

Gambling trajectories in Québec

Factsheet 6 - May 2017

The last two population surveys on gambling conducted in Québec in 2009 and 2012 revealed that the prevalence of gambling participation in the province decreased but the proportion of problem gambling* remained stable^[1]. Still, little is known about the transitory nature and chronicity of gambling problems and how they emerge, evolve and eventually attenuate over time.

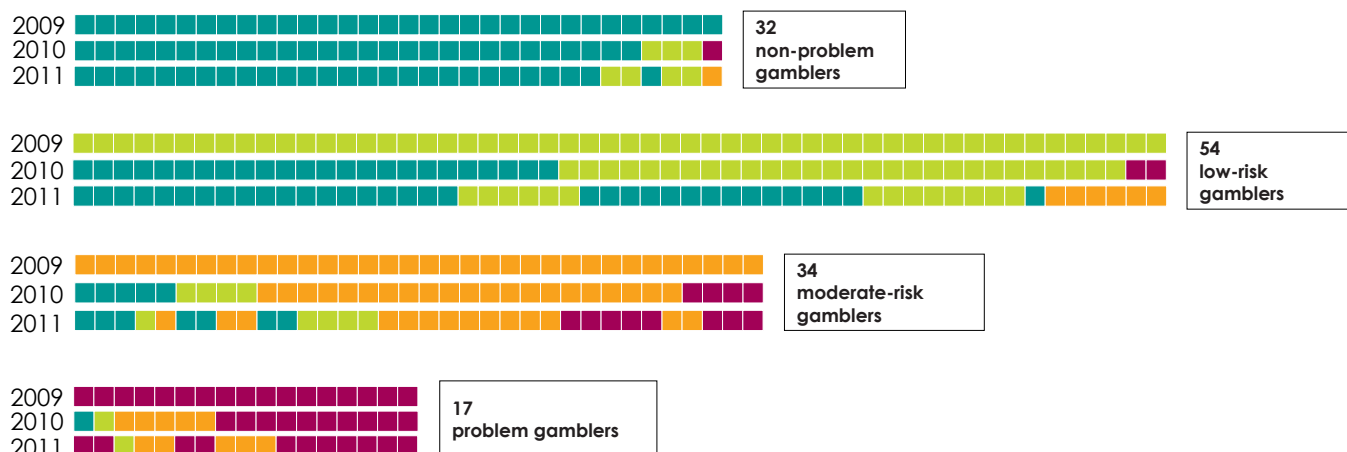
Gambling Trajectories

Results from a recent longitudinal study conducted in Quebec reveal:

1. General decreases in problem gambling over specified periods of time;
2. A heterogeneity in the ways these changes occur dependent on the severity of problems :
 - > Gamblers who are at low-risk for problems are the most likely to remain stable over time: 97% of gamblers who did not report any problems and 85% of gamblers who are at low-risk for problems.
 - > Gamblers who are at moderate-risk for problems are less stable over time: 1/3 reported more severe problems, 1/3 remained at a moderate level of problems, 1/3 reported low-level of problems or no problems at all after two years.
 - > Most of the problem gamblers' scores remained high over the three waves: 47.1% transitioned to the moderate-risk zone and then either relapsed or stabilized as moderate-risk gamblers over the two-year follow-up.

The Quebec findings replicate previous results ^[2-9].

Figure 1: Individual transitions of gamblers over 24 months



* Problem gambling refers to both categories combined of moderate-risk and problem gamblers of the Problem Gambling Severity Index (PGSI) ^[17]

The influence of life events on gambling trajectories

There is a recursive effect between problem gambling severity and the cumulative number of life events^[10]: (figure 2)

1. Gambling in 2009 impacted on the number of negative life events reported by gamblers one year later, in 2010 ;
2. The total number of life events that gamblers experienced in 2010, as an indication of the amount of stress in their life, affected the level of severity of problem gambling one year later, in 2011.

Figure 2: Association between problem gambling severity and cumulative life events



All paths shown are statistically significant ($p < .05$);
 Problem Gambling Severity = continuous score of the Problem Gambling Severity Index; ^[10]

The Quebec findings replicate previous findings that:

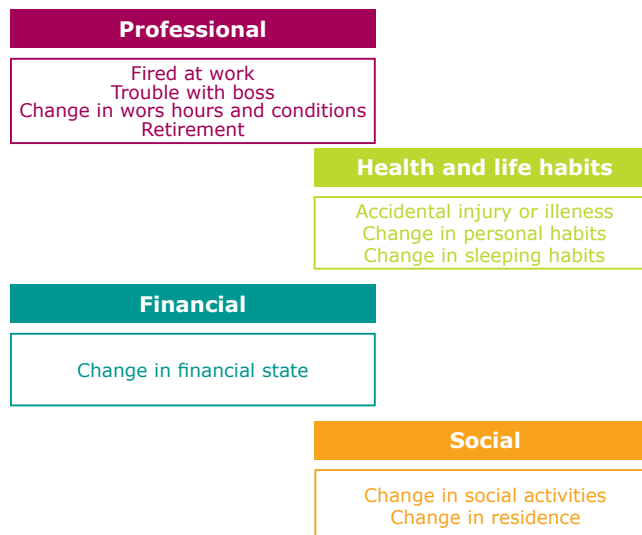
- > routine daily stressors have been linked to spontaneous urges to gamble among adult problem gamblers ^[11], and
- > changes in emotional states such as distress, depression or anxiety and the worsening of one's financial situation have all been associated with gambling initiation and changes in severity of gambling problems ^[12-15].

Relationship between specific life events and problem gambling severity among gamblers in Québec

The occurrence of specific life events and change in specific life domains were associated with higher levels of severity of problem gambling a year later in 2011* (Figure 3).

These results were also found in previous studies: Significant life events and changes in lifestyle – financial, professional, personal and social – have been associated with the emergence and maintenance of gambling problems and with relapse ^[4, 16].

Figure 3: Significant Life domains identified in 2010 that affected the severity of problem gambling one year later (2011)



* PGSI scores in 2011 were used to test the association with 41 different individual events that occurred in 2010. For more details, see Luce et al., 2016 ^[10]

Methodology

The sample of this study was recruited from the general gambling population survey conducted in Quebec through telephone interviews with 11,888 participants in 2009. Based on their PGSI score^[17], all problem gamblers ($n = 60$), moderate-risk gamblers ($n = 138$), low-risk gamblers ($n = 262$), and a group of 54 randomly selected non-problem gamblers were asked to participate in a follow-up study about gambling. Overall, 137 gamblers completed the 3 follow-up studies. The first wave was conducted within 4 weeks following the survey whereas Wave 2 and 3 were conducted 12 months and 24 months later. At all three waves, gambling status was measured using the PGSI index, and the Social Readjustment Rating Scale was used to evaluate the presence of 41 major life events^[18]. A scale to measure an individual's level of stress was created by summing the number of reported events^[19] (For more details on the methodology of the study, see Luce et al., 2016 [2, 10]).

References :

1. Kairouz, S., Paradis, C., Nadeau, L., Hamel, D., & Robillard, C. (2015). Patterns and trends in gambling participation in the Quebec population between 2009 and 2012. *Canadian Journal of Public Health*, 106, 115–120.
2. Luce, C., Nadeau, L., & Kairouz, S. (2016). Pathways and transitions of gamblers over two years. *International Gambling Studies*, 1–16. <http://dx.doi.org/10.1080/14459795.2016.1209780>
3. Abbott, M. W., Stone, C. A., Billi, R., & Yeung, K. (2016). Gambling and problem gambling in Victoria, Australia: Changes over 5 years. *Journal of Gambling Studies*, 32, 47–78.
4. Billi, R., Stone, C. A., Marden, P., & Yeung, K. (2014). The Victorian gambling study: A longitudinal study of gambling and health in Victoria, 2008–2012. North Melbourne, AU: Victorian Responsible Gambling Foundation
5. Challet-Bouju, G., Hardouin, J.-B., Vénisse, J.-L., Romo, L., Valleur, M., Magalon, D., Grall-Bronnec, M. (2014). Study protocol: The JEU cohort study—Transversal multiaxial evaluation and 5-year follow-up of a cohort of French gamblers. *BMC Psychiatry*, 14, 226. <http://dx.doi.org/10.1186/s12888-014-0226-7>
6. el-Guebaly, N., Casey, D. M., Currie, S. R., Hodgins, D. C., Schopflocher, D. P., Smith, G. J., & Williams, R. J. (2015). The Leisure, Lifestyle, & Lifecycle Project (LLLP): A longitudinal study of gambling in Alberta. Final report for the Alberta Gambling Research Institute (AGRI). Retrieved from www.abgamblinginstitute.ualberta.ca/en/InstituteNews/2015/March/FinalReportofLeisureLifestyleLifecycleProject.aspx
7. Reith, G., & Dobbie, F. (2013). Gambling careers: A longitudinal, qualitative study of gambling behaviour. *Addiction Research & Theory*, 21, 376–390. doi:10.3109/16066359.2012.731116
8. Slutske, W. S. (2006). Natural recovery and treatment-seeking in pathological gambling: Results of two U.S. national surveys. *The American Journal of Psychiatry*, 163, 297–302. <http://dx.doi.org/10.1176/appi.ajp.163.2.297>
9. Williams, R. J., Hann, R. G., Schopflocher, D., West, B., McLaughlin, P., White, N., ... Flexhaug, T. (2015). Quinte longitudinal study of gambling and problem gambling. Report of the Ontario Problem Gambling Research Centre. Retrieved from <https://uleth.ca/dspace/bitstream/handle/10133/3641/QLS-OPGRC-2015.pdf?sequence=3>
10. Luce, C., Kairouz, S., Nadeau, L., & Monson, E. (2016). Life events and problem gambling severity : A prospective study of adult gamblers, *Psychology of Addictive Behaviours*. <http://dx.doi.org/10.1037/ad0000227>
11. Elman, I., Tschibelu, E., & Borsook, D. (2010). Psychosocial stress and its relationship to gambling urges in individuals with pathological gambling. *The American Journal on Addictions*, 19, 332–339.
12. Abbott, M. W. (2012, April). Pacific islands longitudinal families study. Paper presented at the Annual Alberta Gambling Research Institute Conference, Banff, Alberta, Canada.
13. Abbott, M. W., Bellringer, M., Garrett, N., & Mundy-McPherson, S. (2014). New Zealand 2012 national gambling study: Gambling harm and problem gambling (Research Report No. 2). Auckland, New Zealand: Gambling and Addictions Research Centre.
14. Shaffer, H. J., & Hall, M. N. (2002). The natural history of gambling and drinking problems among casino employees. *The Journal of Social Psychology*, 142, 405–424. <http://dx.doi.org/10.1080/00224540209603909>
15. Wiebe, J., Cox, B., & Falkowski-Ham, A. (2003). Psychological and social factors associated with problem gambling in Ontario: A one year follow-up study. Ottawa, ON, Canada: Ontario Problem Gambling Research Centre.
16. Bergevin, T., Gupta, R., Derevensky, J., & Kaufman, F. (2006). Adolescent gambling: Understanding the role of stress and coping. *Journal of Gambling Studies*, 22, 195–208. <http://dx.doi.org/10.1007/s10899-006-9010-z>
17. Ferris, J., & Wynne, H. (2001). The Canadian problem gambling index. Ottawa, ON: Canadian Centre on Substance Abuse.
18. Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, 11, 213–218. [http://dx.doi.org/10.1016/0022-3999\(67\)90010-4](http://dx.doi.org/10.1016/0022-3999(67)90010-4)
19. Scully, J. A., Tosi, H., & Banning, K. (2000). Life event checklists: Revisiting the social readjustment rating scale after 30 years. *Educational and Psychological Measurement*, 60, 864–876. <http://dx.doi.org/10.1177/00131640021970952>



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