



THE AGRI NATIONAL PROJECT

Overview and Main Prevalence Findings

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CO-FUNDERS

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GAMBLING RESEARCH
EXCHANGE ONTARIO
DRIVING KNOWLEDGE INTO ACTION



Canadian Centre
on **Substance Use**
and **Addiction**

Evidence. Engagement. Impact.

AGRI NATIONAL PROJECT TEAM





- Comprehensive national investigations of gambling have been conducted in several jurisdictions:
 - Australia: Productivity Commission (1999, 2010)
 - United States: National Gambling Impact and Policy Commission (1999)
 - United Kingdom: Gambling Review Body (2001)
 - European Union: European Commission (2006)
- Nothing of this nature exists in Canada
 - AGRI National Project intended to address this deficit



10 RESEARCH OBJECTIVES

1. **Comprehensive documentation of legal and regulatory framework for gambling in each province, types of legal gambling provided, gambling revenue and its distribution, harm minimization strategies, and historical rates of gambling and problem gambling.**
 - Important background information for the report
 - Continues and builds upon Canadian Gambling Digest
<http://www.cprg.ca/>



10 RESEARCH OBJECTIVES

2. Current Canadian and provincial prevalence rates of gambling and problem gambling

- First national prevalence estimates since 2002
- Ability to examine for inter-provincial differences
- First time that rates of *illegal* gambling will be assessed



10 RESEARCH OBJECTIVES

- 3. Current Canadian and provincial rates of online gambling, regulatory capture of online gambling in each province, and a profile of Canadian online gamblers**
 - Significant variation between provinces in legal availability, length of legal availability, and types available



10 RESEARCH OBJECTIVES

- 4. Current attitudes toward gambling and knowledge about gambling in Canada as a function of province, demographic characteristics, and stakeholder group**
 - Never been assessed on a national level by academic researchers



10 RESEARCH OBJECTIVES

5. Current validated data to inform Canadian Lower Risk Gambling Guidelines

- Analogous to Low Risk Alcohol Guidelines
- Spearheaded by Canadian Centre on Substance Abuse and Addiction



10 RESEARCH OBJECTIVES

6. An understanding of Indigenous gambling in Canada

- Prevalence rates of gambling and problem gambling
- Attitudes toward gambling and the commercial provision of gambling



10 RESEARCH OBJECTIVES

7. To create a comprehensive profile of Canadian problem gamblers

- Demographic profile; treatment utilization
- Never been comprehensively assessed on a national basis



10 RESEARCH OBJECTIVES

8. To understand the etiology of problem gambling and problem gambling remission

- 2-year cohort with largest ever sample of At-Risk + Problem Gamblers ($n = 2,872$)
- Comprehensive assessment of known etiological factors, including genetic relatedness
 - 2,710 with a major DSM-5 mental disorder
- Investigation of role of treatment in remission



10 RESEARCH OBJECTIVES

9. To understand the role of legal gambling provision and harm minimization initiatives as predictors of concurrent Canadian and provincial rates of problem gambling and gambling-related harm
 - Inter-provincial variability in types of legal gambling provided and harm minimization allows for examination of their relative importance



10 RESEARCH OBJECTIVES

10. To evaluate the one-year impact of cannabis legalization on gambling behaviour and gambling-related harm in Canada

- Evaluated by changes in Baseline (Aug-Sep 2018) to Follow-Up (Aug-Nov 2019) behaviour in sample of 10,199



METHOD

1. CCHS Statistics Canada Survey

- New *Gambling Module* included in the Jul – Dec 2018 Canadian Community Health Survey (CCHS)
 - $N = 24,982$; 58.4% response rate (2nd largest prevalence study of gambling ever conducted worldwide)
 - Past year gambling participation using abbreviated *Gambling Participation Instrument*
 - Past year problem gambling using *Problem Gambling Severity Index*
 - Gambling behaviour then related to the comorbidities and demographics assessed in the CCHS



METHOD

2. Online Panel Surveys

- *Baseline Online Panel Survey* administered to 10,199 Canadian online panelists in Aug – Oct 2018
 - Stratified by region (1420 per province/region)
 - Restricted to people who gamble 1/month or more
 - Demographics, substance use and mental health comorbidities, personality, gambling (attitudes, behaviour, motivation, context, social exposure, fallacies, responsible gambling, family hx, past year gambling, problem gambling and gambling-related harm)
- *Follow-Up Online Panel Survey* re-administered to original cohort in Aug – Oct 2019
 - 4,707 people from Baseline retained, including 531 PGs



METHOD

3. Supplemental Investigations

- a. Collection of all current and historical gambling-related data
- b. Key Informant Survey of Major Provincial Stakeholders
 - Regulators, provincial operators, casino owners, tx providers
 - 67.3% (31/46) response rate
- c. Focus Groups & Key Informant Interviews of Indigenous Leaders
- d. Casino Patron and Employee Surveys
 - 18,580 Patrons from 77 casinos across Canada (as part of RG Check)
 - 8,262 Employees from casinos across Canada (as part of RG Check)
- e. Pathways to Treatment Survey
 - 500 from treatment agencies across Canada



PREVALENCE RESULTS

1. 2018 Canadian and Provincial Prevalence of **GAMBLING**
 - Adults (18+)
 - Adolescents (15-17)
 - Comparisons to 2002
2. 2018 Canadian and Provincial Prevalence of **ONLINE GAMBLING**
 - Adults (18+)
 - Adolescents (15-17)
 - Comparisons to 2002
3. 2018 Canadian and Provincial Prevalence of **ILLEGAL GAMBLING**
 - Adults (18+)
 - Adolescents (15-17)
4. 2018 Canadian and Provincial Prevalence of **PROBLEM GAMBLING**
 - Adults (18+)
 - Adolescents (15-17)
 - Comparisons to 2002

2018 ADULT (18+) PAST YEAR GAMBLING PREVALENCE

(CCHS, WEIGHTED)

		Lottery or Raffle Tickets	Instant Lottery Tickets	Electronic Gambling Machines	Sports Betting	Casino Table Games	Bingo	Other Types	Speculative Financial	Any Past Year Gambling
	NL	64.8%	42.3%	8.8%	5.6%	3.8%	11.3%	2.7%	2.4%	76.1%
	PE	58.2%	26.5%	9.3%	10.4%	4.5%	7.5%	3.0%	2.7%	69.6%
	NS	57.3%	34.3%	9.7%	8.3%	4.7%	6.5%	5.9%	2.3%	68.1%
	NB	62.7%	39.1%	11.9%	6.2%	4.4%	8.2%	5.2%	2.5%	74.1%
	QC	58.7%	38.1%	10.8%	5.6%	7.4%	4.7%	2.0%	2.9%	70.7%
	ON	50.3%	32.3%	12.2%	7.6%	7.2%	3.5%	2.5%	3.6%	63.9%
	MB	52.6%	33.4%	22.9%	10.0%	5.2%	6.9%	2.3%	2.9%	65.1%
	SK	60.3%	37.0%	25.1%	11.1%	8.4%	6.3%	2.4%	3.8%	73.3%
	AB	56.0%	30.5%	15.4%	11.7%	9.8%	2.6%	2.2%	5.8%	66.9%
	BC	47.5%	33.5%	13.4%	8.4%	10.0%	2.3%	3.1%	3.9%	60.5%
2018	Canada	53.6%	34.1%	13.0%	7.9%	7.7%	4.0%	2.6%	3.6%	66.2%

Significantly higher than
other provinces

Significantly lower than
other provinces

2018 VERSUS 2002 ADULT (18+)

GAMBLING PREVALENCE

(CCHS, WEIGHTED)

		Lottery or Raffle Tickets	Instant Lottery Tickets	Electronic Gambling Machines	Sports Betting	Casino Table Games	Bingo	Other Types	Speculative Financial	Any Past Year Gambling
2002	Canada	67.1%	37.6%	23.9%	12.9%	6.5%	8.6%	13.8%	5.5%	77.2%
2018	Canada	53.6%	34.1%	13.0%	7.9%	7.7%	4.0%	2.6%	3.6%	66.2%

Significantly
higher than 2018

Significantly
lower than 2002

2018 AGE 15-17 PAST YEAR GAMBLING PREVALENCE

(CCHS, WEIGHTED)

		Lottery or Raffle Tickets	Instant Lottery Tickets	Electronic Gambling Machines	Sports Betting	Casino Table Games	Bingo	Other Types	Speculative Financial	Any Past Year Gambling
	NL	--	--	--	--	--	--	--	--	23.0%
	PE	--	--	--	--	--	--	--	--	
	NS	--	--	--	--	--	--	--	--	
	NB	--	--	--	--	--	--	--	--	
	QC	--	--	--	--	--	--	--	--	19.7%
	ON	--	--	--	--	--	--	--	--	15.5%
	MB	--	--	--	--	--	--	--	--	19.5%
	SK	--	--	--	--	--	--	--	--	13.6%
	AB	--	--	--	--	--	--	--	--	11.8%
	BC	--	--	--	--	--	--	--	--	16.1%
2018	Canada	2.6%	2.8%	--	9.0%	1.1%	1.1%	2.6%	0.8%	16.5%

-- sample too small to report

Provincial/regional differences not
significantly different

Significantly higher
than other types

Significantly lower
than sports betting

2018 VERSUS 2002 AGE 15-17

GAMBLING PREVALENCE

(CCHS, WEIGHTED)

		Lottery or Raffle Tickets	Instant Lottery Tickets	Electronic Gambling Machines	Sports Betting	Casino Table Games	Bingo	Other Types	Speculative Financial	Any Past Year Gambling
2002	Canada	9.3%	12.6%	3.5%	19.4%	1.0%	4.8%	23.5%	--	40.5%
2018	Canada	2.6%	2.8%	--	9.0%	1.1%	1.1%	2.6%	0.8%	16.5%

Significantly
higher than 2018

Significantly lower
than 2002

2018 ADULT (18+) PAST YEAR ONLINE GAMBLING PREVALENCE

(BASELINE ONLINE PANEL, WEIGHTED TO CCHS)

	Lottery Tickets	Instant Lottery Tickets	Electronic Gambling Machines	Sports Betting	Casino Table Games	Bingo	Other Types	Past Year Online Gambling
BC	2004	2004	2010	2004	2009/10	2010	2014	11.1%
NL	2004	2005		2004		2007	2013	11.0%
NS	2004	2005		2004		2007	2013	8.6%
PE	2004	2005		2004		2007	2013	8.3%
NB	2004	2005		2004		2007	2013	8.0%
QC	2012	2013	2013	2010	2010	2013	2013	8.0%
MB	2013	2014?	2013	2013	2013	2014	2014	7.6%
ON	2015	2018	2015		2015			6.4%
SK								7.9%
AB								5.9%

Type of online gambling
available in 2018

Type of online gambling
not available in 2018

Significantly higher
than AB,ON,MB,NB

Significantly lower than
BC,NL,NS,QC,SK

2018 VS 2002 ADULT (18+) ONLINE GAMBLING PREVALENCE (CCHS, WEIGHTED)

		Past Year Online Gambling	
2002	Canada	1.0%	"bet or spent money on Internet or arcade gambling"
2018	Canada	6.4%	".....has your involvement been in-person, online, or both"

Significantly higher
than 2002

Significantly lower
than 2018

2018 VERSUS 2002 AGE 15-17 ONLINE GAMBLING PREVALENCE

(CCHS, WEIGHTED)

		Past Year Online Gambling	
2002	Canada	5.3%	“bet or spent money on Internet or arcade gambling”
2018	Canada	2.8%	“.....has your involvement been in-person, online, or both”

Provincial numbers too small to report

No significant difference between the years

2018 ADULT (18+) PAST YEAR ILLEGAL GAMBLING

(BASELINE ONLINE PANEL, WEIGHTED TO CCHS)

				Illegal Online Gambling	Online Gambling
Quebec				2.79%	8.0%
Atlantic Provinces				3.36%	9.0%
Manitoba				3.25%	7.6%
British Columbia				3.36%	11.1%
Ontario				3.56%	6.4%
Alberta				5.86%	5.86%
Saskatchewan				7.89%	7.89%
CANADA					

2018 AGE 15-17 PAST YEAR ILLEGAL GAMBLING

(CCHS, WEIGHTED)

Illegal	Potentially Illegal
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		Lottery or Raffle Tickets	Instant Lottery Tickets	Electronic Gambling Machines	Sports Betting	Casino Table Games	Bingo	Other Types	Speculative Financial
2002	Canada	9.3%	12.6%	3.5%	19.4%	1.0%	4.8%	23.5%	--
2018	Canada	2.6%	2.8%	--	9.0%	1.1%	1.1%	2.6%	0.8%

-- sample too small to report

Significantly higher than 2018	Significantly lower than 2002
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2018 ADULT (18+) PAST YEAR GAMBLING CATEGORIES

(CCHS, WEIGHTED)

	Non-Gamblers	Non-Problem Gamblers	At-Risk Gamblers (PGSI 1-4)	Problem Gamblers (PGSI 5+)
NL	23.9%	72.9%	2.7%	0.6%
PE	30.4%	67.6%		
NS	31.9%	65.0%		
NB	25.9%	70.3%		
QC	29.3%	67.8%	2.2%	0.7%
ON	36.1%	61.0%	2.6%	0.3%
MB	34.9%	59.1%	4.8%	1.2%
SK	26.7%	67.8%	4.6%	0.8%
AB	33.1%	63.3%	2.5%	1.1%
BC	39.5%	56.7%	3.5%	0.3%
Canada	33.8%	62.9%	2.7%	0.6%

Significantly higher than
other provinces

Significantly lower than
other provinces

2018 VERSUS 2002 ADULT (18+)

GAMBLING CATEGORIES

(CCHS, WEIGHTED)

		Non-Gamblers	Non-Problem Gamblers	At-Risk Gamblers (PGSI 1-4)	Problem Gamblers (PGSI 5+)
Canada	2002	22.3%	72.9%	3.8%	1.1%
Canada	2018	33.8%	62.9%	2.7%	0.6%

Significantly higher than comparison year

Significantly lower than comparison year

2018 AGE 15-17 PAST YEAR GAMBLING CATEGORIES

(CCHS, WEIGHTED)

	Non-Gamblers	Non-Problem Gamblers	At-Risk Gamblers (PGSI 1-4)	Problem Gamblers (PGSI 5+)
NL	--	--	--	--
PE	--	--		
NS	--	--		
NB	--	--		
QC	--	--	--	--
ON	--	--	--	--
MB	--	--	--	--
SK	--	--	--	--
AB	--	--	--	--
BC	--	--	--	--
Canada	83.5%	15.5%	1.0%	0.0%

-- sample too small to report

2018 VERSUS 2002 AGE 15-17

GAMBLING CATEGORIES

(CCHS, WEIGHTED)

		Non-Gamblers	Non-Problem Gamblers	At-Risk Gamblers (PGSI 1-4)	Problem Gamblers (PGSI 5+)
Canada	2002	57.9%	38.2%	3.3%	0.3%
Canada	2018	83.5%	15.5%	1.0%	0.0%

Significantly higher than comparison year

Significantly lower than comparison year



GAMBLING IN 2018

ADULTS (18+)

- 66.2% past year participation. Inter-provincial differences in level and pattern. Particularly important is higher level of EGM use in MB (22.9%) & SK (25.1%).
- Participation decreased from 77.2% in 2002 to 66.2% in 2018. Decreased participation also for all individual types except table games (poker?), with decrease in EGMs (23.9% to 13.0%) and bingo (8.6% to 4.0%) particularly prominent.

ADOLESCENTS (15-17)

- 16.5% past year participation. Sports betting (9.0%) higher than all other types.
- Participation decreased from 40.5% in 2002 to 16.5% in 2018. Decreased participation for all individual types except table games (poker?).



ONLINE GAMBLING IN 2018

ADULTS (18+)

- 6.4% past year participation. Inter-provincial differences with higher level in BC (11.1%) and lower level in AB (5.9%).
- *Increased* participation from 1.0% in 2002 to 6.4% in 2018.

ADOLESCENTS (15-17)

- 2.8% past year participation.
- *Decreased* participation from 5.3% in 2002 to 2.8% in 2018 (but 2002 included 'arcade gambling').



ILLEGAL GAMBLING IN 2018

ADULTS (18+)

- 0.13% participation in illegal animal contests. No inter-provincial differences.
- 0.05% participation in betting shops or bookies. No inter-provincial differences.
- 0.07% participation in illegal casinos. No inter-provincial differences
- 3.94% participation in illegal online gambling. Higher rates for the two provinces without legal online gambling (SK 7.89%, AB 5.86%).

ADOLESCENTS (15-17)

- 2.8% reported past year purchase of instant lottery tickets and 2.6% reported purchase of lottery or raffle tickets. Negligible levels of EGM play.
- Illegal underage gambling lower than 2002.



PROBLEM GAMBLING IN 2018

ADULTS (18+)

- 0.6% past year problem gamblers (PGSI 5+). No significant inter-provincial differences.
- 2.7% past year at-risk gamblers (PGSI 1-4). MB higher (4.8%) and QC lower (2.2%).
- Decreased problem gambling from 1.1% in 2002 to 0.6% in 2018 and decreased at-risk gambling from 3.8% in 2002 to 2.7% in 2018.

ADOLESCENTS (15-17)

- 0.0% past year problem gamblers (PGSI 5+).
- 1.1% past year at-risk gamblers (PGSI 1-4).
- Decreased at-risk gambling from 3.3% in 2002 to 1.0% in 2018.



AGRI NATIONAL PROJECT PUBLICATIONS & SUBMISSIONS TO DATE

- Williams, R.J., Leonard, C.A., Belanger, Y.D., Christensen, D.R., el-Guebaly, N., Hodgins, D.C., McGrath, D.S., Nicholl, F., Stevens, R.M.G. (2020). Gambling and Problem Gambling in Canada: Prevalence and Changes since 2002. *Canadian Journal of Psychiatry*, Dec 23, 2020. DOI: 10.1177/0706743720980080.
- Williams, R.J., Leonard, C.A., Belanger, Y.D., Christensen, D.R., el-Guebaly, N., Hodgins, D.C., McGrath, D.S., Nicholl, F., Smith, G., & Stevens, R.M.G. (2021). Predictors of Gambling and Problem Gambling in Canada. *Canadian Journal of Public Health*. Jan 13, 2021. <https://doi.org/10.17269/s41997-020-00443-x>
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- Williams, R.J., Belanger, Y.D., Leonard, C.A., Stevens, R.M.G., Christensen, D.R., el-Guebaly, N., Hodgins, D.C., McGrath, D.S. (2021). Indigenous Gambling and Problem Gambling in Canada. *Journal of Gambling Studies*.
- Leonard, C.A., Hodgins, D.C., Williams, R.J., Belanger, Y.D., Christensen, D.R., el-Guebaly, N., McGrath, D.S., Nicholl, F., Smith, G.J., & Stevens, R.M.G., (submitted to *Journal of Gambling Studies* in Feb 2021). Gambling in Canada during the COVID-19 Lockdown: Prospective National Survey.
- Christensen, D.R., Nicholl, F., Williams, R.J., Leonard, C.A., el-Guebaly, N., Hodgins, D.C., McGrath, D.C., Smith, G.J., Belanger, Y.D., & Stevens, R.M. (submitted to *Journal of Gambling Studies*, Feb 26, 2021). Responsible Gambling in Canada: An analysis of the RG Check patron surveys.
- Williams, J.N., Williams, R.J., Gooding, N., & Mix, J. (submitted to *Journal of Gambling Studies*, Mar 20, 2021). Financial speculation in Canada.



FOR MORE INFORMATION:

[WEBSITE FOR THE AGRI NATIONAL STUDY](#)



QUESTIONS?