Continuing Education

The Proliferation of Legalized Gambling: Implications for Health Education

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ABSTRACT

Legalized gambling is growing substantially and provides both a dilemma and an opportunity for those in the health promoting professions. Gambling represents a form of economic development and, for certain segments of society, improved health and quality of life. On the other hand, gambling is a known addiction, with a host of sociological problems associated with its practice. Consequently, a number of opportunities and responsibilities emerge for health educators. This article provides both background information and suggestions for professional development, and begins a dialogue in the health education literature on this largely neglected and misunderstood topic.

In the mid-1990s the author was drawn to arguments that were raised over the introduction of casino gambling in nearby Niagara Falls, Ontario, Canada. The Canadians were looking at casinos to supplement an aggressive economic development plan targeted for all of southern Ontario and to revitalize Niagara Falls in the process. Since that time their expectations have been largely met as the corridor between Toronto and Niagara Falls, Ontario, represents one of the hottest growth areas in North America. However, the Canadians' success served to emphasize a more pronounced economic crisis in upstate New York, particularly in Buffalo and Niagara Falls, NY. Not only were jobs and residents leaving the area in significant numbers, the presence and aggressive marketing campaign of Casino Niagara and its associated gambling sites in Southern Ontario led a steady stream of New Yorkers to lose scarce dollars in a host of Canadian betting parlors.

So what does this have to do with health education? Plenty, and two considerations make this issue relevant. First, socioeconomic criteria serve as one of the major determinants of health status (Marmot, 2003). A substantial literature exists indicating that lower income levels contribute to a host of environmental conditions that eventually lead to poor health. The counties making up the Buffalo/Niagara region represent one of the most challenged economic areas in the country. Its poor health profile mirrors this distinction. According to a recent *Buffalo News* article, this area has some of the nation's highest rates for heart disease, stroke, diabetes, cancer and obesity (Davis, 2002). Simply stated, population health and economic well-being are intertwined.

Second, when access to gambling venues increases, related problems inevitably rise. As more U.S. residents gambled in Canada, a greater number of social problems emerged in western New York. None of these problems were offset by the economic benefit claimed by supporters of gambling—that benefit stayed in Canada.

New York addressed this issue by choosing to directly compete with the Canadians and enhance its stagnant economy in the process. The state subsequently expanded the availability of gambling, including placing slot machines in racetracks, entering into the multistate lottery game Powerball, and reaching agreement with the Native American community to establish six casinos in western New York and the Catskills

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(Precious & LaKamp, 2001).

What has emerged from New York's experience is clear. Gambling has not only become mainstream entertainment, but also has evolved into a form of tax enhancement and economic development policy. This reality is not New York's alone, but has occurred in a growing number of states across the country struggling with fiscal problems of their own (Levine, 2003).

The above situation represents a real dilemma facing health educators. True, gambling offers a chance for economic development and, indirectly, improved population health. Further, gambling taxes often target educational purposes, some of which, no doubt, support school health programs. On the other hand, gambling is a known addiction with a host of social ills connected with its practice. With the proliferation of legalized gambling across the nation—setting off a virtual gambling arms race among neighboring states—its likelihood of becoming a prominent health concern is real.

In consideration of the preceding, this article is written to begin a dialogue in the health education literature on this much overlooked and misunderstood topic. As will be noted, the terms *health education* and *health promotion* are used in a similar context to reflect the overlap between these two disciplines.

A BRIEF LOOK AT HISTORY

At least four waves of gambling activity have been cited during our history (McGowan, 1997). The first dates to colonial times as lotteries were used by nonprofit organizations to finance the building of schools, hospitals, and other capital projects. In fact, gambling takes partial credit for our independence, as several states used lotteries to finance armies during the Revolutionary War. Though states authorized the use of lotteries, private groups managed the operation, and over time repeated scandals led to their demise. By 1840 all but two states prohibited lottery activity.

A second wave emerged following the Civil War as the ravaged South looked again to lotteries to finance reconstruction. In contrast to previous times when activity was mostly local, lotteries became a national enterprise. By way of the United States Postal Service, millions of dollars of Northern monies flowed south to finance the building of roads, bridges, schools, and other capital projects. However, just as in earlier times, scandal led to measures to undermine gambling as a publicly sanctioned activity. By 1890, Congress banned the use of the federal mail system for gambling purposes as the second wave came to an abrupt end. By 1910 there was virtually no form of legal gambling in this country (American Gaming Association, 2003).

Gambling reemerged in the 1920s with the advent of pari-mutuel betting on horse racing, dog racing, and jai alai (National Gambling Impact Study Commission, 1999). The state of Nevada also legalized casino gambling in 1930. However, gambling remained a socially unacceptable activity until 1964. That year, New Hampshire voters approved a lottery as a means of raising funds for education. With instant success this third wave emerged and spread rapidly to similar lotteries across the country. During the 1980s, for example, 25 states approved not only lotteries but spin-offs, such as off-track betting, keno, and video poker.

This third stage was unique in comparison with its predecessors (McGowan, 1997). First, gambling lost its social stigma as a greater proportion of the population participated. Second, the depth of gambling activity accelerated to the extent that today daily numbers games, lotto, and "instant" scratch games purchased in restaurants, taverns, and grocery stores have become commonplace. But perhaps most significantly, gambling activity became state owned and operated, and a consistent source of revenue to support activities previously funded by taxes. Gambling was no longer a social pariah; gambling was mainstream public policy.

The fourth stage began in 1988 as Congress passed the Indian Gaming Regulatory Act permitting tribes to develop casinos and bingo parlors on reservation lands (Indian Gaming Regulation Act, 1988). By 1993 Foxwoods, the Native American-based casino in Connecticut, became one of the world's largest casinos, generating annually nearly $800 million in revenue and over $100 million in taxes (Passell, 1994). The growing success of Indian gambling led a number of states to develop their own state-operated casinos. What was once the exclusive domain of Nevada and Atlantic City became available in more than 434 commercial casinos in the United States.

Today, 48 states have some form of legalized gambling, including lotteries, casinos, river boat casinos, Native American casinos, video lottery machines, and pari-mutuel betting (National Gambling Impact Study Commission, 1999). In 1975, when the first national gambling survey was conducted, 61% of Americans gambled annually (Kallick, Suits, Dietman & Hybak, 1979). By 2001 this figure had jumped to 82% (Welte, Barnes, Wieczorek, Tidwell, & Parker, 2002).

The gambling saga does not end here. Some experts believe a fifth stage has emerged with the advent of online gambling, including sports betting and virtual casinos. In 2002 about 2,000 online gambling sites drew about 4.5 million customers, taking in approximately $2.5 billion in revenues (Gareiss & Soat, 2002). This amount is expected to grow to $14.5 billion by 2006. Online gambling represents the "perfect storm" for increased betting: unlimited 24-hour access, anonymity, little regulation (especially for off-shore based sites) and, because of credit cards, a ready source of cash.

THE PROMISE OF GAMBLING

Similar to the economic arguments raised during the last half century to legitimize the tobacco industry, the gambling industry provides a compelling list of its own advantages, namely in creating jobs and increasing tourism and taxation. As a result, gambling's proliferation can be viewed as a conscious effort by business and government leaders to look for economic sources for financially troubled and often underdeveloped regions. This quest is not

driven by idle speculation. Consider the following statistics provided by the American Gaming Association (2003) on casinos, probably the most researched sector of the gambling industry: Casinos employ directly or indirectly more than 1 million people; total casino employee wages equaled more than $11.5 billion in 2001, with compensation generally including full benefits; and during 2002 casinos paid $4 billion in taxes to the 11 states with sanctioned facilities.

The above statistics do not capture gambling's impact at the local level. Tunica, MS, once one of the most poverty-ridden communities in the nation, provides a good example to highlight (Kilborn, 2002). Since 1990 and the introduction of casino gambling Tunica has collected $3.5 million in casino taxes, allowing residents to pay no property taxes, sewer, water or garbage fees; unemployment has dropped from 17 to 4%; and households on welfare dropped from 20 to 2%. To accommodate growing international tourism, Tunica is building an intercontinental airport to handle jumbo jets—incredible for a city of only 1,200 residents. The area is still poor by most standards; however, the poverty rate in Tunica County has dropped from 50% in 1990 to 28% today, and this result is directly attributed to gambling.

The National Gambling Commission (1999) reported the economic and social impact of gambling in the Mississippi delta region (with several gambling jurisdictions including Tunica) as contributing to a substantially increased jobs and tax base, and thereby decreasing public assistance, including welfare, Aid for Families with Dependent Children, and food stamps. Most of these gains appeared to be realized by a disproportionate number of women and minorities, two groups in this region with serious sociological health problems.

The Native American population, historically one of the poorest and least healthy groups in this country, also owes an increasing quality of life to gambling. According to the National Indian Gaming Association (n.d.), Native American gaming offers self-reliance, jobs, and economic opportunity. Gaming has built schools, health clinics, senior citizen centers, and fitness facilities and has provided college scholarships. Native Americans often aid poor local governments in rural areas by sharing gaming revenues, building roads and other infrastructures, and contributing to emergency service equipment. Indian gaming generates more than $4 billion in annual revenue for government, including over $1 billion for state governments and $50 million for local governments. Because of its impact on Native American quality of life, gaming has been called the "new buffalo"(Napoli, 2002, pg. 20).

THE PROBLEM WITH GAMBLING

Historically, gambling has been alternately banned or highly regulated by society. According to the National Coalition Against Legalized Gambling (n.d.), gambling increases crime, corrupts government, depresses legitimate business, and produces the wrong attitude about work. However, most often associated with gambling is its potential for addiction, also know as pathological gambling: "a persistent and recurrent maladaptive behavior that disrupts personal, family, or vocational pursuits" (American Psychiatric Association, 1994, pg. 615).

As gambling spreads, the incidence of gambling pathologies rises accordingly. A recent study projected the annual problem and pathological gambling rate at 3.5% in the U.S. adult population (Welte et al., 2002), a statistic that approaches the national drug dependence and abuse rate of 3.6% (Kessler et al., 1994). An additional study estimates 5.5 million people with a gambling problem and another 15 million at risk to become pathological or problem gamblers (National Gambling Impact Study Commission, 1999).

The Gambling Impact and Behavior Study reported odds ratios for pathological and problem gamblers compared with low-risk gamblers (NORC, 1999). Except for the category of poor or fair health, for all other criteria—job loss, welfare benefits, bankruptcy, divorce, arrests, and so forth—pathological and problem gamblers fared poorer, with most odds ratios ranging from 2 to 4 times those of low-risk gamblers. Total costs to society were conservatively estimated at $5 billion annually or $40 billion over the lifetime.

The problem of gambling addiction is usually perceived as an adult phenomenon. However, a growing body of evidence offers a disturbing look at the consequences of gambling among young people.

A 1996 meta-analysis of youth gambling in North America concluded that the rate of problem gambling ranged from 9.9 to 14.2% (Shaffer & Hall, 1996). More recent studies drew similar conclusions (Adlaf & Ialomiteanu, 2000; Delaware Council on Gambling Problems, 2003; Fortin, Ladouceur, Pelletier, & Ferland, 2001; Westphal, Rush, Stevens, & Johnson, 2000). Looking across studies, these rates are two to three times that of adults. Though recent reports suggest that these numbers may be inflated (Derevensky, Gupta & Winters, 2003), whatever they are in the present, they will likely increase in the future as gambling access spreads and its social acceptance rises. As one expert commented, "the next generation is the first in modern American history to grow up in an era when gambling is legally sanctioned and culturally approved" (Reno, 2003, pg. 1).

THE HEALTH EDUCATION/PROMOTION RESPONSE

Should health education and promotion play a role in gambling issues as gambling spreads? The work of Korn and Shaffer (1999) provides a useful theoretical framework in which health education and promotion could have an effect. They argue that the "gambling epidemic" should be addressed in the same way as any public health problem and suggest that a systems approach be used that incorporates accepted health promotion practices. Recommended strategies include a broad public awareness and communication campaign modeled after current responsible drinking initiatives. Specific strategies at the individual level include (1) defining standards

that describe "healthy gambling" with respect to frequency, duration, and situation, and using this theme in public health messages; (2) creating a "standard unit" for gambling similar to that for drinking, so consumers know "how much is enough" and researchers can better quantify problematic behavior; (3) developing personal skills related to decision making and self-monitoring to make informed choices on the appropriate use of leisure time; and (4) increasing individual knowledge and skills related to probability theory as well as an understanding of the health and social consequences of gambling.

The authors also address youth gambling and suggest the following: (1) implement primary prevention programs to foster overall well-being, self-esteem, and personal responsibility; (2) teach resistance and general life skills, including understanding media pressure, recognizing peer pressure, and managing money; (3) teach probability theory in science and mathematics courses; and (4) develop and use a brief screening system to identify young people with gambling problems.

Dickson, Derevensky, and Gupta (2002) offer additional guidance. They first emphasize that empirical knowledge about the prevention and treatment of youth-based gambling problems is scarce and few prevention programs for youth problem gambling exist. However, drawing from the well-established substance abuse literature, they conclude that intervention should follow a generalized mental health enhancement approach and address a number of similar risky behaviors together. Primarily emphasized is the fostering of resiliency and risk factor modification, the latter either eliminating, reducing, or minimizing such empirically established risk factors as access to gambling venues, depression and anxiety, high extroversion, and poor coping skills, among others. Though they do not go into the specifics of how this might be done, the authors suggest that intervention could be incorporated into school curriculums.

An examination of two states historically linked with gambling—New Jersey and Nevada—offers another look at how this issue is being addressed. According to Linda Morse, state coordinator of health and physical education in New Jersey, nothing about gambling is currently mandated; however, a bill is under deliberation in the legislature that would add gambling to existing school drug and alcohol curriculum requirements (personal communication, July 2003). Supporters of the bill want gambling incorporated within the study of mental illness, particularly impulse disorders. Passage, however, is uncertain at this time. Morse eventually sees gambling as being addressed across disciplines, with health education focusing on the addictions' potential; mathematics, on the study of probability; and social studies, on the legal/moral perspective.

Frances Miceli of New Jersey's Department of Public Health indicates that the state appropriates monies from gambling receipts to support the private organization, the Council on Compulsive Gambling (personal communication, October 2003). The council operates 10 treatment sites and an 800 telephone hotline for problem gamblers, and delivers teacher training and curriculum development workshops for interested school districts. More recently, the department is moving to add three gambling-related questions to their drug treatment preadmissions assessment to monitor the rate of codependency. In the development stage is an initiative to tap off-track betting receipts for additional funding, develop a tracking system to analyze characteristics of gambling treatment users, and upgrade the school-based training program.

According to Nevada School Health Education Coordinator Robinette Bacon gambling problems are addressed in the health education curriculum within the context of other "excessive behaviors," such as substance abuse and alcohol dependency (personal communication, July 2003). It does not stand out as an area of study and has a rather limited role in the school curriculum. According to Bacon this reality must be understood from the state's perspective. Gambling is Nevada's major tax generator, has been a part of its culture for generations, and is a source of employment for both school and college students (e.g., service work) and significant numbers of their parents. She further stated that curricula in health education needed to "walk carefully" on this topic.

Charlene Herst, manager of chronic disease prevention programs for Nevada's Department of Public Health, provides a similar message (personal communication, October 2003). Gambling-specific interventions are not offered by the Department of Health, nor are any considered in the near future. However, gambling is included among several addictions addressed by other public health services. Herst indicates that the Nevada's low-key response to gambling problems probably reflects the influence of the gaming industry, as well the state's relatively low gambling problem incidence. However, she did point out that a well-promoted Gamblers' Anonymous service is provided by the private sector, the casino industry.

In summary, much of the above provides an account of what could be rather than what is. Therefore, borrowing from Korn and Shaffer (2002) again, and applying a systems approach to gambling as a public health problem, by working at the individual, organizational, community and public policy levels, health education/promotion might consider the following.

(1) *Contribute to open discussions on the pros and cons of gambling's spread.* One of the three strategies to promote health—and presumably the most significant—is creating supportive environments (O'Donnell, 1989). Most would probably agree that a gambling saturated community is not a health-supporting environment. Given that caveat, consider western New York's predicament. Within a 90-minute drive of most residents, there will be six casinos, three racetracks with newly added slot machines, and at least two high-stakes bingo halls. This is in addition to existing keno games at virtually every tavern; scratch-off game cards at every grocery store; multiple off-track

betting parlors; bingo nights at numerous churches and fire halls; and nightly lotto on TV. Much of this gambling infusion took place with virtually no input from local residents and limited reaction from the health community.

As seen in New York and elsewhere, the gambling message is often controlled by vested interests, and these interests are not always consistent with the health and social needs of the community. Therefore, when gambling proposals arise, they should be openly discussed, so that rational decisions can be made about when, where, and under what circumstances gambling is permitted. Consistent with their recent embrace of political activism, those in the health promoting professions should be a part of that discussion. A policy influencing agenda is also suggested for items 2 through 4, which follow.

(2) *Lobby for greater regulation.* Gambling problems can be minimized through public policy interventions that restrict access to or modify the context of their activity. Several regulatory initiatives have been considered or are in some degree of adoption. These include raising the minimum age for all types of gambling to 21, better enforcement of existing statutes on access by minors, banning lottery sales by vending machines, banning cash machines in gaming establishments, and prohibiting credit card use for gambling purposes.

(3) *Lobby for greater funding of gambling-related research.* In recent years a greater proportion of research has come from the commercial gambling industry. Depending on the interests of the sponsor, the arguments supporting gambling's economic merit or its social consequences could be misleading. Therefore, the states need to get more involved in supporting research at the local level, particularly in determining problem gambling incidence rates and examining what educational and treatment regimens are effective. Likewise, the federal government needs to use its considerable resources to help understand the effects of gambling on women, youths, and the elderly, and to comprehend the addictive potential of the newer and more enticing forms of electronic gambling. Research could also better clarify the economic advantages, and the total health and social impacts, that gambling realizes. Considering that both the states and the federal government helped to create the problem, they share a moral responsibility to support research to examine the issue in more detail.

(4) *Lobby for a greater portion of gambling receipts to be earmarked for problem gambling and prevention programs.* A number of states have directed a percentage of gambling proceeds to a variety of primary, secondary, or tertiary intervention purposes. Although still modest compared with gambling-generated taxes, monies for hotline services, billboard-warning messages, school education programs, and regional treatment centers are becoming more commonplace, and this practice should be expanded.

(5) *Develop and evaluate gambling programs for school and college health education studies.* There are few precedents for including gambling in the health curriculum. Only one research article surfaced in a search of the health education/promotion literature on the topic, a study correcting the probability estimates of gambling among primary school children (Ladouceur, Ferland, & Fournier, 2003). However, the previous discussion offers several promising guidelines for the development of future, comprehensive, educational programs. For example, gambling education may be housed within the broader context of the study of addictions. Programs might emphasize the delaying of gambling activity until adulthood, the recognition of what constitutes "healthy gambling," the identification of gambling behavior problems, and the understanding of where help is available. A further need is recognized to develop more theory-based teaching aids, such as brochures, software, videos, and the like, to complement any curricular initiatives. Success with recommendations 3 and 4 would help to finance health education activity.

With few precedents for the preceding, the McGill University's International Center for Youth Gambling Problems and High Risk Behaviors (2003), Montreal, Canada, may be a source of guidance. The Center is undertaking a number of gambling intervention projects and currently has developed an assortment of educational tools to use in this endeavor, including brochures, posters, screening cards, CD-ROMs, and workshops. Much of their work is still in progress; however, this organization deserves monitoring for future insights on how gambling education for youths might evolve.

Caution is still advised in any youth initiatives. Some experts suggest that a gambling-focused curriculum could increase gambling behavior much as the early work in drug education inadvertently increased substance use (Dishion & McCord, 1999).

(6) *Expand and enhance the sophistication of public health messages.* Public service announcements, billboard messages, and newspaper ads are useful adjuncts in preventing and/or minimizing gambling-related problems. However, their impact is severely compromised by the flood of sophisticated and unrelenting ads for casinos, lotto drawings, and sports-betting Web sites. The news media further undermine public health messages by continuing to highlight multimillion dollar lottery winners. To have any effect, gambling education messages need to be both more numerous and persuasive. With monies becoming available for gambling education purposes, a professional outlet is seen for the development and testing of sophisticated, theory-driven, public health messages.

(7) *Develop health promotion programs for casino employees.* One of the most vulnerable groups for health problems is casino employees (Shaffer, Vanderbilt, & Hall, 1999). They spend a significant part of their day in an environment that promotes a known addiction, encourages tobacco and alcohol consumption, provides for inexpensive "all you can eat" buffets, and limits physical activity and social interaction. A need exists to link multiple health-enhancing services for casino workers to include employee assistance programming,

financial management, and traditional risk factor interventions. With growing numbers, solid finances, and a considerable dependence on reliable employees, casinos offer additional outlets for health educators to expand their practice.

(8) *Develop skills to deliver training programs for teachers, other professionals, and the general public.* The ability to translate research findings into useable formats for public consumption is a trademark of those in the health promoting professions. With gambling activity spreading rapidly, a considerable interest exists for both professional and lay groups seeking more information. Presumably, health educators could enhance their gambling background and channel this knowledge into a needed and marketable commodity on the lecture circuit.

CONCLUSION

Gambling's spread is creating a moral, economic, and health dilemma for society. Gambling challenges the balance between the rights of the individual and the common good of the community. Gambling enhances tax revenue, jobs, and tourism but also increases costs for law enforcement, social services, and medical treatments. Gambling is potentially addicting but under some circumstances provides communities with prosperity and enhanced well-being. Such contradictions will continue to fuel the gambling debate.

This article advocates for health education to be part of that discussion. But beyond adding to the rhetoric, as gambling spreads, spin-off opportunities will emerge for expanded professional practice. If health education takes a systems approach in addressing this issue, a number of outlets are seen for the delivery of new services and political advocacy initiatives. In addition, although current research is dominated by social psychologists and economists, health educators in both product development and intervention studies could supplement the gambling research agenda.

In conclusion, as the gambling issue unfolds, health educators/promoters need to be included in the decision-making process. The odds suggest that if practitioners "play their cards right," the profession and society will be better off for it.

REFERENCES

Adlaf, E. M., & Ialomiteanu, A. (2000). Prevalence of problem gambling in adolescents: Findings from the 1999 Ontario Student Drug Survey. *Canadian Journal of Psychology, 45*, 752–755.

American Gaming Association. (2003). *Industry information fact sheets*. Retrieved February 5, 2004, from http://www.americangaming.org/Industry/factsheets/index.cfm.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.

Davis, H. L. (2002, February 24). Our heartache. *The Buffalo News,* A1.

Delaware Council on Gambling Problems. (2003). *Gambling with Delaware's kids 2002.* Retrieved October 10, 2003, from http://www.dcgp.org/DCDG%202002%Report.pdf.

Derevensky, J. L., Gupta, R., & Winters, K. (2003). Prevalence rates of youth gambling problems: Are the current rates inflated? *Journal of Gambling Studies*, *19*, 405–425.

Dickson, L. M., Derevensky, J. L., & Gupta, R. (2002). The prevention of gambling problems in youth: A conceptual framework. *Journal of Gambling Studies*, *18*, 97–159.

Dishion, T., & McCord, J. (1999). When interventions harm: Peer groups and problem behavior. *American Psychologist*, *54*, 755–764.

Fortin, J. M., Ladouceur, F., Pelletier, A., &, Ferland, F. (2001). Games of chance and gambling in adolescents and in adolescents-at-risk. *Canadian Journal of Community Mental Health*, *20*, 135–151.

Gareiss, R., & Soat, J. (2002). Let it ride. *Information Week*. Retrieved July 8, 2002, from http://www.informationweek..tory/showArticle.jhtml?articleID=6502846 .

Indian Gaming Regulatory Act. (1988). Retrieved September 1, 2003, from http://www.nigc.gov/nigc/laws/igra/igra_index.jsp.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., Wittchen, H-U., & Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. *Archives of General Psychiatry*, *51*, 8–19.

Kallick, M., Suits, D., Dielman, T., & Hybels, J. (1979). A survey of American gambling attitudes and behavior. Ann Arbor, MI: Institute for Social Research, University of Michigan.

Kilborn, T. T. (2002, October 20). Casinos revive a town, but poverty persist. *New York Times*, A1.

Korn, D. A., & Shaffer, H. J. (1999). Gambling and the health of the public: Adopting a public health perspective. *Journal of Gambling Studies*, *15*, 289–364.

Ladouceur, R., Ferland, R., & Fournier, P-M. (2003). Correction of erroneous perceptions among primary school students regarding the notions of chance and randomness in gambling. *American Journal of Health Education*, *34*, 272–277.

Levine, S. (2003, March 31). Betting the budget, *U.S. News & World Report, 84,* 55–56.

Marmot, M. (2003). The influence of income on health: View of an epidemiologist. In P. Lee & C. Estes (eds.), *The nation's health* (7th ed.; pp. 79–92). Boston: Jones and Bartlet.

McGowan, R. (1997). The rise of casino gaming: A historical and ethical perspective. *The World and I*, *12,* 289–299.

Napoli, M. (2002). Native wellness for the new millennium: The impact of gaming. *Journal of Sociology & Social Welfare*, *29*, 17–25.

National Coalition Against Legalized Gambling. (n.d.). *The case against legalized gambling*. Retrieved February 5, 2004, from wysiwyg://6/http://www.ncalg.org/library/1995-caseagainstlegalizedgambling.html.

National Indian Gaming Association. (n.d.). Retrieved September 30, 2003 from http://www.indiangaming.org/info/pr/index.shtml.

National Gambling Impact Study Commission. (1999). *National Gambling Impact Study Commission final report*. Retrieved August 23, 2003, from http://govinfo.library.unt.edu/ngisc/reports/fullrpt.html.

NORC. (1999). *Gambling Impact and Behavior Study*. Retrieved November 5, 2003, from http://cloud9.norc.uchicago.edu/dlib/ngis.htm.

O'Donnell, M. P. (1989). Definition of health promotion: Part III: Expanding the definitions. *American Journal of Health Promotion*, *3*, 5.

Passell, P. (1994, August 8). Foxwoods. A casino success story. *The New York Times*, D1.

Precious, T., & LaKamp, P. (2001, October 10). Deal struck for 3 casinos in WNY. *The Buffalo News*, A1.

Reno, R. A. (2003). *Adolescent gambling*. Retrieved April 25, 2003, from http://www.family.org/eforum/research/papers/a000947.html.

Shaffer, H. J., & Hall, M. N. (1996). Estimating the prevalence of adolescent gambling disorders: A quantitative synthesis and guide toward standard gambling nomenclature. *Journal of Gambling Studies, 12*, 193–214.

Shaffer, H. J., Vanderbilt, J., & Hall, M. N. (1999). Gambling, drinking, smoking and other health risk activities among casino employees. *American Journal of Industrial Medicine*, *36*, 365–378.

Welte, J. W., Barnes, G. M., Wieczorek, W. F., Tidwell, M. C., & Parker, J. (2002). Gambling participation in the U.S.: Results from a national survey. *Journal of Gambling Studies*, *18*, 313–337.

Westphal, J. R., Rush, J. A., Stevens, L., & Johnson, L. J. (2000). Gambling behavior of Louisiana students in grades 6 through 12. *Psychiatric Services, 51*, 96–99.

McGill University's International Center for Youth Gambling Problems and High Risk Behaviors (YGI). McGill University. (2003). *About us.* Retrieved August 29, 2003, from http://www.educatin.mcgill.ca/gambling/en/aboutus_mission.html.