



NATIONAL CENTER FOR RESPONSIBLE GAMING

RESEARCH-GUIDED POLICIES: USING SCIENCE TO ADDRESS GAMBLING DISORDERS IN MASSACHUSETTS

PUBLIC EDUCATIONAL FORM MASSACHUSETTS GAMING COMMISSION

June 25, 2012

Good afternoon. I want to thank the Commission for the opportunity to speak today about the challenges facing efforts to address gambling-related harms in the Commonwealth of Massachusetts. I am Christine Reilly, the senior research director of the National Center for Responsible Gaming (NCRG), the only national organization in the U.S. dedicated to funding peer-reviewed research and science-based education on gambling disorders and youth gambling. The NCRG was founded in 1996 to fill the void in scientific research on gambling addiction. Before the NCRG began awarding research grants, the field of gambling studies was undeveloped, mainly because of a lack of funding for scientific research. In 1999, the National Research Council of the National Academy of Sciences criticized the quality and credibility of the existing body of research and recommended that future research on gambling disorders should be held to higher standards.¹ For example, there was no consensus about the prevalence of the disorder, no treatment standard, no understanding of the neurobiology of gambling addiction, and a diagnostic code based not on empirical research but on the observations of clinicians treating clients with gambling problems. Many studies were plagued by poor research design, such as small samples and low response rates. In this vacuum arose a number of biased or advocacy-motivated studies conducted without regard for objective scientific standards.

From the beginning, the NCRG was committed to reversing this trend and establishing a foundation of clear, science-based research to give the public a better understanding of gambling disorders. While government entities already funding innovative scientific research recognized the need to produce peer-reviewed studies in this field, little federal support was given to this line of study.

The NCRG stepped in to fill this void by funneling the largest amount of money to this field of research and establishing a structure that ensures the highest quality of research possible. Since 1996, the commercial gaming industry has contributed \$22 million to NCRG. From day one, the NCRG has modeled its grants program on an established structure of the National Institute of Health (NIH). First, we wanted to ensure that NCRG funds were awarded to the highest quality research projects. Second, the NIH model allowed us to build a stringent firewall between the main source of NCRG funding—the gaming industry—and the research. Third, using the NIH’s policies and procedures sent a strong message to the scientific community that NCRG was committed to the highest quality research and thus enabled us to attract applications from the leading research universities and hospitals including Harvard Medical School, Yale University, Johns Hopkins University, Cal Tech, Massachusetts General Hospital, Washington University at St. Louis and many other outstanding institutions.

In practical terms, our grant-funding process is shaped and monitored by the Scientific Advisory Board, a group of leading, independent scientists in the field of addictions who volunteer their time to ensure the integrity of NCRG-funded research. Proposals submitted to the NCRG are evaluated by independent peer-reviewers who also have expertise in this area and experience with NIH review panels. Their evaluations, guided by the NIH criteria for scientific merit, are reviewed by the NCRG Scientific Advisory Board, which makes the final decisions about grants awarded.

The most important part of this process is that neither the NCRG board of directors nor the donors have any influence over the grant-making process. In fact, our grant agreement stipulates that NCRG is not allowed to see the final research findings until published in a peer-reviewed journal. Publishing in a refereed journal provides the final firewall. If NCRG was supporting low quality or biased research, our grantees would not be published in these journals, many of which are some of the most competitive publications in science. An additional stamp of approval comes in the form of NCRG grantees receiving subsequent support from the NIH for studies piloted with NCRG funds.

Thanks in part to the NCRG, the field has burgeoned over the past 16 years. In fact, 1/3 of all the gambling studies released during the past century were published between 1999 and 2003.² The NCRG played a major factor in this growth by funding research that has produced more than 200 publications in peer-reviewed scientific journals, many the highest impact journals in the field. NCRG research has been cited in peer-reviewed publications 11,000 times, demonstrating the impact that our organization has had on the

field. A number of NCRG-funded researchers have leveraged millions of federal dollars for continued research on gambling. We are especially proud that NCRG-funding has contributed to a number of “firsts” in the field and resulted in seminal work that has stood the test of time:

- The first reliable estimates of the prevalence of the disorder in the U.S. Harvard’s estimate of approximately 1 percent of the adult population has been verified by independent studies, such as the National Comorbidity Survey Replication and the review by the National Academy of Sciences.^{1, 3}
- The first effort to frame gambling as a public health issue.^{4, 5}
- The first study demonstrating the safety and efficacy of the drug naltrexone as a treatment for gambling disorders.⁶
- The first national study of college gambling, including an analysis of school policies on gambling.^{7, 8}
- The first study demonstrating that the neural pathways in the brain that are activated by anticipating a hit of cocaine also lit up when anticipating winning money, thus suggesting the shared neurobiology of different addictive disorders.⁹
- The first studies demonstrating the role that genetics play in the development of the disorder.^{10, 11}
- The first study of the health risks of casino employees.^{12, 13}

We believe that it is important for the Commission to understand this background because many of the challenges you face in developing and implementing harm reduction programs are rooted in the fact that this field of research is still emerging, and is currently where the study of alcoholism and drug abuse stood about 40 years ago. We offer the following recommendations based on our 16 years of experience with launching a field of scientific research on gambling disorders and translating that research for use in practical applications by health care providers, regulators, public health agencies and the public.

1. Distinguish between Science and the Gray Literature

Our first recommendation is to let peer-reviewed research and sound science be your guide when shaping public policy. In this Internet age, the public’s access to health information has expanded dramatically. However, this sea of information presents a major challenge to the public to distinguish between sound science and studies that lack scientific rigor. Because the field of gambling studies is young, there remains a great deal of what is called the “gray literature” – or studies that are not published in peer-reviewed

scientific journals. While all research deserves a measure of scientific skepticism, unpublished research is particularly suspect. Without any critical review of the scientific merit of a study, unpublished research represents little more than opinion.¹⁴ Public policy must be driven by the best available, peer-reviewed research. Otherwise, you risk developing policies and programs that may be ineffective or worse, unsafe. Remember that even with the best of intentions, prevention and treatment, for example, can be effective, ineffective or even harmful. So, even the best of intentions can sometimes backfire if science does not lead the way.

2. Use a Public Health Approach

Based upon the innovative research from the Division on Addiction at Cambridge Health Alliance, a teaching affiliate of Harvard Medical School, we are able to understand gambling disorders within a public health framework. A public health approach to gambling involves the following:

- Developing policies on the basis of the highest quality peer-reviewed scientific research
- A balanced approach that takes into consideration both the costs and benefits of gambling
- Sensitivity to the needs of potentially vulnerable populations such as young people and some minorities
- A pro-active approach emphasizing prevention and harm reduction

These are just a few of the public health principles that can be helpful to public policy makers. I encourage you to consult publications by Drs. Howard Shaffer and David Korn who pioneered this approach to gambling.^{4,5} By looking at gambling disorders through a public health perspective, your efforts will educate and benefit the entire community.

3. Follow the National Institutes of Health's Model for Funding Research

We support the Commonwealth's allocation of funding for research on gambling disorders. We hope that our experience in establishing a grants program can be a useful resource for effective management of grant funds. State governments that support research often fail to use qualified, independent scientists to help develop requests for proposals and review applications for scientific merit. We encourage you to take advantage of the model of peer review established by the National Institutes of Health, the federal agencies that are the premiere funders of science in the U.S.

Another essential aspect of the grant-making process is the importance of conflict of interest and confidentiality policies. We have adapted the stringent policies of the NIH that address not just real conflicts of interest but the appearance of conflict as well. Research investigators must be assured that the process of grant making is fair, objective and rigorous. Furthermore, preserving the confidentiality of information contained in proposals is also a vital concern to investigators.

We encourage you to convey to grant applicants the importance of publishing research findings in peer-reviewed journals in addition to any reporting required by the Commonwealth. Scientists have an ethical obligation to their own community and to the public at large to publish their findings. Research intended to help Massachusetts might also be applicable to the country at large and even have international applications. In this way, your research program could make an important contribution to the science of gambling disorders. For example, when Harvard Medical School evaluated the Iowa Gambling Treatment Program, the investigators issued a report but also went on to publish on several aspects of the study in peer-reviewed journals.¹⁵⁻¹⁷

4. Encourage Science-based Employee Training

The NCRG agrees that educating gaming employees about gambling disorders and responsible gaming is a priority in any responsible gaming program. We believe that a science-based program, constantly updated to reflect the latest research, is the best approach to educating people about a misunderstood topic that is layered with outdated ideas. The NCRG and the Division on Addiction at Cambridge Health Alliance, a teaching affiliate of Harvard Medical School, collaborated to create EMERGE, the Executive, Management and Employee Responsible Gaming Education program. EMERGE reflects the latest thinking about addiction and gambling disorders and also provides information and resources for employees who might be concerned about their own gambling behavior. EMERGE is available to gaming operators as an online, media-rich program, available 24/7, or through an in-person train-the-trainers workshop. The program is completely customized to reflect the specific responsible gaming policies and programs of the client.

5. Responsible Gaming - Follow the Reno Model

When understanding what constitutes “responsible gaming,” it is also important to look to science to guide our efforts. In 2004, the *Journal of Gambling Studies* published a paper providing a scientific framework and strategic agenda for community-based responsible gaming efforts designed to prevent and reduce gambling-related harms.¹⁸ Time

does not permit me to review the entire paper, but let me mention a few of the principles and ideas that might be especially relevant to the Commission:

- The key stakeholders in the field of gambling—consumers, gaming industry operators, healthcare providers, community groups, government regulators and public health agencies—should collaborate whenever possible and commit themselves to reducing the incidence and ultimately the prevalence of gambling-related harms using scientific research to guide the development of public policies. Missouri and Iowa have pioneered such collaboration in their responsible gaming efforts.
- Any plan to reduce the incidence and prevalence of gambling-related harms should be monitored and evaluated using scientific methods. For example, we now have research indicating that self-exclusion appears to be a safe and promising intervention.¹⁹
- Research should continue to focus on developing and testing instruments that will permit more accurate referral, clinical evaluation and treatment matching.
- Any responsible gaming program rests upon two fundamental principles: (1) the ultimate decision to gamble resides with the individual and represents a choice, and (2) to properly make this decision, individuals must have the opportunity to be informed consumers. Brochures explaining the odds and how slot machines work are examples of promoting informed decisions by customers.
- Unjustified intrusion is likely not the way to promote responsible gambling. For example, player reactions to time limits forced on their gaming session might increase their problem behaviors. Remember that the best-intentioned interventions might be sideswiped by the law of unintended consequences.

In closing, I want to extend to the Commission an invitation to use the science-based resources of the NCRG to help develop programs and policies. A part of our mission is to translate the research findings into practical applications that can help educate the entire community. A few examples of these resources include our workshops for clinicians to better assess and treat gambling disorders, free webinars for additional training, brochures that help the public understand how to address gambling problems among youth, a website toolkit dedicated to addressing gambling and gambling-related harms on college campuses and more. Additionally, the NCRG staff responsible for the

research program is based in Beverly, Massachusetts, and is always available for consultations and assistance. Thank you again for this opportunity.

REFERENCES

1. National Research Council. *Pathological Gambling: A Critical Review*. Washington, D.C.: National Academy Press; 1999.
2. Shaffer HJ, Stanton MV, Nelson SE. Trends in gambling studies research: Quantifying, categorizing, and describing citations. *J Gamb Stud*. Dec 2006;22(4):427-442.
3. Kessler RC, Hwang I, LaBrie R, et al. DSM-IV pathological gambling in the National Comorbidity Survey Replication. *Psychol Med*. Sep 2008;38(9):1351-1360.
4. Korn DA, Shaffer HJ. Gambling and the health of the public: Adopting a public health perspective. *J Gamb Stud*. Winter 1999;15(4):289-365.
5. Shaffer HJ, Korn DA. Gambling and related mental disorders: A public health analysis. *Annu Rev Public Health*. 2002;23:171-212.
6. Kim SW, Grant JE, Adson DE, Shin YC. Double-blind naltrexone and placebo comparison study in the treatment of pathological gambling. *Biol Psychiatry*. Jun 1 2001;49(11):914-921.
7. LaBrie RA, Shaffer HJ, LaPlante DA, Wechsler H. Correlates of college student gambling in the United States. *J Am Coll Health*. Sep-Oct 2003;52(2):53-62.
8. Shaffer HJ, Donato AN, LaBrie RA, Kidman RC, LaPlante DA. The epidemiology of college alcohol and gambling policies. *Harm Reduct J*. Feb 9 2005;2(1):1.
9. Breiter HC, Aharon I, Kahneman D, Dale A, Shizgal P. Functional imaging of neural responses to expectancy and experience of monetary gains and losses. *Neuron*. May 2001;30(2):619-639.
10. Comings DE, Gonzalez N, Wu S, et al. Studies of the 48 bp repeat polymorphism of the DRD4 gene in impulsive, compulsive, addictive behaviors: Tourette syndrome, ADHD, pathological gambling, and substance abuse. *Am J Med Genet*. Aug 20 1999;88(4):358-368.
11. Comings DE. The molecular genetics of pathological gambling. *CNS Spectrums*. 1998;3:20-37.
12. Shaffer HJ, Hall MN. The natural history of gambling and drinking problems among casino employees. *J Soc Psychol*. August 2002;142(4):405-424.
13. Shaffer HJ, Vander Bilt J, Hall MN. Gambling, drinking, smoking, and other health risk activities among casino employees. *Am J Ind Med*. 1999;36(3):365-378.
14. Shaffer HJ, Dickerson M, Derevensky J, et al. Considering the ethics of public claims: an appeal for scientific maturity. *J Gamb Stud*. Spring 2001;17(1):1-4.
15. LaPlante DA, Nelson SE, LaBrie RA, Shaffer HJ. Men and women playing games: Gender and the gambling preferences of Iowa Gambling Treatment Program participants. *J Gamb Stud*. 2006;22(1):65-80.

16. Nelson SE, LaPlante DA, LaBrie RA, Shaffer HJ. The proxy effect: Gender and gambling problem trajectories of Iowa Gambling Treatment Program participants. *J Gamb Stud*. 2006;22:221-240.
17. Shaffer HJ, LaBrie RA, LaPlante DA, Kidman RC, Donato AN. The Iowa Gambling Treatment Program: Treatment Outcomes for a Follow-up Sample. *J Gamb Stud*. 2005;21(1):61-73.
18. Blaszczynski A, Ladouceur R, Shaffer HJ. A science-based framework for responsible gambling: the Reno model. *J Gamb Stud*. Fall 2004;20(3):301-317.
19. Ladouceur R, Sylvain C, Gosselin P. Self-exclusion program: A longitudinal evaluation study. *J Gamb Stud*. Mar 2007;23(1):85-94.