chances!

4 Gamble no more than 4 days per month, and

2 Avoid regularly gambling at more than 2 types of games, and

1 Gamble no more than 1% of household income per month.

Learn more about the guidelines:
gamblingguidelines.ca



GameSense



Gambling Support BC



Game. Life. Balance.
Lower-Risk Gambling Guidelines

To help keep a healthy balance and reduce your risk of harm from gambling, follow these three guidelines:

- Gamble no more than **1%** of household income before tax per month
- Gamble no more than **4 days** per month
- Avoid regularly gambling at more than **2 types** of games

For 24/7 support call 1.888.795.6111 or text 211
For more information visit gamblingsupportbc.ca

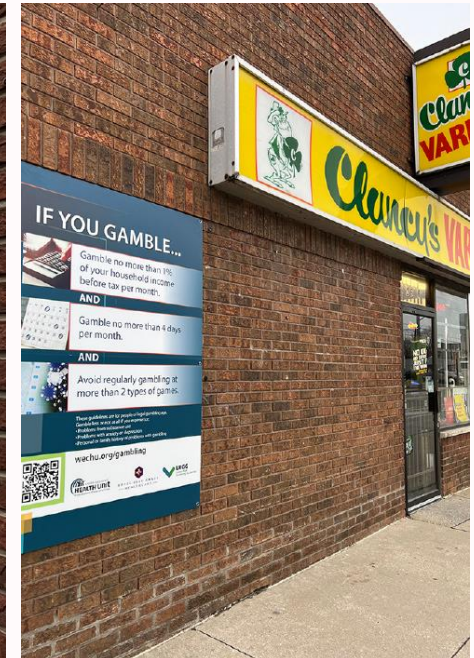
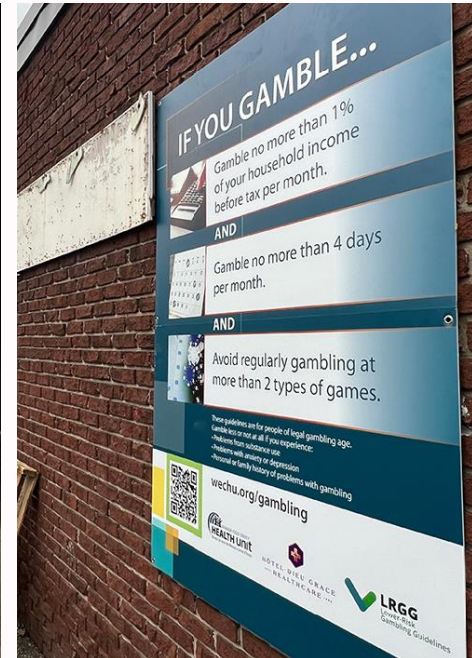


If you think you are not in control or feel uncomfortable with your gambling, please visit gamblingguidelines.ca/getting-help for a list of resources in your region.

Gambling Support BC

Non-digital distribution

A public health unit in southern Ontario



Incorporated in staff training programs

Alberta, Canada

Recovery Alberta have integrated the LRGGs to their training programs for clinicians and other health professionals

The screenshot shows a web-based training module titled "Understanding Gambling Disorder". On the left is a sidebar menu with a "MENU NOTES/NARRATION" header. The menu items are: 1. Introduction, 2. Types of Gambling, 3. Gambling Behaviours, 4. Gambling Disorder, 5. Screening and Assessment (with sub-items 5.1. Screening and Assessment, 5.2. Lower-risk Gambling Guidelines, and 5.3. Reflection), 6. Treatment (with sub-items 6.1. Treatment, 6.2. Lower-Risk Gambling Tools, 6.3. Self-Monitoring Gambling Behaviour, 6.4. Self-Monitoring Programs, 6.5. Information & Support, and 6.6. Limits), 7. Knowledge check (with sub-items 7.1. Knowledge Check 1 and 7.2. Knowledge Check 2). The main content area displays a video player for "Lower-risk Gambling Guidelines". The video content includes the title "Lower-risk Gambling Guidelines", a description of the Canadian Centre on Substance Use and Addiction (CCSA) guidelines, and a graphic titled "When it comes to gambling, find out how to keep yourself within the Lower-Risk Gambling Guidelines". The graphic lists three guidelines: 1. Gamble no more than 1% of your household income before tax per month, 2. Gamble no more than four days per month, and 3. Avoid regularly gambling on more than two types of games. The video player has a progress bar and navigation controls at the bottom.

Risk Factors

CCSA's Lower-Risk Gambling Guidelines identify the most common underlying factors associated with individuals who are at greater risk of harm from gambling including:

- Experience symptoms of anxiety or depression,
- Experience substance use disorder,
- Have a personal or family history of gambling disorder,
- Motivated to gamble to escape problems.

SPECIFICALLY, IF YOU



Experience problems with anxiety or depression



Experience problems from alcohol, cannabis or other drug use



Have a personal or family history of problems with gambling



Gamble to escape problems

Interviews

Interviews

- Key informant interviews were conducted to inform the development of the outcome framework and theory of change
- Specifically, the interviews explored:
 - Use of the LRGGs
 - Barriers and facilitators to use
 - Observed impact of using the LRGGs in practice
 - Perceived potential impact use of the LRGGs could have for supporting individuals, communities, and system capacity



Interviews

- A total of 15 key informant 30-60 min virtual interviews were conducted between March 3-April 30, 2025
- Based on survey responses, candidates were further categorized as belonging to one of three groups:



n=12; 80%



n=1; 6.7%



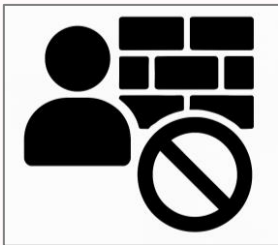
n=2; 13.3%

Interviews



Commonly cited **facilitators** included:

- The evidence-based development of the LRGGs
- Previous use and familiarity with other lower-risk guidelines
- Supportive organizational culture
- Additional tools provided on the LRGG website



Commonly cited **barriers** included:

- Messaging viewed as not as applicable to certain groups (e.g., youth)
- Messaging viewed as potentially confusing to apply in practice
- Institutional barriers, such as insufficient funding, staff turnover, and approval processes
- Insufficient cross-sector buy-in to use the LRGGs
- Counter messaging and/or opposition from gambling industry
- Individuals expressing reluctance to disclose income

Interviews

Potential Positive Outcomes

- Increased general public awareness of safer gambling strategies
- Strengthen knowledge, awareness, and capacity of public, community, and mental health providers
- Shift attitudes and cultural norms about safer gambling
- Strengthened safer gambling programming for operators
- Enhanced treatment practices, public health measures, policies, and research and evaluation indicators

Potential Unintended Negative Outcomes

- May contribute to stigmatization of gambling-related harms due to individual focus
- May normalize gambling participation because abstinence is not a prominent option

Outcome framework & theory of change

In progress

Summary

Reflections

- Since release of the guidelines in 2021, there has been some uptake, but less than (I) expected.
 - May be due to differences in gambling harm reduction philosophies
- Prevention intervention like the LRGGs are challenging to evaluate
- An intervention like the LRGGs may be less of an intervention that a cultural/intergenerational shift

Next Steps

- Complete and publish results from the evaluation framework.
- Continue to encourage/support interested groups in their efforts to implement the LRGGs



Thank you!