

# Problem Gambling in Europe

Challenges, Prevention, and Interventions

Gerhard Meyer Tobias Hayer Mark Griffiths EDITORS



Springer

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# Contents

<b>Contributors</b> .....	vii
<b>Foreword</b> .....	xv
<i>Jeffrey L. Derevensky</i>	
<b>Problem Gambling: A European Perspective</b> .....	xix
<i>Mark Griffiths, Tobias Hayer, and Gerhard Meyer</i>	

## COUNTRY REPORTS

<b>1. Belgium</b> .....	3
<i>Christophe Druine</i>	
<b>2. Denmark</b> .....	17
<i>Jakob Linnet</i>	
<b>3. Estonia</b> .....	37
<i>Stella Laansoo and Toomas Niit</i>	
<b>4. Finland</b> .....	53
<i>Tapio Jaakkola</i>	
<b>5. France</b> .....	71
<i>Marc Valleur</i>	
<b>6. Germany</b> .....	85
<i>Gerhard Meyer and Tobias Hayer</i>	

<b>7. Great Britain</b> .....	103
<i>Mark Griffiths</i>	
<b>8. Hungary</b> .....	123
<i>Zsolt Demetrovics</i>	
<b>9. Iceland</b> .....	137
<i>Daniel Thor Olason and Sigurdur J. Gretarsson</i>	
<b>10. Italy</b> .....	153
<i>Mauro Croce, Gioacchino Lavanco, Loredana Varveri, and Maoreten W.J. Fiasco</i>	
<b>11. Lithuania</b> .....	173
<i>Norbertas Skokauskas</i>	
<b>12. The Netherlands</b> .....	189
<i>Anna E. Goudriaan, Dick de Bruin, and Maoreten W.J. Koeter</i>	
<b>13. Norway</b> .....	209
<i>K. Gunnar Göttestam and Agneta Johansson</i>	
<b>14. Poland</b> .....	219
<i>Bartłomiej Dzik</i>	
<b>15. Romania</b> .....	229
<i>Viorel Lupu</i>	
<b>16. Russia</b> .....	243
<i>Sergei Tsytsarev and Yakov Gilinsky</i>	
<b>17. Slovak Republic</b> .....	257
<i>Hroznata Živný and Lubomír Okruhlica</i>	
<b>18. Slovenia</b> .....	265
<i>Mirna Macur, Matej Makarovič, and Borut Rončević</i>	
<b>19. Spain</b> .....	281
<i>Elisardo Becoña</i>	
<b>20. Sweden</b> .....	299
<i>Jakob Jonsson and Sten Rönnerberg</i>	
<b>21. Switzerland</b> .....	317
<i>Jörg Häfeli</i>	
<b>Index</b> .....	327

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# Foreword

JEFFREY L. DEREVENSKY

It should come as no great surprise that gambling is alive and well in Europe. Since the beginning of civilization, people have been wagering on the outcome of unpredictable events. Gambling was well known to the Babylonians, the Etruscans, the Romans, the Greeks, and the Chinese. Examples of early gambling have appeared in ancient art and literature and gambling was evident in the writings of Homer, Chaucer, and Shakespeare. While there is dispute as to who invented dice, most historians suggest that it was developed several centuries BC and was a favorite game in Europe. Similarly, there is no consensus as to the date and location of the development of playing cards. Both Venice and Spain have been cited as the birthplace because of its popularity among its citizens, yet there is evidence that France became Europe's leading manufacturer of playing cards during the 15th century (Fleming 1978).

Gambling has taken a prominent place in our history. The settling of America is replete with gambling stories. There is even speculation that one of the major disasters in American history, the devastating Chicago fire of 1871, may have begun because of gambling. While legend has it that Mrs. O'Leary was busy milking her cow one evening and the cow accidentally kicked the lantern, which started the fire in her barn, resulting in burning down most of Chicago, she later testified under oath that she had not been in the barn that evening at all but rather was sound asleep in her bedroom. Some 70 years later, a wealthy Chicago entrepreneur, Louis Cohn, left a bequest to Northwestern University accompanied by a document admitting that he and not Mrs. O'Leary's cow was responsible for knocking over the lantern that resulted in the great Chicago fire. He reportedly admitted accidentally knocking over the lantern in a moment of excitement while shooting dice with some friends in the barn. His explanation: "I was winning" (Fleming 1978).

The history of gambling includes royalty, Kings and Queens (not only on face cards), knights, noblemen, clergymen, pirates, and commoners alike. While some have suggested that gambling is the devil's invention, others have viewed it as an enjoyable recreational pastime.

The evolution of gambling, or gaming as it is often more recently commonly referred to, has seen many twists and turns. The chapters that follow in this book, representing countries throughout Europe, often include a historical context of gambling. Clearly evident in country after country, we see that the pendulum has moved from widespread legalization to prohibition and back again over time. Along this historical ride has come new forms of gambling, advances in technological games, the development of very sophisticated electronic gambling machines, and the widespread acceptance by the general population and governments.

The history of gambling has also seen many prominent, and not so prominent, players. In England, King Henry VIII once lost the largest and most famous church bells, the Jesus Bells that were in the tower of St. Paul's Cathedral, in a dice game (Fleming 1978). American gangsters Bugsy Siegal and Meyer Lansky were famous for turning a desert town—Las Vegas—into a gambling mecca while the wealthy were turning Monte Carlo into a gambling resort for the European rich and famous. Not to be outdone, sport celebrities and Hollywood entertainers have become the new “high rollers” along with politicians and successful businessmen.

In the past century, gambling has undergone a profound transformation in the types of games available, accessibility, widespread acceptance, and appeal. Once regarded as economically marginal, politically corrupt, and often morally dubious, it has now become widely accepted by society as a socially acceptable form of entertainment and a significant generator of revenues for both the industry (now large corporations with many properties) and governments (Reith 2003). In the past two decades, we have witnessed an enormous increase in the variety of gambling opportunities around the world, with Europe being no exception. Casinos run by mobsters in North America have been replaced by Boards of Directors of multinational corporations listed on stock exchanges in many countries.

While the growth of the industry has helped the economy and governments eager to raise revenues without direct taxation, there is ample evidence that it has not come without subsequent problems and social costs. It is important to note that the economic benefits and social costs associated with this increase in number of venues and accessibility have not been adequately assessed. Such social costs also encompass the human costs. Advocates for expansion have often lined up against those who have raised concerns around the social and human costs associated with excessive or problematic gambling. These social costs have been found among individuals, families, and communities, with special high-risk populations being identified as particularly vulnerable. The arguments proposed by the opponents of gambling expansion are that the human costs to the individual, their family, and their employer far outweigh any benefits that legalized state sponsored or regulated forms of gambling might bring, including entertainment to individuals as well as generating employment and tax revenues (see Collins 2003, for an excellent treatise of the arguments for addressing the social costs and benefits of gambling).

This book represents the first in-depth analysis of the current state of (problem) gambling across Europe. While this book will have widespread appeal to legislators, regulators, economists, academics, and members within the industry, the landscape of gambling is continually evolving. The European Union courts have multiple issues currently pending that will likely affect how gambling may be offered and regulated throughout Europe in the future. Only time will tell. Nevertheless, the pendulum does not appear to be reverting back to more restrictive curtailed forms of gambling but rather its continued expansion. Along with expansion have come more opportunities, easier accessibility, and innovation and growth within the gaming industry.

The past decade has witnessed not only unprecedented growth in the industry but a significant increase in research in understanding gambling behaviour, problem gambling behaviour, and ways to protect the public (responsible gambling measures). By some estimates, more than half the

knowledge of gambling has emerged since the 1990s (Shaffer 2004). This research, spurred by government and industry financial support, has looked at the economic, social, and behavioural benefits and risks of gambling expansion by economists, social scientists, and public health analysts.

With the expansion of gambling has come real concern over the personal, interpersonal, financial, work, and legal consequences for those individuals who experience problems related to their gambling behaviours. There is abundant evidence that certain populations and groups remain at high risk for gambling problems (National Research Council 1999; Productivity Commission 1999). While originally identified as a psychiatric disorder in North America by the American Psychiatric Association in its Diagnostic and Statistical Manual—III (DSM-III), subsequent revisions of the DSM (DSM-IV), and the World Health Organization's International Classification of Diseases (ICD-10), these instruments have been widely used in clinical settings for identifying problem gamblers. Other screening instruments, such as the South Oaks Gambling Screen (SOGS) (Lesieur & Blume 1987), the National Research Center DSM-IV Screen for Gambling Problems (NODS) (NORC Diagnostic Screen) (Gerstein et al. 1999), and the Canadian Problem Gambling Index (CPGI) (Ferris & Wynne 1991) have been used, translated, and or adapted for different population surveys. Such instruments have been incorporated to assess the incidence of problem gambling in many European countries and are reported throughout this book.

Of particular concern is that studies that have examined the gambling behaviours of adolescents have typically found the prevalence rates of gambling-related problems higher than those of adults (Derevensky & Gupta 2004). The chapters in this book further highlight that amongst studies of adults, those individuals in the 18- to 25-year-old age group have the highest rates of problem gambling. Given that our current conceptualization of gambling problems is a progressive disorder, it remains apparent that gambling behaviours are beginning quite early. Such behaviors, similar to excessive alcohol use and psychoactive drug use, may be symptomatic of adolescent risk taking in general (Derevensky & Gupta 2004; Dickson, Derevensky & Gupta 2004; Jessor 1998). Concerns about these behaviors have prompted a number of researchers and clinicians to examine alternative models to understand adolescent risk-taking and risky behaviors (e.g., Essau 2008; Kaminer & Bukstein, 2008; Romer 2003). It nevertheless remains clear that policies oriented toward protecting and preventing youth gambling problems need to be incorporated into organized, national policies toward addressing problem gambling. Such prevention initiatives are largely lacking and only beginning in several countries.

National, coherent, responsible policies and research appears to be in its early developmental stages. As the field attempts to address many of these important issues, technological advances (internet gambling and mobile gambling are but two examples) are dramatically changing the landscape in the offering of gambling opportunities. Such fundamental issues remain a challenge to researchers, clinicians, and policy makers.

The expansion of gambling worldwide is an enormous social experiment with obvious social and personal costs. Collaboratively, governments, researchers, clinicians, and policy makers need to work together toward understanding the benefits and ways to mitigate the costs associated with gambling. Movement toward national and international coherent responsible policies remains critical.

This book represents an important snapshot of the history and current gambling offerings and policies in most European countries. Favourable governmental legislation, public opinion, and consumer enthusiasm have spurred the vast expansion of gambling. This book is a seminal beginning toward a better understanding of the social climate, regulatory practices, and benefits and costs associated with gambling in these countries. Much research needs to be done. The sharing



of expertise and knowledge derived from such research along with the cooperation between all the partners involved will ultimately result in the shaping of socially responsible policies toward protecting the most vulnerable of populations and minimizing the risks for all.

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# **Problem Gambling: A European Perspective**

**MARK GRIFFITHS, TOBIAS HAYER, AND GERHARD MEYER**

## **1 PROBLEM GAMBLING — AN EMERGING PUBLIC HEALTH ISSUE IN EUROPE**

Gambling regulation has always been a matter of public concern in countries where gambling is legally permitted. With regard to Europe, every member of the European Union is free to implement restrictive measures to regulate its national gambling market. Apart from keeping criminal activity out of gambling business, the primary purpose of these regulative activities involves consumer protection, acknowledging that gambling is an activity with inherent risks and dangers. The need for a protectionist approach seems to be apparent, as gambling has become a popular activity among different population segments. Almost all national surveys into gambling have concluded that most people have gambled at some point in their lives, and there are more gamblers than non-gamblers, but that most participants gamble infrequently (Abbott, Volberg, Bellringer & Reith 2004). The introduction of national lotteries, the proliferation of gaming machines, the expansion of casinos, and the introduction of new media in which to gamble (e.g., internet gambling, mobile phone gambling, interactive television gambling), has greatly increased the accessibility and popularity of gambling worldwide, and, as a result, the number of people seeking assistance for gambling-related problems (Abbott et al. 2004).

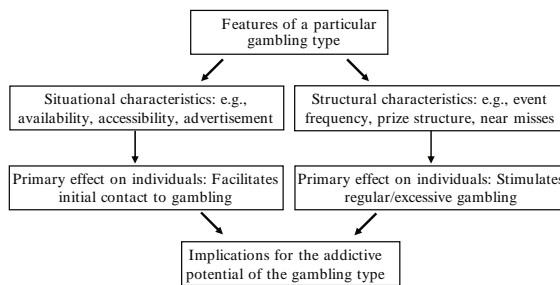
Although most people gamble occasionally for fun and pleasure, gambling brings with it inherent risks of personal and social harm to some vulnerable and susceptible individuals. This book focuses on the small minority of people for whom gambling becomes a problem. There is a multitude of terms used to refer to individuals who experience difficulties related to their gambling.

These reflect the differing aims and emphases among various stakeholders concerned with treating patients, studying the phenomenon, and influencing public policy in relation to gambling legislation. Besides “problem” gambling, terms include (but are not limited to) “pathological”, “addictive”, “excessive”, “dependent”, “compulsive”, “impulsive”, “disordered”, and “at-risk” (e.g., Griffiths 2006; Griffiths & Delfabbro 2001; Meyer & Bachmann 2005). Terms are also used to reflect more precisely the differing severities of addiction. For example, “moderate” can refer to a lesser level of problem, and “serious problem gambling” for the more severe end of the spectrum. The term “probable” can also be pre-fixed as a qualification on gambling severity, and so on.

Although there is no absolute agreement, commonly, “problem gambling” is used as a general term to indicate all of the patterns of disruptive or damaging gambling behaviour. Problem gambling also needs to be distinguished from social gambling and professional gambling. Social gambling typically occurs with friends or colleagues and lasts for a limited period of time, with predetermined acceptable losses. There are also those who gamble alone in a non-problematic way without any social component. In professional gambling, risks are limited and discipline is central. Some individuals can experience problems associated with their gambling, such as loss of control and short term chasing behaviour (whereby the individual attempts to recoup their losses), that do not meet the full criteria for pathological gambling (American Psychiatric Association 1994).

Problem gambling is a multifaceted rather than unitary phenomenon (Griffiths 2005a; Shaffer, LaBrie & LaPlante 2004). Consequently, many factors may come into play in various ways and at different levels of analysis (e.g., biological, social, or psychological) that contribute to the development and maintenance of gambling-related problems. Etiology models may be complementary rather than mutually exclusive, which suggests that limitations of individual theories might be overcome through the combination of ideas from different perspectives. This has often been discussed before in terms of recommendations for an “eclectic” approach to problem gambling (Griffiths 1995) or a distinction between proximal and distal influences upon problem gambling (Walker 1992). However, for the most part, such discussions have been descriptive rather than analytical and, so far, few attempts have been made to explain why an adherence to singular perspectives is untenable. Central to this view, no single level of analysis is considered sufficient to explain either the etiology or maintenance of gambling behaviour. Moreover, this view asserts that all research is context-bound and should be analysed from a combined, or biopsychosocial, perspective (Griffiths 2005a).

Variations in the motivations and characteristics of gamblers, and in gambling activities themselves, mean that findings obtained in one context are unlikely to be relevant or valid in another. In essence, addictive disorders represent the outcome of a complex interplay of multiple factors—a paradigm that resembles the public health triad of host, environment, and agent. Thus, the types of games played also impacts on the development of gambling problems. This has consequences for understanding the risk factors involved in the disorder, as well as the demographic profile of those individuals who are most susceptible. For instance, certain features of games are strongly associated with problem gambling. These include games that have a high event frequency (i.e., that are fast and allow for continual staking), that involve an element of skill or perceived skill, and that create “near misses” (i.e., the illusion of having almost won) (Griffiths 1999). Size of jackpot and stakes, probability of winning (or perceived probability of winning), and the possibility of using credit to play are also associated with higher levels of problematic play (Parke & Griffiths 2007). Games that usually meet these criteria include electronic gaming machines (EGMs) and casino table games.



**Fig. B.1** The addictive potential of a particular gambling type—an analysis scheme

As Fig. B.1 summarizes, situational determinants of gambling are primarily important in the initial decision to start gambling. Situational characteristics mostly include environmental or context-bound features such as the location of the gambling venue, the number of gambling venues in a specific area, or advertisements that stimulate people to gamble and thus encompass dimensions such as availability, acceptability, and accessibility of gambling. On the other hand, structural characteristics primarily have implications for the gamblers’ motivation by reinforcing gambling activities and satisfying certain needs, and thus have the potential to induce regular or even excessive forms of gambling. To determine the addictive potential of a particular gambling type, it would appear that situational as well as structural characteristics must be taken into account. Certainly no type of gambling is risk-free; however, certain types of gambling are associated with a higher risk than other types of gambling.

Internationally, as we shall see in this book, the greatest problems are, to a very considerable degree, associated with non-casino EGMs such as arcade “slot machines” (Griffiths 1999; Parke & Griffiths 2006). It has been found that as EGMs spread, they tend to displace almost every other type of gambling as well as the problems that are associated with them. EGMs are the fastest-growing sector of the gaming economy, currently accounting for some 70% of revenue. The spread of EGMs also impacts on the demographic groups who experience problems with gambling. Until very recently, such problems were predominantly found in men, but, as EGMs proliferate, women are increasingly presenting in greater numbers, so that in some countries (e.g., the USA), the numbers are almost equal. This trend has been described as a “feminisation” of problem gambling (Volberg 2001).

These types of games appear to be particularly attractive to recent migrants, who are also at high risk of developing gambling problems. It has been suggested that first-generation migrants may not be sufficiently socially, culturally, or even financially adapted to their new environment to protect them from the potential risks of excessive gambling (Productivity Commission 1999; Shaffer et al. 2004). Many are therefore vulnerable to the development of problems. This highlights the need for healthcare professionals to be aware of the specific groups—increasingly, women and new migrants, as well as young males and adolescents, who may present with gambling problems that may or may not be masked by other symptoms.

It is also clear that the social and health costs of problem gambling are large on both an individual and societal level. Personal costs can include irritability, extreme moodiness, problems with personal relationships (including divorce), absenteeism from work, family neglect, severe debt, and bankruptcy (Griffiths 2004). Meyer and Stadler (1999) concluded that addictive

gambling behaviour is one important criminogenic factor, and for property offences, the direct causal effect of addictive behaviour seems to be even greater than that of personality variables. Compared with non-gamblers, problem gamblers are two to three times more likely to lose a job over a year (National Gambling Impact Study Commission 1999). Problem gambling also increases the risk of homelessness, temporary accommodation, and sleeping rough. There can also be adverse health consequences for both the gambler and their partner, including depression, insomnia, intestinal disorders, migraines, self-harm, and other stress-related disorders (e.g., Griffiths 2001; 2004).

In the UK, preliminary analysis of the calls to the national gambling helpline also indicated that a significant minority of the callers reported health-related consequences as a result of their problem gambling. These include depression, anxiety, stomach problems, other stress-related disorders and suicidal ideation (Griffiths, Scarfe & Bellringer 1999). Furthermore, problem gamblers are twice as likely to report poor health as an identical group of non-gamblers (National Gambling Impact Study Commission 1999). Finally, as with other addictive disorders, problem gambling is also associated with adverse consequences for the proximate social environment of the gambler, namely family members such as parents, spouses, or children. Hayer, Bernhart, and Meyer (2006) examined the impact of gambling-related problems on children and concluded that they are exposed to multiple stress situations including internal family conflicts, ambivalence experiences, fear of loss, breaches of confidence, deep-seated hurt, and demarcation problems.

As a result of gambling legislation across most of the European countries, opportunities to gamble and access to gambling have increased because of liberalization and deregulation. The general “rule of thumb” indicates that where accessibility of gambling is increased, there is an increase not only in the number of regular gamblers but also an increase in the number of problem gamblers (the “availability hypothesis”)—although this may not be proportional (Griffiths 1999; 2003). This obviously means that not everyone is susceptible to developing gambling addictions but it does mean that at a societal (rather than an individual) level, in general, the more gambling opportunities, the more problems. Although the evidence is far from conclusive, it can be summarized that the introduction of new gambling types or the expansion of existing gambling opportunities causes an increase in the incidence of gambling-related problems, although these can be minimised through the introduction of robust social responsibility programmes. Therefore, it should be mandatory to conduct careful scientific evaluations of the impacts of the introduction of new gambling opportunities. For instance, Meyer and Hayer (2005) showed that soon after the introduction of sports betting with fixed odds in Germany, a small but significant number of gamblers within a treatment-seeking population denominated this type of gambling as their primary problem. Data derived from these kind of studies could help guide policy decisions and support governments to implement responsible gambling practices.

## 2 PREVENTION AND TREATMENT

In this book, all authors were asked to look at how their respective governments can most effectively prevent problem gambling. Media commentators often call for such actions as lowering the jackpots, restricting the frequency/opening hours, restricting the amount money that can be gambled at the outset, and imposing age limits. However, some of these actions are likely to have a mixed effect, and decisions have to be taken on the number of people that the measure is likely to affect. For instance, lowering the jackpots will significantly reduce the amount of people who may gamble in the first place—particularly on lottery-type activities. However, problem and

habitual gambling often relies on the unpredictability of the rewards rather than factors like stake size or jackpot size. Having said that, a large jackpot size on activities like playing slot machines or video lottery terminals may facilitate chasing behaviour (a known risk factor in problem gambling). In the absence of empirical research and/or a cost–benefit analysis, policy recommendations in the area of jackpot size are very difficult to make.

Another complicating factor is that gambling behaviour is not homogenous and there is a different psychology of gambling to almost all activities. Furthermore, there are some forms of gambling that may actually be profitable to gamblers but cause huge problems because of the impact in other areas of their life. For instance, Wood, Griffiths, and Parke (2007), in a study of online poker players, argued that a new breed of problem gambler was emerging. These were gamblers who actually won more money than they lost, but may be spending disproportionate amounts of their day gambling, which ended up compromising their relationships, work, and social life. For these problem players, the loss is not monetary but time.

There is also the issue of the changing market environment. Over the last few years, there have been two major shifts across the gambling sector internationally (both of which are highlighted by the many authors in this book). Firstly, there has been an increase in remote forms of gambling. Almost all games that can be played remotely are being played remotely. In line with other research, Hayer, Bachmann, and Meyer (2005) have argued that internet gambling has the potential to be particularly addictive due to several characteristics, such as its constant availability, offering games with rapid event frequencies, the possibility of anonymous wagering, and non-cash payment proceedings (for risks explicitly related to sports betting on the internet, see Hayer & Meyer 2004a). Given the lack of protective measures, it seems plausible to expect a growing number of gamblers in the near future who will experience problems associated with internet gambling. Secondly, games are getting faster and more instant. The lottery sector has seen a shift from weekly and bi-weekly games to more high-frequency, instant win games through scratch-cards, video lottery terminals, and online instant win games. It would be important to monitor the combined effect of these changes, as they are likely to increase problem gambling rates unless social responsibility safeguards are put in place. The simple “rule of thumb” is that more money, more games, and more opportunities (in both time and space) increase gambling participation.

Although gambling is clearly of policy interest, it has not been traditionally viewed as a public health matter (Griffiths 1996; Korn 2000). Furthermore, research into the health, social, and economic impacts of gambling are still at an early stage. There are many specific reasons why gambling should be viewed as a public health and social policy issue—particularly given the massive expansion of gambling opportunities across the world. Throughout this book, many themes recur country by country. The following themes appear to be the most important based on the country-by-country reviews.

## **2.1 Education—Raise Awareness About Gambling Among Health Practitioners and the General Public**

There is an urgent need to enhance awareness within the medical and health professions, and the general public about gambling-related problems (Griffiths & Wood 2000; Korn 2000). The lack of popular and political support for policies that increase price or reduce availability has encouraged other approaches such as public education. Problem gambling is very much the “hidden” addiction. Unlike (say) alcoholism, there is no slurred speech and no stumbling into work. Furthermore, overt signs of problems often do not occur until late in the problem gambler’s career.

When it is considered that problem gambling in its severe occurrence can be an addiction that can destroy families and have medical consequences, it becomes clear that health professionals and the public should be aware of these adverse effects. General practitioners routinely ask patients about smoking and drinking but gambling is something that is not generally discussed (Setness 1997). Problem gambling may be perceived as a somewhat “grey” area in the field of health and it is therefore very easy to deny that health professionals should be playing a role.

## **2.2 Prevention-Set Up Both General and Targeted Gambling Prevention Initiatives**

There are growing prevention and intervention initiatives. According to Korn (2000), the goals of gambling intervention are to (1) prevent gambling-related problems, (2) promote informed, balanced attitudes and choices, and (3) protect vulnerable groups. The guiding principles for action on gambling are therefore prevention, health promotion, harm reduction, and personal and social responsibility.

In general, there are many actions and initiatives that are carried out as preventative measures in relation to gambling (e.g., Hayer & Meyer 2004b). The most common examples of these include general awareness raising (e.g., public education campaigns through advertisements on television, radio, newspapers); targeted prevention (e.g., targeted education programs and campaigns for particular vulnerable populations such as senior citizens, adolescents, ethnic minorities, etc.); awareness raising within gambling establishments (e.g., brochures and leaflets describing problem gambling, indicative warning signs, where help for problems can be sought, etc.); training materials (e.g., training videos about problem gambling shown in schools, job centres, etc.); training of gambling industry personnel (e.g., training managers of gambling establishments, and those who actually have interaction with gamblers such as croupiers); and prevention via the internet (e.g., the development, maintenance, and linking of problem gambling websites). Education and prevention programmes should also be targeted at children and adolescents along with other potentially addictive and harmful behaviours (e.g., smoking, drinking, and drug taking) (Hayer, Griffiths & Meyer 2005; Scheithauer, Petermann, Meyer & Hayer 2005). It should be noted that improvements in awareness, knowledge, or attitudes indeed represent a central goal of preventive efforts but are not necessarily accompanied by behavioural change. More specifically, gambling operators and service providers should:

- Supply information on gambling addiction, treatment, and services to patrons
- Support development of centralized training for gambling venue staff to ensure uniform standards and accreditation
- Enforce restrictions on who can gamble
- Pay to fund research, prevention, intervention, and treatment programmes

The cliché that “prevention is better than cure” is probably accurate in the case of problem gambling. Although there is some success in treating problem gamblers, it seems more cost-effective to prevent people from developing problems in the first place, which is why education and prevention are so important. However, such programmes need to be evaluated to make sure that they themselves are cost-effective. As highlighted in this book, across Europe, the prevention of problem gambling is still in its infancy. Although in many countries, some of the activities mentioned above are already implemented, systematic evaluations of the effects of single preventive measures or coordinated preventive programmes commonly could not be found. Obviously,

preventive actions with multiple components that are implemented in a coordinated and enduring way increase the probability to achieve the desired goals.

### 2.3 Treatment—Introduce Gambling Support and Treatment Initiatives

In addition to the preventative measures outlined above, there are many support initiatives that could also be introduced. Although we do not at present know the rate of return from investing in the treatment of problem gambling, treatment still needs to be offered for those needing help. Such initiatives include:

- The running of problem gambling helplines as a referral service
- The running of telephone counselling for problem gamblers and those close to them
- The running of web-based chat rooms and online counselling for problem gamblers and those close to them
- The funding of outpatient treatment
- The funding of in-patient and residential treatment
- Training for problem gambling counsellors (volunteers or professionals; face-to-face, telephone, and/or online)
- Certification of problem gambling counsellors

The intervention options for the treatment of problem gambling include, but are not limited to counselling, psychotherapy, cognitive-behavioural therapy (CBT), advisory services, residential care, pharmacotherapy, and/or combinations of these (i.e., multi-modal treatment) (see Griffiths 1996; Griffiths, Bellringer, Farrell-Roberts & Freestone 2001; Griffiths & Delfabbro 2001; Griffiths & MacDonald 1999). Another conclusion that can be drawn from the country reports refers to comorbidities with problem gambling. In line with evidence from outside Europe, problem/pathological gambling often co-occurs with at least one other psychiatric disorders (e.g., substance use, anxiety, mood, or personality disorders). A sophisticated understanding of comorbidities is necessary not only to delineate typical relationships between problem/pathological gambling and other psychiatric conditions, but also to improve the effectiveness of treatment approaches. Most importantly, further studies should focus on characteristic temporal sequences of co-occurring disorders in the same individuals in a more detailed way (e.g., ascertain the onset of symptoms of different disorders and the dynamic interrelationship between these disorders), with the aim of discovering causal pathways of problem gambling. For example, it is not known whether symptoms of depression precede problem gambling or are one of the consequences of significant gambling-related difficulties, and whether the existence of depressive symptoms may influence treatment outcomes.

There is also a very recent move towards using the internet as a route for guidance, counselling, and treatment (see Griffiths 2005b; Griffiths & Cooper 2003; Wood & Griffiths 2007). Treatment and support is provided from a range of different people (with and without formal medical qualifications), including specialist addiction nurses, counsellors, medics, psychologists, and psychiatrists. There are also websites and helplines to access information (e.g., *GamCare*) or discuss gambling problems anonymously (e.g., *GamAid*), and local support groups where problem gamblers can meet other people with similar experiences (e.g., Gamblers Anonymous). Support is also available for friends and family members of problem gamblers (e.g., Gam-Anon).

This book demonstrates that many private and charitable organisations throughout Europe provide support and advice for people with gambling problems. Some focus exclusively on the



help, counselling, and treatment of gambling addiction, while others also work to address common addictive behaviours such as alcohol and drug abuse. The method and style of treatment varies between providers and can range from comprehensive holistic approaches to the treatment of gambling addiction (e.g., encouraging fitness, nutrition, alternative therapies, and religious counselling), to an abstinence-based approach. Many providers also encourage patients (and sometimes friends and families) to join support groups (e.g., Gamblers Anonymous and Gam-Anon), while others offer confidential one-to-one counselling and advice. Most are non-profit-making charities to which patients can self-refer and receive free treatment. Independent providers that offer residential treatment to gambling addicts are more likely to charge for their services. Some provide both in-patient treatment and day-patient services, and a decision as to the suitability of a particular intervention is made upon admission.

Due to the lack of relevant evaluative research, the efficacies of various forms of treatment intervention highlighted in this book are almost impossible to address. Much of the documentation collected by treatment agencies is incomplete or collected in ways that make comparisons and assessments of efficacy difficult to make. As Abbott et al. (2004) have noted, with such a weak knowledge base, little is known about which forms of treatment for problem gambling are most effective, how they might be improved, or who might benefit from them. However, their review did note that individuals who seek help for gambling problems tend to be overwhelmingly male, aged between 18 to 45 years, and their problems are primarily with on- and off-course betting and slot machine use. Surprisingly very few studies exist that deal with meaningful cross-national or cross-cultural comparisons related to gambling, gambling participation, or problem gambling, and/or examine the societal contexts that shape (problem) gambling behaviour patterns (McMillen 2007). It sounds reasonable that a concept such as problem gambling will indeed have different meanings in different societies and cultures. Consequently, the needs of a problem gambler seeking help in (say) Nordic Countries are not identical with the needs of a problem gambler from (say) Southern Europe.

The gaming industry has typically viewed pathological gambling as a rare mental disorder that is predominantly physically and/or psychologically determined. This view supports recent findings that suggest many problem gamblers have transient problems that often self-correct. Reviewing five prospective longitudinal studies of gambling behaviour among non-treatment samples, LaPlante, Nelson, LaBrie, and Shaffer (2008) found no evidence that problem gambling represents a progressive and chronic disorder. In fact, their findings support the notion of flexibility in the nature of disordered gambling. For example, a significant number of individuals recover or move out of more severe levels of gambling disorders without returning to those levels. However, some gambling providers have taken the initiative to address the issue of gambling addiction within their businesses. Secondary prevention efforts by the gaming industry have included the development and implementation of employee-training programmes, mandatory and voluntary exclusion programmes, and gambling venue partnerships with practitioners and government agencies to provide information and improved access to formal treatment services.

Implementation of secondary prevention efforts by the gaming industry, such as employee-training programmes and (self-)exclusion programmes, have not always been of the highest quality, and compliance has often been uneven. For instance, a systematic literature review published by Meyer and Hayer (2007) demonstrated that the available evidence with regard to the effectiveness of admission bans and self-exclusion programmes can be described as deficient, especially with regard to follow-up studies and clearly defined outcome criteria. However, preliminary findings also suggest the general utility of this safeguard for a particular group of problem gamblers. In addition, observations from outside Europe appear to demonstrate that efforts by the gaming

industry to address gambling addiction tend to compete with heavily financed gaming industry advertising campaigns that may work directly to counteract their effectiveness (Griffiths 2005c).

Another central measure of effective secondary prevention is the early detection of problem gamblers. As outlined recently by Meyer and Hayer (2008), two different basic approaches can be found: (a) the identification of problem gamblers in gambling venues based on the experience of different expert groups, as well as preliminary results of the empirical validation of a screening instrument; and (b) research strategies that use data of gambling behaviour saved on player cards, or while gambling on the internet. Once again, only a few studies worldwide have evaluated the effectiveness of one of these approaches. Therefore, it is strongly recommended that practical, valid, and reliable methods of early identification of gambling-related problems are used urgently.

## 2.4 Social Policy—Embed Problem Gambling in Public Health Policy

It is clear that increased research into problem gambling is being taken seriously by many countries across Europe and the rest of the world. This needs to be embedded into public health policy and practice (Shaffer & Korn 2002). Such measures include:

- Adoption of strategic goals for gambling to provide a focus for public health action and accountability. These goals include preventing gambling-related problems among individuals and groups at risk for gambling addiction; promoting balanced and informed attitudes, behaviours, and policies toward gambling and gamblers by both individuals and communities; and protecting vulnerable groups from gambling-related harm.
- Endorsement of public health principles consisting of three primary principles that can guide and inform decision making to reduce gambling-related problems. These are ensuring that prevention is a community priority, with the appropriate allocation of resources to primary, secondary, and tertiary prevention initiatives; incorporating a mental health promotion approach that builds community capacity, involves a holistic view of mental health, and addresses the needs and aspirations of gamblers, individuals at risk of gambling problems, or those affected by them; and fostering personal and social responsibility for gambling policies and practices.
- Adoption of harm-reduction strategies directed at minimizing the adverse health, social, and economic consequences of gambling behaviour for individuals, families, and communities. These initiatives should include healthy-gambling guidelines for the general public (similar to low-risk drinking guidelines); vehicles for the early identification of gambling problems; non-judgemental moderation and abstinence goals for problem gamblers; and surveillance and reporting systems to monitor trends in gambling-related participation and the incidence and burden of gambling-related illnesses.

A “harm-based” conception of problem gambling has implications for policy and treatment. Given that the most severe cases of pathological gambling is one of the most difficult disorders to treat (Volberg 1996), and given that, at various points in their lives, relatively large numbers of the general population may experience some degree of gambling-related harm, it becomes important to provide intervention strategies that can prevent this potentially larger group from developing more serious problems. To this end, public health education and awareness-raising initiatives come to the fore, and these are recognised internationally as the most cost-effective way of dealing with problem gambling in the long-term (Abbott et al.

2004; National Gambling Impact Study Commission 1999; Shaffer, Hall & Vander Bilt 1999). In line with this approach, Hayer and Meyer (2004b) argued that prevention strategies should be established as an obligatory element of gambling business policy and continuously be controlled and audited by an independent expert commission. Furthermore, the evaluation of the effect of single measures or global prevention concepts is required to improve their impact continuously.

### 3 WHY IS THIS BOOK IMPORTANT?

The idea for this book stemmed from the observation that very little information is available about gambling research in most of the European countries and even less information has been published in English-speaking sources. Discussions with colleagues from European and non-European countries confirmed the lack of knowledge relating to (a) national gambling markets; (b) the prevalence of gambling participation and problem gambling; (c) national policies to tackle the issue of problem gambling; and (d) existing treatment options for problem gamblers and their relatives. To close this knowledge gap, we asked qualified scholars in the field of gambling research from diverse academic disciplines to participate by writing a chapter for our book. Although collecting all evidence was not an easy task, the result certainly advances our understanding of gambling-related issues in Europe.

We hope you will enjoy reading the many chapters in this book that are intended to provide the first comprehensive overview about problem gambling in Europe. To our knowledge, there is no other publication currently available within the international context that brings together the existing scientific knowledge about gambling-related problems and its prevention across a multitude of European countries. What exists is an effort to systematically collect information about national gambling laws of the 25 European member states including a detailed examination of the statutory and regulatory position in each member state (Swiss Institute of Comparative Law 2006; see also Littler 2007, for a more recent publication). However, the European Commission gambling project (Swiss Institute of Comparative Law 2006) mainly dealt with legal and economic aspects of gambling and gambling regulation and in general neglected public health aspects such as the extent of gambling-related problems or the elaboration, implementation, and evaluation of responsible gambling strategies. Therefore, there was only sketchy information from a few countries concerning the issue of problem gambling. However, more encouragingly, national governments have become increasingly concerned with the negative consequences of problem gambling in recent years.

Although there are some common themes across the European countries highlighted in this introductory chapter, there are also many differences in both the approach and the information that has been gathered. Some countries have been examining the issue of problem gambling for many years, whereas others are just beginning. For example, not all countries can indicate epidemiological-based data on the prevalence of problem gambling or comprehensive research activities related to conditions that may increase or decrease the likelihood of developing gambling-related problems (i.e., risk and protective factors). In contrast, other countries not only have already established an extensive knowledge base but also can rely on elaborated standards in terms of responsible gambling. Although every effort was made by the editors to commission a chapter from every significant European country, we were unable to find scholars from some countries (most notably Austria, Greece, Portugal, and the Czech Republic). Despite these limitations, it is hoped that the cross-fertilization of data, ideas, and approaches outlined in this book

will be of benefit to a wide range of stakeholders, including academics, practitioners, regulators, policy makers, and members of the gambling industry. As a next step, the information base available could be used to compare the benefits and limitations of the different national regulations and approaches on gambling behaviour and systematically examine what advantages and disadvantages these bring.

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# **Country Reports**

# 1 Belgium

Christophe Druine

## 1 Background

The kingdom of Belgium is located in west Europe bordered by the Netherlands, Germany, Luxembourg, and France. It has a population of over ten million inhabitants. Belgium has three official languages: Dutch (more than 60% of the population), French (less than 40% of the population), and German (less than 1% of the population). Belgium is a federal state that consists of three language communities and three regions; the Flemish Region, the Walloon Region, and the Brussels–Capital Region. The policy is conducted at three levels, the federal level, the community level, and the regional level. Each level has its own competences with its own parliament and government. Belgium was a founding member of the European Union and it hosts the headquarters of many international organizations such as the NATO and European governmental institutions.

### 1.1 The Gambling Market

In Belgium there exist different laws to regulate the different gambling sectors. This makes the current regulatory framework complex and some gambling activities, such as fixed-odds betting on sports events other than horse races, escape sector-specific regulations. Thus, in many cases, sports betting is illegal. A current law proposal intends to extend the scope of the law on games of chance of May 7, 1999 to sports betting and to the regulation of internet gambling. Casinos, gaming arcades, and bingo machines

in pubs already fall under the law on games of chance of May 7, 1999. The National Lottery is a state-owned company and is regulated by another specific law.

#### 1.1.1 *The National Lottery*

The biggest Belgian gambling sector is the National Lottery, which offers both scratch tickets and numbers lotteries. Until now, the National Lottery has not offered sports betting, gambling machines, or internet gambling. Offline lottery products are offered at approximately 6,500 physical points of sale. In Belgium, the “Colonial Lottery” was founded to solve the financial hardship in the then Belgian colony of Congo. The first draw was organized on October 18, 1934. In 2003, the lottery sector accounted for more than 70% of the total Gross Gaming Revenue (GGR; Swiss Institute of Comparative Law 2006). Since 2002, the National Lottery has been a public law enterprise, with the Belgian state being the sole shareholder. In addition to pursuing commercial activities, the National Lottery is obliged to pursue a socially responsible policy. This means that the National Lottery must support initiatives in terms of scientific research, and the prevention and treatment of gambling addiction. Only the National Lottery has this legal obligation. In addition, the National Lottery must ensure that its product policy does not result in gambling addiction and that the gamblers are informed about the game concepts and the risks. For participating in the products of the National Lottery, there exists a legal age restriction of gamblers being 18 years of age or

older. Finally, a gambling committee supervises the Lottery's responsible gambling policy.

### *1.1.2 The Law on Games of Chance*

In addition to the National Lottery, there are three gambling sectors, which fall under the May 1999 law on games of chance: casinos, gaming arcades, and bingo machines in pubs. This legislation was designed to clear up a number of legal issues and to avoid misinterpretation. The legislation also intended to combat some negative consequences of gambling, such as gambling addiction, illegal gambling, crime, and financial fraud. A recent law proposal includes changing several aspects and extending the scope of the May 1999 law.

The basic principle of the May 1999 law is that games of chance may only be operated after a license has been obtained. The gambling commission issues the licenses and monitors compliance with the law. There are five different types of licenses. In addition to licenses for operating the three types of gambling venues, licenses are issued for personnel and for trading in games of chance. The scope of the legislation on games of chance is determined by the following definition of a game of chance: any game where a stake of any nature can lead to a financial win or loss, and chance plays a role in determining win or loss. Although the products of the National Lottery (and the products of sports betting) meet these legal criteria, they are currently excluded from the legislation on games of chance.

The first sector that falls within the scope of the 1999 law on games of chance is the casino sector. Before 1999, there were eight Belgian casinos being operated for fiscal and historic reasons. Despite a statutory ban, they were tolerated. The casinos were tolerated at the instigation of the bourgeoisie and of tourist cities. They were not operated in densely populated areas to avoid stimulating people to gamble. At present, there is a legal age restriction of 21 years for entering a Belgian casino.

The 1999 law restricts the number of Belgian casinos to nine. Since the opening of the Brussels casino in 2005, this maximum number has been reached. With a turnover of 47.5 million Euros in 2003 (or 7% of the total GGR; Swiss Institute of Comparative Law 2006), the casino sector in Belgium is relatively small. Both table games and gambling machines are allowed in a casino. Five

different types of gambling machines are allowed, of which the "jackpots" (reel or video slots) are the most available. These jackpots are only allowed in the casinos. The minimum time gap between each gamble (event frequency) for these gambling machines has to be 3 seconds, the average amount of money loss per hour is fixed at 70 Euros, the minimum payback percentage is fixed at 84%, and the maximum size of the jackpot is limited to 10,000 Euros. With 22 tables and 208 gambling machines, the new casino in Brussels is the largest of the Belgian casinos.

The GGR of the gambling machine sector in 2003 was estimated at 136.8 million Euros (or about 20% of the total GGR; Swiss Institute of Comparative Law 2006). Gambling machines are offered in 180 gaming arcades and some 7,500 pubs. In the gaming arcades, only gambling machines are allowed. A maximum of 30 gambling machines per arcade may be operated. The minimum event frequency for these gambling machines has to be 3 seconds, the average amount of money loss per hour is fixed at 25 Euros, the minimum payback percentage is fixed at 84%, and the maximum size of the jackpot is limited to 2,000 Euros. As with casinos, there is legal age restriction of 21 years to enter a gaming arcade. Some pubs may operate a maximum of two so-called "bingo machines", a typically Belgian gambling machine. With a legal minimum event-frequency of 20 seconds, these machines are slower than the ones offered in gaming arcades and casinos. Other legally fixed structural characteristics of these machines include a maximum average amount of money loss per hour of 12.5 Euros, a minimum payback percentage of 84%, and a maximum winning amount of 500 Euros. The legal age restriction for gambling on these bingo machines is 18 years.

A law proposal provides that, in the near future, betting offices will also be allowed to operate a maximum of two gambling machines. This means that the number of gambling machines in Belgium will increase by an additional 2,000 machines. The legal age restriction for gambling in these betting offices will probably be 21 years.

### *1.1.3 Other Gambling Activities*

The current betting legislation is very complex. At present, betting does not fall under the 1999 law. Although there is an old regulation on pool bet-



ting, there is no regulation on fixed-odds betting. Both on-track and off-track, horse betting is legal. Betting on sporting events can be done at betting offices or at newspaper shops. Overall, about 10 to 15 companies offer sports betting. The legal age restriction for these betting shops is 18 years. In 2003, the GGR of the legal betting sector was 9.33 million Euros (or 1.5% of the total GGR; Swiss Institute of Comparative Law 2006). In reaction to the recent fraud scandal in Belgian football (the Yé case<sup>1</sup>), a proposed law will provide more control on the betting sector. The betting sector will fall within the scope of the legislation on games of chance, and will come under the supervision of the gambling commission. The proposed law distinguishes between betting at fixed offices and betting at mobile betting offices (e.g., at football stadiums).

At present, it is forbidden to offer gambling via new media such as the internet or mobile telephones. However, participation in internet gambling is not prohibited and Belgians can gamble on websites offered from abroad. The National Lottery still holds the exclusive right to organize betting games using “information society tools”, including the internet or mobile telephones. However, the National Lottery has not yet used its exclusive right. The proposed law, already mentioned earlier, also provides regulation for internet gambling. Under the proposal, the operation of online games of chance will no longer be prohibited, but operators will be granted a “reliability certificate”. Operators can obtain such a certificate if they can prove that they meet certain conditions. This includes secured payment transactions, fair games, and the protection of vulnerable groups.

Finally, television phone-in quizzes, which are offered on various Belgian commercial TV stations, are also considered as forms of gambling. During such television quizzes, viewers can phone in or send by short message service (SMS) the answer to a simple question or a puzzle. The caller who actually gets on the air is randomly picked. However, the viewers are often misled into thinking they have a good chance of winning. The media recently reported on cases of loss of control when participating in

these quizzes, and on cases of an unfair course of the game. Since January 2007, TV quizzes must meet a number of statutory criteria. The operators are obliged to adequately inform the viewers about the rules of the game and to protect the contestants. This includes a ban on the participation of minors (younger than 18 years old), an obligation to provide information about the risks associated with excessive gambling behaviour, and an obligation to inform callers when they have lost more than €50.

## 2 Evidence

There is only a small amount of empirical data on gambling participation and problem gambling in Belgium. Other statistics on gambling behaviour are also scarce. National health surveys investigate alcohol and drug use and abuse, but not gambling participation and gambling problems. Moreover, gambling statistics often are incomplete and unclear. Every year in Belgium, a household budget survey inquires after the consumption and spending habits of Belgian households. The survey also investigates money spent on betting and gambling activities. In 2003, Belgian households spent an average of 105 Euros on betting or gambling activities (National Institute of Statistics 2004).

### 2.1 Gambling Participation and Gambling Problems

A recent study (Druine, Delmarcelle, Dubois, Joris & Somers 2006) examined gambling behaviour and the prevalence of gambling problems within a representative sample of 3,002 randomly selected Belgians (Dutch- and French-speaking), in the age range of 16 to 99 years. The respondents were interviewed by telephone. Compared with other European countries, gambling participation in the past year was relatively low, with 59.7% of the respondents having participated in at least one gambling activity within the past year, and 25.8% having gambled on a regular basis (weekly or more frequently). The most popular forms of gambling in Belgium (according to past year participation rates) were lotteries (46.4% gambled past year), scratch tickets (38.7%), and television phone-in quizzes (12%). Other gambling activities were not very popular, with 2.6% of respondents playing on

<sup>1</sup> A number of players in the Belgian First Division were supposedly bribed by the Chinese gambling mafia to manipulate results.

gambling machines, 2% playing on casino table games, and 2.9% engaged in sports betting through newspaper shops or betting offices. Furthermore, some socio-demographic variations in gambling preferences were observed. Men did not gamble more frequently than women, but they were more likely than women to gamble on gambling machines, tables in casinos, bingo machines in pubs, sports betting, horse race betting, and to play cards or dice for money. Women were more likely than men to gamble on scratch tickets and television phone-in quizzes. Youths and young adults (under the age of 25 years) were more likely to gamble on gambling machines, bingo machines in pubs, sports betting through newspaper shops and betting offices, and television phone-in quizzes, and to play cards or dice for money.

An annual survey among pupils in the context of a school drug policy provides some information about the gambling behaviour of adolescents. The survey (Kinable 2006) inquired not only about the use of different drugs, but also about the participation in gambling machines, lotteries (including scratch tickets), playing cards for money, and betting for money. In 2006, 38,357 pupils aged 12 to 18 years were interviewed. Results showed that 40.1% of the respondents had gambled during their lifetime on at least one of the four gambling activities. During the past 6 years, participation rates on the four gambling activities have been decreasing each year, from 52.5% in 2001 to 42.2% in 2005. The most popular forms of gambling among adolescents are betting for money, National Lottery products, playing cards for money, and gambling on gambling machines.

In the Belgian prevalence survey (Druine et al. 2006), respondents were screened for gambling problems using the multiple response version of the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV; Fisher 2000). Results showed that 1.6% scored as past-year at-risk gamblers (score 3–4) and 0.4% as past-year probable pathological gamblers (score of 5 or more). Problem gamblers (at-risk and pathological) were more likely to gamble on a regular basis (weekly or more frequently) than non-problem gamblers. Table 1.1 shows the association between problem gambling rates and a number of socio-demographic variables. Problem gambling was more prevalent among men than among women. However, this

TABLE 1.1. Problem gambling prevalence by socio-demographic characteristics (n=3,002).

Socio-demographic characteristics	Problem gamblers (%)	P value
Total sample	2.0	
Gender		ns
Male	2.3	
Female	1.8	
Age group (yr)		≤0.01
16–24	4.0	
25–34	2.7	
35–44	1.3	
45–54	2.9	
55–64	1.4	
65+	0.0	
Civil status		≤0.01
Single	3.8	
Married	1.4	
Living together	1.9	
Divorced	2.5	
Widow	0.7	
Social Groups		≤0.01
Highest 5	1.8	
Lowest 3	3.2	

ns not significant

Druine et al. 2006

association was not statistically significant. The proportion of problem gamblers was significantly higher among several socio-demographic groups than for the general population. These include young people (aged 16 to 24 years), single people, and people from the lowest social groups (based on the occupation of the main income earner).

## 2.2 The Addictive Potential of Different Gambling Forms

In addition, it was reported that the characteristics of the gambling product or venue may impact the gambling behaviour. Griffiths (1993) distinguishes between structural and situational characteristics. Structural characteristics are those that are inherent in the gambling activity and comprise the probability of winning, the amount of gambler involvement (and the stimulation of illusion of control), the amount of skill that can be applied, familiarity, sound and lighting effects, event frequency, payout interval, the near-miss, and the magnitude of potential winnings. Situational characteristics are features of the gambling environment, such as availability and accessibility of gambling activities, marketing, and advertising

practices. Consistent with the view that gambling products differ on structural and situational characteristics is the view that some gambling products are more addictive than others. An important characteristic that may be associated to the addictive potential of certain gambling forms is “event frequency” or the time interval between gambling outcomes (Griffiths 1993). Continuous games (such as gambling machines) with a more rapid play rate and a short interval between the gamble and the winning are more likely to be associated with gambling problems. Those products that produce a highly variable reinforcement schedule should be more addictive than non-continuous gambling forms such as lotteries or some forms of sports betting.

However, it is not easy to study the addictiveness of gambling products empirically. Dowling, Smith, and Thomas (2005) referred to different lines of investigation to determine the level of addictiveness of gambling products. A first indicator is the prevalence of problem gambling among all individuals who have participated in specific types of gambling. Table 1.2 shows these rates for the legal Belgian gambling activities. Past-year prevalence rates are higher among Belgian respondents who, in the past year, engaged in offline sports betting, horse race betting in hippodromes and on the internet, or played gambling machines and gambled in casinos. Obviously, these figures do not say whether that particular gambling activity also was the source or the cause of the problems. Moreover, prevalence rates among only regular users are a more useful

discriminator of problem gambling. However, these rates could not be calculated as the level of current participation in non-lottery gambling was too low.

Another indicator of the addictive potential is to examine the relationship between gambling participation in various gambling activities and problem gambling. Table 1.3 compares the past year’s gambling participation of non-problem gamblers and problem gamblers. Problem gamblers are more likely to have participated in many types of gambling, including scratch tickets, television phone-in quizzes, betting, gambling machines, gambling via the internet, casino table games, and horse race betting in hippodromes. Here too, the weekly participation rates for most gambling activities are too low, making it difficult to arrive at reliable conclusions

TABLE 1.2. Prevalence of problem gambling by type of gambling (n=3,002).

Type of gambling	Prevalence of problem gambling (%)
Gambling machines	10.3
Casino (both table games and gambling machines)	10.0
Scratch tickets	4.3
Lotteries	3.8
Bingo machines	7.8
Offline betting	13.8
Hippodromes	16.7
Playing cards for money	5.9
Television phone-in quizzes	6.4
Internet gambling	14.0

Druine et al., 2006

TABLE 1.3. Past-year gambling of non-problem and problem gamblers (n=3,002) (Druine et al., 2006).

Type of gambling	Non-problem gamblers (%)	Problem gamblers (%)	P value
Gambling machines	4.0	13.3	≤0.01
Casino (both table games and gambling machines)	3.1	10.0	≤0.01
Scratch tickets	62.5	81.7	≤0.01
Lotteries	77.3	88.3	≤0.05
Bingo machines	2.8	6.7	ns
Offline betting	4.3	20.0	≤0.01
Hippodromes	1.2	6.7	≤0.01
Playing cards for money	3.7	6.7	ns
Television phone-in quizzes	19.5	38.3	≤0.01
Internet gambling	2.2	10.0	≤0.01

ns not significant

about the addictive potential of these gambling activities.

An indication for the addictive potential of gambling activities can also be derived from the data on gambling preferences of pathological gamblers presenting to treatment centres. Since 1988, the Matt Talbot treatment centre in Antwerp has kept a number of types of data on gamblers who seek help. In 2006, they had data on 662 gamblers. All gamblers replied to the questions of the Dutch-language version of the South Oaks Gambling Screen (SOGS; Lesieur & Blume 1987). They all scored five or more points (mean of 10.46) and can be classified as probable pathological gamblers. Table 1.4 shows the lifetime gambling participation of all gamblers seeking help at the Matt Talbot treatment centre.

The most popular gambling activities among this group of pathological gamblers are bingo machines, with 60.4% of help seekers indicating they play them on a regular basis (weekly or more frequently). Next are the lotteries and scratch tickets of the National Lottery (27.8%), gaming machines (25.8%), playing cards for money (14.2%), and visiting casinos (11.2%). Thus, the data are an indication that gambling machines constitute the major form of problem gambling. In addition, the products of the National Lottery are also very popular among

treatment seekers. Unfortunately, these results make no distinction between lotteries and scratch tickets, although the latter can pose a higher addictive potential than number lotteries.

Another study (Minet et al. 2004a) also gives an indication about the potential addictiveness of certain Belgian gambling forms. For this study, 678 gamblers were recruited at five different gambling venues (casinos, gaming arcades, pubs offering bingo machines, lotto centres, and betting offices). The sample consisted of 72% men and 27% women, the mean age being 46 years. In a face-to-face interview, various variables were measured including gambling behaviour, substance misuse, socio-demographic variables, psychiatric complaints, and treatment. The Dutch and French versions of the SOGS (Lesieur & Blume 1987) were used to measure the extent of gambling problems. Within this sample of gamblers, 14.2% were classified as at-risk gamblers and 14% were classified as probable pathological gamblers. Table 1.5 shows the prevalence rates for pathological gamblers by gambling venue. The prevalence rates at the time of recruitment were highest at gambling venues offering continuous forms of gambling, such as casino games and gambling machines (i.e., gaming arcades, pubs offering a bingo machine, and casinos). However, the study does not indicate whether gambling problems were also associated with the gambling forms offered at these gambling venues.

There were also other differences between gamblers, depending on the gambling venue from which the gamblers were recruited. Casino visitors spent the most money on gambling activities and gamblers at lotto centres the least. Betting offices and pubs offering bingo machines had predominantly male customers, whereas Lotto centres were

TABLE 1.4. Frequency of play of gamblers in treatment (Matt Talbot, Antwerp) on different gambling activities (n=662).

Type of gambling	Never (%)	Occasionally (%)	Regularly (%)
Bingo machines	28.4	11.2	60.4
Electronic horse betting <sup>a</sup>	81.0	8.5	10.6
Fruit machines <sup>b</sup>	59.7	14.5	25.8
Casinos	69.9	18.9	11.2
Horse race betting	85.0	7.1	7.9
Playing cards for money	54.5	31.3	14.2
Lotteries and scratch tickets	34.6	37.6	27.8
Playing dice	80.5	13.7	5.7
Securities trading	94.4	4.4	1.2
Other games for money	92.6	2.0	5.4

<sup>a</sup>Electronic horse betting is a gambling machine allowed in the gaming arcades

<sup>b</sup>Fruit machines are the precursors of the current jackpots that are, since 2003, only allowed in the casinos—before 1974 they were also allowed outside the casinos

TABLE 1.5. Prevalence of pathological gambling by type of gamble venue (n=678).

Type of gambling venue	Prevalence of pathological gambling (%)
Gaming arcades	23.2
Pubs offering a bingo machine	20.0
Casinos	19.3
Lotto centres	3.3
Betting offices	5.1

Minet et al., 2004a

frequented by as many men as women. Gamblers in pubs playing bingo machines were more likely to be single and unemployed.

### 2.3 Correlates of Problem Gambling

Minet et al. (2004a) also explored other dimensions of the heterogeneous nature of problem gambling. A first group of correlates included gender, age, and civil status, with pathological gamblers being more likely to be male, single, unemployed, and aged 26 to 45 years. Furthermore, pathological gamblers were more likely to have parents with a history of problem gambling, and began gambling at a younger age compared with gamblers having no or few gambling-related problems. Pathological gambling was further associated with a number of psychiatric symptoms, measured by the Dutch- and French-language version of the Symptom checklist 90-R (Derogatis 1977). Pathological gamblers reported more symptoms of anxiety and depression, in addition to somatic complaints and sleep disorders when compared with the other gamblers. Furthermore 15% of pathological gamblers reported they attempted to commit suicide at one point in their lives. Another relationship was found between gambling behaviours and substances use. Within the group of pathological gamblers, 20% had alcohol problems and 72% were daily smokers. Finally, several negative consequences for the individual, family, and the community were related to pathological gambling. These consequences included relationship problems, divorce, bankruptcy, loss of employment, criminal behaviours, and/or financial problems.

### 2.4 Internet Gambling

As with traditional forms of gambling, internet gambling is not very popular in Belgium (Druine et al. 2006). Results indicated that 1.5% of the respondents have paid for internet gambling in the past year with just 0.4% engaging in internet gambling on a regular basis. Men, people under the age of 35 years, single people, or unmarried people living together, gambled more frequently via the internet. This low popularity of gambling via the internet can be explained by the large distrust of the medium. The survey questioned the opinion of and attitude towards internet gambling. The disadvantages or drawbacks most frequently

cited with regard to internet gambling included high addictive potential, distrust of payment methods, insufficient knowledge of internet gambling, distrust of the operators of the gambling websites, omnipresent publicity, and distrust of chances of winning. Despite the large distrust and low popularity of gambling via the internet, there appears to be great willingness—under certain conditions—to gamble online in the future. Of the respondents who have not yet participated in internet gambling 39% indicated they would do so in the future. Many of the respondents are willing to gamble via the internet when they can trust more the medium, the payment methods, or the operators. One condition cited by many respondents for engaging in internet gambling in the future is the implementation of the necessary measures to prevent gambling addiction. Consequently, the popularity of internet gambling is expected to increase sharply over the next few years. Not only does the National Lottery plan to offer its products online, but a recent law proposal plans to liberalise the internet gambling market in Belgium and to put it under supervision of the gambling commission. This regulation will increase faith in Belgian gambling websites and will probably result in more Belgians gambling via the internet.

In addition, the study examined the frequency of internet gambling behaviour and the preference of online gambling forms. Since the telephone survey yielded only 45 internet gamblers, the data of the telephone survey were supplemented by the data of 237 online gamblers interviewed by a web survey. Within this sample of internet gamblers ( $n=282$ , mean age 37.7 years, 54% men), 36.5% of the respondents indicated they gambled regularly (weekly or more frequently) via the internet. The survey revealed no gender differences in terms of participation frequency but did in terms of gambling preferences. Male internet gamblers were more likely than women to engage in online betting. Female online gamblers were more likely to play online gambling machines, to take part in online lotteries, and to gamble on online scratch tickets. Compared with non-internet gamblers ( $n=1,750$ , mean age 43.25 years, 43% men), internet gamblers were bigger gamblers with a greater risk to encounter gambling-related harm. Internet gamblers participated in more different types of offline gambling and they gambled more frequently. Moreover, few internet gamblers gambled

only via the internet, 94% of internet gamblers also participated in offline gambling activities. Internet gamblers were also more likely to be problem gamblers than non-internet gamblers, with 13.3% of internet gamblers compared with 3.1% of non-internet gamblers considered as problem gamblers. These results indicate a higher addictive potential of internet gambling.

Griffiths (2003) has referred to a number of factors that make online activities, such as internet gambling, potentially addictive. Such factors include anonymity, the potential to provide an emotional or mental escape, the potential to provide feelings of dissociation, high accessibility, high event-frequency, uninhibited environment, the interactive nature of the internet, the convenience, and/or the asocial nature of the internet. In light of the increased addictive potential of internet gambling, and the expected increase of prevalence rates, it will be of great importance to include an efficient consumer protection policy within this planned regulation. However, the current law proposal does not pay much attention to developing harm-minimisation regulations.

More popular than internet gambling for money are free practice modules (2.5% of the respondents having participated in the past year) and the free participation in online contests or lotteries that promise all kinds of prizes or trips (8.3% in the past year). Both free practice modules and free contests or lottery games are more popular among 16- to 24-year-olds. Within this age group, 8.2% indicated having participated in the free practice modules in the past year, and 22.2% having participated in free online contests or lotteries. Both the free practice modules and the free online contests can be a first step towards internet gambling for money. The study (Druine et al. 2006) also showed that, of the people who participated in free practices modules or and free contests via the internet, 68% indicated they were ready to pay for internet gambling in the future.

### 3 Action

When talking about the prevention of gambling problems, the international literature often refers to the term responsible gambling. For example, within the Reno Model (Błaszczynski, Ladouceur

& Shaffer 2004), responsible gambling is defined as “those policies and practices designed to prevent and reduce potential harms associated with gambling” (p. 308). Problem gambling is increasingly viewed as a public health issue (e.g., Korn & Shaffer 1999). The public health frame explores biological, behavioural, socio-economic, cultural, and policy determinants of gambling and provides development and implementation of concrete prevention initiatives and policies. Interventions are directed at shifting factors at both individual and socio-environmental levels (Messerlian, Derevensky & Gupta 2005). These authors distinguish between five levels of factors that have an impact on (adolescent) gambling behaviour: intra-personal factors relate to individual characteristics. At the interpersonal level are factors such as social networks and support systems (e.g., family and peers). The institutional level houses rules, regulations, and policies associated with social institutions (such as school and the gambling industry) that can constrain or promote gambling behaviours. At the community level there are social norms, values, beliefs, and behaviours regarding gambling. Finally, public policy factors comprise several legislations and laws at the social, educational, health, economic, and judicial level. The view that problem gambling is a public health issue that aims to modify the different levels within this multi-dimensional model also requires the various stakeholders involved (such as consumers, the gambling industry, the government, researchers, welfare organisations, and community groups) to collaborate in the prevention of gambling-related harm.

In the following section, a number of concrete preventive actions and policies on responsible gambling in Belgium are outlined. Also examined are which level factors are targeted and which stakeholders are involved (e.g., industry, government, welfare organisations). In the discussion there is an attempt to distinguish between primary, secondary, and tertiary prevention. In the description it will become apparent that preventive efforts and policies on problem gambling are based on intuitive assumptions rather than on empirically founded models. There is clearly a lack of theory-based prevention and policies in which empirical knowledge is translated into concrete strategies that need to be evaluated.

### 3.1 Primary Prevention

Primary prevention strategies aim to protect people from developing gambling problems. This includes information and awareness campaigns about the characteristics of problem gambling, directed at specific target groups and/or the general public. Various institutions, self-help groups, and treatment centres have developed public awareness materials about pathological gambling, including brochures and leaflets. In addition, a number of websites provide more information about the characteristics, legislation, risks, treatment, and other factors relating to gambling and gambling addiction. However, these campaigns do not reach the general public. So far, there have been no large-scale public awareness campaigns using mass media such as radio and television. However, the first large awareness campaign is planned for the end of 2007. Overall, the knowledge and awareness of the Belgian public about the characteristics of problem gambling probably is too small. Gambling is still seen primarily as an innocent pastime for the young and the elderly.

Adolescents and young people are an important target group of primary prevention strategies. An annual survey among pupils (Kinable 2006) revealed that 40% of the minors (aged 12 to 18 years) participated in various gambling activities. The previously discussed study (Druine et al. 2006) indicated that prevalence of problem gambling in the age group "16–24 years" is twice as high as in other age groups. Although there are no prevalence rates available for adolescents younger than 16 years of age, it can be assumed that this age group also constitute a vulnerable group for developing gambling problems. However, prevention and awareness programmes targeting young people are virtually non-existent.

One of the responsibilities of the gambling industry is to inform its clients about the risks and rules of gambling. In this respect, an interesting guiding principle is that of "informed choice" (Blaszczynski et al. 2004). This means that the ultimate decision to gamble represents an individual choice. But to make this decision, individuals must be informed by the gambling industry about the odds and likelihood of winning and the payout schedules, as well as about the risk factors, attitudes, and beliefs that determine their choice. In this context, the National Lottery has (since 2005) provided infor-

mation about the chances of winning and the payout schedules on the back of lottery and scratch tickets. Every year, the National Lottery also organises a month-long awareness campaign at its points of sale to emphasise the statutory prohibition on minors (under the age of 18 years) participating in games of the National Lottery. This statutory prohibition is not very well observed. Mystery shopping at the National Lottery points of sale by a consumer organisation revealed that 85% of the points of sale included in the study (n=52) sold Lottery or scratch tickets to the minors (aged 12–14 years) who participated in the study (Vandercammen, Meirman & van den Broeck 2006). Annually, the National Lottery also organises another 1-month awareness campaign at its points of sale by means of banners on a number of websites of major Belgian newspapers. The campaign uses the slogan "Excessive gambling can have serious consequences". Leaflets are available at the points of sale containing information about the risks of excessive gambling, the notion of chance, tips for more responsible gambling, a self-evaluation of the gambling behaviour, and the addresses to turn to for more information and for requests for help. Neither of these awareness campaigns has ever been properly evaluated. In addition, casinos, gaming arcades, and pubs operating bingo machines, are required by law to offer their clients leaflets relating to gambling and gambling addiction. The leaflets provide information about the characteristics of pathological gambling, some tips for responsible gambling, a self-evaluation, and addresses of treatment centres.

Another aspect covered by primary prevention pertains to the development of standards and regulations in terms of advertising and marketing for gambling products. When applying the principle of "informed choice", this means that advertising and marketing campaigns should meet certain ethical codes that include a prohibition to provide misleading information or misrepresentations of the chance of winning and a prohibition of advertisements that target or benefit from vulnerable groups such as minors. In Belgium, it is mainly the National Lottery that advertises by using all types of media (i.e., television, radio, the internet, newspapers). The products of the National Lottery are also often promoted on television shows. A key marketing strategy is to associate the products of the National

Lottery with all kinds of health and welfare initiatives. Some advertising campaigns of the National Lottery tend to provide misleading information. For example, chances of winning are often misrepresented by giving people the feeling they have a good chance of winning (“And now it’s my turn!”) or by overemphasising jackpots (“Get outrageously rich!”) without telling the consumers the exact chance of winning the jackpot. Advertising for other forms of gambling is far less common. Only casinos and gaming arcades are currently allowed to advertise. However, an ethical code to regulate advertising for these gambling products does not yet exist. It is forbidden to offer inducements to gambling such as free tokens or coupons. Free travel, drinks, or meals (up to €50 per week and per person) are only allowed in casinos.

Both regulations aimed at curtailing the availability of gambling products and venues and regulations in terms of age restrictions are potential measures to prevent people from exposure to gambling products and to protect them from developing gambling problems. As mentioned previously, the number of gaming arcades in Belgium is fixed by law to 180 and the number of casinos is limited to nine. There are no legal restrictions on the number of National Lottery points of sale (currently about 6,500) or the number of pubs operating one or two bingo machines (currently about 7,500). The newly proposed law intends to extend the scope of the May 1999 legislation to sports betting. It will also provide a restriction on the number of fixed betting offices (to a maximum of 1,000) and mobile betting offices (to a maximum of 60). The operation of gambling machines at fixed betting offices is a potential cause for concern.

### 3.2 Secondary Prevention

Secondary prevention comprises strategies aimed at minimising harm among risk gamblers in order to prevent problems that are more serious. The May 1999 legislation includes a number of regulations that can be labelled as secondary prevention. A number of measures are designed to enhance the gambler’s capacity to keep spending under control and to protect the gambler against excessive gambling. One regulation is the prohibition of ATM facilities in casinos and gaming arcades. However, there is nothing to stop ATM facilities from being

installed right next to the entrance or inside the hall of the gambling establishment. Other regulations put limits on the average loss of money per hour, the minimum stake, the maximum stake, and the maximum winnings amounts. Moreover, gambling machines must not be connected to each other to enable gambling for super winnings.

Gamblers have the possibility to exclude themselves from all Belgian casinos and gaming arcades. The exclusion list is supervised by the gambling commission and as of April 2007 contained 4,500 self-exclusions. In practice, since each gambler is required to register before entering, the exclusion can be easily enforced. However, one downside is that they may continue gambling at the bingo machines in pubs or participate in the National Lottery. In addition, gamblers who are excluded from Belgian gaming arcades or casinos may still have access to gambling venues in neighbouring countries, which are often located near the Belgian border. Another drawback is that this exclusion is not linked to counselling or therapy to enhance effectiveness.

A key aspect of secondary prevention is also related to the quick detection and reporting of problem gambling. This can be achieved by enhancing the knowledge of professionals who might be confronted with gambling problems. For instance, the staff of gambling establishments could be trained on how to identify, report, and properly approach people with a potential gambling problem. In Belgium, casino and gaming arcade staff are required by law to take a training course every 5 years about the legal aspects of gambling as well as gambling addiction. This training course is organised by the gambling commission and not by the gambling venue itself, as it is the case in many foreign countries. Here, staff training is often part of a general responsible gambling code. In Belgium, no proactive responsible gambling policy is implemented at gambling venues. The National Lottery is currently preparing plans to develop responsible gambling training for its staff and sales people. Additionally, a responsible gambling committee supervises the activities of the National Lottery, but, so far, no responsible gambling code has been developed to evaluate the responsible gambling policy.

Primary care professionals (general practitioners [GPs], student counselling projects, social workers, etc.) are also well placed to detect gambling



problems in time and to refer these individuals to existing treatment services. Again, much more can be done to develop information and training programmes aimed at raising knowledge of primary care professionals.

### 3.3 Tertiary Prevention

Tertiary prevention relates to the therapy for and treatment of people having serious gambling problems, but also includes effective referral to those services. The study discussed earlier (Minet et al. 2004a) also probed gamblers' knowledge about the assistance available as well as their intention to seek help. The results showed that only 30% of pathological gamblers had intended seeking treatment for their gambling problems. Only 14% of pathological gamblers had at one time or another actually sought help for their gambling problems. One reason for these low rates could be that pathological gamblers are not aware they have a problem or that they minimise their problems. Only 44% of pathological gamblers say they are "heavy gamblers". Another reason is that pathological gamblers do not know where to seek help, with 35% of them not knowing any place where they could get help.

Nonetheless, it should be noted that there are not that many places in Belgium where people with gambling problems can be treated. There are only three treatment centres with experience in the treatment of people with gambling problems. The first one is the Matt Talbot centre in Antwerp, which has offered assistance to individuals confronted with gambling problems since 1970. In 1987, they initiated group meetings for problem gamblers. These conversation groups are organized and hosted by professionals. This is where this type of assistance distinguishes itself from self-help. In addition, the centre also offers individual therapy. Furthermore, centres for alcohol and other drug-related problems (CADs) are organized provincially and offer assistance to individuals confronted with alcohol, medication, drug, and gambling problems. Since 1989, the CAD of Limburg has gained some expertise in the treatment of gambling problems. It offers both individual therapy and group therapy. The latter comprises a course in addition to conversation groups hosted by professionals. People are more likely to attend the course than to join the conversation group or to seek therapy since courses are

aimed at providing information and do not give participants the feeling they are help-seekers. The whole idea is to help participants reduce and/or stop their gambling behaviours by providing educational training. This is done through motivational and behaviour-therapeutic interventions. In 1998, a counselling service for pathological gamblers was set up within the psychiatric division of the university hospital of the Université Libre de Bruxelles. It was named "La Clinique du Jeu Pathologique Dostoievski". It offers both ambulant and treatment to persons who are hospitalised. The treatment is a mix of motivational, behaviour-therapeutic, cognitive, psychoanalytical, and family-therapeutic insights. Related problems such as anxiety or depression can often be treated with medication. In addition, a telephone counselling service is available 24 hours a day, 7 days a week for emergency situations.

Assistance to people with gambling problems can also be offered by ambulant or residential centres that are not specialised in the treatment of people with gambling problems. In 2003, a survey by Minet et al. (2004b) among the mental health sector aimed to get an overview of the existing help programmes and referrals for people with gambling problems. Questionnaires were sent to ambulant and residential centres, as well as to independent psychologists and psychotherapists. The organisations were asked how frequently they were confronted by individuals seeking help for their gambling problems, if they offer any treatment for gambling problems, to which organisations they referred problem gamblers when they do not offer any assistance, and whether they had any registration data on gamblers seeking help. Organisations providing assistance to gamblers were also asked to detail these help programmes. They were also probed about the theoretical background of the help programmes, their objectives, as well as possible evaluation data, and plans for the future.

Results indicated that the vast majority of the organisations contacted indicate they are only rarely (i.e., less than every 3 months) confronted by individuals seeking help for gambling problems. Organisations dealing more frequently with gambling problems (every month or every 3 months) tended to be organisations that also dealt with problems often associated with problem gambling, such as homelessness and poverty, judicial problems, or other types of addiction (alcohol and drugs).

The most frequently emerging profile of help-seeking gamblers was that of a man aged 25 to 50 years, divorced, and who lives alone. In most cases, these are poorly educated men from a lower social class. Yet, men from the higher social classes were also cited. The gambling problems were often associated with other addiction problems. These data fit the profile that emerges from the registration data of the CAD Limburg on its help-seeking gamblers between 1996 and 2000 ( $n=643$ ). Among the group of persons seeking help for gambling problems in this treatment centre, 95% were men, 40% were between the ages of 25 and 34 years, and 52% were single.

Moreover, only few of the treatment centres and psychotherapists also provide assistance when requested for help from problem gamblers. In 70% of the cases they referred those people to counselling, which is more familiar with gambling problems. Often the distance to these specialised centres was too large, requiring counselling closer to home. One of the reasons problem gamblers were referred is the lack of knowledge and skills among these professionals on treating gambling-related problems.

Finally, in addition to professional counselling, several self-help groups for problem gamblers have been organised in Belgium since 1986. Their working method is based on the model of Alcoholics Anonymous. The aim of these self-help groups is to offer assistance and support by bringing together problem gamblers or their relatives, and to share similar experiences. Self-help groups generally are generally not led by professionals and they develop their own working methods with their own rules and arrangements.

## 4 Conclusion

The Belgian gambling industry, both the private sector and the state-owned National Lottery, is an important socio-economic sector and a source of income for many individuals, families, and the government. In addition, gambling provides the financial resources for subsidies to a wide variety of charities as well as art, culture, science, sports, and welfare projects. However, the few available empirical studies seem to indicate that gambling is less popular in Belgium than in other European coun-

tries, the USA, Canada, and Australia. Gambling participation in the past year in Belgium was about 60%. Lottery products and scratch tickets from the National Lottery are by far the most popular and the most salient in society. In addition, television phone-in quizzes being offered on various commercial television channels are also popular. The past-year participation rates for the other gambling activities (casino, gambling machines, bingo machines, sports betting, and playing cards for money) are comparatively low. The currently participation in internet gambling also appears to be negligible. Unsurprisingly, the majority of the population fall into the low-risk category along the continuum of gambling involvement. These people either do not engage in gambling activities or are social gamblers to whom gambling is a source of entertainment within the limits of time and money at their disposal. These individuals run little or no risk at all of developing gambling-related harm.

Nevertheless, a substantial proportion of the population fall into the category of people at risk for developing gambling problems. These people experience (to different degrees) some of the negative consequences of their gambling behaviour. Despite low gambling participation rates, 2% of the Belgian population can be qualified as problem gamblers. Among the group of problem gamblers, 1.6% are at-risk gamblers having some gambling-related problems, and 0.4% can be qualified as pathological gamblers. Men, young people (aged 16 to 24 years), single people, and people from the lower social classes are most at risk of developing gambling problems. Problem gambling has negative consequences for the individual, the family, and society as a whole. These consequences include financial problems, relational problems, divorce, job loss, judicial problems, psychological problems, and alcohol and substance abuse. Despite bans, minors also engage in different forms of gambling activities. There are some indications that continuous gambling forms such as gambling machines, bingo machines, and casino have a comparatively high addictive potential. However, more research into the addictive potential and dangerousness of gambling products is needed. It is important to use this knowledge to develop effective responsible gambling policies.

Overall, problem gambling is a heterogeneous phenomenon that requires a multi-dimensional

approach with preventive efforts targeting factors at different levels. In general, gambling should be viewed as a public health issue. This also entails the need for more scientific research to identify risk factors and most vulnerable groups. It is also of major importance to translate this scientific knowledge into responsible gambling strategies and policies. In particular, there is an urgent need for evidence-based prevention efforts because the availability of gambling opportunities in Belgium will increase sharply in very near future. A current law proposal provides not only for an increase in the number of betting offices, but also for the operating of gambling machines at those betting offices. In addition, gambling activities will be increasingly offered through new media such as television, the internet, and mobile telephones. The proposed law aims to control the negative fallout of internet gambling by liberalising internet gambling in Belgium. The National Lottery also plans to expand its product range and to use modern technology. Associated with this increase in gambling availability, it is to be expected that not only the prevalence of social gamblers, but also the prevalence of gambling-related problems will increase in the future. In addition to the socio-economic benefits of gambling, policy makers also will have to pay more attention to develop an efficient consumer protection policy. Unfortunately, the current law proposal does not pay much attention to developing harm-minimisation regulations, and only marginally addresses the issues of protection of vulnerable groups and prevention of gambling-related harm.

In order to minimize gambling-related problems, the various key stakeholders—governments, the industry, treatment centres, the research, and welfare sector—must collaborate. At each of these prevention levels—primary, secondary, and tertiary—concrete interventions need to be developed, implemented, and evaluated. First and foremost, there is a need for information, education, and awareness campaigns addressing the risks and characteristics of gambling directed at specific target groups. In this regard, special attention must be paid to adolescents and young people. Large-scale public awareness campaigns using mass media are needed as well. Such campaigns should raise awareness among the general public about the risks associated with excessive gambling. In

addition, they should question the social acceptability and innocent image of certain gambling activities. These campaigns may also help to break the taboo surrounding pathological gambling, making it easier for problem gamblers to seek help. In addition, the ban on minors engaging in gambling activities should be better respected and enforced. This relates especially to purchasing National Lottery products and gambling on bingo machines in pubs. Another major challenge is to develop effective measures in order to prevent minors' access to gambling websites. Additionally, ethical standards and regulations need to be created with regard to advertising and marketing for gambling products. Also, in other areas of responsible gambling, the gambling industry, not just the private industry but the state-owned National Lottery as well, needs to play a more active role in the prevention of gambling-related harm. The industry should adopt a proactive prevention policy and develop a responsible gambling code. Regular staff training on how to detect and approach problem gamblers as well as consumer education and information are some of the main pillars.

In order to develop a coherent responsible gambling policy, the gambling industry needs to collaborate with organisations that have the expertise in this area. Better cooperation with treatment centres may also stimulate the referral of pathological gamblers. The effectiveness of exclusion from gambling venues can also be increased by linking the exclusion to counselling and treatment services. To what extent exclusion could be enlarged to include other gambling venues or even other countries should also be examined. Early identification of at-risk gamblers and adequate referral of pathological gamblers can also be stimulated by developing education and training programmes for primary care professionals, including GPs, student counselling projects, and/or social workers. In addition, telephone help lines that may be called day and night can provide information on a confidential basis and motivate people with gambling problems, as well as refer them to available treatment centres. Last but not least, it is important to further expand the availability of treatment programmes and services. Training and education should increase the knowledge and skills of professionals about the treatment of gambling problems.

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# 2 Denmark

Jakob Linnet

## 1 Background

Denmark is located in Northern Europe, together with the other Scandinavian countries. It has 5.5 million citizens and a gross national product of € 22,000 per capita, making it the fifth richest country in the EU. Gambling in Denmark has increased vastly over the past few decades, since the introduction of *Lotto* in 1988. From 2002 to 2005 alone, the industry grew 38% from an annual turnover of €2.05 billion to €2.82 billion (Bonke & Borregaard 2006). Denmark, along with other Scandinavian countries, has taken the position to preserve a state-controlled gambling market.

According to Örnberg (2006), this monopolistic structure of state-controlled gambling has come under pressure in the EU from forces of general deregulation and harmonization, as well as from consumer wishes not to have state interference in the personal business of citizens. The battle between state regulation and deregulation of gambling has been fought in the court systems both at the national level and in the EU. Generally, the EU has upheld the rights of nation states to develop state-controlled gambling laws based on public order and consumer protection. However, the EU courts have emphasized that generating profit in itself cannot be considered “public order” or “consumer protection” (Örnberg 2006). The member states therefore have to demonstrate a wish to protect the public order through their gambling legislation, including limiting the advertisement for gambling, taking measures to reduce problem gambling,

and donating the gambling revenues to social and humanitarian causes.

In 2005, the Danish government changed the mandate of Danske Spil A/S (Danish Games), the largest game provider in Denmark, to explicitly emphasize controlled advertising of gambling, as well as measures to reduce problem gambling. So far, however, it remains to be seen whether the measures are sufficient to reduce and prevent problem gambling, or if further steps are needed to reduce the spreading of problem gambling in Denmark.

### 1.1 History of Gambling in Denmark

Historically, gambling has been prohibited in Denmark since 1753 when a royal decree by king Fredric the Fifth banned gambling due to the “imminent love and fatherly care for our beloved subjects, and to avoid among those fragile, the opportunity to squander what they have acquired” (Skatteministeriet 2001; author’s translation). However, the prohibition was exempted through special permits or licensing from the King and (later on) the Danish state. In 1753, Det Kongelige Københavnske Klasselotteri, later Det Danske Klasselotteri (The Danish Class Lottery), was granted a gambling license contingent upon taxation towards the poor and needy (Skatteministeriet 2001). Various other lotteries were established in Denmark until 1930, where the Royal decree was replaced by the first gambling legislation in Denmark. In 1948, the law on sports betting was

introduced, and with that the establishment of Dansk Tipstjeneste A/S, now Danske Spil A/S (Danish Games; Skatteministeriet 2001). Dansk Tipstjeneste was incorporated as a private limited company between the Danish state owning 80% of the shares and the two largest sports organizations in Denmark, Danmarks Idræts Forbund (DIF; Danish Sports Federation) and Danske Gymnastik og idrætsforeninger (DGI; Danish Gymnastics and Sports Association), each owning 10% of the shares. The gambling revenues from Dansk Tipstjeneste A/S—the so-called Tipsmidler—were distributed between DIF and DGI, together with other humanitarian organizations. To date, DIF and DGI remain the only private shareholders of Danske Spil A/S, as well as the largest recipients of gambling revenues in Denmark.

From 1948 to 1988, Dansk Tipstjeneste A/S was only allowed to provide sports betting, but, in 1988, *Lotto* was introduced, which increased the gambling revenues substantially (Skatteministeriet 2001). In 1990, the parliament passed legislation to license casinos in Denmark. Before then, only one casino (Hotel Marienlyst) had received a license by decree from the King to provide gambling services, mainly for its affluent summer residents. A total of ten casino licenses were permitted in the 1990 legislation, of which six are currently occupied (Copenhagen, Marienlyst, Odense, Vejle, Århus, and Aalborg).

In 1992, Dansk Tipstjeneste A/S was mandated to provide all types of games. In the same year, Det Danske Klasselotteri was incorporated into a private limited company with the Danish state as the sole shareholder (Skatteministeriet 2001). Today the following games are accessible in Denmark: lotteries (including scratchcards), betting and sports betting, totalizator games, bingo, slot machines, casinos, and internet gambling.

In 2001 the so-called Automatlovgivning (Lov om Gevinstgivende Spilleautomater [Slot Machine Legislation]) was passed after public concern that the significant increase of gambling in Denmark resulted in widespread problem gambling. The Slot Machine Legislation allocates 1% of the slot machine revenues to treatment and research on problem gambling, with two thirds going to treatment and one third to research. Also in 2001, the Spillemyndigheden (Danish Gaming Board) was established under the Ministry of Taxation, which oversees all games in Denmark and provides licensing and regulation with all slot machines.

## 1.2 Legislation on Specific Gambling Activities

### 1.2.1 Lotteries, Scratchcards, and Bingo

Lotteries, scratchcards, and bingo games are all under the same legislation, and it is illegal to hold any of these without an authorization. Besides *Lotto*, the three biggest lotteries authorized on a national basis are: *Landbrugslotteriet*, *Vare- og industrilotteriet*, and *Danske klasselotteri*. The Ministry of Justice or the director of the Police can give authorization to charitable causes restricted to a local area, and to other organisations domiciled in Denmark. In cases in which organisations arrange bingo games for members only, and where the prizes do not exceed €651, no license is needed. In bingo the winnings may be gifts or gift vouchers at any value, as long they cannot be converted into cash. The district police can make exemptions from this rule, and will decide what is considered suitable and reasonable prizes (European Commission 2006). There is no legislative age minimum for purchasing lottery coupons or scratchcards or participating in bingo. However, Danske Spil A/S enforces an age limit of 16 years for purchasing lottery coupons and scratchcards in its stores, and an 18-year age limit for gambling on the internet.

### 1.2.2 Casinos

The age limit for entering a casino in Denmark is 18 years. In order to run a casino, an operator must obtain a permit from the Ministry of Justice, and demonstrate that the casino is satisfactorily managed. Casinos must follow several rules to be lawful, including registering information about their customers, and must follow regulations regarding the gaming money and staff. The police supervise the casinos (European Commission 2006). The Ministry provides these regulations and can also decide on different things such as the maximum and minimum stakes. It is up to the police to make sure that the regulations are not violated by the casinos.

### 1.2.3 Slot Machines

Permits for placement and running of gambling machines are issued by the Danish Gaming Board, and can be given to restaurants, bars, gaming halls, etc. Restaurants with an alcohol permit can have up to three gambling machines. Permits for placement and running of gambling machines can be

given if one can assume that the applicant will run the activities with gambling machines in a good defensible way. There is a minimum age limit of 18 years for playing on slot machines in Denmark (European Commission 2006).

### 1.2.4 Internet Gambling

Games on the internet that are not provided by Danske Spil A/S are in principle not allowed in Denmark. While the Danish authorities cannot prohibit Danish residents from using foreign internet sites for gambling, it is illegal for foreign game providers to offer gambling, which by its marketing methods, choice of language, or selection of games is targeted directly at Danish consumers. This includes that the game provider's homepage is written in Danish, has a Danish customer service, or in other ways show that the gaming is directed at Danish consumers (European Commission 2006).

### 1.2.5 Media Gambling

At the moment, media gambling falls under the jurisdiction of the legislation regulating gambling services. Danske Spil A/S provides most of their games on the internet but, as previously mentioned, advertisement for and by foreign game providers is not allowed, and advertisements on the internet may not be directed at the Danish market (European Commission 2006). However, short message service (SMS) contests and other types of "knowledge games" are widely used as lotteries both in television sports programmes and other entertainment programmes. Participants are charged with an SMS surcharge for entering the competition, and the person's answer is entered into a lottery.

## 1.3 Gambling Turnover and Distribution of Lottery Grants (Tipsmidler)

It is estimated that the total gambling turnover in Denmark is €2.823 billion, not including turnover from casinos, internet casinos, and poker sites (Bonke & Borregaard 2006). The actual gambling turnover is therefore considerably higher. The estimated gambling turnover from 2002 to 2005 is summarized in Table 2.1., and shows a 38% increase in total gambling turnover during the period. As can be seen from the table, the single largest contributor to the gambling turnover in Denmark is slot machines, which account for about half

TABLE 2.1. Gross sales on the Danish gambling market (2002–2005), in €millions.

	2002	2003	2004	2005
<i>Lotto</i>	480	482	498	494
<i>Tipning</i>	45	42	37	33
<i>Joker</i>	65	66	79	92
<i>Keno, Trackside, Boxen</i>	15	20	52	41
<i>Bingo/banko<sup>a</sup></i>	158	158	158	158
<i>Oddset</i>	99	187	200	204
Scratchcards	120	130	120	110
Horse and dog racing	62	62	60	62
Slot machines	921	1.204	1.376	1.526
Casino <sup>b</sup>	—	—	—	—
<i>Klasse-, vare- og landbrugs lotteriet</i>	68	72	78	85
Humanitarian lotteries	17	18	18	18
Total	2.049	2.441	2.675	2.823

<sup>a</sup>Estimate

<sup>b</sup>Gross sales unknown Bonke & Borregaard 2006

of the gambling turnover. The turnover from slot machines rose 66% during the period, from €940 million in 2002 to €1.526 billion in 2005.

The top three games with the largest increase in turnover from 2002 to 2005 were slot machines; *Oddset* (sports betting), which increased 105%; and a compilation of newly introduced games (*Keno, Trackside, Boxen*), which increased 181%. Games such as *Lotto*, scratchcards, and *Tipning*, which have been on the market for many years, either stagnated or decreased slightly in gambling turnover.

## 1.4 Lottery Grants (Tipsmidler)

In 2005, Danske Spil A/S had an approximate turnover of €1.3 billion before prizes and business expenses. The distributed Lottery grants (tipsmidler) were €211 million (see Table 2.2). As can be seen from the table, funds are distributed through seven ministries, with the Ministry of Culture distributing the most funds, and the Ministry of Education and Ministry of Social Affairs being second and third in funds distribution. The largest single recipients of funds are the Danish Sports Federation (DIF) and the Danish Gymnastics and Sports Associations (DGI), which each receive approximately 15% of the revenues. Other big recipients are the Danish youth organizations, which receive approximately 8% of the revenues, and the organizations for the handicapped, which receive approximately 5% of the revenues.

TABLE 2.2. Lottery donations from Dansk Tipstjeneste A/S 2005 in €millions.

Lottery grants 2005		
Ministry	Total € millions	Percentage of total
Ministry of Culture		
Team Denmark	10.6	5.02
The National Olympic Committee and Danish Sports Federation (DIF)	35.13	16.65
Danish Gymnastics and Sports Associations (DGI)	31.97	15.15
Danish firm sport (DFIF)	4.76	2.26
The Danish Foundation for Culture and Sports Facilities	10.2	4.83
Horse racing financing corporations	11.5	5.45
Cultural purposes	35.3	16.73
Total	139.5	66.11
Ministry of Education		
Teaching and general education	3.4	1.61
National educational association	16.9	8.01
Youths	6.6	3.13
Total	26.7	12.65
Ministry of the Environment	7.5	3.55
Outdoor life		
Ministry of Social Affairs		
Handicapped organizations	10.3	4.88
Senior citizens association	3.3	1.56
National social organizations	6.6	3.13
Social affairs	1.8	0.85
Total	22	10.43
Ministry of Interior Affairs and Ministry of Health	6.2	2.94
Disease-fighting organizations		
Ministry of Science, Technology and Development Research	0.8	0.38
Ministry of Finance		
National non-profit projects	6	2.84
Other non-profit projects	1.9	0.90
Total	7.9	3.74
Total amount from "Danske spil"	211	100

Dansk Tipstjeneste A/S 2005

The distribution of funds is a reflection of the representation of organizations that originally took initiatives to the gambling legislation of 1948. Originally, the legislation was meant to support sports and youth organizations, but other recipients

have been included over the years. None of the funds are allocated to treatment, research, or prevention of problem gambling, which instead are funded through the Slot Machine Legislation.

## 2 Evidence

Since the introduction of the Slot Machine Legislation in 2001, Danish initiatives in the cause against problem gambling have increased and have received attention both nationally and internationally. Tables 2.3 and 2.4 summarize the research projects and treatment centres that have received funding through the Slot Machine Legislation.

From a scientific perspective, three approaches stand out as emerging fields in problem gambling in Denmark: (1) social science and public health approaches; (2) treatment and clinical psychology; and (3) cognitive and neuroscientific approaches.

### 2.1 Social Science and Public Health Approaches of Problem Gambling

A number of anthropological and sociological studies have focused on the cultural aspects of gambling, including field studies of gambling locations, life-style, motivation, and ethnic sub-groups (Bonke 2005; Curtis 2005; Hildebrandt-Eriksen 2003; Jansbøl 2005). In addition, historians have attempted to put the current gambling behaviour in perspective in relation to the enlightenment period in Europe (Meiner 2005). Whereas the questions of understanding the social context of gambling have been on the forefront in anthropological and sociological research, the question of prevalence has captured the attention of politicians. In 2005, the Ministry of Taxation initiated a prevalence study of problem gambling in Denmark. The first part of the study (Bonke & Borregaard 2006) consisted of a telephone survey that included 1,366 informants in a pilot study and additional 6,787 in the main study for a total of 8,153 subjects. The survey included men and women ranging from 18 to 74 years of age with varying occupational and marital backgrounds. The study had a 70% response rate, with a higher response rate among women, similar to other prevalence studies in Scandinavian countries.

The study used two diagnostic screening questionnaires, the South Oaks Gambling Screen,



TABLE 2.3. Research projects in Denmark sponsored by the Slot Machine Legislation.

Year/group	Title	Institution
2001		
Per Nielsen	<i>Behandling for ludomani—Komparativ undersøgelse af virkningen af gruppeterapi under indlæggelse respektive ambulant individuel samtalerapi med særlig fokus på beskrivelse af klientkarakteristika</i> [Treatment for pathological gambling—A comparative study of the effect of group therapy under hospitalization versus outpatient conversational therapy, especially focused on descriptions of client characteristics]	Ringgaarden
2003		
Jakob Linnet	Effect of heterogeneous sensation seeking on dopaminergic neurotransmission and energy metabolism in brain of pathological gamblers	University of Copenhagen
Lise Hildebrandt-Eriksen	<i>En etnografi om Spillesteder og Ludomani. En undersøgelse af spillesteder og risici for udvikling af ludomani i et forebyggelsesperspektiv</i> [An ethnography about gambling places and pathological gambling. A study of gambling places and risk of developing pathological gambling in a preventive perspective]	The Centre for Cultural Research, University of Aarhus
2005		
Tine Curtis	<i>Ludomani og sammenhænge mellem ludomani og sundhedsmæssige og sociale problemer i Grønland. Tværkulturel perspektivering til belysning af oprindelige folks særlige sårbarhed</i> [Pathological gambling and connections between pathological gambling and health related and social problems in Greenland. A cross-cultural perspective on the special vulnerability of the original population]	National Institute of Public Health
Jens Bonke	<i>Hvordan bliver man ludoman? Hvem spiller, hvorfor spiller de, og hvilke økonomiske konsekvenser har Deres spil?</i> [How do you become a pathological gambler? Who gambles, why do they gamble, and what are the financial consequences?]	The Danish National Institute of Social Research
Birgitte Simonsen	<i>Kortlægning og analyse samt forebyggelse af nye (hypermoderne) ludomaniformer hos unge, herunder gennemgang af læringsmulighederne ved differentierede oplysningsformer</i> [Mapping, analysis, and prevention of new (hypermodern) patterns of young peoples' pathological gambling. Includes a review of learning opportunities from differentiated information sources]	Learning Lab Denmark, The Danish University of Education
Jakob Linnet	Clinical, psychological, and neurobiological aspects of gender differences in pathological gambling	Center of Functionally Integrative Neuroscience, University of Aarhus
Carsten Meiner	<i>Spillekultur i oplysningstiden. Litterære, juridiske, medicinske og moralfilosofiske fremstillinger af frihed og demoni fra 1650–1850</i> [Gambling culture in the age of enlightenment. Literary, legally, medically, and moral philosophically representations of freedom and demoniac from 1650–1850]	University of Copenhagen
Arne Møller	<i>Den spilreducerende spilleautomat</i> [The gambling-reducing slot machine]	Center of Functionally Integrative Neuroscience, University of Aarhus
Ulf Kaare Jansbøl	<i>Livet i spil: Antropologisk undersøgelse af sammenhænge mellem spillernes liv, spil og forvaltning</i> [Life in gambling: An anthropological study of connections between the gamblers life, gambling, and administration]	University of Copenhagen, Department of Anthropology

revised (SOGS-R; Lesieur & Blume 1993), and the National Opinion Research Center Diagnostic and Statistical Manual of Mental Disorders (DSM) Screen for Gambling Problems (NODS) (Gerstein

et al. 1999). Both measure lifetime prevalence and past-year prevalence of gambling. The SOGS is a 16-item questionnaire, which was one of the first validated instruments for pathological, problem,

TABLE 2.4. Treatment and research funds from the Slot Machine Legislation, in €thousands.

	2001	2003	2004	2005	2006
Research <sup>a</sup> (combined)	336	765		1,074	
Treatment <sup>b</sup>					
Center for Ludomani		1,020	1,167	1,208	1,208
Frederiks bergcentret		188	255	268	268
Minnesota Center Fontana				201	201
Majorgården					201
Treatment total		1,208	1,423	1,678	1,879

<sup>a</sup>Ministry of Science and Technology (estimated amounts)

<sup>b</sup>Ministry of the Interior and Health

TABLE 2.5. Comparison of prevalence studies in Denmark and Norway (in percentages).

		1–2 points	3–4 points	5+ points	Total (1+ point)
NODS	Denmark	3.2	0.4	0.3	3.9
lifetime	Norway <sup>a</sup>	4.5***	0.7*	0.6*	5.8***
NODS past	Denmark	1.9	0.3	0.1	2.3
year	Norway <sup>a</sup>	2.3	0.3	0.3*	2.9*
SOGS-R	Denmark	13.3	1.2	0.5	15.0
lifetime	Sweden <sup>b</sup>	15.3	2.5	1.1	18.9
SOGS-R	Denmark	5.9	0.8	0.2	6.9
past year	Sweden <sup>b</sup>	7.3	1.3	0.4	9.1

<sup>a</sup>Analysis by Ingeborg Lund

<sup>b</sup>Analysis by Jakob Johnsson Difference between Denmark and Norway:

\*significant at the 0.05 level,

\*\*significant at the 0.01 level,

\*\*\*significant at the 0.001 level Bonke & Borregaard 2006

and at-risk gambling (Lesieur & Blume 1987). It includes criteria for pathological gambling from the DSM system, and uses the same number of criteria—five or more—to indicate likelihood of pathological gambling. A SOGS score of 3–4 suggests likelihood of problem gambling, whereas a score of 1–2 suggests likelihood of at-risk gambling. The SOGS was later revised into the SOGS-R (Lesieur & Blume 1993), and remains the most cited screening instrument for pathological and problem gambling. The NODS consists of items similar to the SOGS-R, but use the current DSM 4th edition, text revision (DSM-IV-TR) criteria. The Danish prevalence study (Bonke & Borregaard 2006) used the NODS as the main instrument, citing concerns that the SOGS-R has not been updated to include new types of games. The report therefore only included the SOGS-R in the pilot study, and the majority of the results pertain to the NODS. The NODS uses the same division of scores of 1–2 indicating likelihood of at-risk gambling, 3–4 indicating problem

gambling, and 5 or more indicating pathological gambling. Neither the SOGS-R nor the NODS are diagnostic interviews, and neither the Danish translation of the SOGS-R (Linnet 2001) nor the NODS (Bonke & Borregaard 2006) have yet been externally validated against clinical assessment, which introduces an element of uncertainty in the measures.

The Danish prevalence study (Bonke & Borregaard 2006) reported a lifetime prevalence of pathological gambling at 0.3% (approximately 10,000 individuals), 0.4% for problem gamblers (16,000 individuals), and 3.2% for “at-risk” gamblers (120,000 individuals), for a combined lifetime prevalence of 3.9% (see Table 2.5). This was significantly lower than findings in Norway that also used NODS (5.8%). Past-year prevalence in Denmark was 0.14% (5,200 individuals) for pathological gamblers, 0.3% for problem gamblers, and 1.9% for at-risk gamblers. The number of past-year pathological gamblers was significantly lower com-

pared with Norwegian figures (0.3%), but problem (0.3%) and at-risk (2.3%) gambling was similar to Norwegian findings. However, the SOGS-R measures of lifetime and past-year prevalence were similar to Swedish reports. No SOGS-R measures were reported from the Norwegian study. The largest difference in reported prevalence between SOGS-R and NODS was found among at-risk gamblers, where SOGS-R measured a threefold prevalence over the NODS. Approximately twice as many pathological gamblers were found using the SOGS-R compared with the NODS, and two to three times as many problem gamblers were found using SOGS-R.

Looking at gambling activities (Bonke & Borregaard 2006), problem and at-risk gamblers had 5–8 times higher use of slot machines, 5–15 times higher use of poker and dice games, and 5–12 times higher use of sports betting and betting with foreign bookmakers. In contrast, no differences were found in the use of scratchcards or lottery tickets. This is congruent with information from Danish and international treatment centres, which report that treatment-seeking individuals are most frequently addicted to slot machines, with sports betting and poker or casino games ranking second and third (Hansen 2006; Ladd & Petry 2002).

Finally, looking at demographic factors associated with problem or at-risk gambling (Bonke & Borregaard 2006), men were five times as likely to be at-risk or problem gamblers than women, individuals without children living at home were 50% more likely to be problem or at-risk gamblers, and individuals in the top 25% income bracket were 40% less likely to be problem or at-risk gamblers. Furthermore, younger individuals (aged 18–44 years) were 5–50 times more likely to be problem gamblers or at-risk gamblers than older individuals. In summary, the picture emerging from the study of individuals at risk for developing problem or pathological gambling is one of single young men with lower incomes and no children. This is very similar to clinical studies of treatment seeking Danish pathological gamblers (Nielsen & Røjskjær 2005).

The prevalence study by Bonke and Borregaard (2006) found a significantly lower prevalence of problem and pathological gambling compared with prevalence studies from Norway and Sweden. The Danish results are also lower than a recent comparative study of Scandinavian countries (Finland, Iceland, Norway, and Sweden), which found a

pathological gambling prevalence of 0.3% across countries (Jonsson 2006), and they are lower than a previous Danish prevalence estimate by Røjskjær and Nielsen (1999). The important question for the study of pathological gambling prevalence, however, may not lie in whether the prevalence is 0.1%, 0.2%, or 0.3%, but rather in the implications for treatment, research, and prevention.

## 2.2 Treatment and Clinical Psychology

The first reported treatment initiative of pathological gambling in Denmark dates back to 1992, when the treatment centre Ringgården in Middelfart offered treatment of pathological gambling in addition to its core activities of alcohol treatment. Treatment of pathological gambling continued at Ringgården until 1996, when Center for Ludomani (Centre for Pathological Gambling) was established as an independent centre specializing in treatment of pathological gambling. Today, four treatment centres receive funding from the Slot Machine Legislation (see Table 2.4): Center for Ludomani (Centre for Pathological Gambling), Frederiksbergcentret (Frederiksberg Treatment Centre), Minnesota Center Fontana (Minnesota Centre Fontana), and Majorgården (Treatment Centre Majorgården). The Center for Ludomani and Frederiksbergcentret are the two largest centres, and are described below.

### 2.2.1 Center for Ludomani

The Center for Ludomani is the largest treatment centre in Denmark entirely dedicated to the treatment of pathological gambling. The centre currently holds ten full-time therapists, two secretaries, and a number of student workers and part-time employees hired for training purposes. The Center for Ludomani consists of three departments located in Copenhagen, Odense, and Aarhus. The main centre is in Odense, which has an eight-bed inpatient treatment facility for group therapy. The treatment centre in Odense was established in 1996, the department in Copenhagen was established in 2001, and the department in Aarhus in 2004. The Center for Ludomani offers different types of cognitive therapy treatment on both an individual and a group basis. Individual outpatient treatment is provided at all the departments, while inpatient group treatment is carried out at the centre in Odense. Inpatient group treatment

consists of a 2-week live-in seminar with daily sessions of cognitive group psychotherapy facilitated by two therapists. Each group has up to seven participants. As an integral part of the treatment, clients are themselves responsible for arranging cooking, cleaning, and after hours activities (e.g., swimming, watching movies, etc.). Pathological gamblers seeking treatment in Copenhagen and Aarhus are assessed locally, and transferred to Odense for the 2-week seminar in Odense based on treatment indication and availability. The Center for Ludomani holds approximately fifteen 2-week seminars yearly, and receives approximately 400 new contacts per year together with 250 individuals in follow-up or relapse treatment. In addition, the centre offers seminars for relatives twice per month, and organizes an anonymous telephone helpline. Finally, the centre is involved in a number of research projects, and frequently participates in the media and public debate on the subject of pathological gambling.

Treatment-seeking pathological gamblers most frequently report problems in relation to slot machines (72%), sports betting (33%), and casino gambling (26%) (Center for Ludomani 2004). They mostly report addictive behaviour associated with one or two types of primary gambling, which may change over time. Treatment-seeking pathological gamblers have an average monthly gambling consumption of €1,240, and owe an average €18,806 in gambling debts at the time of treatment (Nielsen & Røjskjær 2005). The lifetime consumption of gambling on average amounts to €114,041. Around 80% of pathological gamblers who receive treatment at Center for Ludomani improve their gambling behaviour to a point where they no longer meet the criteria for the pathological gambling diagnosis. This includes a reduction in gambling urges, number of gambling episodes, and amount of money spent gambling (Nielsen & Røjskjær 2005). Most individuals also experience a reduction in psychological symptoms such as anxiety, depression, and stress.

### 2.2.2 *Frederiksbergcentret*

Frederiksbergcentret was founded in 1990 and has received funding for treatment of pathological gambling since 2003. It is a privately owned outpatient treatment centre based on the Minnesota model (Hansen 2006). The centre offers treatment

for alcohol, hash, cocaine, medicine, and gambling addiction, and has two full-time counsellors and an associated family therapist working with relatives. The centre treats approximately 100 pathological gamblers and 40 relatives per year. The treatment consists of a combination of cognitive and behavioural therapy, including techniques of problem solving and relapse prevention, with a focus on stress management and focus of attention. Frederiksbergcentret offers two types of treatment: group therapy three times per week for 6–8 weeks, and individual therapy 1–2 times per week for approximately 3 months. Both treatment forms include 4–8 months of follow-up sessions. Due to the increasing demand for knowledge about pathological gambling, the centre provides teaching and education in pathological gambling to various different professions.

### 2.2.3 *Treatment Evaluation*

The first report evaluating clinical treatment of pathological gambling in Denmark *Spil uden grænser* (Gambling without limits) was published in 1996 (Jørsel, Mamsen & Nielsen 1996). The report evaluated pathological gamblers in treatment at Ringgaarden in Middelfart. A later study (Nielsen & Røjskjær 2005) compared the treatment of 459 pathological gamblers in treatment at the Center for Ludomani. The authors compared gender differences and treatment modality (inpatient versus outpatient) on clinical characteristics and treatment effect. The results showed that significantly more men ( $n=387$ ; 84%) than women ( $n=72$ ; 16%) sought treatment, and that treatment-seeking women were significantly older than men (see Table 2.6). Women also had significantly shorter gambling careers, suffered from gambling problems for a shorter period of time, and spent significantly less money in their gambling career. However, no differences were found on current monthly gambling expenses. Looking at comorbidity at admission, women had more depressive symptoms on the Beck Depression Inventory (BDI), and were more likely both to have had suicidal thoughts and suicidal attempts. Finally, women scored significantly lower on the Zuckerman Sensation-Seeking Scores (SSS), with the largest differences on the subscales of Thrills and Adventure Seeking (TAS) and Disinhibition (DIS).

TABLE 2.6. Differences between female and male treatment-seeking pathological gamblers at the Centre for Pathological Gambling.

	Female pathological gamblers (n=72)		Male pathological gamblers (n=387)		<i>p</i> <
	Mean	Standard deviation	Mean	Standard deviation	
Demographics					
Age (years)	43.9	12.0	33.9	9.4	0.001
Gambling career (years)	8.6	7.2	13.4	9.4	0.001
Years with problem gambling	3.9	4.1	5.6	5.3	0.001
Money spent gambling (€)					
Career	67,286	119,180	122,010	159,188	0.002
Monthly	988	1,103	1,285	1,515	not significant
Psychological assessment					
Depressive symptoms	23.0	12.2	19.3	11.0	0.05
Sensation seeking	16.6	4.9	20.0	5.6	0.001

Nielsen &amp; Røjskjær, 2005

The findings of gender differences by Nielsen and Røjskjær (2005) are supported in the gambling literature, which shows that men start gambling at an earlier age (Grant & Kim 2002; Ladd & Petry 2002; Stinchfield, Cassuto, Winters & Latimer 1997), gamble more frequently (Gupta & Derevensky 1998; Stinchfield et al. 1997), and are more likely to have problems with job or school performance (Crisp et al. 2000). In contrast, women tend to have a later but more rapid onset (Grant & Kim 2002; Ibanez, Blanco, Moreryra & Saiz-Ruiz 2003; Tavares, Zilberman, Beites & Gentil 2001), have more negative emotions such as anxiety and depression (Coman, Burrows & Evans 1997; Hodgins & el-Guebaly 2004; Ibanez et al. 2003), a higher preference for slot machines (Crisp et al. 2004; Gupta & Derevensky 1998; Hing & Breen 2001; Potenza et al. 2001), and use gambling as a way to escape problems (Crisp et al. 2000).

With regard to treatment modality, the authors compared the two major treatment forms at the Center for Ludomani, inpatient 2-week group seminar with outpatient individual treatment (up to 10 sessions). The authors used a pragmatic quasi-experimental design that compared individuals as they were assigned to the different groups by the therapists, not by a randomized order. Participants were evaluated at intake, at discharge, and at a 6-month follow-up. Pathological gamblers in the

inpatient treatment group had significantly more DSM-IV symptoms (DSM-IV 1994) assessed with the Stinchfield questionnaire (Stinchfield 2002) and SOGS. However, both groups showed a significant reduction in symptoms after treatment. Around 20% of individuals in treatment still met criteria for pathological gambling after treatment both in inpatient and outpatient populations. There were no differences in treatment effect in the two groups, suggesting that pathological gamblers in the inpatient group achieved the same results, despite more severe psychopathology. There was a significantly higher attrition rate in the outpatient group, which may suggest a higher dropout of pathological gamblers with more severe psychopathology in this group. As the groups were not randomized, however, the differences in symptom severity could also be a result of assessment and visitation on behalf of counsellors. In either case, the results suggest that efforts to reduce attrition in treatment should focus on the outpatient population.

### 2.3 Cognitive and Neuroscientific Approaches to Gambling Addiction

While treatment, social, and public health approaches to pathological gambling have generated information about who is addicted to gambling, cognitive and neuroscientific approaches primarily focus on

mechanisms of addiction relevant to the clinical manifestations and treatment of pathological gambling. In particular, three mechanisms of addictive behaviour have been investigated: (1) cognitive bias in decision making, (2) dopaminergic reward mechanisms, and (3) structural characteristics of gambling activities.

### 2.3.1 *Cognitive Bias in Decision Making*

Cognitive bias refers to a broad range of misperceptions associated with gambling, including erroneous perceptions, illusion of control, and superstitions (Delfabbro 2004; Delfabbro & Winefield 2000; Floyd, Whelan & Meyers 2006; Ladouceur 2004). One Danish study (Linnet, Rojskjaer, Nygaard & Maher 2006) focused on “chasing ones losses” in pathological gambling. Chasing is a key symptom in pathological gambling in the DSM-IV diagnostic criteria, which can be observed either as returning another day to win back losses (DSM-IV 1994, p. 616), or as persistence in the face of losing (Dickerson, Hinchey & Fabre 1987; O'Connor & Dickerson 2003). The latter can occur within gambling sessions and can lead to either a continuation of, or adherence to, particular gambling strategies, or an increase in risk-taking behaviour. The study looked at “episodic chasing” of advantageous and disadvantageous choice sequences within single gambling sessions on the Iowa Gambling Task (IGT) (Bechara, Damasio, Damasio & Anderson 1994; Bechara, Damasio, Tranel & Anderson 1998; Bechara, Tranel & Damasio 2000). Impaired IGT performance has been associated with a dysfunctional regulation in the ventromedial prefrontal cortex (VMPFC), and has been observed in lesion patients as well as substance-dependent and pathological gambling individuals. These findings support the hypothesis that lack of impulse control in some pathological gamblers is associated with impaired regulation in the VMPFC (Bechara & Damasio 2002; Bechara et al. 2001; Bechara, Dolan & Hindes 2002; Cavendish, Riboldi, Keller, D'Annunzi & Bellodi 2002; Goudriaan, Oosterlaan, de Beurs & van den Brink 2005; Linnet et al. 2006; Petry 2001). The IGT consists of four decks (two advantageous and two disadvantageous), and the purpose of the task is to win as much money as possible by identifying the advantageous decks. The chance of choosing five consecutive advantageous or disadvantageous cards

at random is  $2^{-5} = 0.03125$ , which was the criterion for defining an advantageous or disadvantageous choice sequence. The number of advantageous and disadvantageous choice sequences was compared between pathological gamblers and healthy control subjects. The results showed that pathological gamblers had a significantly fewer advantageous choice sequences relative to disadvantageous choice sequences during losses, i.e., chasing, and that this number was significantly lower in pathological gamblers than in healthy control subjects (see Fig. 2.1). In addition, the results showed that high sensation seekers were more likely to adopt either a very good or a very poor strategy, while low sensation seekers were more likely to adopt a sub-optimal neutral outcome strategy.

### 2.3.2 *Dopaminergic Reward Mechanisms*

The dopaminergic system plays a central role in substance dependence and addiction. It has long been clear that intake of substances such as cocaine, amphetamine, or caffeine are associated with increased dopamine occupancy in the brain, referred to as a dopaminergic “reward” (Volkow et al. 1997; Volkow et al. 2002). Dopaminergic neurotransmission is also related with differences in personality trait (Ablener, Walter, Erk, Kammerer & Spitzer 2006; Suhara et al. 2001) and has been associated with addictive behaviour (Zuckerman 1994), which may suggest that personality traits influence the risk of developing pathological gambling or certain types of pathological gambling. Møller, Kumakura, Cumming, Gjedde and Linnet (in review) investigated the hypothesis that increased patterns of sensation-seeking personality traits is associated with lower receptor availability (and thereby higher dopamine occupancy in the brain). The study used positron emission tomography (PET) with the radioligand [ $^{11}\text{C}$ ]raclopride to measure receptor availability of dopamine  $\text{D}_{2/3}$  receptors in 16 healthy men who completed the Zuckerman sensation-seeking scale. The experiment tested the specific prediction that receptor availability is negatively correlated with sensation seeking, such that highly sensation-seeking men have significantly lower receptor availability than normally sensation-seeking men. The results showed that high sensation seekers had significantly lower binding potential in the putamen than

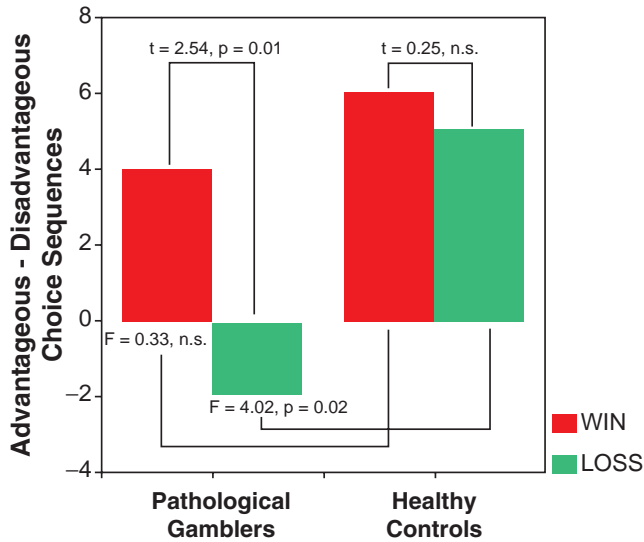


FIG. 2.1. Chasing in pathological gamblers and non-gambling control subjects. *Red bars* represent advantageous minus disadvantageous choice sequences during gains, and *green bars* represent the difference during losses. Pathological gamblers have significantly more disadvantageous choice sequences during losses, i.e., chasing, while healthy controls show no behaviour change. Pathological gamblers show significant chasing patterns of during losses compared with healthy control subjects, while no behaviour differences are observed during gains between the two groups

did individuals with normal range sensation seeking. At the same time there was a significant inverted U-curve between Low, Normal, and High sensation seekers. This may suggest that dopamine receptor availability is a biological marker of sensation seeking as well as addictive behaviour, and may explain the link between the two.

### 2.3.3 Structural Characteristics in Gambling Activities

The structural characteristics of a game, (i.e., the different elements that make up the game), may influence the degree to which gambling behaviour is reinforced as well as the risk of developing gambling-related problems. The study of structural characteristics of games is important to improve our understanding of how cognitive biases work, and which mechanisms in gambling are particularly associated with the risk of developing gambling addiction. Two Danish studies focus on the structural characteristics of slot machines and poker (Linnet, Gebauer, Shaffer, Mouridsen & Møller in review; Linnet, Callesen, Thomsen & Møller in review).

The study by Linnet et. al. (in review) addresses addiction to slot machines, which are considered one of the most addictive forms of gambling activities due to a high event frequency and pay-back frequency (Griffiths 1999). As previously mentioned, pathological gamblers suffering from slot machine addiction is the largest group of the treatment-seeking population (Hansen 2006; Ladd & Petry 2002). The study by Linnet et. al. (in review) compared gambling behaviour between slot machine-addicted pathological gamblers and non-gambling control subjects on one of the most popular Danish slot machines, the *Oriental Express* (*Orientekspressen*). The study was independently funded by the Danish Research Councils and carried out in collaboration with Dansk Automatspil, a subsidiary of Danske Spil A/S. The study showed that pathological gamblers gamble longer on slot machines, are more excited from gambling, and have a stronger desire to continue gambling than healthy control subjects.

The second study (Linnet et al., in review) focuses on differences in cognitive strategies in experienced and inexperienced poker players. Participants were asked to rate the probability of winning on 50

Texas Hold'em style poker hands and subsequently whether they wanted to accept or reject the gamble. The data showed that experienced poker players significantly overestimated the probability of winning while inexperienced poker players underestimated the winning probability. Despite underestimating winning probabilities, inexperienced poker players also accepted more low-probability gambles, which suggests that perception of probability (perceived risk) and decision making (accepting or rejecting gambles) are different aspects of cognitive biases.

### 3 Action

In 1998, a workforce under the Ministry of Taxation, Finance, and Justice was given the mandate to analyze the total gambling market with the aim of coming up with recommendations for a new law for regulation and taxation of all games in Denmark (Finansministeriet 1999). The background for this initiative was the diverse and scattered gambling legislations that differed across several types of gambling and jurisdictions. The work group recommended that: (1) all games should be regulated under one law and one Ministry (Ministry of Taxation); (2) taxation should be made more transparent and include all forms of gambling; and (3) reduction of black market gambling and the spread of pathological gambling should be reduced as much as possible, while still allowing for a competitive nationalized gambling market. Based on these recommendations, Spillemyndigheden (Danish Gaming Board) and Automatlovgivningen (Slot Machine Legislation) were established in 2001. Both have had significant influence on the regulation of responsible gambling in Denmark and the cause against problem gambling.

The Gaming Board has the authority to oversee all games in Denmark, and provides licensing and regulation with all slot machines. While the Gaming Board does not have direct influence on research and treatment of pathological gambling, it is a key player in the policy formation of responsible gambling, which can influence the regulation and spread of problem gambling. The Slot Machine Legislation has given Denmark a unique opportunity to address treatment and research interventions of pathological gambling, and to enable real changes

in the cause against pathological gambling. Hansen (2006) emphasizes that "In many ways, Denmark can be regarded as an innovator of treatment in the Nordic countries. The established treatment services in Denmark are different from in the other Nordic countries in that special care for pathological gamblers has been established" (p. 95). Much the same can be stated about the research initiatives. The success of the legislation is undisputed, and has strengthened a treatment field already in the forefront in Scandinavia and Europe. Furthermore, the legislation has facilitated the development of a research field that is rapidly gaining strength both nationally and internationally. The question with regard to action initiatives is therefore not whether the legislation has been successful, but how it can improve. When considering the effect of the Slot Machine Legislation, it is also prudent to include secondary perspectives on policy makers, administrators, and game providers.

#### 3.1 Treatment

While Hansen (2006) praises the Danish initiatives on pathological gambling treatment, she also notes that "The Danish treatment institutions have to apply for funding each year. This means that they are uncertain whether they will be granted funding each year, and they do not know in advance how much funding they will receive" (p. 95). When the Slot Machine Legislation was formulated in 2001, it was difficult to predict the outcome of treatment and research initiatives. For instance, the initial projections of yearly funds generated from the legislation was € 671,140 for treatment and € 335,570 for research. Today, the numbers have more than doubled. From this perspective it would make sense to distribute funds on a yearly basis, as gambling revenues may fluctuate from year to year. It would also allow for free competition among treatment centres to come up with the best possible treatment services for pathological gamblers. However, having gained more experience with the legislation, it is becoming clear that there may be potential downsides to this way of funding treatment initiatives.

When treatment centres are evaluated on a year-to-year basis, there may be a tendency to evaluate the centres on "quantity" of treatment (i.e., number of pathological gamblers treated each year and



average duration of treatment) and the last year's performance. This leaves little room for planning ahead or venturing into more costly development or evaluation of treatment methods. This puts the treatment centres in an ad hoc position with regard to basic treatment services. An alternative to this situation could be to allocate basic treatment services on 3–5 year performance-based contracts, which would give the centres a better possibility to outline treatment goals and services on which to be evaluated. Special needs funding such as reducing waiting lists, follow-up treatment, or special focus on relatives, which may fluctuate more, could then be sought on a year-to-year basis. From a gambling policy standpoint, it would likely be easier to administer the allocation of funds on a 3–5 year basis and allow for better evaluation of the centres.

According to the Danish prevalence study (Bonke & Borregaard 2006), the yearly prevalence of pathological gamblers is 5,200 individuals, while the current treatment capacity in Denmark is estimated to be 631 pathological gamblers per year (Hansen 2006). This means that the current estimated treatment capacity is 12% of the treatment needs. While not every person suffering from pathological gambling may be motivated for treatment, it can be no surprise that the treatment centres report long waiting lists for pathological gamblers seeking treatment. Under the current legislation, the only way to improve the treatment capacity is to increase the gambling turnover, which, in turn, may mean more pathological gamblers. A status quo scenario of the Slot Machine Legislation is therefore unlikely to result in further steps towards reducing pathological gambling in Denmark.

Another challenge for the treatment centres is that with the current division between treatment and research in the Slot Machine Legislation, the treatment centres are, to a large extent, dependent upon outside expertise in order to evaluate and develop treatment methods. Previous clinical studies (Nielsen & Røjskjær 2005) that have externally evaluated the clientele and treatment effect at the centres have been fruitful both to the centres and the research field, and they have engaged counsellors and researchers in a constructive dialogue. While there is nothing to suggest that this dialogue would diminish in a status quo scenario, there is also no evidence that it would improve. And improvement of treatment methods is necessary for the treatment

field to progress. The treatment centres, it appears, are currently engaged by a high treatment demand, making it difficult to undertake the very laborious task of developing treatment methods, which emphasizes structural clinical interviewing, assessment and diagnosis, as well as implementation of treatment protocols, data analysis, and evaluation.

Three alternative scenarios may be considered for the future, each with different implications for the development of pathological gambling treatment in Denmark. In the first scenario, treatment centres could receive special funding for developing new treatment methods or improving existing treatment forms. This would enable the treatment centres to either free up counsellors at the centres or to externally acquire research expertise. The long-term advantage of such a scenario could be for treatment centres to develop or acquire expertise and knowledge. However, the centres would be faced with the short-term challenge of formulating treatment programs with a priori empirical hypotheses, training staff, and attracting the clinical expertise necessary to carry out such programmes. This challenge would currently more likely be resolved in the research community than in the treatment community, with the study by Nielsen and Røjskjær (2005) being an example hereof.

In the second scenario, researchers could explicitly apply for funding to develop treatment methods from the available treatment funds. The long-term advantage of such a scenario would be the promise of improved treatment methods of pathological gambling, but it would come at the expense of reducing funds to an already strapped treatment field. Applying for funding to develop treatment methods from the research program would involve similar problems, with the added complication that development of existing treatment methods generally stand a very low chance for funding in a research environment.

A third alternative, therefore, may be to allocate special Requests For Applications (RFAs) for the development of treatment methods, which would not deplete current treatment and research initiatives, where researchers and counsellors could focus on formulating projects for advancing treatment methods. The advantage of such a model would be that methods could be tested on smaller populations before being implemented on a larger scale at the treatment centres. This would ensure that treatment centres had access to the most

up-to-date treatment methods, while at the same time avoiding the risk of treatment centres fully engaging in research methods that later proved not to have the hypothesized effect.

### 3.2 Research

The research field is in some respects still catching up to the treatment centres. While several research fields are starting to emerge, pathological gambling research in Denmark is still in a developing phase, and much will depend on the education of new scientists in the field in coming years. The research field has, in many ways, developed from the pioneering work of Nielsen and Røjskjær (Jørsel et al. 1996; Nielsen & Røjskjær 2005; Røjskjær & Nielsen 1999) in three overlapping stages: (1) descriptive approaches and exploration of pathological gambling, (2) differentiation of clinical heterogeneity, and (3) testing hypotheses of addictive mechanisms of specific games or sub-groups of pathological gamblers. The first stage centred on the questions “What is pathological gambling and what can be done about it?”. These questions were the focus of the first official treatment approach to pathological gambling in 1992 at Ringgaarden in Middelfart and of the subsequent report (Jørsel et al. 1996), as well as the focus of the first ministerial report on gambling in Denmark, which included pathological gambling (Finansministeriet 1999). This stage was characterized by the discovery of widespread unintended negative social consequences of gambling in Denmark, and on finding out more about the phenomenon and treating the disorder, which led to the Slot Machine Legislation. Some projects still funded by the Slot Machine Legislation (e.g., anthropological, historical, and ethnographic studies) use descriptive approaches focusing on defining pathological gambling as it occurs in particular parts or periods of society.

The second stage addressed more specific questions, such as “What are the clinical characteristics and heterogeneity of pathological gambling, and who becomes addicted to gambling?”. After the realization that pathological gambling is a serious social problem, this stage focused on quantifying the extent of the problem and differentiating sub-groups of pathological gamblers. An early estimate of pathological gambling prevalence was published

by Nielsen and Røjskjær in 1999 (Røjskjær & Nielsen 1999), followed by the report on clinical heterogeneity in treatment-seeking pathological gamblers (Nielsen & Røjskjær 2005). The year after, the prevalence report on pathological gambling in Denmark was published by Bonke and Borregaard (2006).

The third stage addressed addictive mechanisms of gambling in pathological gamblers and sub-groups of pathological gamblers. This stage focused on testing empirical hypotheses of addictive behaviour with a priori assumptions of differences between pathological gamblers and non-gamblers and between different sub-groups of pathological gamblers. This stage addresses questions such as “What are the addictive mechanisms in pathological gambling, and how do specific games contribute to addictive behaviour in specific groups of pathological gamblers?”. The project by Linnet (2003) focused on the role of dopamine in gambling addiction, while the project by Møller (2005) focused on specific aspects of pathological gambling addiction in relation to slot machines.

The three stages describe an awareness and development of more and more precise hypotheses about gambling addiction in specific sub-groups and games. The research questions for the coming years, which have not yet been asked, include questions such as: “How do specific games contribute to addictive behaviour in specific groups of pathological gamblers?” “What special treatment is required in these groups?”, and “How can addictive behaviour be prevented in specific games?”. Answering these questions is necessary in order to meet the challenge of developing specialized treatment models and methods to reduce attrition rates and target intervention to the different treatment needs across the clinical spectrum. It is also necessary in order to target prevention of gambling addiction of specific games, an area that has yet to be developed in Denmark.

There are vast differences in treatment needs of pathological gamblers depending on age, gender, ethnic background, choice of gambling, comorbidity, and biological or neurobiological predispositions. From a scientific perspective, we are only beginning to understand the mechanisms and heterogeneity of pathological gambling as it is related to, and distinct from, other types of addictive behaviour. Yet, it is clear that any improvement

in the understanding and treatment of pathological gambling must come from increased research of the disorder.

In a recent development, the Danish Research Councils, which manages research applications under the Slot Machine Legislation, has broadened the criteria for application to also include “other forms of excessive addictive behaviour relevant for pathological gambling” (author’s translation). The rationale for this change is to strengthen the field by opening it up to other related forms of addiction. It remains to be seen whether this move will help target research proposals towards a better understanding—and ultimately better treatment and prevention—of gambling addiction, or whether it will lead to a dilution of pathological gambling research.

### 3.3 Policy Makers, Administrators, and Game Providers

The Danish Slot Machine legislation is a win-win legislation from policy, industry, and treatment/research perspectives. Politicians gain popularity by demonstrating the ability to take action on a serious social problem; the slot machine industry shows responsibility by contributing to reducing pathological gambling; individuals and families suffering from pathological gambling receive help when treatment centres are funded, and research contributes to increased understanding and awareness of pathological gambling that is necessary for treatment, policy making, gambling industry, and society at large. There is no doubt that everyone involved with gambling wishes to promote responsible gambling, and that the Slot Machine Legislation has positively contributed to meeting this goal. At the same time, it is clear that the current Slot Machine Legislation has different implications for policy makers, industry, and treatment/research environments.

The slot machine industry funds the Slot Machine Legislation through taxation, while the funds are distributed to treatment centres and researchers through ministries and research agencies. The advantage of the legislation is that treatment and research is funded by merits and not by political or industry interests. Yet, a consequence of the Slot Machine Legislation is that policy makers and the gambling industry lack knowledge-based decision-

making without a forum for interacting with the treatment and research communities. The need for knowledge-based decision-making is apparent from the research initiative of the Ministry of Taxation on determining the prevalence of pathological gambling in Denmark, and on the research collaboration between Dansk Automatspil and Center of Functionally Integrative Neuroscience (CFIN; Møller 2005) on the gambling reducing slot machine. Particularly, because gambling is governmentally controlled in Denmark, access to scientific research for policy makers and gambling industry becomes an issue under the current Slot Machine Legislation.

By authority of the Danish parliament, Danske Spil A/S has the mandate to market and distribute games, including carrying out surveys and focus groups on the popularity of these games. But Danske Spil A/S has no mandate to support or carry out research on responsible gambling. Thus, despite high gambling revenues and donation of “tipsmidler”, Danske Spil A/S cannot directly support research or treatment initiatives working towards responsible gambling. The situation is much the same for policy administrators, particularly the Gaming Board. Despite the mandate to oversee the gambling market and regulate slot machine gambling, the Gaming Board has no means with which to generate fact-based evidence for regulating the slot machine market in Denmark. This means, in effect, that the Gaming Board can enforce the letter of the law with regard to licensing slot machines but cannot produce the research necessary for determining addictive, social, and socio-economical consequences of its regulation of slot machines or other gambling forms. As long as there is gambling, there will be pathological gamblers, raising the question of how gambling can be regulated to maximally reduce problem gambling. Under the current Slot Machine Legislation, these questions remain largely unanswered, limiting the possibilities of promoting responsible gambling in Denmark.

To address issues of problem gambling, the Gaming Board has taken the initiative to organize regular meetings (usually every 6 months) between representatives from the Gaming Board, the gambling industry, and the treatment and research environment. The initiative of the Gaming Board has created a unique forum where gambling industry

and treatment and research environments alike can address current issues of problem gambling relevant to the regulation of a responsible gambling market in Denmark. While the forum has no formal advisory role to the Gaming Board on gambling regulation or responsible gambling, it is an important step in the direction of knowledge-based decision-making.

The challenge of knowledge-based decision-making and regulation of the gambling market has led to the suggestion of a more comprehensive responsible gambling legislation, including not only slot machines but all legalized gambling in Denmark. Such legislation would signal the desire to promote responsible gambling in the entire Danish gambling industry, as well as the desire among politicians to continue taking action against problem gambling. Extending the Slot Machine Legislation into a comprehensive Responsible Gambling Legislation would provide the funds necessary to expand the treatment field towards development of new treatment forms, the research field towards investigating the impact of games on the market, and would allow for the inclusion of information about pathological gambling and prevention of pathological gambling in a responsible gambling market.

## 4 Conclusion

Two events, more than anything, have shaped the current state of research, treatment, and regulation of problem gambling in Denmark: (1) the Slot Machine Legislation that has given Denmark a unique opportunity to address treatment and research interventions of pathological gambling; and (2) the establishment of gambling legislation regulated and overseen by the Danish Gaming Board. The success of both initiatives is undisputed, but has different implications for treatment and research environments, and consequences for the future of responsible gambling in Denmark.

The treatment environment is faced with the challenge of year-to-year funding and with retaining and building expertise in developing treatment methods, for which the current legislation offers little room. While the challenge of year-to-year funding can be solved administratively, by chang-

ing the time frame of funding for basic treatment services, treatment centres depend on the research environments to develop new treatment methods. A central question is therefore how to enable the dialogue and resources necessary between treatment centres and research institutions without compromising current treatment services. The treatment centres are, to a large extent, dependent upon legislators and policy makers to facilitate such changes in development of future treatment options for pathological gamblers. It would be an unrealistic demand to put on the treatment centres under the current circumstances.

The research field has in recent years developed from a more exploratory and descriptive stage to focusing on more precise a priori hypotheses and models of games and pathological gambling. Three research fields are beginning to emerge—(1) treatment and clinical psychology, (2) social science and public health, and (3) cognition and neuroscience. These research fields are gaining national and international recognition, and it is clear that research is the key in advancing the knowledge of responsible gambling and treatment of pathological gambling. The challenge in the research field is to continue the development of precise scientific models and hypotheses of pathological gambling, which can better differentiate the heterogeneity of pathological gambling and ultimately offer better understanding and treatment methods of the disorder.

For policy administrators, the challenge is to ensure that future policy making is guided by fact- and knowledge-based decision-making on responsible gambling. A first important step in this direction is the initiative of the Gaming Board to facilitate regular meetings with representatives from the gambling industry and treatment and research environments. It is clear, however, that fact- and knowledge-based decision-making cannot occur without scientific research of the effects of games and gambling. Currently, policy administrators have no formal mechanism for targeting research-based knowledge of gambling in Denmark. Expanding the current Slot Machine Legislation to a coherent Responsible Gambling Legislation could provide policy makers and policy administrators with the necessary funding for providing research-based knowledge of gambling activities and gambling impact.

The challenges for treatment, research, and policy making in Denmark can be summed up in the following concrete and obtainable measures:

- Treatment
  - Increase treatment funding from year-to-year to 3–5 year contracts
  - Increase treatment capacity to reduce waiting lists
  - Differentiate treatment methods to target specific sub-groups of pathological gamblers and reduce attrition
- Research
  - Focus on hypothesis-driven research with specific models and hypotheses of pathological gambling
  - Increase the education of new scientists in the field of pathological gambling
  - Collaborate on promoting responsible gambling outside research environments
  - Develop treatment methods for specific pathological gambling groups, which can be used at treatment centres
- Policy makers/administrators
  - Continue and increase the dialogue between policy makers, gambling industry, and treatment/research environments
  - Focus on fact-based research of pathological gambling in regulating the gambling market in Denmark
  - Expand the Slot Machine Legislation to a comprehensive Responsible Gambling Legislation, which includes all gambling forms

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# 3 Estonia

Stella Laansoo and Toomas Niit

## 1 Background

With an area of 45,000 square kilometres, Estonia stretches 350 kilometres from east to west and 240 kilometres from north to south. Sea islands form one tenth and lakes about one twentieth of Estonia's territory. Conversely, Estonia's population ranks amongst the smallest in the world. As of January 2007, an estimated 1,342,409 people live in Estonia with a density of only 30.9 people per square kilometre. Estonians have been living in this tiny portion of the Baltic lands since approximately 2,500 BC, making them the longest settled of the European peoples. Due to Estonia's strategic location as a link between east and west, it has been highly coveted through the ages by rapacious kings and conquerors. At the beginning of the 13th century, Estonia was subjugated by the Teutonic knights. Their castles still dot the countryside, in varying states of decay. By 1285, Tallinn was part of the Hanseatic League. Trading activities were dominated by the German merchant families who settled there, and successive generations of Germans built their manor houses across the country. But the Germans were only the first of successive waves of conquerors. Danes, Swedes, Poles, and Russians all swept across Estonia, setting up successive regimes, fortifying their towns and castles, and shipping their goods through Estonian ports. In the late 19th century, a powerful Estonian nationalist movement arose. Eventually, on 24 February 1918, Estonia declared its independence. However, its period of independence was brief

and Estonia was forcibly annexed by the Soviet Union in 1940. In 1991, Estonians again reasserted their independence, and peacefully broke away from the Soviet Union.

After the collapse of the Soviet totalitarian regime and in the early years of the transition period (late 1980s to early 1990s), the populace became politically active. Tens, even hundreds of thousands of people took part in the peaceful protest campaigns (the so-called "phosphorite war", the Song Festival, the Baltic Chain). Through the grassroots civic committees, real steps were taken toward restoring a civic society to the Republic of Estonia. Not much more than a decade after it regained its independence following the collapse of the USSR, the republic was welcomed as an EU member in May 2004. The move came just weeks after it joined NATO.

### 1.1 The Gambling Market

The first gambling operator in Estonia was the Estonian Red Cross, who, in 1933, were granted a government licence to exclusively operate slot machines. Three hundred slot machines, manufactured by the Tartu Telephone Company, were installed in cafés and taverns across Estonia. Playing cards for money was prohibited. Lotteries were arranged for the benefit of various charities.<sup>1</sup>

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<sup>1</sup>I. Amman, personal communication, 2007. Due to the lack of information about gambling issues, the authors contacted the Estonian Gambling Operator Association.



With the occupation of the independent Republic of Estonia by the USSR in 1940, gambling dwindled. Forms of gambling started to flourish since the re-independence of Estonia when gambling was legalized and the emergence of casinos began.

In general, gambling is seen as an attractive pastime in which the majority of people have engaged or will most likely engage in at least once in their lifetime. In this chapter, gambling is used as a term to signify lotteries, card playing, and slot machines, as well as casino games, internet games, and horse and sport betting. Pathological gambling, which until some 25 years ago was considered just a social vice, and not a disorder, has recently received public attention. Today, gambling has become a social, cultural, and economic phenomenon that is enjoyed as a versatile spare time product of modern consumer societies.

The extent of involvement in various forms of gambling depends on the convenience and accessibility of gambling locations. Unrestricted availability of gambling in society creates more possibilities to gamble, which, in turn, poses a greater risk of becoming addicted to gambling (Laansoo 2006). The number of pathological gamblers in Estonian society has a linear relationship with the availability of gambling. Gambling is rapidly gaining popularity, which enables the opening of increasingly more

gambling locations and the introduction of new forms of gambling. Bigger and better opportunities accelerate the number of probable pathological gamblers. This very concern has been expressed by various health organisations and mental health specialists in the world (e.g., Blaszczyński 1998) and the existence of this growing trend is supported by empirical research conducted among the population of a number of countries.

Presently, gambling operators in Estonia are regulated by the Law on Gambling, approved on June 14, 1995. Lottery games are regulated by legislation approved on June 15, 1994. Types of gambling such as slot machines (but excluding lottery games) can only be played in gambling establishments or on ships. Despite the popularity of the lottery among the Estonian population, the largest share of the gambling market is casino games (about 90% of the Estonian gambling market, see Tables 3.1 and 3.2). The small market share of the lottery market is due to smaller bets on the lottery game compared with casino games. The number of tourists involved in the local gambling market remains unknown, however, tourists constitute a large number of casino visitors. In Estonian law, tourists are not required to register at the door when entering a casino, therefore it is difficult to estimate the numbers of tourists who gamble. The

TABLE 3.1. Gaming turnover (excluding lotteries).

	2002	2003	2004	2005	2006
Gross Gaming Revenue (million Euro) <sup>a</sup>	66.6	64	62.4	74.2	107.2
Net revenue per capita (Euro)	49.7	47.1	46.5	55.3	79.7
Net profit (million Euro)	4.4	6.6	13.4	15.1	30.5
Gambling tax (million Euro)	9.3	9.8	10.8	16.2	19.6

<sup>a</sup> Turnover is calculated as company's profits after winnings are paid out Source: Amman 2007

TABLE 3.2. Eesti Loto turnover and sales per capita.

	2002	2003	2004	2005	2006
Gross Gaming Revenue (million Euro) <sup>a</sup>	5.1	5.6	6.8	7.8	9
Net revenue per capita (Euro)	3.8	4.1	5.1	5.8	6.7
Net profit (million Euro)	0.9	0.9	1.2	2.7	2.6
Gambling tax (million Euro)	1.2	1.3	1.6	1.9	2.6

Table refers to the whole of population including children and the elderly. Numbers represent only the sales of Eesti Loto, which constitute 87% of the lottery market

<sup>a</sup> Turnover is calculated as company's profits after winnings are paid out Source: *Eesti Loto* (2007)

number of tourists playing lottery games is almost non-existent.<sup>2</sup>

Liberal legislation has created a situation where gambling establishments are as easy to open as corner stores, regardless of the nature of the building or inappropriate surroundings. In 2007 alone, from January to September, 1,000 new slot machines were added to the Estonian market. In January 2007 there were 3,978 slot machines in total, and by September 2007 the number had grown to 4,927 (Estonian Tax and Customs Board 2007).

The gambling industry has seen a very large growth in the last few years. In 2006, the casino market expanded by 43% and the lottery market expanded by 16%. Lottery and casino turnovers are reported in Tables 3.1 and 3.2. One of the reasons for the very large increase in gambling growth is tourism. To compare lottery and casino games on similar bases, the lottery and casino turnover is calculated on the basis of Gross Gaming Revenue (GGR). Casino turnover only applies to the company profits (i.e., the company's profit after winnings are paid out). Lotteries, however, count total winnings also as part of turnover. The Estonian Gambling Operator Association (EGOA) declares a prize fund at 92–97%,<sup>3</sup> meaning that 107 million Euros represent a mere 3–8% of the total sales. In lottery games, the prize fund makes up 50% of ticket sales.

### 1.1.1 Lotteries

During Soviet times, lottery games were the only form of gambling in Estonia. In February 1971, the USSR Central Sports Committee and Central Administrative Board of Sports Lotteries (NSVL; Riikliku Spordikomitee ja Spordiloteriide Peavalitsuse Eesti Piirkonnavalitsus) opened its Estonian regional head office. The first sports lottery draw in Estonia took place in April 1971 under *Spordiloto* 6/49. In May 1977, an instant lottery was introduced. Following the collapse of the Soviet Union, the Estonian national joint-stock company Eesti Loto was founded in October 1991, and Estonia's very own instant lottery was launched

(i.e., the first ever scratchcard, called the *Lotomari Loos*). Initially, this was a hard currency lottery with a ticket price set in Finn marks. In 2002, the national lottery company introduced selling tickets over the internet as well as via mobile phone service, in cooperation with the mobile telephone company EMT.

In the last ten years, the turnover of the Estonian national lottery company has more than doubled. In 1997, it sold various lotteries for nearly 4 million Euros, whereas in 2006 this sum had increased to 9 million Euros, with instant-win lotteries accounting for about 2 million Euros and draw lotteries for 7 million Euros (Eesti Loto 2006). Today, the national lottery company makes up 87% of the Estonian lottery market, as it holds the exclusive right to hold draw lotteries. Scratch lottery licences have been allotted to a number of other companies. In addition, Eesti Loto holds both draw as well as instant lotteries with the mediation of the Estonian Olympic Committee's sports betting. The most popular lottery games of the national lottery company Eesti Loto are *Bingo Loto* and *Viking Lotto*. From the total turnover of draw lotteries offered, *Bingo Loto* makes up 50% and *Viking Lotto* 40%, or vice versa depending on the year. From the instant lotteries offered, the most popular is *Summ*, with nearly 40% overall sales of instant lotteries. The next most popular is *Miljonär*, with 30% of the market.<sup>4</sup> The Estonian national lottery company is an organisation that earns the state additional income to subsidise areas that need assistance.

### 1.1.2 Casino Games

Following the collapse of the USSR, the first casino was opened in the early 1990s, when the new gambling legislation took effect that regulated the gambling market and eliminated the Finnish model (i.e., slot machines in various locations<sup>5</sup>). As of September 2007, there were a total of 168 gambling establishments (Estonian Tax and Customs Board 2007), most of them small. For example, 44 gambling establishments had 30 or more slot machines (i.e., 32% of the total number). The remaining establishments have considerably

<sup>2</sup>A. Lepp, personal communication, 2007. Due to the lack of information about lottery issues, we contacted *Eesti Loto*.

<sup>3</sup>I. Amman, personal communication, 2007.

<sup>4</sup>A. Lepp, personal communication, 2007.

<sup>5</sup>I. Amman, personal communication, 2007.

fewer slot machines (Meius & Uustalu 2007). Gambling tax increases in 2002 and 2005 have had an impact on the number of gaming tables and slot machines.

Nevertheless, in April 2007, the total number of slot machines on the market compared with their numbers prior to the tax rise had grown by 55.5% (2,793 versus 4,342) (Estonian Tax and Customs Board 2007). Therefore, it can be concluded that the Estonian gaming market is dominated by small gambling establishments rather than large casinos, which in itself poses a serious risk for negative consequences in society. Small gambling establishments are often built into basement floors or basements of apartment blocks, by supermarkets where people make their daily purchases, and in close proximity to day care centres and schools. Gambling establishments strive to position themselves as close as possible to any given person willing to gamble. There are currently 15 casino operators, providing some 2,000 jobs for the local people. Gambling tax is channelled to subsidise education, culture, sports, and social welfare projects.

## 1.2 Regulation of Gambling: A New Legal Framework

As of July 2008, a new legislation will come into effect, and it has passed its first hearing in the Parliament. The need to change legislation on gambling regulation emerged from the existing out-of-date laws, and the increasing number of gambling addicts. The new laws will create restrictions on the rapid growth of the gambling industry and apply a more effective means of supervision. The main aim of the new law on gambling is to further regulate the Estonian gambling market and bring the standards for operating gambling up-to-date, to raise the quality of gambling products by higher demands and stricter supervision of the operators, to raise the reputation and credibility of the overall gambling industry, and to practice responsible gambling. When the new legislation comes into effect, the following changes will occur:

- Age restrictions: In Estonia, a person younger than 21 years of age is forbidden to gamble or visit gambling locations. This restriction is included in the existing as well as the new regulation. However, when it comes to lottery gambling, the present law does not have a minimum age to gamble. The new legislation stipulates that a person younger than 16 years of age cannot purchase lottery tickets or play lottery games.
- Operating lotteries: In Estonia, only entirely state-owned companies may operate lotteries. The new draft Act on gambling stipulates that the government can grant the operating licence only to fully state-owned joint-stock companies, which legally correspond to gambling policies of other countries, reserving that the sole right to organise lotteries to a corporate body, whose stocks are entirely state owned. The primary purpose of state lottery monopoly is to satisfy the popular demand of the gambling impulse, but to do this calculatedly and by offering so-called soft or less addictive forms of gambling. The state stipulates distinctness for applying for licences to operate instant lotteries (Meius & Uustalu 2007).
- Gambling operators: In comparison with the current law, the new legislation stipulates that only corporate bodies whose joint stock is 1 million Euros can organise lotteries. This is a change from the present requirement of 180,000 Euros.
- Minimum size of gambling operation: Under present law, the minimum size requirement for a gambling establishment is eight slot machines and four gaming tables per gambling location. The new legislation stipulates a minimum of 30 slot machines and 5 gaming tables per location. This new requirement will cause many small gambling establishments to close.
- Gambling locations: Given that gambling establishments—to a certain degree—affect their immediate neighbourhood, the new legislation stipulates that gambling establishments are set up in a separate building, which in addition can house either a hotel, conference, and/or entertainment centre. The present law fails to restrict this aspect in any way, leaving it up to the local administrative government to decide whether a permit is granted to operate at a certain location or not.
- Responsible gambling: The new law emphasizes responsible gambling. For example, according to the new draft Act, all gambling operators are required to provide each gambler with a clear warning on the addictive nature of gambling and point out organisations that work with the rehabilitation of gambling addicts. At the moment

this is merely the requirement of the Estonian Association of Gambling Operators (EAGO) and is complied with by members of the association only. Furthermore, a significant change is the requirement to register all visitors entering the gambling premises. This is essential in order to guarantee implementing lists of gamblers that are barred access, and to keep adolescents from entering gambling premises more effectively. Registering persons at the door allows better analysis of clients and the possible need for an individual approach and/or early detection of gambling addiction. A self-exclusion list containing people who have voluntarily asked to be barred access will also be implemented as a means to provide persons suffering from gambling addiction to protect themselves and their families. Presently the self-exclusion list is operationally pioneered by the member operators of the EAGO and has proven itself to be an important tool. According to the draft Act, the gambling operator is obligated to install a system such that people on the self-exclusion list are blocked from gambling, which is overseen by a regulatory body authorized to supervise compliance with this requirement. For failure to comply, the gambling operator can be penalized administratively. The Estonian Tax and Customs Board is the authorized and accountable processor of the electronic database, which is accessible to gambling operators. The legislation allows for assistance that is more effective to individuals suffering from gambling addiction by making it mandatory for all gambling operators to comply with the self-exclusion list, resulting in uniform compliance (including internet casinos) that block pathological gamblers who have requested their exclusion from casinos.

- **Training staff:** The new draft Act requires gambling operators to provide annual training on gambling addiction to members of the staff who come in direct contact with gamblers, in order to enable them to spot heavy gamblers and teach them how to communicate with them.
- **Remote gambling:** Similarly, the new draft Act regulates remote gambling to local and foreign operators by fixing responsibilities of remote gambling operators as well as requirements to register all gamblers' personal data (which, among other things, allows the confirmation of a

person's age through their bank account information or personal ID number).

- **Advertising:** According to the present law, and as far as it is known as of writing this chapter, the advertising regulations will remain the same, with various restrictions applying to advertising lottery and casino games. Lottery games advertise themselves indirectly. Although it is illegal in an advertisement to invite people to buy a lottery ticket, mentioning the jackpot and chances to win is allowed. Every evening on television, viewers can see and hear how much someone has won, which is, in fact, advertising. Theoretically, every advertised prize gives a problem gambler an urge to visit the gambling establishment and win money. As several gamblers have said: "If this person has won, why can't I?". Unrestricted advertising is permitted at the points of sale and on the internet. At the same time, legislation under the Advertising Act prohibits advertising gambling and casinos except in locations where gambling is held. Advertising of gambling is to be understandable and unambiguous.

## 2 Evidence

### 2.1 Research Conducted in Estonia

There have been two surveys conducted in Estonia. The first survey in 2004 (Faktum Uuringukeskus 2004; Laansoo 2006) looked at the extent of contact the Estonian population has had with gambling and examined the characteristic risk factors of problem gamblers. The second study with a multiple cross-sectional design from 2006 was aimed at finding out in what direction the trend of problem gamblers is developing (i.e., is it growing or diminishing?). Additionally, the study examined the gamblers' abilities to manage the running of their day-to-day lives, the links between gambling and impulsiveness, the willingness to take risks, and the use of alcohol. It should be also noted that the research conducted in 2004 and 2006 was funded by the government through gambling tax revenues.

#### 2.1.1 Samples

Both surveys were carried out on the sample of an omnibus survey conducted by a marketing research company. The target population of the survey was

made up of permanent residents of Estonia (a total of 1,049,486 people, according to the Estonian Statistical Office as of January 1, 2005). The respondents were between 15 to 74 years of age, with an average age of 46.3 years in 2004 and 42.3 years in 2006. A thousand residents of Estonia participated in the survey conducted in 2004, and 2,005 residents participated in the 2006 survey. The sample of 2004 was purely an omnibus survey. In 2006 the survey was conducted as a survey to the omnibus survey (n=1,000), in part as a specific survey (n=1,005), in the form of a questionnaire, which was filled in by respondents on their own, and upon completion was placed in an envelope to ensure anonymity. The sample size was therefore 2,005 respondents, of which 53% were women and 47% men. Maximum error margin did not exceed  $\pm 2.19\%$ . However, in the case of smaller groups, the sampling error can be greater.

In recruiting the sample in the 2006 study, the proportional model of recruiting the target population was applied, considering rural versus urban as well as regional aspects. A multi-stage sampling method was used. Firstly, the sample locations were determined—altogether some 100 locations in every area. Points of sampling (which were specified down to starting point addresses) were chosen according to the size of population with a proportional probability. As the source for selecting the starting location addresses, the population register database was used. Following this, 20 respondents from each sample location were selected. In selecting the specific respondents, a starting location address method as well as the so-called young-men-rule was applied. The latter meant that the addressee in the sample was asked to give the questionnaire to be completed by the youngest male member of the household between the ages of 15 to 74 years. If there were no men at home at the time, the questionnaire was filled in by the youngest female member of the household. Altogether, there were 67 interviewers involved in conducting the survey that had previously passed training and had received instructions concerning the specifics of the given questions.

### 2.1.2 Instruments Used in Both Studies

The screening instrument used for assessing pathological gambling was the Estonian version of the

South Oaks Gambling Screen (SOGS; Lesieur & Blume 1987; see also Laansoo & Niit 2004). The lifetime version SOGS consists of 20 items and is a commonly used and validated screening test for pathological gambling. A SOGS score of 3–4 indicates a potential pathological gambler (level 2 gambler), a SOGS score of 5 or more indicates a probable pathological gambler (level 3 gambler). In order to construct an Estonian version of the SOGS, the statements in the original test were translated into Estonian. In addition, certain forms of gambling had to be adjusted to the Estonian equivalents. The adjustments to the SOGS were implemented according to the guidelines by Lesieur and Blume (1992) when using SOGS in various frameworks. In translating certain statements, the authors of the original test were consulted. The internal homogeneity of the SOGS in Estonian was 0.94 (Cronbach's alpha) and the average correlation between statements was  $r=0.35$  (Laansoo & Niit 2004). To measure impulsiveness, Eysenck's Impulsiveness Scale was used (17; Eysenck, Pearson, Easting & Allsop 1985). Additionally, in the 2006 study, the COPE Inventory was used to assess coping strategies (Carver, Scheier & Weintraub 1989) and alcohol consumption was measured with AUDIT testing (WHO 2001) which is one of most widely used alcohol screening tools (Yang & Skinner 2001).

### 2.1.3 Gambling Participation and Gambling Problems

From the study conducted in Estonia in 2006, it was reported that probable pathological gamblers constituted  $3.4 \pm 0.79\%$  of the population or  $35,700 \pm 8,300$  people, which means that with a 95% reliability margin, the number of probable pathological gamblers in Estonia is between 27,400 and 44,000 people. Potential pathological gamblers constituted  $3.1 \pm 0.75\%$  of the population, or  $31,400 \pm 7,800$  people, which means that with a 95% reliability margin, the number of potential pathological gamblers in Estonia is between 23,600 and 39,200 people. Some 75% of the Estonian population admitted to having engaged in some form of forms of gambling (see Table 3.3).

According to the survey conducted in 2004, there were 2.4% probable pathological gamblers and 2.6% potential pathological gamblers within

TABLE 3.3. Prevalence of (problem) gambling.

	2004 (n=986)	2006 (n=2,005)
Potential pathological gambler (SOGS 3–4)	2.6%	3.1%
Probable pathological gambler (SOGS 5+)	2.4%	3.4%
Admitted to have played games of chance	61%	75%

the population. In comparing the results of the two surveys, it can be concluded that there has been an increase in both the number of potential pathological gamblers and the number of probable pathological gamblers. In comparison with survey results in other countries, Estonia has the highest rates of prevalence for both the number of probable pathological gamblers as well as potential pathological gamblers (see Bondolfi, Osiek & Ferrero 2000; Göttestam & Johanson 2003; Volberg, Abbott, Rönnerberg & Munck 2001). One of the possible reasons for higher figures of gambling addiction in Estonia could be attributed to our historical background. During the Soviet time, gambling was prohibited with the exception of lottery games. Since re-independence, the Estonian population has had greater freedoms to occupy themselves. However, most people did not have the ability to weigh the risks of gambling, hence it was viewed as an innocent pastime. The other reason is the availability of casino games, which are present in gambling establishments, in shopping centres, in the basements of apartment blocks, etc.

The majority of respondents (75%) had been involved in one or more episodes of gambling, which is a very large increase when compared with 2004. Lottery games were most popular (72%) among the population. Next in popularity was playing on slot machines (19%), playing cards for money (15%), sports betting (7%), casino games (6%), internet gambling (2%), and horse race betting (2%). As the number of people betting on horses and gambling on the internet was marginal, it is difficult to draw any definitive conclusions. Therefore, these gambling sub-groups have been excluded from the analysis below. Men and women gambled to an equal extent, although their preferences for gambling differed. Whereas playing the lottery was almost equally popular among men and women, fewer women engaged in other types of forms of gambling such as slot machines (12%),

playing cards for money (6%), and casino games (2%) when compared with men (see Table 3.4).

Looking at the gambling preferences among the various social status groups (see Table 3.5), it was observed that lottery games were the most popular form of gambling in every group. Playing card games for money were mostly preferred among students and skilled workers. Casino games were played equally among the entrepreneurs/top specialists as well as skilled workers.

The younger the respondent group, the greater is the number of people that had come in contact with some form of gambling (see Table 3.6). The age groups of the sample had been recruited proportionally to the overall structure of the Estonian population. Therefore, it can be concluded that with a 95% reliability margin, 86±4.95% of Estonian youth between 15 and 19 years of age had been engaged in some form of gambling. In the aforementioned age group, the most popular forms of gambling included playing the lottery (80%), playing card games for money (40%), and slot machines (28%). Playing the lottery was popular in every age group, whereas playing on the slot machines was mostly widespread among the young people, with 40% of the respondents playing slot machines being between 20 and 29 years of age. Among people between 60 and 74 years of age, only 2% of the respondents had played on slot machines. Casino games were preferred by younger people, mostly 20- to 39-year olds.

On average, between 1 to 10 Euros was spent on gambling at one time, mostly on the lottery. This was also played more often than on average, as were card games. A third of respondents (33%) played the lottery at least once a week or more. Casino games were played once a month or less with bets greater than on average (up to 1,000 Euros per day). Fifteen percent of casino gamblers played casino games once a month or more and spent over 1,000 Euros per game. However, none

TABLE 3.4. Gambling participation and gender in 2006.

	Total	Engaged in gambling <sup>a</sup>	Lotteries	Slot machines	Playing cards	Casino games
Men	n=937	48%	72%	26%	25%	11%
Women	n=1,068	52%	70%	12%	6%	2%

TABLE 3.5 Gambling preferences by social status in 2006

	Playing cards	Casino games	Slot machines	Sports betting	Lotteries
Entrepreneur, top specialist	18%	10%	24%	11%	78%
Specialist, clerk	11%	7%	19%	6%	78%
Skilled worker	22%	10%	27%	7%	76%
Student	32%	7%	27%	13%	82%
Retired	4%	0.5%	2%	2%	48%
Unemployed	10%	5%	22%	5%	77%

TABLE 3.6. Gambling by age groups in 2006.

Age (years)	Total		Have gambled	
	n	% <sup>a</sup>	n	% <sup>b</sup>
15–19	205	11	176	86
20–29	376	19	321	85
30–39	347	17	289	83
40–49	367	18	293	80
50–59	324	16	223	69
60–74	386	19	194	50

<sup>a</sup>Percentage of overall respondents

<sup>b</sup>Percentage of the given age group

of the respondents had spent more than 100 Euros on the lottery at one time.

#### 2.1.4 Identification of High-Risk Groups

Below are the profiles that differed considerably from the national average in terms of statistical socio-demographical average within problem gambler groups by gender, age, education and social status, income, and other variables. Overall, there were more probable pathological gamblers than on average represented among men (over 80% in this group). In comparison with 2004, the number of probable pathological gamblers had increased from 1.9% to 2.9% among men, therefore it can be concluded with a 95% reliability that in 2 years the number of additional male gamblers had grown by 1,900 to 8,000 people. In addition, the ratio of women among potential pathological gamblers had increased from 0.5% to 0.8% (see Table 3.7).

TABLE 3.7. Problem gambling prevalence by gender.

	SOGS 3–4		SOGS 5+	
	2004	2006	2004	2006
Men	2.1%	2.3%	1.9%	2.9%
Women	0.5%	0.8%	0.5%	0.5%

The biggest increase in probable pathological gamblers and potential pathological gamblers took place among young people between 15 and 19 years of age (see Fig. 3.1). Compared with 2004, the prevalence rate was lower in the age group of 30 to 39 years, and 60 years and older. In 2004, the number of problem gamblers in the youngest age group made up 0.2% of the population. However, by 2006, the number of problem gamblers had reached 0.9%. Meanwhile, the number of problem gamblers among people between 60 and 74 years of age has decreased, and with just 0.1% is almost non-existent. The highest prevalence of probable pathological gambling was in the age group of 15 to 29 years.

The potential and probable pathological gamblers' groups did not stand out considerably among the rest of the population. Among university graduates, the number of potential as well as probable pathological gamblers was lower (2.2%). Among the respondents with elementary education, there were 4.5% probable pathological gamblers and 3.5% potential pathological gamblers, whereas among the people with secondary education, the figures were 3.3% and 2.9%, respectively. There was a higher than average number of probable pathological gamblers

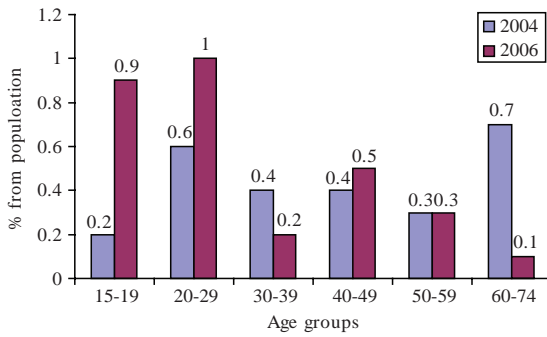


FIG. 3.1. Problem gambling by age groups

found among skilled workers and students, and considerably less among specialists and pensioners (see Table 3.8). In particular, the high number of students reflects a worrying extent of problem gamblers among young people.

On average, there were more potential pathological and probable pathological gamblers found among the higher income group (see Table 3.9). However, a large proportion of the risk groups had no income at all. Looking closely at the structure of the given group, it was revealed that 64% of the respondents were students.

It was found that one third of problem gamblers were city dwellers. Obviously there were more gambling possibilities available in the city than in the countryside. Looking into possible connections between marital status and probable pathological gambling provided no relationship. In relation to pathological gambling, it bore no significance whether the person was married or single, with or without children. Similarly, nationality played no role when it came to gambling habits. Among both the Estonian and Russian-speaking population, the number of potential pathological and probable pathological gamblers was nearly the same: 3.2% among the Estonian and 3.8% among the Russian-speaking respondents.

In examining the possible links between problem gamblers and socio-demographical indicators, the role of various forms of gambling in developing a gambling addiction should also be considered. Therefore, the present study looked into whether certain forms of gambling had a greater risk of developing into an addiction. On average, male problem gamblers more often engaged in several different forms of gambling than female problem

TABLE 3.8. Problem gambling prevalence by occupation in 2006.

Occupation	SOGS 3–4	SOGS 5+
Entrepreneur	3.8%	3.1%
Specialist, clerk	1.3%	1.1%
Skilled worker	4.2%	7.5%
Student	5.2%	5%
Retired	1%	0.5%
Unemployed	2.5%	2%

TABLE 3.9. Problem gambling prevalence by income in 2006.

Income per month per person	SOGS 3–4	SOGS 5+
No income	11%	4.1%
Up to 150 Euro	0.7%	2.6%
151–200 Euro	1.2%	1%
201–300 Euro	2.8%	2.9%
301–400 Euro	3.0%	4.9%
Over 400 Euro	3.7%	4.0%

gamblers, including lotteries, card games, and slot machines. Among women, exclusively playing lottery games was more common. Although the popularity of casino games among men and women was considerably lower, the situation was reverse when it came to probable pathological gamblers who were prevalently engaged in playing casino games. Among male gamblers, the figure of probable pathological gamblers playing casino games was 26.2% and, among female probable pathological gamblers, it was 9.5% (see Table 3.10). Among male potential pathological gamblers, the figure was 10.3% and, among female potential pathological gamblers, it was 9.5%.

Considering that 72% of Estonia's male population between 15 and 74 years of age was engaged in lottery games, 7.6% of those gamblers were at risk of turning into pathological gamblers. However, out of the 11% of the male population playing casino games, every fourth person was at risk of developing a pathological gambling addiction. Similarly, slot machines and playing cards for money posed a greater risk of developing a gambling addiction. It could be speculated that casino gamblers were seeking the extreme thrill offered by casino games. Compared with potential pathological gamblers, more people among probable pathological gamblers were



TABLE 3.10. Gambling engagement among probable pathological gamblers by gender in 2006.

	Lotteries <sup>a</sup>	Slot machines <sup>a</sup>	Playing cards <sup>a</sup>	Casino games <sup>a</sup>
Male SOGS 5+ (n=59)	7.6%	17.1%	14.8%	26.2%
Female SOGS 5+ (n=10)	1.1%	4.2%	7.9%	9.5%
All respondents (n=1,936)	72%	19%	16%	6.4%

<sup>a</sup>Percentage within the game of chance among the gender group

simultaneously engaged in both playing casino games and the lottery. However, at the same time, there are no great variations in the number of lottery addicts. Therefore it appears that in the case of a potential pathological gambler turning into a probable pathological gambler, addiction to casino games is a strong warning sign.

Problem gambler groups also varied based on the average amount spent on gambling. The main difference was in the amount spent in a casino per day. Whereas many (34%) of probable pathological gamblers spend on average 10–100 Euros per day, the respondents classified in the other problem gambler group (25%) spent up to 10 Euros per day. The second difference was in the upper limit of the money staked in the game. On average, 17% of probable pathological players spent on average 100–700 Euros and 5% of them even more. Among the other problem gambler group, only 3% of them staked 100–700 Euros, and no one staked more than that. However, there were no significant observed differences in the amount of money spent on buying lottery tickets and various other forms of gambling. On average, in both groups of problem gamblers, respondents spent between 1 and 2 Euros (some 40%) on lottery tickets and on other forms of gambling up to 10 Euros (25%) at one time. Almost two thirds of probable pathological gamblers (60%) had borrowed money either to gamble or to repay their gambling debt. Of the probable pathological gamblers, one fifth (21%) had borrowed money to gamble. Most frequently the gambling money was taken out of current living expenses, thereafter money was borrowed from relatives. Other sources of borrowing money were represented to a considerably lesser extent. It was characteristic of probable pathological gamblers to borrow money from a considerably wider number of sources than potential pathological gamblers. One third of probable pathological gamblers had

not paid back the money they had borrowed due to their gambling problem.

### 2.1.5 Risk Factors

Although pathological gambling is classified as an impulse control disorder (see the International Statistical Classification of Diseases and Related Health Problems [ICD]-10, and the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition [DSM-IV]) scientific research in the field has been fairly minimal and has given differing results. Some studies show the correlation between pathological gambling and heightened impulsiveness (Alessi & Petry 2003; Grant & Kim 2003; Joukador, Blaszczynski, Beattie & Macallum 2000; Langenbucher, Bavly, Labouvie, Sanjuan & Martin 2001), others support a partial correlation between impulsiveness and pathological gambling (Frost, Meagher & Riskind 2001; Steel & Blaszczynski 1998), and finally there are studies that have found no correlation between impulsiveness and pathological gambling whatsoever (Allcock & Grace 1988; Langewisch & Frisch 1998). Research findings from Estonia confirm the position of high impulsiveness within the risk groups. Whereas it could appear that the higher the SOGS scores, the higher the impulsiveness, the evidence here shows that the impulsivity within the risk groups was significantly higher than within the non-problem gambler group, whereas the average impulsiveness scores did not vary to a considerable degree between probable and potential pathological gamblers (see Table 3.11).

Comparing the impulsivity scores between male and female respondents provided interesting results. Whereas, in the non-problem gambler group, there were no considerable differences in impulsivity scores between male and female respondents, in the probable pathological and potential pathological

TABLE 3.11. Impulsiveness and venturesomeness among SOGS groups in 2006.

	Impulsiveness		Venturesomeness	
	Mean	Standard deviation	Mean	Standard deviation
Level 1 (n=1,874)	4.1	1.99	3.46	3.01
Level 2 (n=62)	6.06	2.16	6.08	2.98
Level 3 (n=69)	5.98	2.19	6.62	2.46

TABLE 3.12. Impulsiveness and venturesomeness among SOGS groups by gender in 2006.

	Impulsiveness		Venturesomeness	
	Mean	Standard deviation	Mean	Standard deviation
Level 1				
Men (n=887)	4.13	2.02	4.47	3.10
Women (n=987)	4.07	1.97	2.56	2.78
Level 2				
Men (n=46)	5.93	2.14	6.58	2.88
Women (n=16)	6.43	2.25	4.62	2.87
Level 3				
Men (n=59)	5.66	2.03	6.84	2.38
Women (n=10)	7.90	2.18	5.30	2.62

gambler groups, differences were noteworthy (see Table 3.12). In relation to female gamblers' impulsivity, there was a linear correlation between their SOGS scores. Impulsiveness of female probable pathological gamblers in comparison with male gamblers was considerably higher. However, average venturesomeness scores among women were lower than among men and did not differ between SOGS groups.

Due to the small size of the sample groups, it is not possible to make definitive conclusions based on the results at hand, although the analysis of the 2004 study produced similar results. The evidence supports the proposition that male gamblers are considerably more risk-prone than other men, although they are less impulsive compared with female gamblers. Considering the fact that psychoticism is more correlated with impulsiveness and less so with venturesomeness, while extraversion is more related to venturesomeness than impulsiveness (Eysenck et al. 1985), it could be speculated that female problem gamblers are more psychotic compared with both other women as well as male gamblers.

The results concurred with various international findings, linking the abuse of alcohol and pathological gambling. To measure the consumption of alcohol, the Alcohol Use Disorders Identification Test (AUDIT) test was applied. The results showed that alcohol abuse was linearly correlated with gambling, regardless of the respondent's age, sex, and gambling preference. Unfortunately, the research analysis did not elaborate whether the consumption of alcohol triggers the onset of pathological gambling or the other way around due to a written questionnaire being used in the study. Since there were considerable differences between the SOGS groups, it can be concluded with some certainty that alcohol use among probable pathological gamblers was higher than average (see Table 3.13).

From a behavioural aspect, pathological gambling is viewed as a form of escape seeking. Some gamblers describe their gambling as treating their illness with drug substances of seeking escape (Elster 1999; Jacobs 1993; Lesieur & Rosenthal 1991). According to research results conducted by Hodgins and Peden (2005), the most prevalent reason given for relapse into pathological gambling is an attempt

TABLE 3.13. AUDIT and COPE scores among SOGS groups in 2006.

	AUDIT <sup>a</sup>		Avoid <sup>b</sup>	
	Mean	Standard deviation	Mean	Standard deviation
Level 1 (n=1,874)	4.35	4.70	39.93	7.56
Level 2 (n=62)	7.12	6.34	42.18	8.58
Level 3 (n=69)	11.42	7.62	46.57	8.21

<sup>a</sup>Indicates the extent of alcohol use

<sup>b</sup>Indicates behaviour directed toward avoidance

to escape from one's own negative thoughts or emotions. For this reason therefore, the COPE scale was introduced to the present study, which described coping strategies via three independent dimensions: task, social–emotional, and avoidance dimension. The study results confirmed the concept that views pathological gambling as seeking to escape from one's problems (see Table 3.13). The coping dimension oriented toward avoidance differed statistically between all three groups. This means that both male and female probable pathological gamblers used avoidance coping strategies considerably more than potential pathological gamblers and the latter, in turn, used considerably more avoidance coping strategies than non-problem gamblers. There were no significant differences in the use of the other coping strategies.

Based on these results, it can be concluded that the risk profile of a problem gambler is the following: a young impulsive male who prefers casino games and slot machines, consumes more alcohol than the average, and avoids his problems instead of solving them. He has a close friend who is also addicted to gambling. Finally, he is an urban resident—most likely due to the increased opportunities of gambling available in the cities.

### 3 Action

#### 3.1 National Policy for Problem Gambling

Although Kraepelin gave a description of a gambling mania over a hundred years ago, pathological gambling was first officially recognised as a disorder in 1980 when it was included in DSM-III (Black & Moyer 1998). Pathological gamblers

risk their jobs, borrow big sums of money, lie, and break the law or perform illegal acts to avoid paying back their debts. The urge to gamble is so great that it is very difficult to control their gambling, and individuals have frequent thoughts, whether real or fantasy, about gambling experiences.

Regardless of the large number of Estonian citizens battling problem gambling, the Estonian state has not yet developed a national programme for the prevention and treatment of pathological gambling. Neither counselling centres nor treatment and rehabilitation programmes are available. Pathological gambling is not merely a gambler's personal problem, families and relatives suffer from its effects. The number of people in need of assistance can be easily doubled if not tripled (Laansoo 2006). This gives us a figure of nearly 10–15% of the Estonian population suffering directly or indirectly from gambling addiction. Adding to this figure, the large expansion of gambling market in the last 2 years contributes to the growing numbers of probable pathological gamblers. This presents a serious challenge to Estonia and it is imperative to take swift action in this area. In Estonia, several non-profit organisations offer their help to problem gamblers on a voluntary basis. There is no state funding provided for such organisations, however, it is possible to apply for money through various programmes.

#### 3.2 Existing Treatment Options for Problem Gamblers

In addition to a few problem gamblers who have received hospital treatment, some alleviation to addiction problems is offered to problem gamblers by a Gamblers Anonymous support group meeting in the capital city of Tallinn since 2002. In summer

2004, a non-profit organisation—the Estonian Society of Gambling Addicts (Hasartmängusõltlaste selts, HMS)—was formed, which provides an umbrella organisation to Gamblers Anonymous. According to HMS, on average, some 150–190 problem gamblers a year turn to them for help.<sup>6</sup> In Tartu, the regional capital of southern Estonia, psychiatric aid is offered to problem gamblers by the Alcoholics Anonymous (AA) clinic.

In 2005, funded by the European Social Fund's EQUAL Community Initiative, a programme was launched in Estonia, called “Reintegration of Compulsive Gamblers into the Labour Market and Prevention of Social Exclusion”, effective for a period between January 1, 2005 and June 30, 2008. The objectives of the given project include rehabilitation of pathological gamblers, their reintegration to the labour market, offering counselling for overcoming addiction, and offering psychological support to family members of problem gamblers. Based on the information of the project leader, as of May 2007, a total of 218 people had turned to them for help, of whom 158 are problem gamblers and 60 family members of problem gamblers.<sup>7</sup> Of the total number of problem gamblers, 147 were male gamblers and 11 were female gamblers. Estonian and other nationalities are equally represented, however, most family members seeking help were Russian speaking. Of those problem gamblers seeking aid from counselling, a typical problem gambler's profile includes the following: a male in his thirties (33 years), without higher education and, as a rule, an employee or a specialist. He has children, and in his childhood has most likely experienced an addiction problem of his parents. His gambling experience endures for 9 years, on average, with a preference of playing on slot machines, and he has accumulated gambling debts. He is a frequent visitor of gambling institutions. Most of his time in the gambling establishments is spent playing on slot machines (93% of the seekers of help).

To date, 152 people have graduated from the EQUAL counselling programme. Unfortunately, there is no information available concerning the

effectiveness of the treatment and possible relapse rates of the gamblers. As treatment, mostly cognitive behavioural therapy is used, however, depending on the therapist's training, analytical therapy is also applied. Instead of group therapy, an individual approach is mostly practiced. This could be perhaps attributed to the small size of Estonia, whereupon gambling problems are stigmatised as a shameful disease, which necessarily breeds theft and other criminal behaviour. Therefore problem gamblers request total confidentiality.<sup>8</sup>

In addition, problem gamblers often come to counselling under strong pressure from their family or friends. Many people in need of help, whose gambling problems go unnoticed, are overlooked or go without help and keep gambling until they commit illegal acts of obtaining money and end up in prison or fail in attempting suicide. According to the EQUAL project, of the total number of gamblers seeking their help, 45% had committed an illegal act, 42% had considered suicide, and 23% had attempted suicide.<sup>9</sup> In January 2007, the Estonian public was shocked by the tragedy when an officer in the Estonian Defence Forces, battling his gambling-related problems, killed his young wife and his two daughters, and finally hung himself.

In addition to Gamblers Anonymous and the EQUAL project, help is available on the internet, where people have an opportunity to test themselves and find information about gambling addiction and treatment options. According to Kaare,<sup>10</sup> many pathological gamblers find their way to help via the internet. For pathological gamblers, help is available also through psychological counselling centres. However, the level of preparation of particular therapists is questionable.

### 3.3 Responsible Gambling

Pioneered and funded by the members of the Estonian Gambling Operator Association (EGOA), first steps toward responsible gambling are being taken. Such examples include requirement for EGOA members to place visible information leaflets in their gambling establishments, printed by the

<sup>6</sup>L. Puksa from the Estonian Society of Gambling Addicts, personal communication, 2007.

<sup>7</sup>Information related to the EQUAL project stem from P.-R. Kaare, personal communication, 2007.

<sup>8</sup>P.-R. Kaare, personal communication, 2007.

<sup>9</sup>P.-R. Kaare, personal communication, 2007.

<sup>10</sup>P.-R. Kaare, personal communication, 2007.

EQUAL project, informing gamblers about gambling addiction and ways of treatment available in Estonia. Since 2003, EGOA has offered gamblers an option to ban themselves from gambling anywhere from 6 months to indefinitely. For activating such a ban, a gambler has to fill in an application and the EGOA enters it in their database. According to EGOA, as of May 2007, they have had a total of 317 applications, of which 284 are active.<sup>11</sup> Over half of the applicants have requested gambling bans to be applied indefinitely. Member operators of the EGOA are obligated to bar the restricted gamblers from gambling in their establishment and direct customers whose gambling habits seem to be problematic to write such an application. Special training is provided for staff members of gambling establishments to recognize and detect gambling addiction.

## 4 Conclusion

Gambling addiction is a growing problem in Estonia. Along with the growing number of opportunities to gamble, numbers of problem gamblers are also on the rise. Between 2004 and 2006 there has been a noticeable increase in the total numbers of problem gamblers. Allowing for the large growth in gambling possibilities offered and sales of forms of gambling in 2006 and 2007, it can be speculated that the number of problem gamblers has increased further. The situation is extremely critical, since Estonia lacks a government programme for prevention and treatment of problem gambling. In spite a few helping agencies available in the non-profit sector, it lacks a common effort and is funded from various sources. Intervention at the governmental level is a top priority. However, until now the attention has been given to dealing with the aftermath of problem gambling. It is imperative to start addressing prevention by creating counselling centres (under centralized supervision) in bigger cities where therapists specializing on counselling people are available, and to provide public seminars on problem gambling that are approachable to those gamblers who are too intimidated to turn to a counsellor. Another tool could be a unitary toll-

free telephone helpline number. At present, there is no such help available. That, in turn, points to an urgent need to conduct further studies among adolescents in order to pinpoint problem gambling risk factors and prevalence of gambling problems among young people for a tailor-made prevention programme best suited for this age group. An important aspect of the prevention of gambling addiction is an improved public awareness, of both children and their parents. Considering that the adolescents do not see the dangers associated with gambling, as is the case with drugs, it is vital to inform first and foremost the parents on the dangers of different forms of gambling and their addictive quality, and conduct preventative work in educational institutions such as schools.

Both the 2004 and 2006 study results revealed a tendency that a considerable number of problem gamblers reported being aware of another problem gambler in their close family or among friends, whether their mother, father, friend, or spouse. Most frequently, problem gamblers noted their mother having a gambling problem, followed by a friend. This corresponds to international research results, confirming that the biggest risk group of problem gambling consists of adolescents who have a problem gambler in the home or among friends. Furthermore, young people are a particularly vulnerable group, they view gambling as an innocent pastime compared with smoking, drinking, or using narcotic substances, regardless of the fact that in most countries there are set age limitations on gambling. Similarly to adolescents, most adults do not consider gambling as something problematic compared with alcohol, tobacco, or narcotics use. Some relief could be brought to adolescent gambler problems by organising awareness campaigns aimed at students in schools as well as parents in day care centres, introducing the risks of gambling and detection of early signs of a problem.

The 2006 study very clearly revealed a link between problem gambling and alcohol disorders. However, there is no way of determining whether alcohol is the cause or consequence of problem gambling behaviour. Unfortunately, this study does not possess the information on the effect of alcohol on a particular gambling episode. In any case, alcohol impairs impulse control, therefore intoxicated gamblers lose any control over their gambling.

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<sup>11</sup>I. Amman, personal communication, 2007.

Therefore, whether to offer free alcohol in gambling establishments should be considered and whether offering free alcohol should be forbidden on ethical grounds, at least temporarily, should be considered. The correlation of alcohol and problem gambling should be one of the next topics for research.

However gloomy the perspective, there is still something positive in the fact that following the publishing of the 2004 study results and the public uproar in the media, problem gambling attracted additional attention and more thought has been paid to prevention. A great step in the right direction has been the new draft Act of gambling legislation, which will take effect in July 2008, aiming to limit problem gambling. The authors of the draft Act have approached the legislation from a conceptually different idea of a gambling establishment: if at hand is a legal form of entertainment, then in essence, it should be more like the cinema or theatre, not like the local corner grocer, enabling easy access and convenience at any time. For the same reasoning, it is obviously not necessary that every village and town have its "very own" casino. One should not be dismayed by the doubts whether in smaller towns a lack of smaller gambling establishments may create an underground gambling market. The primary need for gambling is to be satisfied mostly by "softer" forms of gambling. Before accessing "harder" forms of gambling, people should have an additional barrier to overcome, which keeps away the choices made based upon primary impulse. For the reasons listed above, the draft Act considers it appropriate to raise the minimal number of slot machines in one gambling establishments nearly four times compared with what the present gambling law stipulates. This will force smaller gambling establishments to close down or join together (Meius & Uustalu 2007). The idea of having a couple of large casinos in Tallinn and other places in Estonia is also supported by Gamblers Anonymous as well as the EGOA. Taken together, topics for further research should include:

- The establishment of causal links between alcohol disorders and problem gambling as well as determining the effect of alcohol on gambling behaviour.
- Problem gambling among younger adolescents: Although the number of problem gamblers among

adolescents aged between 15 and 19 years is considerably high, the gambling habits of adolescents aged between 10 and 14 years remain unknown.

- Despite the fact that, at present, the number of pathological lottery players in Estonia is nearly non-existent, the effect of lottery jackpot advertisements on pathological casino gamblers also remains a subject for further research.

For future research, a qualitative paradigm should be considered that would give an opportunity to study the background of a gambler in-depth in order to discover and understand more clearly the relationship between problem gambling and other important variables.

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# 4 Finland

Tapio Jaakkola

## 1 Background

Finland has been an independent republic since 1917. The capital is Helsinki. Finland joined the EU in 1995 and is also a member of the monetary union. The currency is the Euro. The Finnish population was 5,255,580 in 2005. It is a large country by area, just over 338,000 square kilometres. The gross domestic product is €157,400 million (2005). Finland is a bilingual country; the official native languages are Finnish and Swedish. The Swedish-speaking residents comprise a small minority.

### 1.1 The Finnish Gambling Market

Finland has a national gambling monopoly that is regulated by Lotteries Act (1047/2001). The gambling market is divided by three operators *Raha-automaattiyhdistys (RAY)* (Slot Machine Association), *Veikkaus Oy* (National Lottery), and *Fintoto Oy*. These three organisations have exclusive rights to carry gambling operations in Finland. The licences are for 5 years at a time. These licences were renewed starting on January 1st 2007.

Government Decree on Lotteries (1354/2001) governs the contents of licences and organising lotteries or gambling. Lotteries were the first form of gambling in the 17th century when Finland belonged to the Kingdom of Sweden. In the 19th century, when Finland was part of Russian Empire, the lotteries gradually ceased. The criminal code of 1899 made gambling illegal. Finland got its independence in 1917, and the first legal money

lottery was held in 1926 (Matilainen 2006a). From the start, revenues from lotteries went to promote culture and science. The Finnish National Lottery (*Veikkaus*) was founded in 1940 as a joint venture by several sports associations to collect money for Finnish sports. Football pools were most profitable before lotto was introduced in 1971. In 1975, the shares of *Veikkaus* were sold to the Finnish government. *Veikkaus* was granted exclusive rights on lotteries in 1976 (Ylikangas 1993). During the 1990s *Veikkaus* started sports betting and gambling on internet and mobile phones.

Private businessmen brought the first slot machines to Finland during the 1920s (Matilainen 2006b). *Raha-automaattiyhdistys (RAY)*, the Slot Machine Association, was established in 1938 to operate slot machines on an exclusive basis to raise funds to support health, social, and welfare organisations. Production of gaming machines started in 1929. Fruit machines came in 1960s. In the end of 1960s, *RAY* began to operate roulette at high-class restaurants and nightclubs. The casino gambling activity started on ferries, and the first roulette table opened in 1969 on the mainland. During the 1970s and 1980s, *RAY* increased its supply of slot machines. It introduced new fruit machines and, in the 1980s, slot machine poker. The first casino was opened in 1991 (Matilainen & Valkama 2006).

Totalisator betting was introduced in Finland in 1928, after the Tote became legal a year before. For many years the payoffs were poor and the popularity of the Tote was low. In 1965, when legislation was changed more favourably for gamblers, the



totalisator exchange began to rise. Central organisations for trotting and horse breeding united in 1973 into *Suomen Hippos*, which got rights to arrange the Tote games. *Suomen Hippos* established *Fintoto Oy* in 2001 and owns it. *Fintoto* has now a monopoly organising the Tote games in Finland (*Suomen Hippos* 2006).

The Lotteries Act regulates gambling in Finland, and the present Act dates from 2001. In Finnish legislation, money lottery means a lottery in which money can be won in a draw. In the Finnish legislation (Lotteries Act §11), the aims of the Finnish gambling system are achieved through the system of operating licences and the related statutory supervision of compliance with the law and with licence conditions to prevent gambling-related risk of abuse, criminal activity, and social problems. Through regulation, the law makes sure that the monopoly holders do not compete with each other and, in that way, eliminate aggressive sales promotion.

In the Lotteries Act, the role of regulating and supervising the Finnish gambling market is given to the Ministry of the Interior. The Ministry of the Interior has the responsibility for national supervision of the running of lotteries and for keeping statistical records on lotteries. The Ministry can issue statements and instructions on the running and supervision of lotteries. In the Ministry, the gambling activities are supervised by the Lottery and Firearms Administration Unit (LFAU). The Ministry of Social Affairs and Health is in charge of monitoring and research of the problems caused by gambling. The gaming operators pay the costs of these two Ministries, that of supervision, monitoring, and research to the state. The Ministry of Finance is in charge of the Lottery tax matters.

Guidance and distribution of proceeds of the gaming operators is divided into three ministries. The Ministry of Education is in charge of *Veikkaus* revenues, the Ministry of Social Affairs and Health is in charge of the revenues of the Slot Machine Association, and the Ministry of Agriculture and Forestry is in charge of the revenues of *Fintoto Oy*. Gambling licences for money lotteries are granted exclusively for three operators. These monopoly organisations are not mentioned directly in the Lotteries Act but are granted gambling licences under the licensing procedure laid down

in the Act. The system of fixed-term licences is justified on the basis of supervisory and regulatory considerations.

Under Section 17 of the Lotteries Act, the proceeds produced by gaming operators are to be used for charitable and other non-profit purposes. There are three laws governing the expenditure of proceeds from gambling. Lotteries Act §5 forbids foreign operators to sell or market their games in Finland. However, cross-border gambling on foreign companies' internet sites is legal. The Lottery offence is defined in §64, and contains restrictions on marketing and arranging lotteries without permission in §62 in the Lotteries Act. Lately these have been in use in the gambling market when accusing foreign gambling companies of marketing their games in Finland. The definitions and sanctions of lottery crime are found in Penal Code 17. Penal Code 17 also defines the legal meaning of the concept of gambling and when gambling is illegal.

## 1.2 *Raha-automaattiyhdistys (RAY)*—The Slot Machine Association

*RAY* has a licence to operate slot machines, casino table games, and casino activities. *RAY* has no games on the internet and its gaming operations are restricted to Finland. It also produces slot machines. Indeed, the most profitable games are slot machines. The sums collected from slot machine operations for the public good in terms of per capita are some of the highest in Europe (Valkama 2000).

*RAY* is an association subject to public law. The decision bodies within *RAY* are the Board of Administration and the General Meeting, at which all member organisations are represented. The Board of Administration consists of seven representatives appointed by the government and seven representatives elected by the General Meeting (*RAY* 2006). *RAY* operates within the domain of the Ministry of Social Affairs and Health. The Slot Machine Association submits its proposal of distributing its profits to the government. The Ministry of Social Affairs and Health guides and supervises the procedure, and the final decision is taken by the government. All the revenues are used for promoting health care and social welfare through various third sector organisations.

### 1.3 Veikkaus Oy—The National Lottery

*Veikkaus Oy* has a licence for running money lotteries, pools, and betting. The revenues go to Finnish culture, arts, science, sports, and youth work. *Veikkaus* is a limited company wholly owned by the state of Finland. It operates within the domain of the Ministry of Education. The Funds Distribution Act governs the distribution of *Veikkaus* funds to the different beneficiary groups, and is supervised by the Ministry of Education. Through the Act, the allocation of the funds comprises 38.5% to arts, 25% to sports, 17.5% to science, and 9% to youth work. The remaining 10% is allocated to these beneficiaries as separately specified in the State Budget each year. *Veikkaus* revenues are included in the state budget (*Veikkaus* 2006).

*Veikkaus Oy* has been in the limelight because of the formal letter of notice to the government of Finland by the EU Commission (April 2006). The issue concerns *Veikkaus* sports betting and marketing. Finland has responded but it appears that the answer was not satisfactory. Finland received a reasoned opinion in March 2007 from the EU Commission.

### 1.4 Fintoto Oy

*Fintoto Oy* is the Finnish Tote gaming organiser and marketing company that has a licence for operating totalisator wagering. *Fintoto* revenues are used for promoting horse breeding and equestrian sports. It is a limited company owned 100% by the *Suomen Hippos*, the Finnish Trotting and Breeding Association. The Ministry of Agriculture and Forestry decides on the distribution of assistance given from the revenues of *Fintoto Oy*.

### 1.5 Other Gaming Operators

There are also approximately five licence holders that have some 300 machines of hand-operated “wheel of fortune” and game machines acquired before 1970. Players cannot win money prizes, but an article or other monetary benefit or counters are exchangeable for them.

Bingo was introduced in Finland during the 1970s. In Finnish legislation, bingo means playing bingo where winners may win articles or vouchers or coupons exchangeable for articles or services. There can be no money prizes. Bingo can be operated

TABLE 4.1 Taxation of gambling in Finland

	Lotteries tax (%)	Value Added Tax, Goods and Services Tax	Note
Tote games	2.6	No	Fintoto
Lotteries	9.5	No	Veikkaus
Casino operations	8.25	No	RAY
Machine gambling outside casinos	8.25	No	RAY
Bingo	5	No	Non-money prizes
Lotteries by charities or non-profit organisations	1.5	No	Non-money prizes
Media gambling services	30	Yes	Of total value of prizes distributed
Sales promotional gambling	30	Yes	Of total value of prizes distributed

by a registered association, such as a sports club. During years 2002 and 2003, there were 206 licence holders for bingo. A licence is usually granted for 2 years (Swiss Institute of Comparative Law 2006). The Lottery Tax Act (552/1992) regulates taxation of gambling operations (see Table 4.1 for an overview).

### 1.6 Age Restrictions

Although Finns are gambling more than most nations in Europe and gambling is present almost everywhere, in the legislation there are only age limits on slot machines, casinos, and casino games. However, Finnish gaming operators have voluntarily imposed age limits on other types of games. In the Lotteries Act §15 and §16, an age limit of 18 years only applies to gambling in casinos and casino games outside casinos. Slot machines outside casinos<sup>1</sup> have an age limit of 15 years. If gamblers are younger than 15 years, they can play slot machines outside casinos if they are with an adult of the same family and with the adult’s consent.

<sup>1</sup> These slot machines (electronic gaming machine [EGMs] or video lottery terminals [VLTs]) have jackpots of €40 and you bet a maximum of €2, whereas the biggest jackpot of slot machines in the Grand Casino Helsinki has been over €20,000.

RAY imposed an age limit of 18 years in its arcades in June 2004. In September 2005, *Veikkaus* imposed an age limit of 18 years on electronic gambling and an age limit of 15 years for retailers. *Fintoto Oy* imposed also similar age limits to *Veikkaus*. Self-exclusion programmes in casinos are also mentioned in Lotteries Act §15. Furthermore, the Lotteries Act prohibits betting on credit (§10).

## 1.7 Åland Islands Gambling Market

Åland Islands are an autonomous area of Finland. The Islands between Finland and Sweden got their autonomy in 1921 and it gives them right to pass laws in areas relating to internal affairs of the region and to exercise their own budgetary power. They have their own parliament (*Lagtinget*) and regional government (*Landskapsregering*). The capital is Mariehamn and the province has a population of 26,766. It is by area only 1,555 square kilometres, and consists of 6,500 islands. The gross domestic product (GDP) of Åland is €86 million. The service sector dominates the economy, with the maritime industry accounting for 40% of local GDP. The official language is Swedish. When Finland joined the EU in 1995, the Åland Islands were granted exceptions in EU treaty of Finland. The islands are a tax-free zone.

The province of Åland has an own gaming company, *Ålands Penningautomatförening (PAF)*, the Åland Slot Machine Association. *PAF* is an association subject to public law. It offers all kinds of lotteries, casino games, and betting. The games are sold at the retailers, on ships, and on the internet. *PAF* is a public association with the purpose of generating funds for the benefit of humanitarian and social causes by offering gambling services to the public in Åland. *PAF* was founded in 1966 and the gambling activities began on January 1, 1967 (*PAF* 2006).

*PAF* is licenced by the government of Åland to arrange games with money prizes in Åland, onboard ships, and on the internet. *PAF*'s operations comprise operating slot machines, amusement games, children's rides, casino games, bingo, lotteries, totalisator, and internet gambling. The internet and big ferries travelling between Finland and Sweden, Estonia, and Åland Islands are where *PAF* has most of its operations. *PAF* also has a casino in Marienhamn. Through sister companies,

*PAF* also has gambling onboard ships in the Mediterranean and Caribbean.

In 2005, *PAF* had a total turnover of about €47.3 million and the revenues to the province of Åland were €21.5 million, including gaming taxes. The number of slot machines was 1,900 and *PAF* had 90 gaming tables. On the internet, *PAF* offers sports betting, lotteries (lotto, instant lotteries), and casino games (blackjack, roulette, slot machines, video poker, keno, poker). Its internet games have 100,000 active customers. The turnover of *PAF* internet games was €24.5 million (i.e., 39% of total turnover of *PAF*) (*PAF* 2006).

*PAF* is not allowed to sell their games on Finnish mainland. This also applies to games on the internet. There has been a conflict between *PAF* and the Finnish gaming regulators regarding *PAF* marketing their games to the mainland. The Finnish Supreme Court issued its decision in February 2005 in favour of the Finnish Government. *PAF* has no right to sell or advertise its games on the Finnish mainland. The Finnish Ministry of Interior has prevented *PAF*'s gambling operating on the Finnish mainland. *PAF* and the Åland government say that when marketing on mainland has ceased, the Supreme Court Decision is no longer valid on this situation. The Ministry of Interior has put a new request of enquiry to the Central Criminal Police and the case now lies with the prosecutor. *PAF* is still offering its products to Finnish customers (*PAF* 2006).

It should be noted that there has been no scientific study done on problem gambling on Åland Islands. In addition, there is no treatment system for problem gamblers. They are treated through the normal social and health care systems in substance abuse clinics or psychiatric clinics.

## 1.8 Available Gambling Opportunities

Gambling in Finnish society has become a common activity since the 1980s and 1990s, through the introduction of slots and sports betting. *Veikkaus* introduced an online system of lotto in 1990, and RAY opened the first international casino in Helsinki in 1991. In the late 1990s, gambling opportunities spread to the internet and mobile phones. The Finnish gambling market is still rapidly developing and exploiting new technology. Since 2000, the share

of the Finnish exclusive-rights gambling operators has decreased in the disposable funds of Finnish households (Valkama 2006a). Overall, the Finnish gambling market, though it is a government-licensed monopoly, is liberal. The age limits are low and gambling is almost everywhere. One Finnish special peculiarity is slot machine placement. Slot machines can be found almost everywhere in shops, kiosks, bars, restaurants, supermarkets, and gas stations. As a consequence, half of Finns over 15 years of age play them at least occasionally (Ilkas & Turja 2003). At least one in five Finns over 15 years of age play slots once a week, whereas elsewhere in Europe the average is only 7% (Rahapelifoorumi 2005).

There is only one international casino in Finland. The *Grand Casino* in Helsinki is a middle-sized European casino. However, there are over 300 restaurants and clubs that have 355 gaming tables in total.<sup>2</sup> Casino table games and slot machines or video lottery terminals (VLTs) are also found in 55 *RAY* gaming arcades. Of those, 28 *Potti* arcades have only slots and 25 are *Täyspotti* arcades, which have slot machines, casino games, and cash desk services. There are also two *Club RAYs*, which also provide restaurant services. By the end of 2005, there were 1,840 slot machines and 59 casino game tables in these arcades. This equates to 17,000 slot machines at 9,100 different gaming sites (*RAY* 2006).

*RAY* has organised poker in its casino for many years, and now in the wake of the poker boom and internet poker, *RAY* has organised some poker tournaments in *Club RAYs*. Poker can also be played in some *Täyspotti* arcades against the house. Despite poker's popularity, *RAY* is not providing internet poker access to their games, even though Finnish poker players want it. *RAY* has free games on their internet site ("*Pelaamo*") but players are required to register and to be at least 18 years old. The information is then verified from the Population Register Centre.

*Veikkaus* has a wide range of gambling activities: lotteries, instant lotteries and scratchcards, different pools games, and sports betting like fixed-odds betting and multi-bet. These games are sold at

3,200 retailers, such as shops, kiosks, bars, supermarkets, and gas stations. *Veikkaus* launched its internet gambling service as the first national lottery in the world in 1997. Every week over 100,000 Finns play the games on *Veikkaus'* internet service. Sports games are the most popular games on the internet, but lotto games and keno also attract internet players. The games can be played from 7 a.m. to 10 p.m. every day. Some of the games can also be played with mobile phones by wireless application protocol (WAP) and short message service (SMS) (*Veikkaus* 2006).

Trotting is one of the most popular sports in Finland and every year it attracts over 800,000 spectators on racetracks. There are about 560 race events annually. The total turnover in horse betting is over €200 million. A person can bet on horses in Finland on 43 racetracks (*Fintoto* tote games), 400 retailers, and on the internet (*Hippos* 2006).

There is also some unlawful gambling, but it is of minor importance in the Finnish gambling market. It is usually private poker or card games. There have been some 200 cases of probable money laundering that companies have reported to the police. Furthermore, there have been few cases of fraud, mostly on sports betting involving both domestic and international actors.

## 1.9 Sales Volumes and Total Public Revenue

Today half of all Finnish adults gamble regularly, and on the average they spend 4% of their net income on gambling (Ilkas & Turja 2003). The profits from gambling activities are of huge importance in promoting various voluntary or third sector activities in the Finnish society: sports and physical education, science and the arts, youth work, health care and social welfare, and equestrian sports. The spending on gambling in Finland is among the highest in the EU (Swiss Institute of Comparative Law 2006). The losses of Finnish players or the net revenues of the three Finnish gaming operators totalled €1,337 million in 2005. This is equal to €261 per capita. Gambling consumption has more than doubled in Finland over the last 15 years (see Table 4.2). Net revenues of the Finnish gambling market have increased from €14 million in 1990 to €1,337 million in 2005.

<sup>2</sup>These gaming tables require lower stakes than the gaming tables within the *Grand Casino*.

The Finnish gambling policy has seen a moderate increase in turnovers. Finland had an economic depression in early 1990s, however, the Finnish gambling markets were unaffected (unlike the GDP). The profits of gaming companies kept on growing through the poorer years. After the economic depression, during the last 10 years, the growth of net revenues of gambling market has been almost identical to the growth of the Finnish GDP (see Table 4.2). The total turnover of the three Finnish gaming operators was €2,159 million in 2005. The total government revenue from the gambling market including Lottery Tax was €909 million (see Table 4.3).

*Veikkaus*' gross turnover was €1,315 million. In 2005, *Veikkaus* paid out a total of €679 million of prizes to players and €381 million to the Ministry of Education (*Veikkaus* 2006). As an example, in 2005, 98% of the support that the Ministry of

Education gave to sports and physical education, 53% of the support for arts, and 32% of the support for science came from gambling. Lotto games brought in the most money, followed by sports games. *Veikkaus*' growing internet gambling sales accounted for 12.2% of total games sales, with €160.4 million. *Veikkaus*' commission to the retailers was 7% on the average (*Veikkaus* 2006).

In 2005, *RAY* generated gaming revenues of €648 million after paying prizes to players. Slot machines accounted for 91% of *RAY*'s gross revenue of gaming operations, 4.7% by casino games, and 4.1% by *Grand Casino* Helsinki. *RAY* paid 17% space rental to its business partners. Of *RAY*'s revenues, €296 million went to social and health care organisations and €105 million to war veterans (*RAY* 2006).

The horse race company *Fintoto* had an annual turnover of €196 million. Its online retail sites had 2.5 million customer contacts per year and 56% of total sales. *Fintoto*'s website accounts for 24.9% of total sales. *Fintoto* paid €143 million of prizes to gamblers (*Hippos* 2006) (see Table 4.4 for turnover by gambling activity).

TABLE 4.2. Growth of gaming revenues compared to the Finnish Gross Domestic Product 1990–2005.

	Gambling market		GDP	
	€million	Index	€million	Index
1990	614	100	89,747	100
1991	641	104	85,689	95
1992	674	110	83,041	93
1993	717	117	83,924	94
1994	770	125	88,103	98
1995	826	135	95,916	107
1996	897	146	99,258	111
1997	965	157	107,626	120
1998	1,043	170	117,111	130
1999	1,071	174	122,747	137
2000	1,165	190	132,272	147
2001	1,177	192	139,868	156
2002	1,210	197	143,974	160
2003	1,263	206	145,938	163
2004	1,310	213	152,345	170
2005	1,337	218	157,162	175

Statistics Finland 2007

TABLE 4.4. Turnover by gaming activity in 2005.

Gambling activity	Gross turnover (€million)	Operator
Totalisator games	196	Fintoto
Slot machines outside casino and arcades	523 <sup>a</sup>	RAY
<i>Grand Casino</i>	27 <sup>a</sup>	RAY
RAY arcades	77 <sup>a</sup>	RAY
Casino type games in clubs, restaurants	22 <sup>a</sup>	RAY
Lotto games	496	Veikkaus
Sports games	366	Veikkaus
Online draw games	319	Veikkaus
Instant games	139	Veikkaus

<sup>a</sup>Turnover after the prizes paid to players  
RAY 2006; *Veikkaus* 2006; *Hippos* 2006

TABLE 4.3. Turnover, lottery tax, and government total revenues in €million.

	Gross turnover	Net revenues of operators	Funds returned to government	Lottery tax	Government total revenues
<i>Fintoto</i>	196	53	8	5	13
<sup>a</sup> RAY	648 <sup>a</sup>	648	401	53	454
<i>Veikkaus</i>	1,315	636	381	61	442
Total	2,159	1,337	790	119	909

<sup>a</sup>Turnover after the prizes paid to players  
RAY 2006; *Veikkaus* 2006; *Hippos* 2006

## 2 Evidence

### 2.1 Gambling Participation and Prevalence of Gambling Problems

There have been only a few studies examining problem gambling in Finland. There has been one major prevalence study, one study on adolescence gambling, and a couple of smaller studies on problem gamblers, treatment, and relatives of problem gamblers. Additionally, only one qualitative study exists examining problem gamblers in Finland.

In the 1980s and 1990s, there were a couple of surveys, mainly broad and superficial population surveys. *RAY* and *Veikkaus* carried out a couple of surveys during the 1980s. In 1987, Rautio conducted a study of gamblers playing *Veikkaus*' games (Rautio 1988). *RAY* ordered a survey from Statistics Finland in 1989. The sample size was 2,599 Finnish participants between the ages of 13 and 74 years. According to that survey, 83% of Finns had gambled at least once, and 3% of those were gambling at least once a week. In that study, some problems were recognised by the gamblers. Over 5% of gamblers felt that they had spent too much time or money in gambling (Virtanen 1990). In 1993, *Taloustutkimus Oy* carried out another survey on gambling in Finland. In the study, 87% of Finns aged 13 to 74 years had gambled at least once a year.

The national gambling survey (2003) was conducted for the Ministry of Social Affairs and Health by *Taloustutkimus Oy*'s market research company (Ilkas & Turja 2003). This was the first study on gambling participation and gambling problems conducted outside of the industry. The sample size was 5,013 respondents and the survey was done using a computer-assisted telephone survey (CATI). The respondents were aged between 15 and 74 years. The survey had three parts: how often and how much people gamble, attitudes towards gambling-related problems, and prevalence of problem gambling. The South Oaks Gambling Screen, Revised (SOGS-R, lifetime, Finnish version) was used to determine the prevalence of problem gambling (Ilkas & Turja 2003).

The 2003 gambling survey indicated that the Finns gamble quite a lot. It showed that 74% of them had played during last year (80% of the men; 67% of the women). It was also reported that 43% of them gambled every week and 12% gambled

more than once a week. As in many countries, lotto games were most popular (89%), followed by instant lotteries and scratchcards, and close behind were slot machines outside casino (51%; Ilkas & Turja 2003). In particular, slot machines were being played more often than in most parts of Europe. Of those Finns that gambled, 25% played slots once a week compared with 5% in other European countries (Valkama 2006a).

According to this survey, an average Finn spent €13 per week gambling, but the SOGS 5+ group spent an average of €14 per week. Men spent more money (€18) than women (€7). The average Finns who played at least one game twice a month spent 4% of their net income on gambling. Gamblers in the SOGS 5+ group spent 15.1% of their net income on gambling. It was also reported that 5% of gamblers who played the most accounted for 50% of turnover (Rahapelifoorumi 2005).

In the 2003 survey, it was estimated that there were 65,000 probable pathological gamblers (SOGS 5+), that is 1.5% of Finns over 15 years old, and there were 4% (160,000) who at least sometimes experienced problems related to their gambling (SOGS 3–4). The respondents were also asked whether they thought they had a gambling problem. Less than 1% of regular players (25,000) said they had problems with their gambling at present, and 4% (84,000) said sometimes at some point in their life. In the study, SOGS was administered only to those who had gambled at least at least twice a month (Ilkas & Turja 2003).

As with studies in other countries, problem gambling seems to affect more people who are young. In the youngest age group (15–24 years), there were 10% probable pathological gamblers. Also in Finland, low income seems to be a risk factor. Gamblers with the lowest net income (€1–500 per month) were more often represented in SOGS 5+ group than those with higher income (Ilkas & Turja 2003). As in most countries, the most popular form of gambling among Finnish problem gamblers was playing slot machines. Almost nine out of ten gambled on slot machines but many of them also played on many other games (on average five games). Lotto and scratchcards are also popular. However, on closer examination, slot machines and *Veikkaus* sports betting are the most favoured.

The national gambling survey 2003 study has some shortcomings because it includes no analyses,

just the figures presented as they appear in the strata. Furthermore, the study did not use the traditional terms. SOGS 3–4 individuals were referred to as having “possible problems with their gambling” and those in the SOGS 5+ group were called “frequent gamblers among whom actual pathological gamblers are found” arguing that they were high consumers of gambling and not all pathological gamblers. To ensure that it measured current problem gamblers, SOGS was only administered to those who had gambled at least twice a month. There was an assumption made that those who were not asked the SOGS questions would have scored 0. In the 2003 study, the figures were high for both probable pathological gamblers (SOGS 5+; 1.5% of Finns over 15 years) and at-risk gamblers (SOGS 3–4 points; 4% of Finns over 15 years). This may be partly due to using the SOGS lifetime version, and partly because the figures also contained adolescent gambling.

The estimates of prevalence of gambling-related problems in the whole population might be a bit inaccurate as the lifetime version of SOGS appears to give somewhat higher rates than the current SOGS-R version, and does not differentiate those in recession from those gambling actively. Also, using SOGS instead of the adolescence version, SOGS-RA, on respondents under 18 years might have had some impact. Thus, the level of problem gambling in Finland is still somewhat disputable.

A new national gambling survey was carried out for the Ministry of Social Affairs and Health by *Taloustutkimus Oy* in spring 2007 (Aho & Turja 2007). It showed no major changes in the Finnish gambling behavior compared with the 2003 survey. The survey examined 5,008 individuals (computer-assisted telephone interview) and was administered to Finns aged over 15 years (excluding individuals from Åland). To measure problem gambling, the SOGS-R 12 months was used. The findings indicated that 73% of Finns had gambled during last year, 41% gambled once a week, and 11% gambled more than once a week. These figures are similar to the figures in the previous survey; however, both expenditure on gambling and its share on the gambler's income had increased. According to the survey, an average Finn spends €6.40 per week on gambling, and an average problem gambler spends €90. The study showed that 130,000 individuals can be classed as problem gamblers. Of

this group, 42,000 individuals got 5 or more points in SOGS-R (last year) (i.e., 1%) and additional 88,000 individuals got 3 or 4 points (i.e., 2.1%).<sup>3</sup> Of all money invested for gambling, 32.5% stems from individuals with 3 or more SOGS-R points. The most popular form of gambling among Finnish problem gamblers was slot machines (89%). Lotto and (78%) and scratchcards (68%) were also popular. Furthermore, the survey found that 125,000 Finns had gambled online poker during the last 12 months. This figure resembles a rise of 45,000 individuals compared with the estimate of 2006 (Valkama 2006b).

The national gambling helpline (*Peluuri's*) statistics back up some findings in national gambling survey 2003.<sup>4</sup> Although the statistics are of those problem gamblers seeking help, the numbers are already over 1,500 problem gamblers. According to these statistics, age and gender divide gamblers quite a lot. Young men gamble most and they engage in more kinds of gambling. Women gamblers are normally in middle or late middle age, and almost nine out of ten gamble on slot machines. Women's motives for gambling are usually to escape from boredom and everyday troubles or sorrows, while men seem to gamble more out of compatibility, excitement, and to gain money. Men (32%) tend to have debts resulting from their gambling more often than women (21%). This can be at least partly explained by the fact that men gamble on games like betting, internet poker, and casino table games, where a gambler can bet more than on those then on slots, which most women play. Quick loans that a person can apply for even with mobile phone are becoming more common among gamblers and are causing more and more financial troubles because their interest rates are very high (Jaakkola 2006a).

Slot machines are the most common type of gambling among *Peluuri's* gamblers, two thirds gamble on slots (66%). The second most popular is sports betting. Gambling on the internet is even more popular than betting, but the internet is a medium for gambling and contains all types of gambling.

<sup>3</sup>In comparable numbers with the 2003 study (taken into account only those individuals who had gambled at least twice a month): 1.5% (SOGS-R 5+) and 2.8% (SOGS-R 3-4).

<sup>4</sup>Of gamblers calling the *Peluuri* helpline 73% were male. Of all gamblers, 66% played slots.

Internet poker figures are on the rise in the helpline's statistics (Jaakkola 2006a) (see Table 4.5). However, there are no figures on internet gambling in Finland as whole. Estimated sums spent on gambling on internet vary from €60 to €100 million.

Internet poker is becoming more and more popular in Finland. According to a study done in late 2006, there were 30,000 active internet poker gamblers in Finland, and some 80,000 Finns have played it at least once during the last year (Valkama 2006a). Both the study and the national gambling helpline statistics (Jaakkola 2006b) verify the fact that almost all of the players are men (90%) and two thirds of them are young men, younger than 30 years of age. However, there are even those who are younger than 18 years of age. They are also interested of other kinds of gambling. They play few other games on the internet, but two thirds of them play slot machines or VLTs (Valkama 2006b).

There has been no study on comorbidities with problem gambling in Finland. The *Peluuri* helpline statistics show that there is a real problem when it comes to comorbidity of problem gambling with mental health problems and substance abuse. At least one in six problem gamblers in helpline statistics has a mental health problem, and one in ten has an alcohol problem (Jaakkola 2006a). Half of the

problem gamblers in substance abuse clinics were found to have mental health problems and many of them had multiple problems (Villikka 2004).

## 2.2 Adolescent Gambling

The Finnish Ministry of Social Affairs and Health commissioned *Taloustutkimus* to carry out a study on adolescent gambling and age limit control (Ilkas & Aho 2006a). The study was done via a telephone survey in May 2006 with a sample size of 5,000 respondents. The target group was adolescents aged 12 to 17 years. The instrument used to screen problem gambling was SOGS-RA, and it was administered to those gambling at least twice a month.

The study showed that gambling was a common activity among Finnish adolescents, even among those aged younger than 15 years. Over 60% of youth aged between 15 and 17 years had gambled during last 12 months. It was reported that 52% of 14-year-old youths had gambled, and 33% of those aged 12 years. Furthermore, 34% of 14-year-old youths gambled at least once a week (Ilkas & Aho 2006a). This means that the adolescents start gambling early. As with other studies, experiences from the Finnish gambling helpline verify that early starting age is a major risk factor,

TABLE 4.5 Favourite games among *Peluuri* helpline calls 2006

Primary game	Men	%	Women	%	Total	%
<i>Ässä/Casino</i> and other scratchcards	4	0.8	0	0	4	0.5
<i>Lotto/Vikinglotto/Jokeri</i> —lotteries	1	0.2	1	0.5	2	0.3
<i>Veikkaus</i> sports betting	39	7.3	2	1.0	41	5.6
<i>Veikkaus</i> daily lotteries	10	1.9	3	1.5	13	1.8
<i>Vakioveikkaus</i> —football pools	1	0.2	0	0	1	0.1
Private betting or card games	7	1.3	0	0	7	1.0
Casino table games in restaurants or arcades	26	4.9	0	0	26	3.6
Gambling in casino	14	2.6	3	1.5	17	2.3
<i>Veikkaus</i> totalisator betting	6	1.1	0	0	6	0.8
<i>Fintoto</i> totalisator	4	0.8	0	0	4	0.5
<i>Veikkaus</i> online games	0	0	2	1.0	2	0.3
Betting ( <i>PAF</i> , Åland Islands)	3	0.6	0	0	3	0.4
Gambling on internet	91	17.1	8	4.0	99	13.5
Slot machines, VLTs outside casino	305	57.3	177	88.5	482	65.8
Computer games (without money)	19	3.6	2	1.0	21	2.9
Bingo	2	0.4	2	1.0	4	0.5
Total data	<b>532</b>	<b>100</b>	<b>200</b>	<b>100</b>	<b>732</b>	<b>100</b>
No/insufficient data	49	8.4	20	9.1	69	8.6
Total all	<b>581</b>		<b>220</b>		<b>801</b>	



especially for boys (Jaakkola 2006a). The cut-off point of problem gambling in the Ilkas-Aho study was SOGS-RA 5. However, if the cut-off point is SOGS-RA 4, then the rate of problem gambling of adolescents in Finland raises to 2.3%. This is almost same as in other Nordic countries, such as Norway and Iceland (2.5% in Norway; 2.8% in Iceland; Olason, Skarphedinsson, Jonsdottir, Mikaelsson & Gretarsson 2006). In Finnish adolescents, 1% of 12- to 17-year olds got 4 points in SOGS-RA and 1.3% got 5 or more points (see Table 4.6). The method used in the Finnish study might have had some impact on the results. In a telephone survey, the interviewer should get permission from parents if the respondent was under 15 years old and parents might have been present during the interview. The other Nordic surveys were done with questionnaires administered in schools. In addition, the SOGS-RA questionnaire used in Finnish was different in some phrasing than the original English version.

Slot machine gambling is the most popular form of gambling among adolescents (Ilkas & Aho 2006a). As with adults, the Finnish adolescent plays more slots than most Europeans. Slot machine participation is high perhaps because slot machines are easily accessible and widely distributed. This is similar to Norway, Iceland, and the United Kingdom, where slots are also widely distributed and popular among adolescents (Olason et al. 2006). These four countries were also in top five in the European School Survey Project on Alcohol and Other Drugs (ESPAD) study 1999 (Hibell et al. 2000) on slot machine gambling. The most common places to play slot machines were

shops or supermarkets, where almost half of the adolescents played. The second most popular place was service stations, followed by kiosks. The level of participation in slot machine gambling is worrying because slots seem to be highly connected with problem gambling.

When comparing games by the frequency of gambling, there were three games that youth had gambled on several times per week: First was slot machines, second was internet poker, and third was sports betting. Internet poker gambling was reported even among those aged younger than 15 years. However, it was not reported whether they were playing with real money or only on those free-of-charge training sites.

When you look at those who had problems with their gambling (SOGS-RA 5+) they were gambling on an average of four games, and the most popular were fast games like slots, scratchcards, internet poker, and sports betting. As would have been expected, two thirds of them gamble several times a week and they use almost half (47.2%) of their available funds on gambling. Adolescents spent relatively more of their disposable income (one third) on gambling than adults. Young gamblers spent around €3 million per month. The more money they had, the more they spent on gambling. Those with at least 5 SOGS-RA points used twice their share of the money spent on gambling (Ilkas & Aho 2006a).

The 2006 adolescence gambling study revealed that if one or both parents have gambled, the more likely it was that their children had gambled. Overall, boys gambled much more than girls. This was similar to the Peluuri helpline's gambler calls; there are almost no calls at all about young girls

TABLE 4.6. Gambling problems among Finnish adolescents.

		SOGS-RA <sup>a</sup>				Total
		0-1	2-3	4	5+	
Unweighted						
n	5,000	1,069	294	55	68	1,486
%		71.9	19.8	3.7	4.6	100
Weighted						
N	390,000	81,000	22,000	4,000	5,000	112,000
%	100	20.8	5.6	1.0	1.3	
Female (%)	49	9.4	2.5	0.2	0.7	
Male (%)	51	31.7	8.6	1.8	1.9	

<sup>a</sup>Completion of the SOGS-RA was asked only from those respondents gambling at least twice a month  
Ilkas & Aho 2006b

experiencing problem gambling (Jaakkola 2006a). Almost a quarter of adolescents said that they knew problem gamblers among their friends (Ilkas & Aho 2006b). When talking about prevention of adolescent gambling problems, parents are in the front line and their awareness is crucial. In this study, youth were asked whether they had discussed gambling with their parents and one third had. However, they were not asked whether their parents knew about their children's gambling. Therefore, we do not have knowledge about how aware the parents are of their children's gambling habits (Ilkas & Aho 2006a).

Taken together, it would appear that the most worrying forms of gambling in Finland are slot machines, betting, and internet poker. This is evident in both prevalence surveys and the *Peluuri* helpline statistics and for adolescents as well as adults (Jaakkola 2006a).

### 3 Action

#### 3.1 National Policy to Tackle Problem Gambling

The first study on problem gambling in Finland was published by Murto and Niemelä (1993). This was a qualitative study interviewing 30 problem gamblers undergoing substance abuse treatment. As a consequence, problem gambling was acknowledged in Finland for the first time. Murto and Niemelä (1993) already presented a list of proposals for actions. In many parts, that list is

still valid, containing proposals such as educating social and health care professionals on gambling problems, training the treatment system to recognise problem gambling, creating more self-help groups, and getting more scientific research on problem gambling.

In 2003, half of Finns felt that problem gambling was a serious issue (Ilkas & Turja 2003) but the public debate on gambling-related problems and problem gambling has been almost non-existent for years. Furthermore, Finland has some serious deficiencies when it comes to prevention and treatment of gambling problems. To date, a general programme of prevention is still missing (see Table 4.7 for stakeholders in the prevention of problem gambling and their roles in the Finnish gambling field). It is also worth mentioning that there have been less than ten published Finnish studies into problem gambling.

The main responsibility in tackling the harms caused by gambling, preventing gambling problems, and developing treatment lies with the Ministry of Social Affairs and Health. In 2004, the government set up the Gaming Forum to prepare national strategies on gambling policy. It consisted of politicians, representatives of relevant ministries, gaming operators, and treatment specialists. The Gaming Forum Guidelines were presented in April 2006. The main proposals included:

- Added powers and resources for authorities to intervene in unlawful gambling and marketing
- A comprehensive national policy on guidance for gaming operators

TABLE 4.7. Actors in problem gambling prevention and their roles.

Actor	Role
Parliament	Legislation
Government	Gaming licences
Ministry of Interior	Supervision, gaming rules, gaming legislation
Ministry of Social and Health	Research, care and treatment, developing know-how, guiding networks, legislation of social and health care
Ministry of Education	Handling problem gambling in the teaching of social and health care education
STAKES (National Research and Development Centre for Welfare and Health)	Research on gambling-related problems, development of treatment approaches
Municipalities	Treatment of pathological gamblers
Non-governmental organisations	Gambling helpline, treatment clinics, prevention programmes, care and treatment, research
Gaming operators	Responsible gambling, funding supervision of gambling, research, helpline

- More resources for gaming supervision
- Criteria for restricting the marketing of gambling products into the Lotteries Act
- Minimum age limits for all forms of gambling into the Lotteries Act. The general minimum age must be 15 years and the minimum for online gambling must be 18 years
- Gamblers must be able to monitor their playing and to impose restrictions on it
- A system for evaluating the potential problems of games that gives a risk classification alongside the specification of the structural features of the game
- A structure for developing a treatment system to prevent and redress gambling-related problems must be established within the administrative domain of the Ministry of Social Affairs and Health and given a permanent location
- A network in developing the treatment system for gambling-related problems to be set up
- A need for separate mention of treatment for gambling problems in the social and health care legislation in order to secure access to and funding for treatment
- Funds to support developing the treatment system and also prevention of the gambling-related problems
- The resources for monitoring and research activities must be increased Rahapelifoorum (2005). Unpublished document.

In February 2006, there was even a suggestion in the Gaming Forum to incorporate the banning of playing internet poker from Finland in law. However, this got no official support. In 2006, the gaming operators gave €909,000 for promoting activities in preventing gambling-related problems; €300,000 to the Ministry of Social Affairs and Health for research and follow-up of gambling problems (Lotteries Act §52); €179,000 for the national gambling helpline; and €430,000 from RAY for projects on prevention and development of treatment of problem gambling. The Ministry of Social Affairs and Health set up a coordination group in 2006 for the development of prevention and treatment to prepare and execute actions related to prevent gambling problems and development of treatment proposed by the Gaming Forum.

The Ministry has highlighted the reduction of pathological gambling, identification of new addictions caused by new technologies, and improve-

ment of their treatment as their goals in the strategy. Preventive actions are to be guided so that the age of starting to gamble will rise and the accumulation of problems will diminish. In its first preliminary report, the coordination group put forward strengthening prevention and research, introducing age limits to the Lottery Act, prevention alongside of research, and relevant follow-up. The second-phase coordination group has targeted adolescent gambling and age limit control, a replication of the 2003 prevalence survey to be carried out in the summer 2007, a study on problem gambling cases in substance abuse treatment in late 2007, an ESPAD school survey in late 2007, and research into gambling licence holders.

Though the Gaming Forum did not see immediate changes needed in the Lotteries Act, in January 2007, the Ministry of Social Affairs and Health Coordination Group pressed the need to change present law, especially to general age limits and marketing restrictions. In the near future, changes will be made in the Lotteries Act based on the youth gambling study of 2006. In 2007, STAKES, the National Research and Development Centre for Welfare and Health, will take over research on the harm caused by gambling and the social sector centre of expertise of the Helsinki area. STAKES will conduct work to improve knowledge of problem gambling within the service system. The Academy of Finland has a research programme called "Substance Use and Addictions" starting 2007, and one part of it will be study on gambling addiction funded by the Ministry of Social Affairs and Health.

All three gaming operators have designed their own responsibility programmes and are investing in them. The focus in these programmes is on moderate revenues, supervised gambling, a wide but moderately customer base, prevention of under-aged gambling, evaluation of social impacts of new games, customer information on games, information on their probabilities and chances of winning, information about gambling addiction, help for the gambler to control their gambling, and participate in the financing and development of a helpline for problem gamblers. Companies train their own personnel and business partners' personnel on social responsibility issues (RAY 2006; Veikkaus 2006). Together, RAY and Veikkaus have also developed a system of evaluating games and their characteristics in relation to social harms on gamblers.

*Veikkaus* has set the goal that games with a high event frequency are made subject to restrictions on maximum stakes and daily expenditure. The company only provides internet games to Finnish residents. *Veikkaus* checks the identity of each player registering in their system through the Population Register Centre (*Veikkaus* 2006). One part of their programmes is the control of gambling. The operators voluntarily put stricter age limits than the Lotteries Act demands. They have also given gamblers the option to set limits on their gambling. On *Veikkaus* internet games, there will be changes allowing gamblers to set both time and money limits, in addition to self-exclusion (*Veikkaus* 2006). There were 429 self-exclusions on *Veikkaus* electronic gaming in 2006 (Johanna Lipponen, personal communication, April 2, 2007).

*RAY* has a system of self-exclusion at the *Grand Casino*, in their arcades, and in *Club RAYs*. There were 600 gamblers with active self-imposed bars at end of 2006. In casino and in the arcades there were 126 cases of self-exclusion. *RAY* has installed 4,345 gaming blocking devices with which personnel on the site can stop machines by remote control (e.g., in case of underage gambling). There were three cases in 2005 of violation of rules where *RAY* removed gaming machines from the site (*RAY* 2006). *RAY* also has an electronic payment project that will be tested in practice during 2007. The new payment method is being developed to provide better control over gambling; age controls, no payments on credit, and to limit the number and amount of purchases in order to prevent excessive gambling. Gamblers can also voluntarily set purchase limits or bar themselves completely (*RAY* 2006).

There are also three projects in prevention of problem gambling by non-governmental organisations. The oldest project started in the early 1990s, shortly after the first study on problem gambling, and encompasses material for prevention and information problem gambling, training for social and health care professionals, and empirical studies on problem gambling. One of products of the project is the national gambling helpline, *Peluuri*. The project is owned by two major organisations in the substance abuse field, these are the A-clinic foundation and the Finnish Blue Cross. During the project there have been self-help manuals produced for gamblers, for their relatives, and for personnel working with learning disabled, and a guide

to youth gambling. The other efforts are a project of developing tools for prevention of adolescent problem gambling (2007–2009), and a project for young immigrant gamblers (2007–2009).

### 3.2 Treatment Options for Problem Gamblers

The overall responsibility to organise social and health care services lies in the municipalities. The outpatient treatment of problem gamblers in Finland is arranged through substance abuse facilities (A-clinics). There are over 70 A-clinics in Finland. Annually around 400–600 people seek treatment in A-clinics primarily for pathological gambling. Treatment in A-clinics is mostly cognitive individual, family, and group therapy. Other therapy forms like acupuncture are also used (Heinonen, J. (2004). Unpublished document). However, there are very few treatment programmes designed for problem gamblers.

For inpatient care there are two facilities, the Tyynelä Rehabilitation Centre and Kouvola Rehabilitation Centre. The Tyynelä rehabilitation and training centre takes 50–80 patients a year, and the Kouvola rehabilitation centre takes some 15 patients a year. At Tyynelä they have a 3-week rehabilitation programme with a 1-week follow-up period. The treatment consists of individual, group, and family therapies; lectures; and community-based support. In addition to A-clinics, there are other care and treatment options for problem gamblers. These include psychiatric clinics, social services offices, and congregations of the Finnish Lutheran Church.

The first Gamblers Anonymous (GA) group in Finland was founded in 1992 (Heinonen 2004). There are 19 active self-help groups for problem gamblers, and 9 of them are run by GA and most of the 10 others are run by a treatment facility. The national gambling helpline, *Peluuri*, started in September 2004. *Peluuri* is a nationwide helpline for problem gamblers and other people concerned or affected by problem gambling. The service is open every weekday from noon until 6 p.m. Calls to the helpline number are free of charge. It provides referrals to services for problem gamblers, support, and information and material about problem gambling. In 2006 *Peluuri* answered 1,704 calls. Of the callers, 50% were gamblers and 17% were relatives of gamblers. *Peluuri* also has an anonymous service to answer questions on the internet and is starting a

internet-based self-help manual (Jaakkola 2006a). The service providers are two Finnish associations: the A-clinic Foundation and *Sininauhaliitto*—the Finnish Blue Ribbon. They are both working with substance abuse patients. The *Peluuri* helpline is funded by the Finnish state-licensed gaming organisations: *Fintoto Oy*, *RAY*, and *Veikkaus Oy*. The Ministry of Social Affairs and Health is a co-partner and carried out an evaluation of the helpline in April 2005 (Jaakkola 2005a).

Poteri and Tourunen (1995) concluded in their study that the treatment system of problem gamblers was working quite well but that personnel needed more knowledge and more training on problem gambling. They also stated that there was a need of serious public debate and information about problem gambling. Much the same conclusions were reached in another study by Kurkela (2001) some years later. He stated that school personnel needed training and information to recognise and treat problem gambling.

Problem gambling is not mentioned in social and health care legislation or acts that regulate care and treatment; it is only mentioned in the quality standards of substance abuse care. Thus, there is no binding legislation or any obliging regulations that could secure care and treatment for problem gamblers. Pathological gambling is seldom diagnosed by doctors. Also, pathological gamblers have difficulties in getting compensation from Kela—the Social Insurance Institution of Finland—for their therapy or treatment (Jaakkola 2005a). Furthermore, because of the big substance abuse problem in Finland, municipalities lack resources for treatment and problem gamblers have difficulties in getting to treatment. For instance, in Vantaa, the fourth biggest city in Finland, the A-clinics do not take problem gamblers but give precedence to substance abusers. There is only one peer group available for gamblers in Vantaa (Jaakkola 2005a). The A-clinic network does not cover whole of Finland and there is a need for other solutions for problem gambling treatment in those areas. Also, many problem gamblers see A-clinics only as substance abuse facilities and are very reluctant or do not at all want to go there. This is the case especially with middle aged or older female gamblers (Jaakkola 2005b). Finally, more information and training for staff in A-clinics is recommended (Turja 2006).

Of all substance abuse cases in treatment, 5.1% were reported to have gambling-related problems, equalling 4,500–4,900 cases a year (Heinonen 2004). The services offered to them were mostly counseling, therapeutic discussions, and help in social problems. In health and mental health care units, problem gamblers are poorly recognised. It seems that, in health care units, recognising problem gambling is somewhat random. Almost the same applies in social services (Villikka 2004). These findings are also backed up by the findings and experiences of the *Peluuri* helpline (Jaakkola 2004). Most of the gamblers had sought help from substance abuse outpatient facilities for their social problems and then encountered financial problems and depression (Villikka 2004).

Overall, there is need for differentiated and specialized treatment for problem gamblers. The A-clinic Foundation has a community treatment-based 3-year development project in Helsinki for problem gamblers. However, there is still a demand for other and diverse models for treatment. Not all gamblers depend on prolonged therapy, and mini-interventions like those used in alcohol treatment could be useful. There is also a need to focus more on solving financial problems in treatment of problem gamblers. Multi-professional groups to assess the gambler when entering treatment are also required.

In Finland, there have been three empirical studies on treatment of problem gamblers. The first one was in Jyväskylä using music therapy. Erkkilä and Eerola (2001) examined a four-phased treatment project for problem gamblers. The study included both quantitative and qualitative elements and the aim of study was to evaluate the functionality and effectiveness of the project. The treatment used both individual and group therapy, especially music therapy. In their findings, Erkkilä and Eerola (2001) emphasised a need for self-treatment for problem gamblers based on cognitive behavioural therapy and on a structured, analytical approach. They suggested alternation of individual and group therapy, and divided long therapy into separate sequences. They found music therapy to be useful at least in psychic and physical relaxation, substitutive pleasure, and processing of problems and feelings (Erkkilä & Eerola 2001).

The Social Pedagogic Foundation had a rehabilitation and training programme for three years

(2004–2006) as a development project. Its target was to develop a group processes-based rehabilitation for problem gamblers. The programme was based on earlier projects of rehabilitation of problem gamblers between 1996 and 2001, and it used group processes based on psychodynamic thinking. Huotari (2007), in his evaluation report, noticed that problem gamblers without other problems could do with lighter rehabilitation. In contrast, multi-problem gamblers who continued to gamble and could not stop, seemed to benefit from long and intense rehabilitation. He also raised the question of how important or realistic the goal of complete abstinence is for these multi-problem (comorbid) gamblers. It may be more realistic to target controlling gambling and improving quality of life through harm minimization strategies (Huotari 2007).

The third study represents an A-clinic Foundation development project on community-based outpatient treatment for problem gamblers. Rapeli-Community by the A-clinic Foundation is a 3-year (2005–2007) outpatient treatment development project based on community treatment. The objective of the project is to design a modified outpatient community for problem gamblers. Preliminary evidence is expected at the end of 2007.

### 3.3 Strengths and Weaknesses of National Gambling Regulatory Structures

The Finnish Ministry of Social Affairs and Health commissioned research from *Taloustutkimus* in 2006 (Turja 2006) about the practices of the municipalities in treatment of problem gamblers. The aim of the study was to clarify the practices of Finnish municipalities in organising the treatment of problem gamblers and to clarify what is the state of knowledge of social and health care personnel about problem gambling. It had the further aim to clarify the level of knowledge of municipalities and care personnel on problem gambling treatment.

The study was done by mailed questionnaire. It had two target groups, each with their own questionnaires. One was the social care managers in municipalities to clarify practices and knowledge of municipality level. The second target group was personnel of service units who treat problem gamblers, and their practices and level of knowl-

edge. The questionnaires were mailed to every social care manager in all 431 municipalities in Finland. Even though Finnish municipalities have the main responsibility, they seem to take care of problem gambling rather poorly. Almost two thirds reported that problem gamblers are taken into account poorly or very poorly. Very few had taken problem gambling into account in their welfare programmes (Turja 2006). In the same manner, the municipal service system recognises problem gamblers poorly. Only 25% reported meeting problem gamblers in their services less than once a year and 27% less than once a month. Problem gambling was also seen as a part of a broader problem. Only 18% reported that problem gambling was the customer's main problem (Turja 2006). The biggest need was the training of the personnel in municipalities. There also seemed to be some ambiguity about where problem gamblers should be treated (Turja 2006).

The other part of the adolescent gambling study of 2006 (Ilkas & Aho 2006b) was to observe the control of age limits. In particular, the aim was to observe the working of the 15-year age limit through observation and mystery shopping. The mystery shoppers were 15–17 years of age. They gambled in different venues and did a total of 1,209 visits. They observed whether they were asked for proof of their age, whether they were prevented from gambling, and who intervened to stop the gambling. The observations were carried out by interviewers working for *Taloustutkimus*. The interviewers observed if anybody under the age of 15 years was gambling, whether they were asked their age, whether the age was verified, whether the youth were forbidden to gamble, and who intervened to stop the gambling. Altogether, 1,224 observations were made.

The age limits of gambling in Finland are the lowest in Europe, and they are not effectively monitored. The results of the study suggested that the age limit controls for adolescent gambling are almost non-existent. For the mystery shoppers, age verification was asked only in 7% of cases. Only 3% were forbidden to gamble. The observers found that in one out of five places with gambling opportunities, there were underage gamblers playing. The most popular games played in the observation study were slots. There was no positive correlation between staff being able to see people playing slot

machines and intervening or preventing adolescent gambling (Ilkas & Aho 2006b). The results suggest that the issue is more about the attitudes of adults on age limit controls than real possibilities to enforce them. When there is almost no age limit controls at all and adolescents are starting gambling as early as reported in the 2006 study on adolescent gambling (Ilkas & Aho 2006a), it can be inferred that Finnish adolescents have a relatively high risk of developing gambling-related problems, and that the adults at present are not aware of risks involved.

These results also seemed to verify the fact that when there is almost no public debate on gambling in Finland, the comprehension of risks of adolescent gambling are actually not understood among adults and parents. So the real relevance of age limit control is not understood and prevention programmes are really required for adolescents. The issue is not only about raising the age limits in law, but to make the public (adults and parents) aware of the seriousness of problem gambling. There is a growing consensus among the authorities to raise the age limit of gambling to 18 years. Another strategy that could be done to reinforce control of underaged gambling is to place all gambling in locations where the age-limit control is more easily enforced, like arcades (Olason et al. 2006).

## 4 Conclusion

The licenced system of monopoly with three operators, *RAY*, *Veikkaus Oy*, and *Fintoto Oy*, having exclusive rights to carry on gambling operations in Finland, is working quite well. It has prevented excessive competition on the Finnish gambling market and profited Finnish society. But with new technology and challenges that are about to come, the system of gambling Finnish market needs renewal.

The spending on gambling in Finland is the highest in the EU. The net revenues of three Finnish gaming operators totalled €1,337 million in the year 2005. The growth has been steady, and most of time it has been the same as the growth of the Finnish GDP. Setting of profitability targets for gambling operators is a big question also for politicians among whom problem gambling is not very well recognised. There are also those who want to increase gambling in order to get more money for good purposes.

It recently has been estimated that 1% of the population in Finland over 15 years of age are probable pathological gamblers and 2.1% at least sometimes experience problems related to their gambling. Among Finnish adolescents (12–17 years old), 1% got 4 points in SOGS-RA, and 1.3% got 5 or more points. When using a cut-off point of 4 as in other Nordic studies, the rate of problem gambling seems to almost the same as in those other countries.

The control of age limits and adolescent gambling in Finland is almost non-existent. Age verification was asked for only rarely (7%). Very few adolescents (3%) were forbidden to gamble. Access to games has an impact on problem gambling. The slot machines are sited in facilities that minors can access easily (other than gaming arcades or casinos). Age limit controls are not working dependably. As a consequence, there is a need to enforce control of underaged gambling. However, it is not just by regulating that we can try to solve the problem of controlling underaged gambling. Also, adults have to understand that youth gambling is a serious matter. In addition, internet poker gambling figures are increasing steadily and even second division Finnish football has been targeted in international betting fraud. Authorities' resources to regulate gambling are insufficient, and the expansion of cross-border gambling is stretching them even more.

The Finnish municipalities do not seem to take proper care of problem gambling. Almost two thirds evaluated reported that problem gamblers are taken into account poorly or very poorly. Very few agencies had problem gambling taken into account in their welfare programmes. Problem gambling is missing in social and health care legislation and thus the municipalities do not have any compelling need to give resources to prevention and treatment of gambling-related problems.

Furthermore, diverse models are needed for treatment. These could include mini-interventions, web-based self-help manuals, and other telemetric methods. In particular, more focus is required on solving financial problems alongside the treatment of problem gamblers. What is needed most is training on gambling problems for social and health care professionals. Health care does not usually recognise problem gamblers. New treatment models should have their effectiveness evaluated. It should be noted that there is no discussion of the ideology of treatment and

whether it should target abstinence or concentrate on harm reduction. In addition, research studies should try to find the obstacles in getting to treatment.

Because the profits of gaming operators are returned to the Finnish society, there are a large number of different stakeholder groups that benefit from gambling. This is commonly perceived as a major benefit of the system. The gambling monopoly enjoys support in Finland. But this can also be a deficit. There is very little public debate about the gambling monopoly or gambling in general. Perhaps the most fervent opposition comes from internet poker gamblers, both amateurs and professionals, backed up by foreign internet gambling companies. Thus, results of studies and experiences of those who are working with problem gamblers are needed to try and maintain a discussion on problem gambling.

Problem gambling prevention programmes are needed for both for adults and youth, and should be based on scientific research. More research to recognise risk groups is needed so that prevention and interventions can be targeted. In substance abuse treatment and prevention there is a lot of research that has been done. Those working with problem gambling should try to benchmark it and benefit from it. If problem gamblers are not recognised in substance abuse clinics or social work, they are less recognised in schools or at workplace health care centers. Professionals need tools to screen possible gambling problems in the same way as they do with substance abuse in routine health checks. Mental health clinics or professionals should also screen their patients for gambling problems.

Helpline statistics clearly show that the debt problems and availability of short-term loans (even by mobile phones) are causing more problems. It also seems that debt problems and certain types of gambling are correlated. In helpline statistics, those who gambling on the internet, participate in sports betting, or visits casinos more often have debt than slot machine gamblers. However, the five main challenges that face the Finnish gambling field can be summarised as follows:

1. There is not enough prevention done.
2. Treatment system and availability of treatment have deficiencies that need remedies urgently.
3. Social and health care professionals need information, training, and more resources on problem gambling.

4. There is a lack of public debate on gambling problems.
5. More scientific research on gambling problems in Finland needs to be conducted.

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# 5 France

Marc Valleur

## 1 Background

On April 4th, 2006, the French Department of Health Secretary requested a collective report from INSERM (the National Institute for Health and Medical Research), stating that “the issue of addictions without substance and in particular of those to gambling is an emerging phenomenon in the public health field in France”. In France until now, there appears to have been a lack of interest in taking the problem of pathological gambling into consideration. This command was the first official recognition of the requests made by clinicians, researchers, and some decision makers, such as Senator François Trucy (Trucy 2002; 2007).

As of now, France does not have a structured care plan and there are no prevalence studies in the general population. Individual initiatives are incapable of filling in the gap whereas, a few years ago, some gaming operators started to put information and gambling prevention measures in place. The situation seems odd, knowing that the excessive gambling behaviour has been recognised as “pathological” for a long time. Interestingly, gambling operators were the first to recognise the problem and to ask for protective measures. This was out of the ordinary as far as addictions are concerned. The reason was the very particular situation of gambling in the economy of the country and on an international level: government monopoly urged the operators to prove that gambling was not “just another commodity”. In 2006, the French government became aware of the existence of pathological

gambling, although this awareness has not yet been translated into many concrete decisions. Therefore it is impossible for us to set but a partial inventory of fixtures, due to the lack of specific studies.

### 1.1 History and Legislation

Francis I (François I<sup>er</sup>, 1494–1547) was the first French king to legalise gambling by creating the royal lottery. It was part of the organised gambling tradition and it was used as a “voluntary tax”. This legalisation became possible thanks to theologians who admitted, as well as Saint Thomas Aquinas, the existence of a “pure” hazard that does not point to the divine order. The rediscovery of the Greek philosophers during the Renaissance led to the possibility of a “purely distributive” fate, different from a god's decision or a will of the fortune goddess. Historians (e.g., Belmas 2006; Freundlich 1995; Grussi 1985; Guillaume 1981) speak of the time between the Renaissance and the Revolution of 1789 as a “Golden Age” for gambling. But according to some of them (e.g., Guillaume 1981), it is also a “big re-imprisonment” in the sense that Michael Foucault (1961) uses this term in regard to the history of madness. After religious prohibitions, gambling once again became despicable at the revolution since easy money pitted against the city moral standards of effort and merit. However, despite of all the critics regarding the immorality of gambling and an attempt of prohibition, gambling has survived each and every jurisdiction. For instance, Napoleon, simply transformed the royal lottery into the imperial lottery.

The current gambling legislation is the result of an “archaeological” superimposition of law and regulation strata, resulting in a complex situation. In this way, the 1806 decree is an exception to the prohibition of “gambling houses”. It authorised gambling houses to set up in locations where there were hot springs during the thermal season. Thanks to this exception, spa towns are part of the French gambling model, with a considerable number of casinos. This exception even went through the most radical prohibition period of the time (in 1836). The law of 21st March banned all kinds of lottery, pool wagers, and the pari-mutuel betting, but not “thermal casinos”. The repercussions of World War I and 1929 stock market crash afterwards led to the re-creation (1933) of the national lottery, which was a monopoly. It would become then “*la Française des Jeux*” (*FDJ*).

In general, gambling remains banned in France, except for the special dispensations granted by the government to some operators. Aside from the relatively rare exception of the “gambling clubs” (non-profit private associations), the market today is shared by three big operators. These are casinos, the *FDJ* (heir to the national lottery), and the *Pari Mutuel Urbain (P.M.U.)*, a government-regulated network of horse racing betting counters.

## 1.2 La Française des Jeux

The national lottery, created in 1933, became the *Loto* in 1976. It is a grid card where players have to check off the numbers after having chosen them, instead of a simple ticket already numbered as it was for the lottery. This type of lotto was controlled by the government. The mixed economy company destined to manage both the lottery and the lotto was named *Française des Jeux* in 1990. The government holds 72% of its capital and the Secretary of the Treasury oversees the supervision of this company.

The retailer network of the *FDJ* is extremely important. It is made up of 40,000 sales locations such as tobacco shops, bars, and press points. This network is emblematic of a friendly type of gambling organisation—popular and in many places in which people socialise. A website offers the company's games although it currently represents a minimal share of this activity. However, this is the only operator legally allowed online. The games of the *FDJ* are the following:

- Big lotteries: the lottery has become a national institution and the lottery draws are one of the most seen television programmes. The Euromillions, also managed by the *FDJ*, is another major revenue source for this operator.
- Scratch tickets: these “impulse games” are accessible at a cheap price and distributed in every *FDJ* lottery ticket counter. During the holiday season, packs of these tickets are sold as gifts.
- *Rapido* is undoubtedly the *FDJ*'s most problematic game. Officially, it is a lottery game, but the drawing of lots is on a screen. It takes place every 5 minutes from 06.00 to 24.00. The speed of the game made it a natural competitor for gaming machines that are only allowed inside casinos. *Rapido* is available in 10,000 sales locations, and usually in places where you can buy alcoholic beverages. The association of this game with the abuse of alcohol represents a common problem.
- The *FDJ* also has the wager monopoly on sports events (except for horse racing) by a 1985 decree.

In 1995, an order authorised the *FDJ* to expand its activities to the territory of Monaco, under the same conditions as on French soil. This means that the company would have to pay back to the Principality of Monaco a maximum of 15% of the amount committed. With an 8.926 billion Euros turnover in 2005, the *FDJ* is the third biggest government-regulated lottery of the world, and the fifth biggest lottery in general.

## 1.3 The Pari Mutuel Urbain

After the war in 1870, horse races became organised. The aim of the *P.M.U.* was to rebuild a “horse” network. These races were meant to highlight the horses, which were sold afterwards by auction. Part of the proceeds went to the organisers. The first bets were organised beyond any regulation. There were several types: *à la poule* (gamblers drawing lots), *mutuel* (gamblers betting against each other), and *à la cote* (gamblers setting the profit of the stake and the winnings). After several events, a law in June 1891 legalised and regulated the horse-racing bets. Profits had to be used to improve the equine race.

The *P.M.U.*, the French betting authority, was created in 1931 and was set up to manage the horse race wagers made outside race tracks (bets on race tracks are taken by the *Pari Mutuel Hippodrome*

[*P.M.H.*]). In 1954, the *tierce* (triple forecast) was introduced. It was first broadcasted on television in 1956. In 1989, the triple forecast was substituted by the *quinté +*, a French forecast system involving betting on five horses. The network has more than 8,000 betting counters, and a specific television channel called Equidia. Since 1998, other sales locations have included *courses par courses* (race-by-race betting counters), where it is possible to bet all day long. In France, there are still 11,000 race-horse owners and 264 racetracks. In 1990, these racetracks hosted 2,180 race meetings and were seen by five million spectators. Therefore, it is possible to gamble permanently in the “race-by-race” type, and it is not surprising that problem gamblers or gambling addicts often visit these places. In 2000, the *P.M.U.* had 6 million registered players.

In 1999, 1.6 to 2 million individuals gambled at least once a week. Of these, 28% were women, and 5% were “enthusiasts” playing several times a week. At present, the *P.M.U.* is not particularly concerned about pathological gambling. The stakes in 2005 represented over 8 billion Euros. Return rates to players were approximately 70%. The stakes in Monaco and Switzerland are grouped together with the French stakes. Many African countries gamble on French races, and the *P.M.U.* helps them to organise the bets.

## 1.4 Casinos

In 1806, a decree allowed police chiefs to issue dispensatory authorisations to thermal spas and to places where there are hot springs (during the water-taking season) and to the city of Paris. The case of Monaco is an example of the interests of banning “somewhere else” but at home. The prohibition of gambling in Italy and the absence of French local competition lead Monte Carlo to become the gambling capital by the end of the 19th century and the beginning of the 20th century.

For a long time, the revenues of the *Société des Bains de Mer* (1867), a sea baths corporation, compensated for the lack of resources for Monaco. In 1907, a law allowed gambling clubs and casinos in thermal stations including health resorts. It imposed support of the Department of the Interior and set a purpose of a gross profit. In 1920, a decree specified that no casino could settle within 100 kilometres of the capital. In 1931, an exception was made for the

city of Enghien. In 1987, Charles Pasqua, Secretary of the Interior at that time, allowed slot machines inside casinos. In 1988, Jacques Chaban-Delmas (Prime Minister and Mayor of Bordeaux), allowed the possibility of establishing casinos in cities over 500,000 inhabitants under certain conditions.

France is currently the European country with the most casinos (196 authorised in 2006, of which 193 are in operation). However, these are set up unevenly in the territory. The coast and the areas where there are thermal stations have more casinos than other regions. It should also be emphasised that, together with Portugal, France is the only country that has not authorised slot machines in public places, including “soft machines” whose stakes and winnings are limited. Therefore, casino gaming machines do not have any competitors, except for the very rare illegal machines. The total number of slot machines in casinos is over 19,000.

## 1.5 Gambling Clubs

Gambling clubs are called associations in the 1901 law. They are non-profit organisations of private people. These clubs typically gather together amateurs of card games, especially poker fans. There are two types of clubs, those that are very fashionable and prestigious, and those that are illegal, whose members play different variants of roulette. Playing poker became very popular thanks to television programmes commentated upon by celebrities and online poker playing on the internet. The rapid expansion of this game has given more importance to the new clubs specialising in poker.

## 1.6 Internet Gambling

Internet access is widespread, with 44.3% of families connected, and more than 12 million high-speed internet consumers by the end of 2006. Legal issues about online gambling have therefore greatly contributed towards the growth of interest on the regulation over the spread of gambling (and, indirectly, on pathological gambling). The market is indeed dominated by illegal opportunities to gamble. In France, the estimated expenditure on online gambling is approximately 500 million Euros per year. This figure is shared between the authorised websites (*FDJ* and *P.M.U.*) and foreign websites. The authorised websites got 110 million

TABLE 5.1. Gambling participation.

	Total (%)	Gamblers (%)	<i>FDJ</i> gamblers (%)	<i>P.M.U.</i> gamblers (%)	Casino gamblers (%)
16–24 years	14	15	15	9	19
25–34 years	17	20	21	22	19
35–44 years	18	20	20	17	19
45–59 years	25	25	25	29	20
60 years	26	20	19	23	23
Men	48	48	47	60	53
Women	52	52	53	40	47
Managers	26	27	26	28	25
Workmen/ employees	29	33	34	39	30
Unemployed/ retired	45	40	40	34	45

Euros, while the latter got the remainder thanks to French gamblers.

## 2 Evidence

### 2.1 Who Gambles?

The data presented are those supplied by the gaming operators. Figures released by the *FDJ* indicate that about 30 million people have gambled at least once, and 28.8 million of them gambled on the *FDJ*. Table 5.1 summarises the findings regarding gambling participation in France (Plan of Responsible Gambling Action, *FDJ*, August 2006). Overall, 2,000 people representative of the French population were surveyed. It is worth noting that one third of the gamblers are regular gamblers (gambling at least once a week) representing two thirds of the *FDJ* turnover.

According to one casino union, the clientele of casinos is described as in Table 5.2 (*Syndicat des casinos de France, étude COFREMCA 2004/05*).

Statistics supplied by the *P.M.U.* further show that the number of horse track bettors increased slightly during the last few years, as did the amounts staked (see Table 5.3).

### 2.2 Evolution of the Gambling Market

The rapid expansion of slot machines, which have been allowed inside casinos since 1987, has drastically changed the gambling landscape. Casinos have radically transformed themselves from the domain

TABLE 5.2. Casino patrons.

Employees	20%
Retired	13%
Managerial employees, executives	12%
Intermediate profession	12%
Unemployed	10%
Students	9%
Skilled workers	9%
Workmen	5%
Craftsmen, tradesmen	4%
Farmers	1%

of the rich to a place for the entertainment for common customers. Slot machines today represent the casinos' main activity, providing them with up to 95% of their turnover. Casinos are now the largest gaming operators in France, and exceed the revenues of the other two government operators together. Figure 5.1 shows the gross gaming revenue for the three operators, and the impact of the introduction of slot machines in 1987. France is now the second country in the world (behind the United States) for the number of casinos (see Table 5.4).

The proliferation of gambling opportunities has been coupled with an evolution in the type of games offered. The goal is to make gambling accessible to the maximum number of people and as often as possible. Aside from the persistence of the *FDJ* big lotteries, numerous instant games have been increasingly added. These games require a minimal outlay, but gamblers can play again immediately.

In particular, the success of slot machines (see Table 5.5 for the number of slot machines) has lead operators to introduce more “impulse games”

TABLE 5.3. Number of horse track bettors and amounts staked.

	1999	2000	2001	2002	2003	2004	2005
Number of bettors (in millions)	6.5	6.5	6.7	6.6	6.7	6.8	6.8
Amounts staked (in billion Euros)	5.43	5.78	6.17	6.41	7.02	7.56	8.01

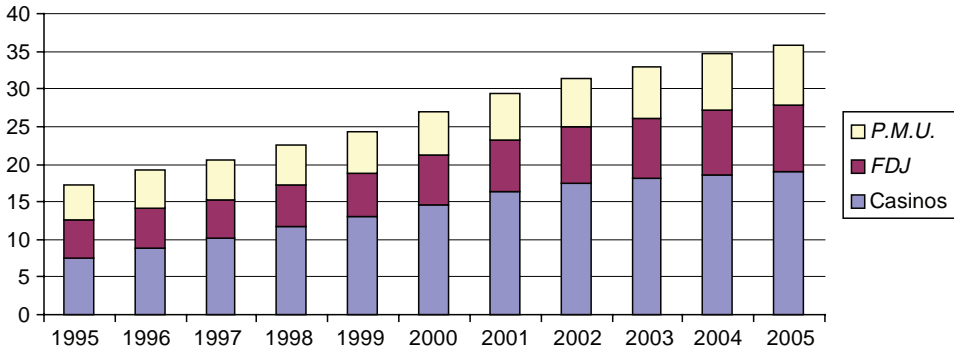


FIG. 5.1 Gross gaming revenue, in billion Euros (Trucy, 2007)

TABLE 5.4. Number of casinos.

	1969	1985	1991	1999	2000	2001	2002	2003	2004	2005	2006
Casinos (n)	155	135	132	160	170	173	176	180	186	190	196

TABLE 5.5. Number of slot machines.

	1989	1993	1998	1999	2000	2001	2002	2003	2004	2005	2006
Slot machines (n)	2,110	9,396	12,927	13,217	13,557	14,403	14,888	16,403	17,873	18,787	19,384

into the market. *Rapido* is a very good example. For a start, it was introduced as the slot machines' direct rival, and it helped to cut down the number of illegal machines in cafes and bars. In the same way, *P.M.U.* developed "race-by-race" betting in cafes on television screens, and on a specialised television channel, allowing the watching of races and betting all day long.

Overall, since 1999, expenses for gambling continued to increase for all three gambling operators (see Table 5.6 and Table 5.7). Despite this impressive increase in gambling expenses, France remains in the middle of European countries for gambling activities (Table 5.8; Insee 2004, cited in Trucy 2007).

## 2.3 Pathological Gambling in France

In general, there is no scientific evidence on the prevalence of pathological gambling in France,

as no representative studies have been conducted yet. Estimates are sometimes made, using other countries results, combined with the economic data of the French gambling market. However, such estimates cannot be considered reliable. There are very few French figures on this matter, except for a study with people who were consulting *S.O.S. Joueurs* through a telephone helpline service (Achour-Gaillard 1993), which was carried out by the Research Center for the Study and Observation of Life Conditions.

### 2.3.1 Data from *S.O.S. Joueurs*

As already mentioned, there is very little data on problem gambling in France, except for the study with people who were consulting *S.O.S. Joueurs* through a telephone service (Achour-Gaillard 1993). This research is a qualitative study concerning 238

TABLE 5.6. Estimation of overall expenses (per person and year, in Euros).

	<i>FDJ</i>	<i>P.M.U.</i>	Casinos
1999	175.35	656.09	1,776.80
2000	214.05	731.78	2,451.49
2001	227.27	664.68	2,542.05
2002	267.14	1,149.20	3,391.19
2003	273.96	1,222.97	3,212.43
2004	296.72	1,260.09	3,022.16
2005	309.65	1,251.27	3,108.86

TABLE 5.7. Estimation of overall expenses minus winnings (net amount spent; per person and year, in Euros).

	<i>FDJ</i>	<i>P.M.U.</i>	Casinos
1999	74.16	202.37	213.55
2000	87.65	222.72	288.98
2001	91.90	196.85	296.21
2002	106.50	330.54	474.77
2003	108.52	343.71	449.73
2004	117.69	346.71	423.11
2005	123.88	341.59	435.24

TABLE 5.8. Gambling expenses in various European countries.

Country	% of gambling expenses <sup>a</sup>
Slovenia	2.2%
Spain	2%
Finland	1.9%
Greece	1.6%
Czech Republic	1.6%
Sweden	1.3%
Portugal	1.2%
United Kingdom	1.2%
France	0.9%
Italy	0.9%
Germany	0.8%
Ireland	0.7%
Netherlands	0.6%
Belgium	0.4%
Poland	0.3%
Estonia	0%

<sup>a</sup>Percentage of households expenses (European average = 1)

pathological or problem gamblers who phoned for help and/or counselling. Overall, this report shows an over-representation of men (91.6% of the clients). Between the ages of 25 and 44 years, the most represented age bracket was 40–44 years. Most of these gamblers were married (59.2%) and had children (78.2%). The majority of them (81.9%) played just on one game. Many of these gamblers were overburdened with debt (96.6%),

and the deterioration of their personal relationships was a frequent consequence. Nearly 20% of gamblers (19.3%) had committed criminal offenses. Among these 238 gamblers, problem gambling was associated with horse betting (50.3%); slot machines (19%); traditional casino games (9.2% roulette; 4.6% Baccarat; 2.1% Blackjack; 1% “30 and 40”); and poker (5.6%).

In 1993, slot machines were only just beginning to be present in casinos, and these data were relevant mainly for horse race bettors. Among them 95% were men, 61% were married, and 52% were employees or workers, of low economic status. The author pointed out that this was just an explorative project, but it seems to be consistent with the results obtained in North American research. However, it is convenient to put the results into perspective, since gambling practices have evolved as well as the profile of clients. The few clinicians who see problem gamblers note that there are increasingly more people with low incomes, elderly, and more women.

In 2006, overall, 1,242 different people contacted *S.O.S. Joueurs* by telephone service (up from 915 in 2005). According to Achour-Gaillard (2007):

- 66% were married and 68% had children
- 41% were workers or employees
- 10% were unemployed (and out of work)
- 21% were retired or without work
- 61% had an income of between 0 and 200 Euros per month (10% had no legal income)
- 82% had got into debt (for 625 gamblers, the global amount of the debt was 29,598,750 Euros, for an average debt of 47,358 Euros per gambler).

## 2.4 Gambling Types and Risk Factors

There have been several risk factors identified for problem gamblers, including individual factors (vulnerability), environmental factors (e.g., access and general exposure to a game), and structural factors inherent in the type of game (Griffiths & Delfabbro 2001). A gambling preventive policy should take into account these risk factors, especially the structural factors. It would be important to have criteria to classify types of gambling according to their specific “addictiveness”.

In an implicit way (and from no scientific or empirical studies), French gambling policy is organised around the fact that some games are more risky, not to say addictive, than others. The risky

games are only allowed in casinos, whereas other “less risky” games are widely accessible to everyone. Popular lotteries such as *Loto* or *Euromillions* are considered as non-addictive games, while slot machines (only accessible in casinos in France) are considered as among the most addictive games. International scientific studies have made it possible to distinguish several structural risk factors:

- Gambling frequency and continuity: event frequency is the fastest on slot machines and it is possible to replay immediately
- Winning amounts, gamble return rate, near misses (also important factors in the slot machine)
- Illusion of control (Gaboury & Ladouceur 1989; Henslin 1967; Ladouceur 2004; Langer 1975): present in most gambling, the illusion of control appears with the games that include skill or pseudo-skill elements.

More generally, gambling can be separated in two types (Valleur & Bucher 2006), according to what the gambler expects: “dream gambling” and “high-sensation gambling”. Dream gamblers take advantage from the long delay between bet and result to imagine what they would do with their gains. Dream gambling has a low probability of winning but “the gold mine” it represents can radically change one’s life. Dreaming about this fortune is the goal of the game. Most of the time, gamblers are very aware of their scarce chances. This fantasy is more of an entertaining leisure activity. High-sensation gamblers, on the contrary, expect instant gains arousal. With slot machines, race-by-race on the *P.M.U.* screen, or *Rapido*, dreaming is substituted by sensation and the adrenalin rush. Hypnotised by the machine or the screen, gamblers cannot see the time go by anymore. They can lose control and be carried away, ending up playing much longer than initially wanted.

Allowing a large population to have access to lotteries such as *Loto* or *Euromillions*, and limiting access to slot machines in the casinos only, is one form of a gambling prevention policy that should continue to be recommended. But access to some other games is obviously a problem, these games being not only dream games:

- Scratchcards can lead to abuse, among young people in particular
- *Rapido* is close to slot machines. It is a lottery with results every 5 minutes appearing on a screen,

which makes it more like a sensation game than a dream game

- Sporting bets, such those on horse races, can combine risk factors with the illusion of control and they give and the possibility of gambling frequently.

Data from the *S.O.S. Joueurs* association in 2006 (Achour-Gaillard 2007) confirm this in relation to the types of games that cause problems. Among the 914 gamblers who asked for help:

- 21% gambled on *FDJ* games, essentially *Rapido*
- 28.6% gambled on *P.M.U.* (horse racing)
- 49.5% gambled at casinos (essentially on slot machines; this has to be compared with the 1993 study, where only 19% were using slot machines)
- 11.6% gambled on internet
- 3.4% gambled at gambling clubs
- 3.1% gambled on illegal games
- 6.7% gambled by playing poker (either in private places or on internet).

These data underline that slot machines are the most addictive gambling form and that *FDJ*’s *Rapido* and gambling on horse racing also represent gambling forms with high addictive potentials. Furthermore, they are easily accessible to a large population.

## 2.5 Different Types of Gamblers

Two research studies and one unpublished thesis (Bonnaire 2007; Bonnaire, Bungener & Varescon 2006; Bonnaire, Lejoyeux & Dardennes 2004) studied sensation seeking and alexithymia in pathological gamblers compared with regular gamblers and non-gamblers. The first study examined people gambling in cafes in a Paris suburb (Bonnaire et al. 2004). In this study, 57 pathological gamblers (according to the South Oaks Gambling Screen [SOGS] and Diagnostic and Statistical Manual of Mental Disorders, 4th Edition [DSM-IV] criteria) were compared with 40 regular gamblers and 97 non-gamblers. Using the French version of Zuckerman’s Sensation Seeking Scale (form V), the authors found a mean total score of 20.9 for pathological gamblers, 21.4 for regular gamblers, and 23.2 for non-gamblers. No significant differences appeared among these three groups. Pathological and regular gamblers did not differ



on the thrill and adventure subscale, whereas non-gamblers scored higher than pathological gamblers. Non-gamblers also scored higher than pathological and regular gamblers on the disinhibition subscale. Pathological gamblers had lower scores than non-gamblers on the experience-seeking subscale. However, none of these results was statistically significant. The authors concluded that, as it appears in numerous studies, sensation seeking does not allow discrimination between pathological gamblers, non-gamblers, and regular gamblers. Contrary to previous studies (Coventry & Brown 1993; Coventry & Norman 1997), they did not find that involvement in different forms of gambling was associated with high sensation seeking.

The second study (Bonnaire et al. 2006) found a high percentage of pathological gamblers in a group of men gambling in two Paris suburb cafes (gambling on *Rapido*, off-course betting) and another group betting on horse racing at racetracks. This kind of game was perceived as more “active” and causing more arousal. The researchers again used SOGS and DSM-IV criteria for pathological gambling. For 97 cafe gamblers, 57 (59%) were identified as pathological gamblers. For 72 racetrack gamblers, 42 (58%) were pathological gamblers. Sensation seeking (measured with the Zuckerman's Sensation Seeking Scale, form V) was significantly higher among racetrack gamblers, supporting the hypothesis of a difference between types of gambling and sensation seeking.

These results of course do not close the discussions on sensation seeking and pathological gambling. Zuckerman has always considered pathological gambling as an example of sensation seeking, and the various findings on this topic are an important field of debate (e.g., Hammelstein 2004; Zuckerman 2005). Beyond the fact that different people engage in different forms of gambling, and that there is a difference between those who only gamble one way, and those who use different forms of gambling, the role and function of gambling should surely be considered different for an addict, and for someone who is not addicted. As it is the case for different drugs, the gambling effect should be different, for a same individual, according to the different steps of the addict's “career” (this fact has led, for instance, many researchers to consider the effects of drugs not only as pleasurable or exciting, nor sedative, but rather as dissociative). For the

same person, at one moment, gambling can be a way of seeking thrill, excitement, and adventure; and, at another, once it has become a long-time habit, gambling can also be a way of seeking reassurance, anaesthesia, or oblivion.

Studies on sensation seeking or impulsivity should be compared with more psychoanalytic works (e.g., Tostain 1967), and with the writings of Lacan, whose work has had a great impact on French psychology and psychiatry. The notion of “ordalic” (ordeal or god judgement) behaviour is a way of understanding risky behaviours in a psychodynamic point of view. For instance, it is possible to propose a model for understanding addictions drawn from the clinical study of drug addiction, although applicable to non-drug addictions (Valleur 2005). Addictive behaviours would seem to include two opposite aspects, in varying proportions: on the one hand, the search for security, through routine and a gradual physiological dependence; on the other hand, the search for strong sensations and risk that constitutes the ordalic dimension of addictions.

Bonnaire (2007) also studied also the relationship between alexithymia and pathological gambling. In a sample of 57 pathological gamblers compared with regular gamblers and non-gamblers, she used the Toronto Alexithymia Scale (T.A.S. 20), and found 44% alexithymia among pathological gamblers, 28% among regular gamblers, and 5% among non-gamblers. This result is consistent with the literature. Using T.A.S. 26, Lumley and Roby (1995; n=1,147; 3.1% pathological gamblers) found 31.4% alexithymia in pathological gamblers and 11.1% in non-pathological gamblers. Using T.A.S. 20, Parker, Wood, Bond, and Shaughnessy (2005; n=562; 8.7% pathological gamblers) found 22% alexithymia among pathological gamblers and 11% among non-pathological gamblers. Alexithymia can be seen either as a personality trait or as a state. It seems to be increased in most addictive behaviours and also in a great number of psychiatric disorders. Therefore, it is not possible to consider alexithymia as a specific tool for predicting pathological gambling. The link with pathological gambling should lead to further research.

However, most important, research is needed in the field of epidemiology. The lack of quantitative data has become obvious, even though the French

government has accepted the idea that pathological gambling is a public health concern. Thus, a study of prevalence of pathological gambling in the general French population should be launched as soon as possible. Afterwards a panel of indicators should be set up to assess the links between the different kinds of games and addiction. Some particularly vulnerable subgroups of population should also be assessed, as clinicians receive more and more elderly people, unemployed, and immigrants. Future studies should take place in the field of addictive behaviours, as the overlaps between drinking, drug use, and excessive gambling seem important. An exploratory study among drug addicts hospitalised for withdrawal in Marmottan Hospital in Paris (Tribou-Gil 2006), using the SOGS criteria, found—on a small sample of 33 drug addicts—that 24% were pathological gamblers, and an additional 18% were problem gamblers.

### 3 Action

#### 3.1 Prohibition and Monopoly

The large increase of the gambling market since 1987 and the introduction of slot machines in casinos did not lead to a change in public health policy. Only 20 years later (in 2006), did the first measures begin to draw directions for a model of national gambling policy. The main reason for this delay is that gambling restrictions seemed to be an efficient and sufficient policy. Moreover, among the first measures in 2006 was some reinforcement of the restrictive measures concerning casino games, with the obligation of identity controls even for the slot machines rooms. This policy has been efficient in the past, and could still be efficient, if pathological gambling occurred only in casinos, and if the number of casinos and their settlement had not significantly changed.

This was only likely to be effective as long as only dream games were available outside casinos. *Loterie Nationale* and *Loto* were the only games proposed by the *FDJ*. Horse race betting was mostly a weekly (or less) activity, and gambling was not a public health concern. However, the gambling monopoly is not absolute and the gambling market is very competitive. Casinos, the *FDJ*, and the *P.M.U.* tend to consider each other as

opponents in an economic fight, which leads to a constant increase in gambling supply.

Regulation is difficult, since each of these operators depends on different administrations: the *FDJ* is linked with the Secretary of the Treasury, casinos with the Home Office, and horse race betting with the Ministry of Agriculture. The existing Superior Commission of Gambling (*Commission Supérieure des Jeux*) is a commission of the Home Office, assessing the casinos. That is why Senator F. Trucy, in his two reports on French gambling model (Trucy 2002; 2007), insists on the emergency of creating a single authority and an independent observatory in order to rule the whole gambling market. In February 2006, the Department of the Treasury established the principles of an organisation destined to fight against pathological gambling. Its principal mission is to evaluate the programs of the *FDJ*. The Committee for Responsible Gambling (COJER), is made of representatives of the following Departments: Economy and Finances, Youth and Sports, Interior and Health, as well as three qualified experts. Since late 2006, the *FDJ* has offered a promotion programme of “responsible gambling”, and the commercial programme must be approved by the COJER. From now on, it becomes possible to have a perspective on the future French model of gambling regulation. Responsible gambling should be an essential part of this model, and all the operators seem to accept this framework.

The term responsible gambling has been chosen by the authorities after consultation with experts on excessive gambling, especially Robert Ladouceur from Quebec, and it emphasises the concept of harm minimisation in gambling. The main problem is actually in the dramatic difference between a policy based mainly on prohibition, and another based on the principles of harm reduction. The future will tell if European economic rules have a dramatic influence on the French attempt to build a public health model for gambling. As the old model had its advantages, French government tends to keep the advantages, and to rely on the basis of the strong power of the national government and on the prohibitionist frame.

Taken together, gambling policy should rely on three main objectives:

- Allow responsible gambling for all adults: this implies fair information on gambling and odds as

well as information on the risks of gambling. This could also imply the banning or a special place for particularly addictive forms of gambling.

- Protection of vulnerable people: this implies protection for the youngest, and detection of excessive gamblers before they become addicted.
- Treatment access and information on treatment facilities for addicted people.

## 3.2 Primary Prevention or Health Promotion: Informative and Preventive Measures

### 3.2.1 *Exposure to Gambling*

The roots of prohibition are religious and moral, and clinicians are often annoyed when their writings are used to justify it. But one can admit that prohibition can have a preventive effect, as far as it reduces exposure to gambling. This was the main measure of the old model in France, and it will—if French politicians succeed in their attempt to save some parts of this model—continue to have a place in the future. After all, gambling problems seemed not to be very important in France when thrill or sensation games were confined in casinos, and only large lotteries were available.

From a public health point of view, a part of prohibition, and eventually a part of a national monopoly, would not be in total opposition with a harm reduction perspective. In this perspective, the more addictive games would continue to be only supplied in casinos, with all the existing controls. Before opening a new casino, studies should assess if some locations are “at risk” of encouraging excessive gambling. But this would also mean that, on the basis of sufficient data, one could separate clearly the most and the less addictive games, the former being reserved for casinos, the latter being easily available for anyone, in public spaces. In reality, things are not so clear: *Rapido*, *Courses par course*, and (illegal) internet games are at the same time largely available, and considered by most specialists as addictive.

An important measure decided after a COJER advice was, in 2007, not to allow new sales spots for the *Rapido*, due to the probable addictive property of this game. Access to gambling should also protect especially vulnerable people. The most

evident need of protection concerns young people. One of the first demands of the COJER was to outlaw gambling for minors, and the law forbidding gambling for minors under 18 years old has been in effect since July 2007. As the entry of casinos was already forbidden to minors, this measure was a necessary one, with the purpose of having a clear basis of regulation for all forms of gambling.

### 3.2.2 *Information*

Until very recently, gambling prevention measures were left up to the operators. Thus, the providers themselves were in charge of controlling the products that they put into circulation. They paid attention to the bad reputation their activity could get if pathological problems become a priority in the list of media concerns. More specifically, they carefully justified the monopolies they benefitted from. Moreover, for casinos, the need of defending a monopoly—the interest in highlighting a certain level of problems—was more evident than for the other operators. Before the EU authorities became worried, the gambling monopoly of casinos could have been called into question by the advocates of the gambling expansion in all public places.

Informing about the dangers of gambling is a way for casinos to put forward their function of conducting an activity that, without them, would become uncontrollable. So the union of casinos in France (which gathers numerous casinos: the groups Tranchant and Barrière, and independent casinos) has taken several initiatives informing the public on the subject that “gambling must remain a pleasure”, and has been followed by the other groups.

Information about casinos is provided on flyers, on posters, and on the screen of the machines. It can sometimes contain phone numbers of treatment facilities (e.g., *S.O.S. Joueurs*, psychiatric consultations). Informing the public on the dangers of excessive gambling has, since the creation of the COJER, become an obligation for the *FDJ*. The slogan “*restez maître du jeu*” (“keep gambling under control”) is now printed on every scratchcard and lottery ticket. Advertising for responsible gambling is also provided on the internet sites.

### 3.2.3 *Advertising*

Advertising for casinos is, in France, forbidden outside the casinos, and this is one of the numerous

complaints of casino owners, because promotion for other games is very present in all kinds of media. On the request of the COJER, and in order to promote responsible gambling, advertising for other games is controlled, should not encourage illusions, and should not target young people. A lot of work remains to be done in this field. We need to rely on scientific data to assess the impact of advertising on gambling practices, and only a single and powerful authority could prevent advertisers promoting gambling through illusory cognitions. For instance, it is difficult to decide if advertising for horse betting, based on the idea that one can gamble skillfully, is correct information or an encouragement in the illusion of control.

### 3.3 Protection for Vulnerable People

#### 3.3.1 Casino Self-exclusion

Casinos are under the supervision of the Department of Interior. A written request to this Department is enough to be banned from entering any establishment in France. This exclusion is valid for a 3-year period, and it is non-negotiable. When studying the problems associated with gambling, one of the evaluation criteria is the amount of self-exclusions. The number of casino self exclusion, (around 30,000 self-excluded persons) is one of the major indicators of excessive gambling in France (see Table 5.9 for detailed information).

However, this self-exclusion policy has only been effective since November 2006. Before then, there was no ID control at the entrance of the slot machine rooms inside casinos. Therefore, banned people could gamble, and many of them did not restrain

themselves from doing so. The only problem was that they could not get winnings, if these were important enough to have to be paid by cheque by the casino. Money won in those cases was left for charitable purposes. The control has been strict since November 2006. In return for this rigor, casinos were allowed to increase the number of slot machines as well as the possibility of having poker tables. They also reduced the duration of the self-exclusion from 5 to 3 years. Self-exclusion is an important mean for controlling gambling. Despite the facts that some gamblers are “gambling” with the law and try to cheat, that others are using foreign casinos, and that some switch to other gambling media (e.g., the internet), it seems to have an effect in controlling pathological gambling.

#### 3.3.2 Information and Training

The union of casinos in France includes numerous casinos: the groups *Tranchant* and *Barrière* as well as independent casinos. It has taken several initiatives of informing the French public on the subject “gambling must remain a pleasure”. This union has also incorporated staff training initiatives in order to make their staff aware of the problem gambling issue and not to incite people with obvious problems to gamble. It also tries to advise and direct them to the care centres for problem gamblers. The charter signed by the members of this union engage the casino staff to help patrons in keeping gambling under control.

For this purpose, many casinos have called in some specialists, such as *S.O.S. Joueurs*, to organise training sessions for their staff in order to help them detect and help problem gamblers. More recently, the *FDJ* launched a training program for

TABLE 5.9. Number of self-exclusions and lifted bans.

	New self-exclusions	Progression rate	Lifted bans	Progression rate
1999	1,932	—	—	—
2000	2,105	+8.95%	—	—
2001	1,934	8.84%	—	—
2002	3,372	+74.35% <sup>a</sup>	—	—
2003	2,241	-28.20%	—	—
2004	2,100	-13.25%	—	—
2005	2,496	+18.85%	942	—
2006 <sup>b</sup>	3,655	+46.43%	1,505	+59.76%

<sup>a</sup>The increase in 2002 was linked to the introduction of the Euro

<sup>b</sup>In 2006, the total number of self-excluded gamblers was approximately 25,000 Martignoni-Hutin, 2007

its staff, which is an important initiative, as 40,000 retailers are concerned. This training is the main part of secondary prevention measures and has the purpose of detecting problem gamblers in order to help them to avoid a total loss of control, and/or to help them in finding treatment facilities.

At present, internet gambling causes a great anxiety among French decision makers. But it also could be a medium for primary prevention (through advertising on responsible gambling) and secondary prevention (through a study of the gambler's behaviour). The official internet site of the *FDJ* is beginning to test this possibility. Furthermore, major operators have begun applying responsible gambling policies. *P.M.U.* is, for now, the gaming operation that feels less affected by the issues of pathological gambling. However, according to all clinicians, betting on horse races gives rise to problems, if not as many as casino games, at least as many as the games from the *FDJ*. Many gamblers belong to the working middle class, they are not wealthy, and some spend an incredible amount of time keeping themselves updated on forecasts thanks to the specialised media. Together with the sport forecasts, the *P.M.U.* is the type of game that gives gamblers the feeling of "professionalism".

## 3.4 Treatment

### 3.4.1 The Association S.O.S. Joueurs

In 2006, the association *S.O.S. Joueurs* was the only organisation entirely dedicated to the treatment of pathological gamblers. It is a non-profit voluntary association or "*association loi de 1901*", managed by the psychologist Armelle Achour-Gaillard, and it is financed exclusively by the donations made by gaming operators. This association has only 3.5 full-time jobs, shared by two psychologists, two lawyers, and one social assistant. They organise groups for the gamblers and their family and friends in their social network. Moreover, they organise training for casino staff. Their telephone activity allows them to keep files with information on all pathological gamblers.

### 3.4.2 Psychiatry Services

Over the years, a small number of university psychiatrists have become interested in pathological gambling and they have developed consultations for pathological gamblers. The essential ones are:

- Professor Jean Adès' service in Colombes, where groups for pathological gamblers are treated, using cognitive and behavioural therapies
- Professor Michel Lejoyeux's treatment service in Paris
- Professor Jean Luc Venisse's treatment service in Nantes. Professor Venisse has done great work towards the acknowledgment of addictions without drugs as a problem of public health and as a field of research. This service is open to the reimbursement of medical expenses of several addictions, especially eating disorders, illegal drug use in sports, but also pathological gambling.

These three services are the origin of numerous publications about gambling and addictions and clinical research. The initiatives of other services should also be noted. In Nice, Dr. Bistangnin started consultations with a cognitive-behavioural approach. In Strasbourg, Dr. Christian Bucher worked with gamblers using a psychoanalytic approach. Recently, he joined the drug addiction service of Metz, with Dr. Claude Jacob.

### 3.4.3 Centres Specialised in Drug Addictions/Addictions in General

The hospital Marmottan in Paris is one of the main hospital institutions dedicated to the care of people addicted to drugs. Since opening in 1971, this centre has taken care of people addicted to illegal drugs (heroin, cocaine, crack) anonymously and free of charge. Since 1998, its consultation has been open to problem gamblers. This centre has contributed to making the problems of gambling addiction better known and to getting the attention of the government. However, at present, the activity of Marmottan is only tolerated; this activity is not officially encouraged. Marmottan has also opened its consultation to people presenting cyber-addiction problems, particularly concerning the practice of persistent universe adventure and online games. Nevertheless, the phenomenon of cyber addiction, which deserves to be taken seriously, is of a different nature than pathological gambling.

### 3.4.4 Gamblers Anonymous

Gamblers Anonymous is a small association that tries to start the dynamic of a treatment group in 12 steps, following the model of Alcoholic Anonymous or Narcotic Anonymous, which are

relatively well established in France. For now, Gamblers Anonymous only has a few members and they get together once a week in Paris.

### 3.4.5 Private Initiatives

#### 3.4.5.1 Adictel

Adictel is a telephone and internet service as well as a meeting place supposed to help problem gamblers. It works as a link between gamblers and the gaming operators. This service is financed mostly by casinos. It offers help for obtaining self-exclusion and advice for writing an exclusion request to the Secretary of the Interior. The service also gets in contact with the casino or the operator involved for guaranteeing more “personalised” measures, such as an exclusion agreement for a limited period of time and in a specific place. Adictel is starting to organise discussion groups for gamblers and forwards help requests to the few existing treatment services.

#### 3.4.5.2 Excessive Gambling Service (Centre du Jeu Excessif)

The Excessive Gambling Service was created by Mr. Pierre Perret in Lyon. Mr. Perret has a thorough personal knowledge of gambling problems, because of his past as a manager of a casino and as an excessive gambler. This association, financed by casinos, gives gamblers advice, guides them onto treatment paths, and trains casino staff.

#### 3.4.5.3 Research in France

In general, as in other fields, French contributors are divided among therapists with a psychoanalytic education, more biologically oriented psychiatrists, and those using behavioural–cognitive approaches. Many psychiatrists and psychologists tend to consider gambling as a “simple symptom”.

## 4 Conclusion

France lacks data on pathological gambling because this field was, until very recently, not considered by authorities as a public health concern. The French policy on gambling is, in fact, quickly changing and it is impossible to know how European justice decisions are going to influence it. France has a long history of strong and centralised state power, and, for a long time, the

association of a “quasi-prohibition” and development of state monopoly has been a way of limiting gambling-related problems.

Gambling facilities available through the internet, which is a medium very difficult to control, and European economic policy, led the French government to a greater consciousness of the necessity of a new policy. Among the recent decisions was the creation of the COJER, with a clear mission of promoting responsible gambling and of addressing problem gambling. This has been the first official recognition of the problem by the French government. Public debate is beginning, and if one admits that a public policy should be built on objective and scientific data, the collective report requested with the National Institute for Health and Medical Research by the Secretary of Health will be an important step to a new policy. The conclusions of this report will strongly insist on the importance of epidemiological research and on the need for training of health workers, in addition to the need of development of treatment facilities.

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# 6 Germany

Gerhard Meyer and Tobias Hayer

## 1 Background

Germany, officially the Federal Republic of Germany, is a parliamentary federal republic of 16 Federal States. After World War II, Germany was divided, with reunification occurring in 1990. The country is a founding member of the European Union (EU). With over 82.3 million inhabitants, Germany has the largest population among the EU member states. The country is one of the most densely populated states worldwide. Approximately 75 million people (91%) are German citizens, of those, 7 million citizens have an immigrant background. The largest immigrant group with a foreign citizenship is formed by the Turks, with 1.76 million people—the remaining foreigners are predominately EU citizens. With a nominal gross domestic product (GDP) of 1.523 trillion Euros, as of 2006, it is the world's third largest economy, the world's largest exporter of goods, and the world's second largest importer of goods.

Gambling has a long and varied tradition in Germany. The first casinos opened in Baden-Baden (1748) and Wiesbaden (1771). A crucial upturn happened to the casinos when public gambling was prohibited in France in 1837, which led the French operators of the gambling industry to turn to the German health resorts. They developed the casinos into European centres of institutionalized gambling in a world of luxury. Splendid resorts, spas, and swimming baths that were financed by the casinos still show the wealth of that age today. Around 1862, the Russian novelist Fjodor

Dostoyevsky came into contact with gambling there and became a “slave to it with his body and soul”. He perpetuated this painful experience in his novel “The Gambler” (Dostojewski 1866/1981).

In 1735, the first number lottery was founded in Bavaria, and in 1763, the Genoese Lottery (“5 out of 90”) was introduced to Prussia by Friedrich the Great. Around 1800, the prohibition of the lottery was affected in broad parts of Germany. The German Reich (1871–1945) was then largely free of gambling, as casinos were closed by law within a transitional period of 4 years after 1868. The National Assembly in Frankfurt saw a “social evil” that “favours moral decline of each individual” in the casinos.

It was left to the National Socialists to repeal the prohibition of casinos in 1933. However, relicensing was affected under restrictive conditions. Casinos were only legal in health resorts and spas that could either prove at least 70,000 annual visitors with a minimum share of foreigners of 15%, or if they were located in the vicinity of a foreign casino. An additional regulation from 1938 limited the age for admittance to those 21 years and older, introduced a residency ban that denied admission to local citizens, and excluded those people from the game who were possibly endangered to ruin themselves financially. The aim of this legal requirement was to address a predominately foreign clientele, to stop the flow of potential tax money into adjoining foreign countries, as well as to prevent unwelcome side effects, such as developing an unrestrained passion for gambling.



Remarkably, the first national treaty that was held in a devastated Germany after World War II was aimed at gambling. In 1947, quite a few Federal States passed the introduction of a “class lottery”. In 1948, football betting pools were introduced, and later betting on horses was introduced.<sup>1</sup> The (“6 out of 49”) lottery followed with one draw a week in 1955, with a second draw coming later. Gradually, more lottery products were established. In 1999, the first Federal States introduced the sports bet “*Oddset*” with fixed odds, starting out as a combination bet and turning into a single bet shortly after.

Concessions for casinos were given very sparingly at first. Until 1974, only 13 concessions were granted, with some protective requirements, such as the residency ban, staying in force. After the mid-1970s, the number of casinos greatly increased, to 49, plus 31 additional branches (“slot machine casinos”), by the end of 2005. Protective requirements were cut back, and the residency ban disappeared in all Federal States after 1995. At the reunification of West and East Germany in 1990, the casinos also started moving into the Federal States of the former German Democratic Republic (GDR), where gambling had been illegal, with a few exceptions (betting on horses and lotteries).

At present, gambling in Germany is only allowed with a government permit according to §§284-286 of the German Criminal Code. The establishment of a state monopoly on gambling was intended to serve the purpose of optimally averting the dangers associated with gambling. A verdict of the German Federal Constitutional Court (ruling of July 19th, 2001) concludes that “the work of a casino on the whole is an unwelcome occupation that is nonetheless permitted by the government to check illegal gambling, to provide state-supervised opportunities for the human gaming instinct which cannot be restrained, and thereby to protect the natural passion for gambling from punishable exploitation” (translated by the authors). Therefore, as a prerequisite of the necessity for regulation, a widespread need for gambling that is embedded in people, and that requires a restrictive handling of gambling, is assumed because (in principle), the risk of self-destructive and socially harmful consequences

exists. Due to these risks, legislation, for example, prohibits the admission of people under 18 years of age for all commercial gambling. The minimum age for visiting a casino is actually set at 21 years in several Federal States.

The authority to control gambling is vested in the Federal States, which grant concessions for casinos, lotteries, and sports betting. However, the federal government regulates gambling machines that are set up in amusement arcades, restaurants, and bars (amusement with prizes [AWP] machines), since, according to the law, these AWP machines are not seen as gambling products due to lower stakes and limited possibilities of winning or losing money. But from a psychological point of view, this classification cannot viably be maintained since the mid-1970s. Currently, these “innocuous machines” attract gamblers with profits of 6,000 Euros and more (see below).

## 1.1 The Gambling Market

In recent years, some major developments on the German gambling market have taken place that can be globally described by three trends that relate to each other:

- A steady expansion of the existent supply of gambling and a rise in gambling incentives
- The progressive weakening of the state monopoly and the opening of the market for private gambling suppliers
- A diversification of the product spectrum that increasingly orientates marketing to specific target groups and that attempts to optimally address the needs of individual clientele.

At present, the ongoing market expansion and a rise in the incentive to gamble over three decades are central. The spreading of casinos (from 13 to 80) combined with a steady market expansion of slot machines within the casinos in comparison with table games, such as roulette and Blackjack, was accompanied by the increase in the product spectrum of the *German Lotto- and Totoblock*, and by the upgrading of AWP machines to slot machines.

Around 26,000 lottery agencies (as of 2005) currently offer numerous lotteries, such as keno (with draws 6 days a week), instant-win lotteries (scratchcards), auxiliary or extra lotteries, bingo,

<sup>1</sup>Apart from state operators, private bookmakers are also allowed to offer bets on the outcome of horse races.

football betting pools, fixed-odds sports betting (“*Oddset*”), as well as the most popular lottery game in Germany (lotto “6 out of 49”). The attractiveness of this game was recently enhanced by the introduction of an additional draw of a number from 0 to 9 that led to an increase of the jackpot. Moreover, the selling of coupons is carried out both over the internet<sup>2</sup> and through private gambling agents. Other organizers operate further lotteries including class lotteries, television lotteries, social lotteries, and lottery- and profit-savings, which are promoted by banks and savings banks.

Aside from the government-licensed sports bet “*Oddset*”, citizens can take more attractive sports bet offers that are presented by private operators over the internet, or by private gambling agencies. Private operators such as “*Bwin*”, which acquired a trading license from the former GDR in the course of the reunification, offer more events (up to 8,000 bets per day), so-called live bets online, and more favourable bets. The prize draw of private operators is at up to 90% (with state operators up about 55%), since they do not have to pay taxes on concessions and lotteries. They also show a more economical infrastructure compared with the state operators. As of 2005, approximately 2,500 private betting offices functioned as agents for bets, especially for foreign companies.

After the boom of gaming arcades in the 1980s, gamblers can currently risk their stakes at AWP machines in 9,400 privately run gaming arcades. By the end of 2005, 183,000 AWP machines were located in amusement arcades, restaurants, and bars. A new Gaming Ordinance came into force in January 2006, which further increased the incentive to gamble at these machines. An accelerated game (5 seconds instead of 12 seconds) attracts gamblers with higher potential stakes (up to 2, 5, or even 100 Euros in single special games instead of 0.20 Euro), higher profits (500 Euros an hour), and higher losses (80 Euros maximum an hour compared with the previous 60 Euros). Through the transformation of the stakes and profits from money into gambling chips and back into money, legal regulations are circumvented so that profits of 6,000 Euros (payout period: 12 hours) and more are possible in one game. High profits in a game

are simply paid out gradually in stepped conversions (chips into money). With the new gaming regulation, the number of installed AWP machines rose by 9.3% to 200,000 in 2006. At restaurants and bars, up to 3 AWP machines are permitted; in gaming arcades up to 12 AWP machines are permitted per 150 square metres. Even though the “classic” slot machines in the casinos provide far higher stakes, profits, and losses, AWP machines can undoubtedly be seen as a form of gambling. Thus, the continuous upgrading of the AWP machines can be regarded as a further example for the weakening of the state monopoly.

In the past, nationwide gambling on the internet only existed for sports betting products. Individual Federal States like Hesse and Lower Saxony had provided gambling such as roulette, or the minute lottery “*Quicky*” online for their inhabitants (and also for foreigners). Since 2008, gambling on the internet is - with few exceptions until 2009 - forbidden. However, the boom of internet gambling, and online poker in particular, has also reached German citizens. Despite its popularity offering poker games is reserved to casinos. Thus, online poker sites are considered illegal when playing with real money.

Until now, telephone gaming has not been classified as gambling, although it does actually fulfill the criteria of gambling. After dialing in through a phone number with premium costs (0.49 Euro per call from the German telephone network for one game), it is left to chance if the contestant is put through at all and able to participate in the actual gaming. In order to further mask the gambling nature, a question is usually asked that does not require any special knowledge or skills to be answered in the game. Predominantly, the television channel “*9Live*” provides this gaming format and, at present, receives more than 200 million calls annually.

Speculations on the stock market are quite comparable to gambling. If winning chances through purchasing and selling shares are insufficient, the speculator can acquire highly speculative derivatives such as warrants, knock-out certificates, or contracts for difference (with greater leverage) through a stock exchange or on the internet. These facilitate profits and losses of assets within minutes. Banks and issuing agents exclusively issue such products for the purpose of speculation. Business finance plans—as opposed to shares—are

<sup>2</sup>In 2006, more than half of Germans were online (58% of people over 14 years of age).

irrelevant in this context. However, detailed data about this sector are not available for Germany (for a sophisticated summary of the German gambling market in general, see Meyer & Bachmann 2005).

Overall, there has been a steady increase in turnover on the government-licensed gambling market (excluding social lotteries) since the beginning of the 1970s to 2001. Since then, a slight decrease has been noted (Meyer 2006; Meyer & Bachmann 2005). In 2005, there was a total turnover of 26.66 billion Euros (see Table 6.1).

The proportion of gambling with high addictive potential, like casino gambling and AWP machine gambling in amusement arcades, is over 60% (see Fig. 6.1). The gross return on gambling at casinos, that is, the remaining amount after the deduction of prize draws (expenses are not taken into account), came to 952 million Euros; the gross return on gambling of the AWP machines amounted to 2.2 billion Euros.

In terms of the turnover of private gambling operators of sports betting and TV games, only rough estimates are available. However, the total turnover of sports betting is estimated at 3.65 billion Euros (2005), of which the state operator “*Oddset*” only obtained a share of 12% (431.8 million Euros). With TV games, a turnover of around 2 billion Euros was achieved. Taking the estimated turnover of private operators into account, the market as a whole grew further after 2001 to 31.65 billion Euros (2005). The total turnover of illegal offline and online gambling (including poker games) is unknown.

Interestingly, the revenue from gambling increased from 0.658 billion Euros in 1970 to 4.254 billion Euros in 2005 (see Fig. 6.2). The decrease since 2001 can be put down primarily to the increasing presence of private operators who do not have to pay corresponding taxes. In 1998, for the first time, the state return on gambling was higher than the return on taxes related to alcohol. In 2005, the additional revenue came to 874 million Euros.

## 2 Evidence

### 2.1 Gambling Participation and Prevalence Rates of Problem and Pathological Gambling

With reference to adult age, Buth and Stöver (2008) presented results of a representative survey

TABLE 6.1. Turnover of the gambling market in 2005 (in million Euros).

Gambling form	2005
Casinos <sup>a</sup>	
Slot machines, roulette, Blackjack, etc.	10,580
Amusement arcades/restaurants and bars	
Amusement with prizes machines	5,500
<i>German Lotto- and Totoblock</i>	
Number lottery	4,987.3
<i>ExtraLotto</i>	78.7
Football betting pools	78.4
<i>Oddset</i>	431.8
<i>Spiel 77</i>	993.8
<i>Super 6</i>	702.0
<i>Glücksspirale</i>	198.6
Instant-win lotteries	222.5
Bingo	64.2
Keno	276.0
<i>Plus 5</i>	31.2
<b>Total</b>	<b>8,064.5</b>
Class lotteries	
<i>Nordwestdeutsche Klassenlotterie</i>	493.8
<i>Süddeutsche Klassenlotterie</i>	831.7
Television lotteries	
<i>ARD Fernsehlotterie</i>	168.0
<i>ZDF Aktion Mensch</i>	410.8
(Saving) banks	
<i>PS-Sparen</i>	309.0
<i>Gewinnsparen</i>	175.7
Horse racing betting	
Gallop (totalisator)	59.4
Trotting (totalisator)	65.1
Bookies	2.5
<b>TOTAL TURNOVER</b>	<b>26,660.5</b>

<sup>a</sup>The projection is based on the gross return on gambling and an average prize draw of 91%

Sources: *Archiv- und Informationsstelle der deutschen Lotto- und Toto-Unternehmen* (Archive and Information Center of the German Lotto- and Toto-Companies) and *Institut für Wirtschaftsforschung* (Institute for Economic Research) [survey on the authors' account]

taken in 2006. The unweighted sample consisted of 7,980 randomly selected individuals from 18 to 65 years of age. For half of the sample, data collection was held through a computer-based telephone survey (response rate: 55.8%), the other half participated in an online survey (response rate: 68%). In order to determine the prevalence rate of problem and pathological gambling (12-month prevalence), an instrument containing 19 items following Stinchfield (2002) was used. With one exception (withdrawal symptoms), two items assessed one Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) criterion of pathological gambling. Whenever at least one

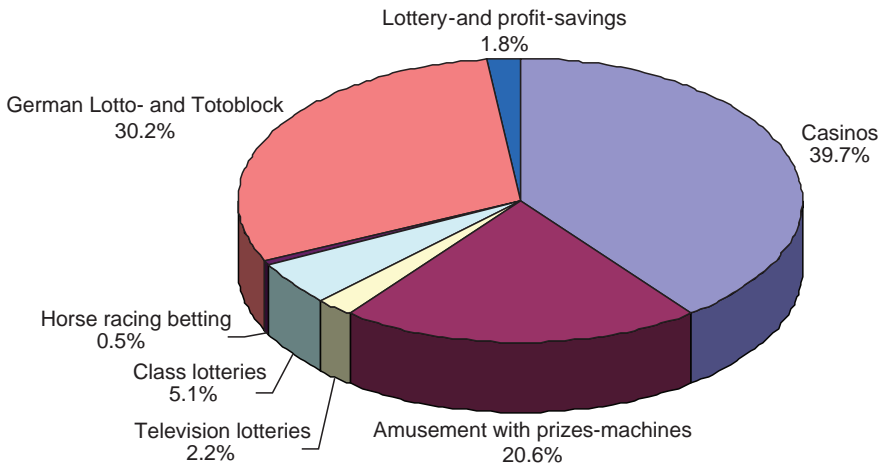


FIG. 6.1. Shares in the total turnover of gambling suppliers in 2005.

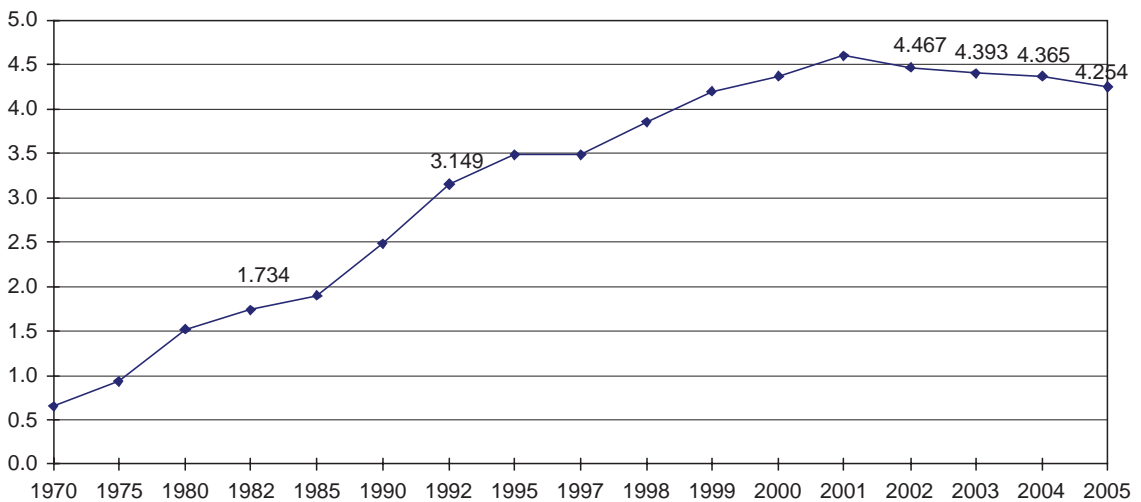


FIG. 6.2. Revenue from gambling over the course of time (in billion Euros).

corresponding item was responded to positively, the presence of a DSM-IV criterion was given. If three or four criteria were given, the gambling behaviour was considered problematic; from a cut-off-point of five, pathological gambling could be certified. Only those people who gambled at least once a week or spent at least 50 Euros a month on one of the listed types of gambling had to answer the DSM-IV-criteria.

Referring to the weighted sample, 39.2% of all respondents had participated in gambling at least once within the past 12 months. The number lottery (32.9%), scratchcards (11.6%), “*Glücksspirale*” (6.4%), as well as class lotteries and sports betting (4.5% each) rank as the five most popular types of

gambling. A total of 12.6% of those interviewed spent money on gambling at least weekly. Again, the number lottery clearly leads the order of rank at a share of 10.5%, ahead of “*Glücksspirale*” (1.2%) and sports betting (1%). Apart from the number lottery, all types of gambling are consumed regularly only by a small fraction of the population. Frequency analyses indicated that participation in one type of gambling correlated with involvement in further types of gambling, at least regarding types of gambling with high event frequency (like pathological gamblers machines<sup>3</sup>). Overall 0.56%

<sup>3</sup>In this representative survey, no distinction was made between slot machines and AWP machines.

( $n=45$ ) of the total sample were classified as pathological gamblers (equaling 290,000 individuals), an additional 0.64% ( $n=51$ ) were considered problem gamblers (equaling 340,000 individuals). However, when distinguished by types of gambling, the rates of pathological gamblers on gambling machines (8.7%), horse race bettors (6.7%), casino gamblers (5.2%), and sports bettors (4.2%) turned out to be particularly high. On the other hand, the proportion of pathological gamblers in lottery gambling was relatively low, at 1.6%. Since only 0.4 of the "pure lottery players" show pathological gambling behaviour, it seems plausible that the lottery players' problems are mainly related to other types of gambling.

In a second representative population survey, Bühringer, Kraus, Sonntag, Pfeiffer-Gerschel, and Steiner (2007) made both an estimate of the attractiveness of several types of gambling for the population, and of the prevalence of pathological gambling. The Epidemiological Survey on Substance Abuse has been conducted regularly since 1980 and represents an extensive representative study about the use and abuse of psychoactive substances. In 2006, this was supplemented by questions regarding gambling behaviour for the first time. The analysis is based on a sample of 7,817 respondents between 18 and 64 years of age with a response rate of 48%. Lifetime and past 12-month prevalence, as well as the preferred type of gambling were assessed by a standardized questionnaire. Data were collected through self-administered questionnaires and telephone interviews. In order to diagnose pathological gambling behaviour, criteria of the DSM-IV text revision (DSM-IV-TR) following Stinchfield (2002) were consulted. The same manner of classification as the Buth and Stöver (2008) study was used (3–4 criteria indicating problem gamblers;  $\geq 5$  criteria indicating pathological gamblers; 12-month prevalence). The query of the criteria was only made by individuals who declared spending more than 50 Euros on average a month on gambling in the course of the last year.

The results showed that 71.5% of the adult population had gambled before. Of these, 49.4% belonged to the group of current gamblers (12-month prevalence), with 27.4% being "multiple gamblers". Furthermore, the current preferences put lottery products (number lottery, totalisator betting, keno) in first place (60.3%), followed by television/class lotteries (13.6%), sports bet-

ting (5.4%), casino gambling (3.5%), and AWP machines (2.4%). The determined prevalence value of diagnosed pathological gambling aggregated to just under 0.2% ( $n=14$ ), with a confidence interval (CI) ranging from 0.11% to 0.36%, and an absolute value of approximately 103,000 people (CI: 56,000–168,000). The ascertainment of problem gamblers ( $n=21$ ) resulted in 149,000 people (CI: 88,000–220,000), equivalent with a prevalence rate of 0.29% (CI: 0.17–0.42%). Card games on the internet (7%), casino slot machines (6.7%), and AWP machines (5.1%) featured the highest gambling risk, the lowest risk was represented by lotteries products (0–0.1%).

Recently, the Federal Center for Health Education (BZgA) (2008) presented the results of another representative survey on problem gambling in Germany. Data collection took place in 2007 with 10,001 individuals aged 16–65 years (computer assisted telephone interviews; response rate: 63.3%). Using the South Oaks Gambling Screen (SOGS; Lesieur & Blume 1987), 0.19% of the respondents could be classified as probable pathological gamblers ( $n=17$ ; SOGS-score: 5+) and 0.41% could be classified as problem gamblers ( $n=41$ ; SOGS-score: 3–4; 12-months-prevalence). In absolute numbers, approximately 325,000 individuals seem to be affected by gambling-related problems.

The only representative collection of data concerning the prevalence of problem gambling during adolescence was done in 2002. In the course of the international research project "Health Behavior in School-aged Children" (HBSC), Hurrelmann, Schmidt, and Kähnert (2003) developed an additional module of questions regarding the gambling behaviour of adolescents. A considerable element of this additional module was the screening instrument DSM-IV Multiple Responses, Revised for Juveniles (DSM-IV-MR-J), designed by Fisher (1999), which includes nine symptoms of problem gambling. All items referred to the previous year and were only presented to those adolescents who participated in commercial or self-organized gambling during that time period. Adolescents who met at least four diagnostic criteria were classed as problem gamblers. The data collection took place as a cross-sectional study with a total of more than 5,000 boys and girls in the 7th and 9th grades (13–19 years of age) in the Federal State of North Rhine–Westphalia.

Against the background of regulations regarding the protection of children and young people, which was fragmentary at the point of data collection, 62% of the students admitted to having participated in commercial or self-organized gambling for money. Both scratchcards and self-organized card games for money turned out to be especially popular. In particular, the following lifetime prevalences ensued: scratchcards (36.2%), self-organized card games for money (29.2%), the state-run sports bet “*Oddset*” (18.1%), AWP machines, self-organized games of skill (16.9% each), self-organized games of dice (15.2%), and the number lottery (13.6%). Moreover, it was remarkable that 38% of the current “*Oddset*” gamblers had participated in this type of gambling daily to several times a week. In view of problems related to gambling, it turned out that 3% of the total sample were classified as problem gamblers. This equates to 9% of adolescents with gambling experience in the previous year.

## 2.2 Risk Factors

In the representative surveys, several factors were mentioned that increased the risk of developing problem and pathological gambling. Buth and Stöver (2008) determined that over 80% of men, and significantly, often gamblers of young age (18–29 years) were pathological gamblers. As expected, factors such as the number of gambling types participating in and the average monthly money spent on gambling represented further risk factors for problem gambling. Also, certain types of gambling, such as gambling machines, sports betting, casino games, and horse race betting seemed to show a relatively high addictive potential, since participation in these forms of gambling was far more prevalent in the groups of problem or pathological gamblers than in the group of social gamblers. Individuals with a relative who is (or was) affected by gambling problems seemed to be more likely to meet the criteria of pathological gambling than individuals without such family background.

A prospective longitudinal study of risk factors and the course of pathological gambling behaviour of AWP machine gamblers was reported by Sonntag (2005). In 1991, shortly after Germany's reunification, a sample of 513 regular gamblers was drawn according to a combined random quota system at

amusement arcades in the former GDR counties in which gambling was previously not allowed. The investigations for this study were made four times at intervals of 1 year. The response rate was 65% by the fourth wave. Problem gambling as a category for both pathological and less dysfunctional gambling behaviour was operationalized by means of a Rasch scale (“Problem Gambling Questionnaire”; Kunkel, Herbst & Reye 1987). Among others, the following potential risk factors were assessed: socio-demographic variables, gambling-related cognitions, gambling motivation, psychosocial dissatisfaction, alcohol and drug problems, and depressiveness. An analysis of the progression of the gambling behaviour revealed that from wave 1 to wave 4, the number of high-frequency gamblers decreased to a non-significant extent, whereas the number of low-frequency gamblers decreased considerably, and the number of occasional gamblers increased considerably. It was reported that 72% of the high-frequency gamblers out of wave 1 were still gambling excessively in wave 4. Between wave 1 and 4 a significant increase in the proportion of problem gamblers, from 14% to 35%, was also noted. All problem gamblers in wave 1 remained in the same category in wave 4. Moreover, 25% of the non-problem gamblers in wave 1 developed problem gambling behaviour in wave 4. The risk factors for the development of problem gambling were analyzed with a multiple logistic regression. It turned out that a negative reason for gambling (like distraction from personal problems) as well as depressiveness found in wave 1 increased the risk of problem gambling behaviour in wave 4 by 2.5. Thus, referring to problem AWP machine gambling, etiological models that emphasize the role of negative reasons and depressiveness for the development of problem gambling behaviour have been empirically supported.

Hurrelmann et al. (2003) also found by far more boys than girls among adolescent problem gamblers (ratio 5:1). Moreover, problem gamblers were more likely to attend ordinary secondary school and to stem from immigrant families. Aside from these socio-demographic variables, adolescents with gambling-related problems tended to perceive themselves as not well accepted within their peer group, and to report stressful life events significantly more often. Also, adolescents with problem gambling behaviour consumed psychoactive

substances more frequently than social gamblers. In addition, it was also reported that a low expectation of self-efficacy, dissatisfaction with one's own life situation, and a relatively poor estimate of one's own mental well being correlated with the development of gambling-related problems. Overall, the adolescent problem gamblers seemed to lack coping strategies for handling daily demands and the development tasks facing them. The descent into the "world of gambling" can be interpreted as an attempt to compensate for psychosocial stress or situations of excessive demand, and to suppress ordinary frustrating experiences.

### 2.3 Criminal Behaviour as a Consequence of Pathological Gambling

The illegal provision of finance for gambling is a characteristic feature of pathological gambling according to both of the classification manuals DSM-IV and International Classification of Disease (ICD)-10. The close links were verified by a multitude of international clinical studies (for a review, see Meyer & Bachmann 2005). For example, in a German study, a sample of pathological gamblers from inpatient and outpatient treatment centres and self-help groups ( $n=300$ ) and a sample of high- and low-frequency gamblers from the general population and army ( $n=274$ ) completed a comprehensive questionnaire that assessed social attachment, personality, pathological gambling, and criminal behaviour variables (Meyer & Stadler 1999). Of the pathological gamblers, 89.3% admitted having committed at least one crime during their lifetime, in contrast to only slightly more than half (51.8%) of the high- and low-frequency gamblers. Of the pathological gamblers, 59.3% admitted having committed at least one criminal offence during the last 12 months of (regular) gambling, compared with 22.3% in the comparative group. It was also shown that 35% of the treated gamblers confirmed having had to deal with the police on at least one occasion, and 28.3% had been convicted at least once. On the contrary, only a small percentage of the high- and low-frequency gamblers (6.2% and 3.3%, respectively) reported such experiences.

When considering the type of offences committed during the last 12 months of (regular) gambling (see Fig. 6.3), it can be seen that fraud stands out in the

case of gamblers undergoing treatment. Every third gambler (37.7%) confirms at least one such offence. In contrast, the Police Crime Statistics recorded that only 10.7% of alleged criminals were accused on account of fraud (in 1995). Theft from the workplace (23.3%) and family (21%), as well as embezzlement (21.7%) are further outstanding types of offences.

Based on an offender-oriented multiple factor approach, Meyer and Stadler (1999) statistically analyzed the criminogenic factors of addictive gambling behaviour, personality, and social attachment. The causal analysis of a Lisrel Model leads to the following results: addictive gambling behaviour is indeed an important criminogenic factor; however, this predisposing factor alone cannot sufficiently explain criminal behaviour associated with pathological gambling. Personality variables also directly influence the intensity of criminal behaviour. In contrast, social attachment variables have only an indirect effect. As far as property offences are concerned, it was found that the direct causal effect of addiction behaviour is greater than that of personality.

The reported empirical results have implications for the forensic assessment of the criminal behaviour of pathological gamblers. In Germany, the recognition that certain criminal acts can be accounted for by pathological gambling is increasingly taken into consideration by criminal courts. According to our experiences as expert witnesses in more than 150 trials, criminal courts recognize diminished culpability for pathological gamblers. If pathological gambling is the decisive factor that has led to a criminal offence, it may be assumed that control of action was reduced due to addiction. According to a verdict of the Federal Supreme Court from 1988, diminished culpability should only be assumed—following decisions on drug addiction—in the case of severe personality changes due to pathological gambling. Only in these cases, the diagnosis "pathological gambling" can be subsumed under the legal criterion "severe psychological abnormality".

## 3 Action

### 3.1 Prevention of Problem Gambling

From a public health perspective, prevention includes every action countervailing or averting the emergence of undesirable mental and physical

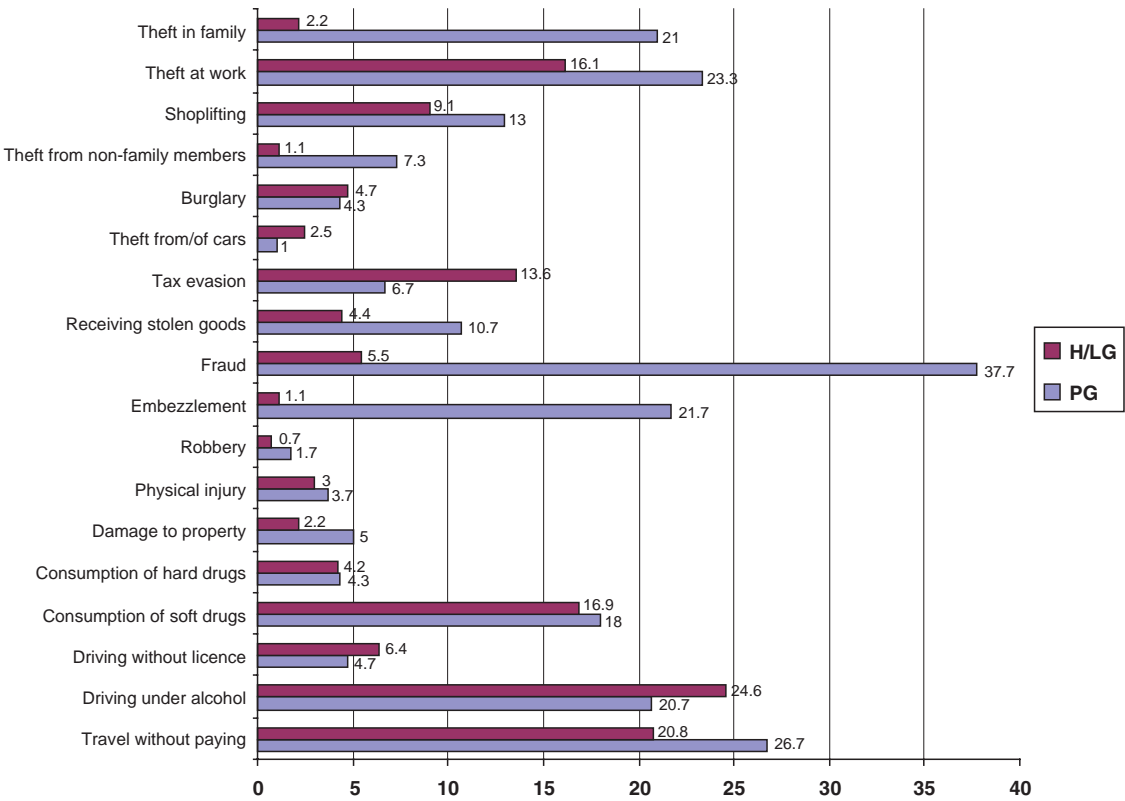


FIG. 6.3. Distribution of pathological gamblers (PG) in treatment (n=300) and high- and low-frequency gamblers (H/LG; n=274) by type of offence committed in the last 12 months of regular gambling (multiple responses; in percentages).

states. Since Caplan (1964), prevention is conceptually distinguished between primary, secondary, and tertiary prevention, whereas the time of the intervention is the pivotal criteria compared with the course of the disease. While primary preventative interventions are aimed at preventing mental illness from occurring in the first place and concentrate on being proactive (anticipatory), tertiary preventative interventions react to already apparent or progressed disorders by intending to compensate aversive consequences and the long-term consequences of a disorder. Secondary preventative actions, on the other hand, feature both proactive and reactive elements since they endeavour to combat the first signs of disorder as well as to avoid further negative consequences on the issue, depending on their design. Based on this conceptual classification, a multitude of primary, secondary, and tertiary preventative interventions add up for the field of problem gambling, like those listed in Table 6.2 (see Hayer & Meyer 2004).

As shown in Table 6.2, preventative strategies can apply to each of the three columns of the triad of addiction—individual, environment, medium—and include both the strengthening of certain individual basic skills and the modification of selected structural characteristics of gambling products (e.g., the decrease in event frequency). Such conceptualization reveals the responsibility of the government and private gambling operators, which decisively influence the extent of gambling problems by providing and marketing products with an inherent risk potential. Against the background of the individually and socially harmful consequences of problem gambling, those interventions that are proactively oriented gain foremost in importance. The impacts on the structure of gambling products or gambling design are to be emphasized in this context, since they can be implemented purposefully through government regulations. Hence, they are by far more promising than costly long-term efforts to change individual and social risk factors, such as certain



TABLE 6.2. Primary, secondary, and tertiary prevention of problem gambling.

	Primary prevention	Secondary prevention	Tertiary prevention
Target population	All gamblers and non-gamblers independent of risk factors present, but particularly potential risk groups (e.g., adolescents)	Gamblers with (sub-)clinical symptomatology	(Former) pathological gamblers
Goal definition	Preservation and promotion of good health; strengthening of the responsible handling of gambling; goal-oriented prevention by influencing recognized risks in a timely manner	Early control of disorder triggers; motivational encouragement of behaviour modification (e.g., via self-help manuals); strengthening of coping strategies	Treatment of progressed gambling addiction (including relapse prevention); avoidance of aversive long-term consequences; long-term occupational rehabilitation; reintegration into social environment and society
Strategy (examples)	<b>Proactive</b> Prevention of excessive gambling incentives by influencing the structural characteristics of gambling products; information campaigns; curricular school activities; procurement of gambling-related knowledge and strengthening of basic skills	<b>Proactive/reactive</b> Problem-centred gambling counselling and treatment and provision of low-threshold services such as telephone helplines or meeting places for gambling addicts and the option of a ban for at-risk gamblers	<b>Reactive</b> Cognitive-behavioural-oriented individualized therapy; accompanying drug treatment if necessary; group therapy; working with relatives; installation of self-help groups

personality traits and exposure to gambling within reference groups (family, peers, etc.).

With regard to preventive efforts, the German Head Office for Dependency Matters (Deutsche Hauptstelle für Suchtfragen 2007) refers to the close connection between the supply of addictive means and prevalence rates of addiction problems in a recent position paper. For instance, the per capita consumption of alcohol in society correlates highly positively with the rate of alcohol abuse and dependence (Edwards 1997). Since this also applies to the gambling market, the German Head Office for Dependency Matters disapproves of further expansion attempts. In fact, a smaller, consistently regulated gambling market is demanded. Environmentally preventative approaches, such as an increase in pricing and a constriction of supply, or restricted accessibility to gambling supplies, represent the means of the choice when dealing with the effective mitigation of problem gambling. Effective prevention on this note can, for example, be measured by lower turnover figures. An increase in turnover, on the other hand, documents the ineffectiveness of preventative efforts.

A central gamblers' protection measure applies to the field of casinos and aims at the exclusion

of certain vulnerable groups from gambling. The ban is to be effected by the casino referring to people who are willing to gamble, whereas their income and assets do not conform to a participation in gambling, to people who show hazardous, ruinous, or addictive gambling behaviour, or those whose relatives ask for such action due to its harmful impact. In addition, a self-ban is possible for endangered gamblers. In case of a ban, the casino records personal data (including the identification card number). The data are immediately transferred to all casinos in Germany. Mandatory identification checks before admission serve the purpose of screening out bans. Since 2008, such controls cover both the table game areas within the casinos and the slot machines casinos. Furthermore, since the beginning of 2006, quite a few casinos have employed cameras in the entrance area of slot machine casinos, collecting biometric data of the visitors, as well as matching them with the saved data of banned gamblers.

Basically, a ban is at least valid for 1 year. For permanent bans, the storage of personal data is effected over a period of 7 years. Although the gambling ban has a long tradition in Germany, no official monitoring system is available (as, for

example, in Switzerland) that allows the generation of scientific statements on the (relative) frequency of gambling bans, the causes of the bans, and on the banned gamblers. In 2006, 32,000 names were likely to be listed as banned. The proportion of self-bans is estimated at 60% (Meyer & Hayer 2007).

### 3.2 Existing Treatment Options for Problem Gamblers and Demand for Treatment

The recognition of “pathological gambling” as a disease that requires rehabilitation by the health care costs units marked great progress in counselling and treatment of problem gamblers in 2001. Meanwhile, treatment expenses of outpatient counselling centres, medical practitioners, and psychotherapists are borne by health insurance and pension fund costs units, as well as inpatient treatment coverage of 8 to 12 weeks, depending on the indication.

Corresponding to the Statistical Report for 2005 on Outpatient Treatment Facilities for Substance Use Disorders, 3,157 clients (including 10.7% women) in 649 counselling and treatment centres were diagnosed with “pathological gambling” (see Table 6.3). The proportion of pathological gamblers of the total number of addiction clients (124,241 individuals) was 2.5%. This rate has remained nearly constant in the course time. However, a comparison of the average rates of gamblers treated per facility indicates an increase from 3.1% in 1994 to 4.9% in 2005.

The total numbers of gamblers who sought ambulant counselling/therapy and were treated in 1,049 nationwide addiction-counselling centres can be extrapolated to 5,100. AWP machine gamblers still

constitute, by far, the largest group in treatment. A total of 82.7% of the clients were diagnosed with pathological gambling behaviour relating to those machines, and 17.3% of the cases were diagnosed because of classical types of gambling (predominantly casino gambling). A more elaborate analysis of problematic gambling types with patients in diverse facilities in North Rhine–Westphalia (data collection: 2002–2004, multiple answers were possible) showed that gambling machines in casinos (32.4%), roulette/Blackjack (16.8%), card games/games of dice (15.9%), and sports betting (13.1%) can be counted among the most referred gambling forms causing problems, aside from AWP machines (79.3%; Meyer & Hayer 2005).

The Statistical Report for 2005 on Inpatient Treatment Facilities for Substance Use Disorders accounted for 47 single diagnoses of pathological gambling (in 45 facilities) and 341 main diagnoses of pathological gambling (in 140 facilities). Hence, the proportion of pathological gamblers and the total number of patients was at 0.7% and 1.1%, respectively, in 2005, and was 1.6% and 0.9%, respectively, in 2001. A selection of inpatient facilities, which includes hospitals specialized in addiction and psychosomatic disorders, as well as hospitals with corresponding wards, documents a notably higher number of treated gamblers (Meyer 2006). Accordingly, 903 pathological gamblers were treated in 11 hospitals in 2005.

In an analysis of the prevalence of pathological gambling in Germany as well as outpatient and inpatient utilization of concerned people (treatment prevalence), Queri, Erbas, and Soyka (2007) recently referred to a considerable increase in the prevalence of inpatient treatment in recent years. However, a large incongruity between the extent of problems in the population and treatment demand

TABLE 6.3. Pathological gambling of clients from outpatient counselling and treatment centres.

	1994	1996	1998	2000	2002	2004	2005
Number of outpatient centres	396	436	467	401	454	591	649
Total number of clients	49,563	65,573	69,972	57,647	74,097	105,183	124,241
Pathological gambling (n)	1,221	1,520	1,388	1,302	1,727	2,965	3,157
Pathological gambling (%)	2.5%	2.3%	2.0%	2.3%	2.3%	2.8%	2.5%

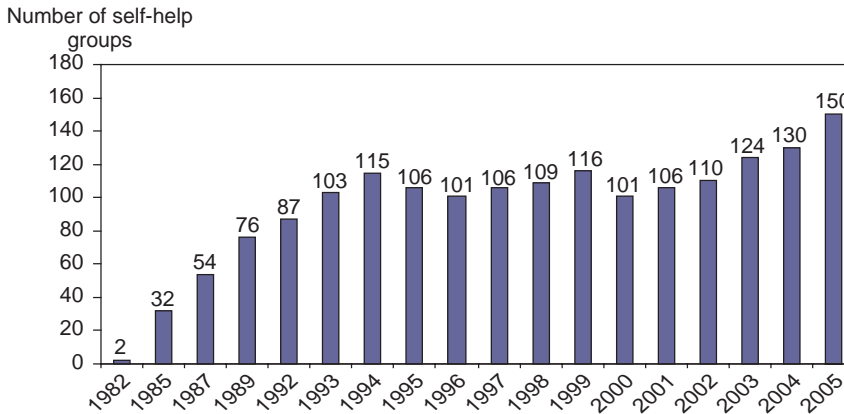


FIG. 6.4. Number of self-help groups for gamblers.

persists. Taking the current prevalence rate of 0.56% for 18–65 year olds (Buth & Stöver 2008), equaling 290,000 people, as well as outpatient and inpatient treatment demand of approximately 6,000 people in 2005 as a basis, a treatment prevalence of 2.1% arises. This result aligns with international studies referring to a very low proportion of treatment-seeking (or motivated for treatment) pathological gamblers. Results of two US national surveys—also taking visits of self-help groups into account—show that among individuals with a lifetime history of DSM-IV pathological gambling, only 7–12% had ever sought either formal treatment or attended meetings of Gamblers Anonymous (GA) (Slutske 2006).

In 1982, the first GA self-help groups were founded in Germany (see Fig. 6.4), 8 years after the onset of the rapid expansion of gambling. At that time, the concerned gamblers were faced with an unprepared professional care system. Now there are 150 groups in 102 cities. The self-help groups are mainly based on the 12-step programme developed by Alcoholics Anonymous, following an understanding of gambling as an addiction. Data about the participation in self-help groups are only available for 1987, when 3,100 problem gamblers attended meetings of GA.

For clients of outpatient addiction centres who underwent therapy in the narrower sense or completed therapy according to schedule, a noticeable success in therapeutic outcome regarding pathological gambling behaviour could be assessed

(according to the Statistical Report for 2005 on Treatment Facilities for Substance Use Disorders in Germany; see Fig. 6.5). More than half of the clients (54.3%) were rated abstinent and the condition of an additional third was rated as improved (32.5%). However, if treatment was abandoned prematurely, no change in addictive behaviour became apparent for every second client (50.6%). Not surprisingly, the rate of dropouts—also in comparison with substance dependencies—is still relatively high at 48.4% for men and 39.8% for women.

In line with these findings, Petry (2001a) sees the so-called one third rule from alcoholism treatment confirmed in an overview of nine published German catamnestic studies of inpatient treatment of pathological gamblers. Accordingly, treatment leads to complete abstinence for one third of pathological gamblers, the condition of another third appears ameliorated, and the last third proves to be unamended. In precise figures, a meta-analysis adds up to an unweighted average success rate (abstinence as well as abstinence after relapse) across the groups between 46.1% (referring to the total sample) and 64.3% (referring to the follow-up interviews) with a range of 18.8 to 76.7%.

Against the background of psychotherapeutic treatment effectiveness, eventually the matter of particularities in personality structure and psychopathological problems of pathological gamblers is considered. In this context, a current study strove to identify comorbid psychiatric disorders in 101

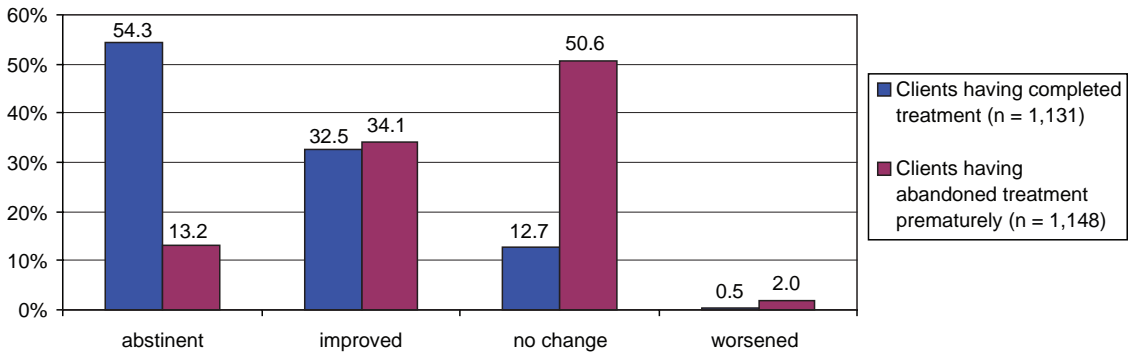


FIG. 6.5. Addictive behaviour modification completing/abandoning prematurely outpatient treatment (pathological gamblers).

pathological gamblers receiving inpatient treatment (Premper 2006). Differentiated by diagnostic sub-categories, relatively high comorbidity rates arose (12-month prevalence): 51.5% for affective disorders, 47.5% for anxiety disorders, and 25.7% for substance use disorders (excluding tobacco). Of the sample, 27.7% exhibited an assured personality disorder. Both depressives and those with personality disorders (primarily anankastic and anxious avoidant types) were associated with gambling-related problems to a more severe degree.

Apart from that, Petry (2001b) investigated the similarities and differences between the group of pathological gamblers and other clinical groups. For this purpose, three survey groups of 48 pathological gamblers, 48 alcohol-dependent people, and 48 psychosomatic patients were matched in terms of pivotal socio-demographic variables. As a result of comparison analyses, pathological gamblers bear resemblance to both the group of alcohol-dependence cases (based on the symptom “reduced impulse control”) and the group of the psychosomatic patients (based on the symptom “depressiveness”). As a basic principle, the pathological gamblers could be divided into two sub-groups of narcissistic-personality-disturbed and depressed–neurotic types. The majority of the pathological gamblers can be assigned to the narcissistic-personality-disturbed cluster that is basically characterized by a severe self-esteem disorder on depressed grounds. Also, a reduced impulse control seems to be symptomatic for this subgroup, and consequently, action orientation is directed towards immediate need satisfaction.

### 3.3 National Policy for Problem Gambling

After the rapid expansion of state-licensed gambling, its widely invested marketing, and the expansion of the private sports betting supply, the Federal Constitutional Court had to judge the legitimacy of the state monopoly on sports betting on March 28th, 2006. The court decided that the state monopoly on sports betting in its current form does not fit with the German Constitution because it is designed in a way that does not guarantee an effective combating of gambling addiction that would justify the exclusion of private operators. The basic principle of the decision is the following one: “A state monopoly on sports betting is compatible with the fundamental right of occupational freedom of Article 12.1 of the Basic Law only if it is consistently geared to the goal of combating the dangers of addiction”. The court considers the fiscal interest as the driving force behind the current state offers and rejected this interest in gambling. If the state-run provider does not meet the condition of fighting addiction and limiting marketing by the end of 2007, it will lose its monopoly position and the Federal States will then have to allow legally standardized and controlled licensing of private betting companies to organize bets. In general, it is up to the legislation whether it wishes to liberalise the market or retain its monopoly. Even though the Federal Constitutional Court based its decision in the case under consideration on sports betting products offered in Bavaria, its decision can also be applied to other counties in Germany, and is

also relevant to other gambling products offered by state-run providers.

The prime ministers of the Federal States argued for conserving the state monopoly in connection with the decision of the Federal Constitutional Court. A new gambling state treaty, that came into force in the beginning, is supposed to fulfill the legal requirements. The treaty validity period will initially be limited to 4 years. The main goals of the treaty are:

1. To prevent gambling and betting addiction and to provide the prerequisites for effective combating of gambling and betting addiction
2. To limit the gambling supply and to direct the natural passion for gambling in the population into well-regulated and controlled tracks, and especially to avert the switch to illegal gambling
3. To guarantee the protection of youths and gamblers
4. To ensure that gambling is practiced according to regulations, to protect the gamblers from fraudulent machinations, and to put down corollary delinquency affiliated with gambling.

The following regulations are supposed to serve in attaining these goals (among others):

- Hosting and arranging gambling on the internet will be illegal.
- The channels of gambling distribution must be selected and installed so as to comply with the protection of minors' requirements.
- Gambling advertisement is not supposed to be of stimulative nature and should only inform about legal gambling options.
- Providers are obliged to urge gamblers to responsible gambling and to prevent gambling addiction. For this purpose, they have to develop social concepts, to train their staff (e.g., for early identification of problematic gambling behaviour), and to meet the guidelines for avoiding and combating gambling addiction (e.g., installation of a nationwide helpline, enabling gamblers to assess their gambling status, payment of executive employees independent of turnover).
- Indications of the addictive potential and help options must be displayed on gambling tickets.
- The configuration of an overall banning system is needed for individuals who apply for a self-ban or who are to be banned due to (probable) gambling

addiction, overindebtedness, or risking stakes that are disproportionate to their income and assets. The ban enforcement is to be guaranteed by identification check and ban file matching. Removal of the ban is possible after 1 year, at the soonest.

- The jackpot amount is to be limited.
- The legislator has to ensure compliance with regulations through adequate monitoring authorities that are separated an ample distance from the fiscal interests of the state.
- The accreditation to introduce new gambling products requires that an independent advisory board of experts in combating gambling addiction evaluates the possible effects of the new product beforehand.
- Scientific research on prevention and fighting gambling addiction should be ensured by the Federal States.
- The impacts of the state treaty are to be evaluated by the Federal State authorities with the collaboration of the advisory board. The result is supposed to be submitted 3 years after the treaty comes into effect.

In the run-up to the new gambling treaty, first efforts have been noticeable on both county and national levels to understand problem gambling behaviour as an important topic of drug and dependence policies. The Federal State government of North Rhine–Westphalia, for instance, passed a “County Program against Addiction” designed as a community initiative that includes pathological gambling as a non-substance type of addiction. The information campaign “I am not going to gamble anymore” (“*Ich mach' das Spiel nicht länger mit*”) provides a medium for the responsible handling of gambling by means of information material, posters, and advertising spots in the media, hence it serves the promotion of health awareness. In addition, the German Head Office for Dependency Matters offers information material specific to the youth with the pamphlet “18 and up” (“*frei ab 18*”).

On a national level, the “Action Plan Drugs and Addiction” is to be mentioned as a comprehensive strategy for handling addictive means. In connection with gambling addiction, the strengthening of problem awareness is claimed as a goal in terms of possible negative consequences of gambling. “Pathological gambling intervention” is supposed to be supported by additional addiction counselling

staff through a Federal Minister of Health model project, beginning in 2007, to complement the collaboration between Federal States and the Federation in terms of early gambling addiction identification. The goal of the project is to reach more people who have pathological gambling behaviour as early as possible and to provide professional counselling via centres for addiction issues. Results of this project are supposed to be implemented by further centres for addiction issues, in order to expand the supply of counselling for gamblers and to qualify staff.

The state lottery companies and the majority of the casino companies have in the meantime begun to develop and to implement social concepts on active gambling addiction prevention. Aside from the display of information material on problematic gambling behaviour, staff training is among the first implemented measures. This training is scientifically evaluated in some Federal States, but results are not yet available. In addition, the new Gaming Ordinance of January 1, 2006 demands the provision of information material on gambling addiction in the field of amusement arcades (for AWP machines). However, 11 months after coming into effect, out of 912 investigated amusement arcades, only 16.4% displayed the corresponding flyers.

The lottery companies concluded a cooperation agreement on financing measures of gambling addiction prevention with the BZgA in February 2007. The modules, which form a supplement to the social concepts on Federal State level, are:

- Monitoring of gambling addiction and measures. Nationwide representative surveys are supposed to be arranged at fixed intervals (every 2 years). The surveys also are supposed to serve the purpose of describing high-risk groups and to provide information regarding whether implemented preventative measures are successful (see chapter 2.1 for first results).
- A nationwide helpline. Since May 2000, the BZgA has provided counselling on gambling addiction by telephone on a national level. Because of the lack of a comprehensive communication strategy to advertise the phone number and to provide counselling and help options for people affected by problematic gambling behaviour, the number of callers can be assessed as rather low despite an upwards trend (521 calls in 2000; 774 in 2003; and 1,036 in 2005). Moreover, there are separate

helplines for gambling addicts in some Federal States, to be replaced by the BZgA's nationwide telephone helpline in the future.

- Internet based (self-)help programmes. The provision of interactive self-diagnostic tests on the internet should facilitate the self-evaluation of hazardous gambling patterns. The test feedback is followed by a low-threshold counselling offer. Through a self-managed online diary, the gambler receives regular feedback to his entries by the counselling team. Thus, the main goal of the diary is the reflection of one's own gambling behaviour to develop a non-hazardous way of gambling. Furthermore, the internet-based help programmes are supposed to be linked with local counselling options.
- Mass media publications and campaigns. Publications should be conceived for the target groups of the general population, people affected by problematic gambling behaviour, and relatives of problem gamblers, as well as information multipliers. It is necessary to communicate across-the-board messages on addiction prevention in terms of addictive means in the mass media. In the media or at the places gamblers attend, the messages on counselling options and prevention directly address people at risk to become addicted to gambling as well as gambling addicts.

## 4 Conclusion

From the point of addiction prevention, a restrictive approach to government gambling policies is to be claimed on principle, in particular against the background of effects to be expected by alternative regulation models. On the one hand, deregulating actions such as the opening of the gambling market would entail an increase in the extent of gambling-related problems. On the other hand, an extremely repressive approach or a complete ban on gambling would carry the negative side-effect of developing and expanding an illegal market (Quinn 2001). In contrast, the monopoly situation represents an adequate base of operations for direct intervention in market development and for the provision of an effectually attractive gambling supply dispensing excessive gambling incentives. By establishing a state monopoly on gambling and by recognizing the addictive potential

of gambling, the German government is compelled to provide protection for all participants in gambling. Therefore, the government's predominant focus of interest must not be the maximum consumption possible of the market in this case, but must be to minimize gambling-related risks.

Taken together, the continuous expansion of the gambling supply in Germany from 1974 to 2006 shows clearly that the fiscal interests of the government can prevail. The ideas of combating risks and gamblers' protection have basically been reduced to securing an adequate and orderly course of the gambling. In line with these inconsistencies, the lack of proactively oriented, structurally fixed preventative measures and the coexistent weakening of the state monopoly, 0.29–0.64% of the adult population can be rated as problem gamblers and 0.19–0.56% as pathological gamblers. Furthermore, a considerable proportion of adolescents are affected by gambling-related problems. According to a verdict of the German Federal Constitutional Court, a state monopoly on gambling is compatible with the fundamental rights only if it is consistently geared to the goal of combating the dangers of addiction, which caused the legislature to eventually rethink these issues. In 2008, a new gambling treaty came into force that is supposed to implement judicial guidelines and to improve gamblers' protection noticeably.

As of March 2008, it is unclear if the treaty is going to be accepted by the European Union. Gambling is, in fact, subject to the protection of law and order due to its inherent potential dangers. Therefore, each member state is at liberty to conduct their own assessments and to take restrictive measures for public gambling activity if necessary. In addition, the European Parliament approved state monopolies on gambling as within the scope of the decree on the services directive and clearly rejected cross-border gambling. However, in the European Commission's view, the individual measures of the new gambling treaty are not compatible with the effective community law. With reference to European Court of Justice jurisdiction, the commission emphasizes that gambling restrictions must be effected in such a way as to contribute to limiting gambling activity coherently and systematically for reasons of the public interest (e.g., consumer protection). Particularly, the gambling ban on the internet is not admissible according to the

assessment of the EU. The ban would not represent an adequate measure to achieve the goals of combating gambling addiction and the protection of minors. It could rather be categorized as disproportionate since combating addiction could be attained through less restrictive measures. In addition, the commission criticizes the exclusion of gambling with high addictive potential, such as AWP machines, from the state monopoly. On behalf of proactive gambling addiction prevention, it is our hope that legitimate gamblers' protection measures are not again sacrificed to economic ambitions, as has been the case in the past in Germany.

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# 7

## Great Britain

Mark Griffiths

### 1 Background

The United Kingdom (UK) is made up of the countries of England, Scotland, Wales, and Northern Ireland covering an area of 243,000 square kilometres. Its full name is the United Kingdom of Great Britain and Northern Ireland. Great Britain, on the other hand, comprises only England, Scotland, and Wales. Great Britain lies off the northwest coast of mainland Europe. The United Kingdom is bounded by the Atlantic Ocean, and its ancillary bodies of water including the North Sea, the English Channel, the Celtic Sea, and the Irish Sea. English is the main language of Great Britain, but Welsh is also officially recognised in Wales, and Gaelic in Scotland.

The current population as of 2007 was 60.7 million (the 18th most populated country in the world). Overall, the population comprises the British (English, Scottish, and Welsh), Irish, and others (more than 8% of the total UK population define themselves as “ethnic minorities” with origins in Africa, Asia, and, most recently, Central Europe). The largest ethnic minorities in Britain are those of Caribbean or African descent (1,274,000 people); the next largest ethnic groups are Indians (932,000 people), and Pakistani and Bangladeshi (640,000 people). The population density is 246 people per square kilometre, but in southern England the density is much higher than in the north (Scotland, for example). As of 2006, the gross domestic product (GDP) of Great Britain was €1.3 trillion (6th in the world) and per capita €21,476 (18th in the world).

Everyone in Britain has the right to religious freedom. Britain is predominantly Christian—there are over 1.7 million members of the Roman Catholic Church and there are 1.7 million members of the Anglican church—the “established church”, that is the church legally recognised as the official church of the State. Britain has one of the largest Muslim communities in Western Europe, estimated to be between 1.5 and 2 million people. There are many other religions, including Sikh and Hindu.

#### 1.1 Regulation of Gambling in Great Britain: Legal Framework

Legalisation of gambling in the UK has largely been a 20th century development. Bingo was brought to Britain by troops returning from the Second World War, and with the Betting and Gaming Act 1960, bingo halls were set up throughout the country. The legalisation of casinos under the 1960 Act limited the number of gaming machines in each venue to ten, although the difficulty in enforcing this led to further liberalisation under the Gaming Act 1968. The 1960 Act also legalised off-course bookmakers for betting on competitive sports events. A 1934 Act legalised small lotteries, which was further liberalised in 1956 and 1976. In 1994, the UK’s largest lottery—the National Lottery—was introduced under Government licence. Several games are now run under this brand, including *Lotto*, *Euro Millions*, and *Thunderball*.

On 18 October 2004, a Gambling Bill was introduced into Parliament. Following consideration by

the House of Commons and the House of Lords, it received Royal Assent on 7 April 2005, and became the Gambling Act 2005. Full implementation of the Act came into force on September 1, 2007. Currently, gambling in Britain is regulated by the Gambling Commission on behalf of the Department for Culture, Media and Sport (DCMS) under the aforementioned Gambling Act 2005. This Act of Parliament significantly updated gambling laws, including the introduction of a new structure of protections for children and vulnerable adults, as well as bringing the burgeoning internet gambling sector within British regulation for the first time. The Gambling Act 2005 extends to the whole of Great Britain. Separate arrangements have been developed for Northern Ireland. The DCMS is working with the Gambling Commission, local authorities, problem gambling charities, and the industry to oversee the implementation of the Act. The new system is based on tri-partite regulation by the new Gambling Commission, licensing authorities, and by the Government.

The newly formed Gambling Commission replaced The Gaming Board for Great Britain, and it is an independent, national regulator for commercial gambling in Great Britain. It issues operating licences to providers of gambling and personal licences to certain personnel in those operations. Its remit encompasses most of the main forms of commercial gambling, including casinos, bingo, betting, gaming machines, pool betting and the larger charity lotteries. It licences providers that operate premises and those that offer gambling through “remote” technologies, like the internet and mobile telephones. The Gambling Commission can impose conditions on licences and issues codes of practice about how those conditions can be achieved. Where licence conditions are breached, various administrative and criminal sanctions can be applied. The Gambling Commission's primary objectives in regulating these activities are: (a) to keep crime out of gambling, (b) to ensure that gambling is conducted fairly and openly, and (c) to protect children and vulnerable people.

The National Lottery (and all its associated products, like scratchcards) is regulated by an independent body, The National Lottery Commission. The only other form of gambling that is not regulated by either the Gambling Commission or the National Lottery Commission is spread betting, which is regulated by the Financial Services Authority.

Licensing authorities (in England and Wales, local authorities, and in Scotland, Licensing Boards) licence gambling premises and issue a range of permits to authorise other gambling facilities in their locality. Authorities will be independent of Government and the Gambling Commission, but in the exercise of their functions, they must have regard to guidance issued by the Commission. Authorities have similar regulatory powers to the Commission with respect to their licensees, including powers to impose conditions, but they are not able to impose financial penalties. The number of casinos, racecourses, bookies, and bingo halls that have or are applying for a gaming licence is approximately 30,000.

The Government has responsibility for setting various rules on how gambling is conducted. For example, it has regulations defining categories of gaming machines. Powers are also available for the Government to set licence conditions on operating and personal licences, and for the Government, in England and Wales, and the Scottish Executive, in Scotland, to set conditions on premises licences. In some cases licensing authorities are able to alter these central conditions. The Government also wishes to see a sustainable programme of research into the causes of problem gambling and into effective methods of counselling and treatment intervention. Thus, the Government has actively supported the creation of an industry-funded Responsibility in Gambling Trust (RIGT) to take forward these and other programmes.

An important aspect of the Government's policy is the power of the Gambling Commission to intervene in the operation of gambling across the entire industry so that it can address factors that evidence suggests are related to risks of problem gambling. In this context, the Government proposes new safeguards for gaming machines. These will be enforced through statutory instruments, licence conditions, and codes of practice. They may include the powers:

- To control speed of play
- To control game design features such as near misses and progressive tiers, which may reinforce incentives to repeat play
- To require information about odds and actual wins or losses in the play session to be displayed on screen

- To require reality checks or the need to confirm continuing play
- To implement loss limits set by players before starting, through use of smart card technology
- To vary stake and prize limits.

At present there are approximately 140 casinos, 679 bingo halls, 8,800 betting offices, 1,760 arcades, 19,000 private members clubs, and 60 racecourses throughout the UK (Gambling Commission 2006). An important element of the introduction of the Gambling Act 2005 is the licensing of 17 new casinos in addition to those already in existence. Licences for eight large casinos, eight smaller casinos, and a super-casino have been offered. The new super-casino will have a 5,000-square-metre gaming area largely filled with 1,250 unlimited-jackpot slot machines. However, at the time of writing, there is much debate as to whether the new super-casino (provisionally awarded to Manchester) will be introduced. The 16 smaller venues will offer fewer slot machines with much lower jackpots, but will probably support more poker games.

Currently children of any age can enter a bingo club as long as they do not take part in the game. From the age of 16 years, young people may bet on the football pools, and from age 18 years they may enter a betting shop, place a bet, and work there. At age 18 years, they may also enter any premises where gaming takes place, for example, a casino. As a general rule, gambling is considered to be an adult activity, although the UK is unusual in that there is no law preventing children and adolescents from gambling on fruit machines in seaside arcades and family leisure centres. Gambling in relation to the National Lottery remains separate, and young people may play and sell national lottery tickets and scratchcards from the age of 16 years. In the new Gambling Act, those under 18 years will be permitted to enter non-gambling areas of regional casinos to access leisure, cultural, or sporting facilities.

Those under 18 years will be able to play fruit machines (currently there is no legal minimum age restriction but operators can sign up to a voluntary code to exclude under 16- or 18-year olds) but only for a maximum prize of €6.95 (in cash or in kind), and a maximum stake of €0.14 (or €0.42 if the prize is not cash). The Act contains a provision for the Secretary of State to create an age limit for gaming machines (and associated offences) after consultation with the Gambling Commission,

representatives of the gambling business, and those who have knowledge of social problems relating to gambling.

Part 4 of the new Act concerns the protection of children (those under 16 years) and young people (16- to 18-year olds). This part contains offences to protect children from being invited to gamble, or gamble; from being invited to enter, and entering, premises where gambling takes place; and from employment in gambling environments. Penalties for commission of these gambling offences by young people carry a €1,389 fine.

## 2 Evidence

Gambling is a popular activity and recent national surveys into gambling participation (including the national *Lotto* game), show that around two thirds of adults gamble annually (Creigh-Tyte & Lepper 2004; Sproston, Erens & Orford 2000; Wardle et al. 2007). Gambling also makes a significant contribution to the economy: in the year ending 31 March 2004, gambling expenditure was estimated at €12.329 billion, which corresponds to 0.8% of the UK GDP (Ward 2004). This expenditure was used to pay 1.81 billion in gambling-related duties (approximately 0.3% of total Government revenues), and around €1.81 billion in good causes contributions. The gaming machine sector is the most profitable branch of the industry (accounting for some 70% of revenue) (Ward 2004). Slightly more recent figures show that gross gambling yield (i.e., the amount retained by operators after the payment of winnings, but before the deduction of the costs of the operation) has increased from just over €7.72 billion in 1999/2000 to just under €13.89 billion, about the same as the rate of growth in total expenditure across the economy as a whole (Wardle et al. 2007).

Although most people gamble occasionally for fun and pleasure, gambling brings with it inherent risks of personal and social harm. According to the second British gambling prevalence survey (BGPS), there are approximately 284,000 problem gamblers in the UK (Wardle et al. 2007). Problem gambling can negatively affect significant areas of a person's life, including their health, employment, finances, and interpersonal relationships (Griffiths 2004). In addition, there are significant comorbidities

with problem gambling, including depression, alcoholism, and obsessive–compulsive behaviours. These comorbidities may exacerbate, or be exacerbated by, problem gambling. Availability of opportunities to gamble and the incidence of problem gambling within a community are known to be linked (Abbott 2007; Griffiths 2003a).

## 2.1 Definition of Gambling

Gambling is a diverse concept that incorporates a range of activities undertaken in a variety of settings and giving rise to differing sets of behaviours and perceptions among participants and observers (Abbott & Volberg 1999). Predominantly, gambling has an economic meaning and usually refers to risking (or wagering) money or valuables on the outcome of a game, contest, or other event in the hope of winning additional money or material goods. The activity varies on several dimensions, including what is being wagered, how much is being wagered, the expected outcome, and the predictability of the event. For some things such as lotteries, most slot machines and bingo, the results are random and unpredictable. For other things, such as sports betting and horse racing, there is some predictability to the outcome, and the use of skills and knowledge (recent form, environmental factors, etc.) can give a person an advantage over other gamblers. Some of the UK's most common types of offline commercial forms of gambling are summarised in Table 7.1.

As can be seen from Table 7.1, gambling is commonly engaged at a variety of environments including those dedicated primarily to gambling (e.g., betting shops, casinos, bingo halls, amusement arcades), those where gambling is peripheral to other activities (e.g., social clubs, pubs, sports venues), and those environments where gambling is just one of many things that can be done (e.g., supermarkets, post offices, petrol stations, etc.). Furthermore, most types of gambling can now be engaged in remotely via the internet, interactive television, and/or mobile phone. This includes playing roulette or slot machines at an online casino, the buying of lottery tickets using a mobile phone or the betting on a horse race using interactive television. In these remote types of gambling, players use their credit cards, debit cards, or other electronic forms of money to deposit funds in order to gamble (Griffiths

2005a). Issues surrounding remote gambling will be examined later in this chapter.

## 2.2 Definition of Terms

In the UK, the terms “problem gambling” and “pathological gambling” (often used interchangeably) have been used by many researchers, bodies, and organisations to describe gambling that compromises, disrupts, or damages family, personal, or recreational pursuits (Budd Report 2001; Griffiths 2004; Sproston et al. 2000; Wardle et al. 2007). The two most widely used screening instruments worldwide are the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) for pathological gambling (American Psychiatric Association 1994), and the South Oaks Gambling Screen (SOGS; Lesieur & Blume 1987). These screening instruments were used to measure problem gambling in the first BGPS. Furthermore, these two screens are the most widely used by UK researchers and other UK service providers in patient consultations (e.g., GamCare). The screens are based on instruments used for diagnostic purposes in clinical settings, and are designed for use in the general population (Sproston et al. 2000).

There have been criticisms of both the DSM-IV and the SOGS. In part, these criticisms stem from an acknowledgment that both screens were designed for use in clinical settings, and not among the general population, within which large numbers of individuals with varying degrees of problems reside. A range of alternative screens have been developed, and these are increasingly being used internationally (Abbott, Volberg, Bellringer & Reith 2004). One such screen is the Problem Gambling Severity Index (PGSI), which was developed in Canada and has been used in that country, the USA, and Australia. This screen replaced the SOGS in 2007 BGPS (Wardle et al. 2007). This survey provided comprehensive data on the prevalence and distribution of problem gambling in Great Britain.

## 2.3 Adult Gambling in Great Britain: National Prevalence Data

Research into gambling practices, the prevalence of problem gambling, and the socio-demographic variables associated with gambling and problem

TABLE 7.1. Summary of the most common forms of offline commercial gambling in the UK.

Type of gambling	Brief description
Lotto	National lottery game in which players pick 6 out of 49 numbers to be drawn bi-weekly for the chance to win a large prize. Tickets are bought in a wide variety of outlets including supermarkets, newsagents, petrol stations, etc.
Bingo	A game of chance where randomly selected numbers are drawn and players match those numbers to those appearing on pre-bought cards. The first person to have a card where the drawn numbers form a specified pattern is the winner. Usually played in bingo halls but can be played in amusement arcades and other settings (e.g., church hall)
Card games (e.g., poker, blackjack)	Gambling while playing card games either privately (e.g., with friends) or in commercial settings (e.g., land-based casino) in an attempt to win money
Sports betting	Wagering of money on horse races, greyhound races, football matches, etc. usually in a betting shop in an attempt to win money
Non-sports betting	Wagering of money on a non-sporting event (such as who will be evicted from the "Big Brother" house) usually done in a betting shop in an attempt to win money
Scratchcards	Instant win games in which players typically try to match a number of winning symbols to win prizes. These can be bought in the same types of settings as Lotto
Roulette	Game in which players try to predict where a spinning ball will land on a 36-numbered wheel. This game can be played with a real roulette wheel (e.g., in a casino) or on an electronic gaming machines (e.g., in a betting shop)
Slot machines (e.g., fruit machines, fixed-odds betting terminals)	These are stand-alone electronic gaming machines that come in a variety of guises. These include many different types of "fruit machine" (typically played in amusement arcades, family leisure centres, casinos, etc.) and fixed-odds betting terminals typically played in betting shops
Football pools	Weekly game in which players try to predict which football games will end in a score draw for the chance of winning a big prize. Game is typically played via door-to-door agents
Spread betting	Relatively new form of gambling in which players try to predict the "spread" of a particular sporting activity, such as the number of runs scored in a cricket match or the exact time of the first goal in a football match in an attempt to win money. Players use a spread betting agency (a type of specialised book maker)

Most of these forms of gambling can now be done via other gambling channels including the internet, interactive television and/or mobile phone. There are other types of gambling such as dice (casino-based "craps"), keno (a fast draw lottery game), and video lottery terminal machines. However, these are either unavailable or very rare in the UK. Technically, activities such as speculation on the stock market or day trading are types of gambling but these are not typically viewed as commercial forms of gambling.

gambling has not been considered part of mainstream health research agendas until quite recently. To date there have only been two BGPS (Sproston et al. 2000; Wardle et al. 2007). The extent of gambling activity, as measured in these surveys, revealed gambling to be a popular activity in Britain. In the most recent survey (n=9,003), gambling was engaged in by over two thirds of the population (68%; down from 72% in 2000), with the most popular gambling activity being the National Lottery Draw (i.e., *Lotto*). Over half of the population bought a *Lotto* ticket in the year covered by the survey (57%; down from 65% in 2000), while the next most popular gambling activity was the purchase of scratchcards (20%; down from 22% in

2000), followed by betting on horse races (17%; up from 13% in 2000), playing fruit machines (14%, the same as 2000) (see Table 7.2 for complete list of past year gambling activities and comparison with the previous survey). Only a small proportion had gambled online (3%) or made a bet online (4%). Overall, 6% of the population had used the internet to gamble in the past year. Table 7.3 shows the figures for past week gambling by activity and comparison with the previous survey.

The latest BGPS also found that men were more likely than women to gamble (71% of men and 65% of women) in the year covered by the survey (see Table 7.4), and tended to stake more money on gambling activities. The gambling activities

TABLE 7.2. Comparison of gambling activities in the past year in 1999 and 2006

Gambling activities	All		Past year gamblers	
	1999 (%)	2006 (%)	1999 (%)	2006 (%)
National Lottery Draw	65	57	90	84
Another lottery	8	12	11	17
Scratchcards	22	20	30	29
Football pools	9	3	12	5
Bingo	7	7	10	11
Slot machines	14	14	19	21
Horse races <sup>a</sup>	13	17	18	25
Dog races <sup>a</sup>	4	5	5	7
Betting with a bookmaker (other than on horse or dog races) <sup>a</sup>	3	6	4	9
Fixed-odd betting terminals	n.a.	3	n.a.	4
Online betting with a bookmaker on any event or sport	n.a.	4	n.a.	6
Online gambling (other than online bookmakers or betting exchanges)	n.a.	3	n.a.	4
Table games in a casino	3	4	4	6
Betting exchange	n.a.	1	n.a.	2
Spread betting	n.a.	1	n.a.	1
Private betting (e.g., with friends, colleagues)	11	10	16	15
Another gambling activity	*	*	*	1
Any gambling activity in past year	72	68	100	100
Mean number of gambling activities	1.6	1.7	2.2	2.5
Bases (weighted)	7,700	8,972	5,543	6,085
Bases (unweighted)	7,680	8,978	5,550	6,161

The columns total more than 100% because more than one activity could be chosen *n.a.* Activity not asked in 1999

<sup>a</sup>These activities do not include any bets made online (Wardle et al., 2007)

TABLE 7.3. Comparison of gambling activities in the past week in 1999 and 2006.

Gambling activities	All		Past week gamblers	
	1999 (%)	2006 (%)	1999 (%)	2006 (%)
National Lottery Draw	47	33	89	82
Another lottery	4	3	7	8
Scratchcards	8	6	16	15
Football pools	6	2	11	5
Bingo	4	3	7	7
Slot machines	6	4	11	9
Horse races <sup>a</sup>	3	2	6	6
Dog races <sup>a</sup>	1	1	2	2
Betting with a bookmaker (other than on horse or dog races) <sup>a</sup>	1	1	2	3
Fixed odd betting terminals	n.a.	1	n.a.	2
Online betting with a bookmaker on any event or sport	n.a.	1	n.a.	2
Online gambling (other than online bookmakers or betting exchanges)	*	1	*	2
Table games in a casino	*	1	1	1
Betting exchange	n.a.	*	n.a.	1
Spread betting	1	*	2	*
Private betting (e.g., with friends, colleagues)	4	3	7	6
Another gambling activity	—	*	—	*
Any gambling activity in past week	53	41	100	100
Bases (weighted)	7,700	8,996	5,543	3,649
Bases (unweighted)	7,680	8,996	5,550	3,749

The columns total more than 100% because more than one activity could be chosen *n.a.* Activity not asked in 1999

<sup>a</sup>These activities do not include any bets made online (Wardle et al., 2007)

Table 7.4. Gambling activities in past year for all and for past year gamblers, by sex.

Gambling activity	All			Past year gamblers		
	Men (%)	Women (%)	Total <sup>a</sup> (%)	Men (%)	Women (%)	Total <sup>a</sup> (%)
National Lottery Draw	59	56	57	83	85	84
Another lottery	12	12	12	16	18	17
Scratchcards	19	20	20	27	31	29
Football pools	5	2	3	7	2	5
Bingo	4	10	7	6	15	11
Slot machines	19	10	14	27	15	21
Horse races <sup>b</sup>	22	13	17	31	20	25
Dog races <sup>b</sup>	7	3	5	10	5	7
Betting with a bookmaker (other than on horse or dog races) <sup>b</sup>	10	3	6	14	4	9
Fixed-odds betting terminals	4	1	3	6	2	4
Online betting with a bookmaker on any event or sport	6	1	4	9	2	6
Online gambling	4	1	3	6	2	4
Table games in a casino	6	2	4	9	3	6
Betting exchange	2	*	1	2	1	2
Spread betting	1	*	1	2	*	1
Private betting (e.g., with friends, colleagues)	15	6	10	21	10	15
Another gambling activity	1	*	*	1	1	1
<i>Any gambling activity</i>	<i>71</i>	<i>65</i>	<i>68</i>	<i>100</i>	<i>100</i>	<i>100</i>
<i>Bases (weighted)</i>	<i>4,333</i>	<i>4,636</i>	<i>8,972</i>	<i>3,065</i>	<i>3,021</i>	<i>6,085</i>
<i>Bases (unweighted)</i>	<i>4,241</i>	<i>4,733</i>	<i>8,978</i>	<i>3,022</i>	<i>3,139</i>	<i>6,161</i>

<sup>a</sup>The total column includes those for whom the sex was not known

<sup>b</sup>These activities do not include any bets made online (Wardle et al., 2007)

men and women participate in were also varied. Men were more likely to gamble on almost all activities (e.g., football pools and fruit machines, bet on horse and dog races, and to make private bets with friends), while women were more likely than men to play bingo, and tended to participate in a lesser number of gambling activities overall (Wardle et al. 2007).

Examination of prevalence and socio-demographic variables associated with problem gambling undertaken in the BGPS revealed that between 0.5% (PGSI; cut off point of 8) and 0.6% (DSM-IV; cut off point of 3) of the population aged 16 years and over were problem gamblers (236,000–284,000 people; Wardle et al. 2007). The BGPS revealed that there were a number of socio-demographic factors that were statistically associated with problem gambling. These included being male, having a parent who was or who has been a problem gambler, being single, and having a low income. Low income is one of the most consistent factors associated with problem gambling world-

wide. Although many people on low incomes may not spend more on gambling, in absolute terms, than those on higher wages, they do spend a much greater proportion of their incomes than these groups. The links with general “disadvantage” should also be noted. Research shows that those who experience unemployment, poor health, poor housing, and low educational qualifications have significantly higher rates of problem gambling than the general population (Griffiths 2006; Griffiths & Delfabbro 2001).

The latest BGPS showed that showed that approximately 1% of men and 0.2% of women in Britain could be classified as problem gamblers according to the DSM-IV (Wardle et al. 2007). Results of the BGPS also showed that on average the prevalence of problem gambling decreased with age, although the male 25–34 year age group (1.7%) was slightly higher than the male 16–24 year age group (1.5%).

The types of games played also impacts on the development of gambling problems. This has

consequences for understanding the risk factors involved in the disorder, as well as the demographic profile of those individuals who are most susceptible. For instance, certain features of games are strongly associated with problem gambling. These include games that have a high event frequency (i.e., that are fast and allow for continual staking), that involve an element of skill or perceived skill, and that create “near misses” (i.e., the illusion of having almost won) (Griffiths 1999). Size of jackpot and stakes, probability of winning (or perceived probability of winning), and the possibility of using credit to play are also associated with higher levels of problematic play (Parke & Griffiths 2007). Games that meet these criteria include gaming machines and casino table games.

According to the BGPS, the most problematic types of gambling in Britain are associated with spread betting (14.7% of people who gambled on this activity in the past year were problem gamblers according to the DSM-IV), fixed-odds betting terminals (11.2%), betting exchanges (9.8%), and online gambling (7.4%) (see Table 7.5).

Furthermore, problem gambling prevalence was associated with the number of gambling activities undertaken, with the prevalence of problem gambling tending to increase with the number of gambling activities participated in. As noted above, for a large number of people, the *Lotto* draw was the only gambling activity they engaged in, and problem gambling prevalence among people who limited their gambling to activities such as the National Lottery was very low, at 1%. As might be expected, problem gambling was associated with higher expenditure on gambling activities.

Variations in gambling preferences are thought to result from both differences in accessibility and motivation. Older people tend to choose activities that minimise the need for complex decision-making or concentration (e.g., bingo, slot machines), whereas gender differences have been attributed to a number of factors, including variations in sex-role socialisation, cultural differences, and theories of motivation (Griffiths 2006). Variations in motivation are also frequently observed among people who participate in the same gambling activity.

TABLE 7.5. Problem gambling prevalence, by gambling activity in the last year.

Past year gamblers	Gambling activity	DSM-IV problem gamblers (%)	Bases, weighted (n)
Bases, unweighted (n)	National Lottery Draw	1.0	4,800
4,915	Another lottery	2.1	962
981	Scratchcards	1.9	1,638
1,619	Football pools	3.5	273
271	Bingo	3.1	609
635	Slot machines	2.6	1,195
1,141	Horse races <sup>a</sup>	1.7	1,456
1,470	Dog races <sup>a</sup>	5.2	423
404	Betting with a bookmaker (other than on horse or dog races) <sup>a</sup>	3.9	530
503	Fixed-odds betting terminals	11.2	213
186	Online betting with a bookmaker on any event or sport	6.0	323
303	Online gambling	7.4	215
191	Table games in a casino	5.2	327
298	Betting exchange	9.8	82
74	Spread betting	14.7	57
53	Private betting (e.g., with friends, colleagues)	2.3	854
796	Another gambling activity	[6.1]	39
38	Any gambling activity in past year	0.9	5,529
5,622			

<sup>a</sup>These activities do not include any bets made online (Wardle et al., 2007)



For example, slot machine players may gamble to win money, for enjoyment and excitement, to socialise, and to escape negative feelings (Griffiths 1995). Some people gamble for one reason only, whereas others gamble for a variety of reasons. A further complexity is that people's motivations for gambling have a strong temporal dimension; that is, they do not remain stable over time. As people progress from social to regular and finally to excessive gambling, there are often significant changes in their reasons for gambling. Whereas a person might have initially gambled to obtain enjoyment, excitement, and socialisation, the progression to problem gambling is almost always accompanied by an increased preoccupation with winning money and chasing losses.

#### 2.4 Adolescent Gambling in Great Britain: National Prevalence Data

Adolescent gambling is a cause for concern in the UK and is related to other delinquent behaviours. For instance, in one study of over 4,500 adolescents, gambling was highly correlated with other potentially addictive activities such as illicit drug taking and alcohol abuse (Griffiths & Sutherland 1998). Another study by Yeoman and Griffiths (1996) demonstrated that around 4% of all juvenile crime in one UK city was slot machine related, based on over 1,850 arrests in a 1-year period. It has also been noted that adolescents may be more susceptible to problem gambling than adults. For instance, in the UK, a number of studies have consistently highlighted a figure of up to 5–6% level of pathological gamblers among adolescent fruit machine gamblers (see Griffiths 2002; 2003b; for an overview of these studies). This figure is at least two to three times higher than that identified in adult populations. On this evidence, young people are clearly more vulnerable to the negative consequences of gambling than adults.

A typical finding of many adolescent gambling studies has been that problem gambling appears to be a primarily male phenomenon. It also appears that adults may to some extent be fostering adolescent gambling. For example, a strong correlation has been found between adolescent gambling and parental gambling (Wood & Griffiths 1998; 2004). This is particularly worrying because a number of studies have shown that when people gamble as

adolescents, they are then more likely to become problem gamblers as adults (Griffiths 2003b). Similarly, many studies have indicated a strong link between adult problem gamblers and later problem gambling amongst their children (Griffiths 2003b). Other factors that have been linked with adolescent problem gambling include working class youth culture, delinquency, alcohol and substance abuse, poor school performance, theft, and truancy (e.g., Griffiths 1995; Griffiths & Sutherland 1998; Yeoman & Griffiths 1996).

The main form of problematic gambling among adolescents has been the playing of fruit machines. There is little doubt that fruit machines are potentially “addictive” and there is now a large body of research worldwide supporting this. Most research on fruit machine gambling in youth has been undertaken in the UK, where they are legally available to children of any age. The most recent wave of the UK tracking study carried out by MORI and the International Gaming Research Unit (IGRU) (2006) found that fruit machines were the most popular form of adolescent gambling with 54% of their sample of 8,017 adolescent participants. A more thorough examination of the literature summarizing over 30 UK studies (Griffiths 2003b) indicates that:

- At least two thirds of adolescents play fruit machines at some point in their adolescent lives
- One third of adolescents will have played fruit machines in the last month
- 10–20% of adolescents are regular fruit machine players (playing at least once a week; 17% in the latest 2006 MORI/IGRU national prevalence survey)
- Between 3 and 6% of adolescents are probable pathological gamblers and/or have severe gambling-related difficulties (3.5% down from 4.9% in the latest 2006 MORI/IGRU national prevalence survey).

All studies have reported that boys play on fruit machines more than girls, and that, as fruit machine playing becomes more regular, it is more likely to be a predominantly male activity. Research has also indicated that very few female adolescents have gambling problems on fruit machines. The findings suggest that irregular (“social”) gamblers play for different reasons than the excessive (“pathological”) gamblers. Social gamblers usu-

ally play for fun and entertainment (as a form of play), because their friends or parents do (i.e., it is a social activity), for the possibility of winning money, because it provides a challenge, because of ease of availability and there is little else to do, and/or for excitement (the “buzz”).

Pathological gamblers appear to play for other reasons, such as mood modification and as a means of escape. As already highlighted, young males seem to be particularly susceptible to fruit machine addiction with a small but significant minority of adolescents in the UK experiencing problems with their fruit machine playing at any one time. Like other potentially addictive behaviours, fruit machine addiction causes the individual to engage in negative behaviours. This includes truanting in order to play the machines, stealing to fund machine playing, getting into trouble with teachers and/or parents over their machine playing, borrowing or the using of lunch money to play the machines, poor schoolwork, and, in some cases, aggressive behaviour (Griffiths 2003b). These behaviours are not much different from those experienced by other types of adolescent problem gambling. Furthermore, fruit machine addicts also display bona fide signs of addiction including withdrawal effects, tolerance, salience, mood modification, conflict, and relapse.

It is clear that, for some adolescents, gambling can cause many negative detrimental effects in their life. Education can be severely effected and the adolescents may have a criminal record, as most problem gamblers have to resort to illegal behaviour to feed their addiction. Gambling is an adult activity and the Government should consider legislation that restricts gambling to adults only.

## 2.5 Internet and Remote Gambling in Great Britain

The introduction of the internet and other remote gambling developments (such as mobile phone gambling and interactive television gambling) has the potential to lead to problematic gambling behaviour and is likely to be an issue over the next decade. Remote gambling presents what could be the biggest cultural shift in gambling and one of the biggest challenges concerning the psychosocial impact of gambling.

To date, there has been little empirical research examining remote gambling in the UK. The first

prevalence survey was published in 2001 (from data collected in 1999) when internet gambling was almost non-existent and reported that only 1% of internet users had ever gambled online (Griffiths 2001a). A recent report published by the DCMS (2006) however, noted that online gambling had more than doubled in Great Britain since 2001. Worldwide, there are around 2,300 sites, with a large number of these located in just a few particular countries. For instance, around 1,000 sites are based in Antigua and Costa Rica alone. The UK has about 70 betting and lottery sites but as yet no gaming sites (e.g., online casinos featuring poker, blackjack, roulette, etc.). The findings reported that there were approximately 1 million regular online gamblers in Britain alone making up nearly one third of Europe’s 3.3 million regular online gamblers. It was also reported that women were becoming increasingly important in the remote gambling market. For instance, during the 2006 World Cup, it was estimated that about 30% of those visiting key UK-based betting websites were women. The report also stated that Europe’s regular online gamblers staked approximately €4.86 billion a year at around an average of €1,389 each. In addition, it was also predicted that mobile phone gambling was likely to grow, further increasing accessibility to remote gambling. The latest national prevalence survey reported that 6% of people in Great Britain had gambled online in some way.

To date, knowledge and understanding of how the internet, mobile phones, and interactive television affect gambling behaviour is sparse. Globally speaking, proliferation of internet access is still an emerging trend and it will take some time before the effects on gambling behaviour surface (on both adults and young people). However, there is a strong foundation to speculate on the potential hazards of remote gambling. These include the use of virtual cash, unlimited accessibility, and the solitary nature of gambling on the internet as potential risk factors for problem gambling development (Griffiths 2003c; 2005b; Griffiths & Parke 2002; Griffiths, Parke, Wood & Parke 2006).

There is some evidence from the latest gambling prevalence survey (Wardle et al. 2007) that internet gambling is associated with problem gambling, and recent studies using self-selected samples suggest that the prevalence of problem gambling among internet gamblers is relatively high (Griffiths &

Barnes 2008; Wood, Griffiths & Parke 2007). What is clear, however, is that online gambling has strong potential to facilitate, or even encourage, problematic gambling behaviour (Griffiths 2003c; Smeaton & Griffiths 2004). Firstly, the 24-hour availability of internet gambling (and other remote forms) allows a person to potentially gamble non-stop (Griffiths 1999). The privacy and anonymity offered by internet gambling enables problem gamblers to continue gambling without being “checked” by gambling venue staff concerned about behaviour or amount of time spent gambling (Griffiths et al. 2006). Friends and family may also be oblivious to the amount of time an individual spends gambling online. In addition, the use of electronic cash may serve to distance a gambler from how much money he or she is spending, in a similar way that chips and tokens used in other gambling situations may allow a gambler to “suspend judgement” in regards to money spent (Griffiths & Parke 2002).

Given the brief outline above, remote gambling could easily become a medium for problematic gambling behaviour. Even if numbers of problem remote gamblers are small (and they by no means necessarily are), remote gambling remains a matter of concern. Remote gambling is a relatively new phenomenon and is likely to continue expanding in the near future. It is therefore crucial that the new legislation does nothing to facilitate the creation or escalation of problems in relation to remote gambling.

The regulation of online gambling is fraught with problems. Preventing underage gambling is difficult, if not impossible, as there is no way of determining whether an adolescent or child is using a parents’ credit or debit card to gamble online. Likewise, it is impossible to tell whether a person is gambling while under the influence of alcohol or other drugs, or is suffering from a gambling addiction. The 24-hour availability of online gambling is problematic for those with, or at risk of developing, gambling problems, as there is currently nothing stopping a person from gambling 24-hours a day (Griffiths 2003c; Griffiths & Parke 2002).

## 2.6 The Importance of Structural and Situational Characteristics

Gambling is a multifaceted rather than unitary phenomenon. Consequently, many factors may come

into play in various ways and at different levels of analysis (e.g., biological, social or psychological). Theories may be complementary rather than mutually exclusive, which suggests that limitations of individual theories might be overcome through the combination of ideas from different perspectives. This has often been discussed before in terms of recommendations for an “eclectic” approach to gambling or a distinction between proximal and distal influences upon gambling (Walker 1992). However, for the most part, such discussions have been descriptive rather than analytical, and, so far, few attempts have been made to explain why an adherence to singular perspectives is untenable. Central to the latest thinking is that no single level of analysis is considered sufficient to explain either the etiology or maintenance of gambling behaviour. Moreover, this view asserts that all research is context-bound and should be analysed from a combined, or biopsychosocial, perspective (Griffiths 2005c). Variations in the motivations and characteristics of gamblers and in gambling activities themselves mean that findings obtained in one context are unlikely to be relevant or valid in another.

Another factor central to understanding gambling behaviour is the structure of gambling activities. Griffiths (1993; 1995; 1999) has shown that gambling activities vary considerably in their structural characteristics, such as the probability of winning, the amount of gambler involvement, the use of the near wins, the amount of skill that can be applied, the length of the interval between stake and outcome and the magnitude of potential winnings. Structural variations are also observed within certain classes of activities such as slot machines, where differences in reinforcement frequency, colours, sound effects, and machines’ features can influence the profitability and attractiveness of machines significantly (Griffiths & Parke 2003; Parke & Griffiths 2006). Each of these structural features may (and almost certainly does) have implications for gamblers’ motivations and the potential “addictiveness” of gambling activities.

For example, skilful activities that offer players the opportunity to use complex systems, study the odds, and apply skill and concentration appeal to many gamblers because their actions can influence the outcomes. Such characteristics attract people who enjoy a challenge when gambling. They may

also contribute to excessive gambling if people overestimate the effectiveness of their gambling systems and strategies. Chantal and Vallerand (1996) have argued that people who gamble on these activities (e.g., racing punters) tend to be more intrinsically motivated than lottery gamblers in that they gamble for self-determination (i.e., to display their competence and to improve their performance).

People who gamble on chance activities, such as lotteries, usually do so for external reasons (i.e., to win money or escape from problems). This finding was confirmed by Loughnan, Pierce, and Sagris (1997) in their clinical survey of problem gamblers. Here, racing punters emphasised the importance of skill and control considerably more than slot machine players. Although many slot machine players also overestimate the amount of skill involved in their gambling, other motivational factors (such as the desire to escape worries or to relax) tend to predominate. Thus, excessive gambling on slot machines may be more likely to result from people becoming conditioned to the tranquilising effect brought about by playing rather than just the pursuit of money.

Another vital structural characteristic of gambling is the continuity of the activity; namely, the length of the interval between stake and outcome. In nearly all studies, it has been found that continuous activities (e.g., racing, slot machines, casino games) with a more rapid play-rate are more likely to be associated with gambling problems (Griffiths 1999). The ability to make repeated stakes in short time intervals increases the amount of money that can be lost and also increases the likelihood that gamblers will be unable to control spending. Such problems are rarely observed in non-continuous activities, such as weekly or bi-weekly lotteries, in which gambling is undertaken less frequently and where outcomes are often unknown for days. Consequently, it is important to recognise that the overall social and economic impact of expansion of the gambling industry will be considerably greater if the expanded activities are continuous rather than non-continuous.

Other factors central to understanding gambling behaviour are the situational characteristics of gambling activities. These are the factors that often facilitate and encourage people to gamble in the first place (Griffiths & Parke 2003). Situational characteristics are primarily features of the envi-

ronment (e.g., accessibility factors such as location of the gambling venue, the number of venues in a specified area and possible membership requirements) but can also include internal features of the venue itself (décor, heating, lighting, colour, background music, floor layout, refreshment facilities) or facilitating factors that may influence gambling in the first place (e.g., advertising, free travel and/or accommodation to the gambling venue, free bets or gambles on particular games) or influence continued gambling (e.g., the placing of a cash dispenser on the casino floor, free food and/or alcoholic drinks while gambling) (Abbott 2007; Griffiths & Parke 2003).

These variables may be important in both the initial decision to gamble and the maintenance of the behaviour. Although many of these situational characteristics are thought to influence vulnerable gamblers, there has been very little empirical research into these factors and more research is needed before any definitive conclusions can be made about the direct or indirect influence on gambling behaviour and whether vulnerable individuals are any more likely to be influenced by these particular types of marketing ploys. The introduction of super-casinos into the UK will almost certainly see an increase in these types of situational marketing strategies and should also provide an opportunity to research and monitor the potential psychosocial impact.

### 3 Action

#### 3.1 Gambling Addiction Treatment and Services

The intervention options for the treatment of problem gambling in Great Britain include, but are not limited to, counselling/guidance, psychotherapy, cognitive-behavioural therapy (CBT), advisory services, residential care, pharmacotherapy, and combinations of these (i.e., multi-modal treatment) (Griffiths 1996; Griffiths, Bellringer, Farrell-Roberts & Freestone 2001; Griffiths & Delfabbro 2001; Griffiths & MacDonald 1999; Griffiths, Scarfe & Bellringer 1999). However, most of these writings describe the types of treatment available rather than evaluate their effectiveness. There is also a very recent move towards using the internet as a

medium for guidance, counselling, and treatment (see Griffiths 2005d; Griffiths & Cooper 2003; Wood & Griffiths 2007). Treatment and support is provided from a range of different people (with and without formal medical qualifications), including specialist addiction nurses, counsellors, medics, psychologists, and psychiatrists. There are also websites and helplines to access information (e.g., GamCare) or discuss gambling problems anonymously (e.g., GamAid), and local support groups where problem gamblers can meet other people with similar experiences (e.g., Gamblers Anonymous). Support is also available for friends and family members of problem gamblers (e.g., GamAnon).

Many private and charitable organisations throughout the UK provide support and advice for people with gambling problems. Some focus exclusively on the help, counselling, and treatment of gambling addiction (e.g., Gamblers Anonymous, GamCare, Gordon Moody Association), while others also work to address common addictive behaviours such as alcohol and drug abuse (e.g., Aquarius, Addiction Recovery Foundation, Connexions Direct, Priory). The method and style of treatment varies between providers and can range from comprehensive holistic approaches to the treatment of gambling addiction (e.g., encouraging fitness, nutrition, alternative therapies, and religious counselling), to an abstinence-based approach. Many providers also encourage patients (and sometimes friends and families) to join support groups (e.g., Gamblers Anonymous and GamAnon), while others offer confidential one-to-one counselling and advice (e.g., Connexions). Most are non-profit-making charities to which patients can self-refer and receive free treatment. Independent providers that offer residential treatment to gambling addicts are more likely to charge for their services. Some provide both inpatient treatment and day-patient services (e.g., PROMIS), and a decision as to the suitability of a particular intervention is made upon admission. It is clear that research into the efficacy of various approaches to the treatment of gambling addiction needs to be undertaken.

### 3.2 Accessing Treatment—Referral Paths

People suffering from problem gambling can access free or self-funded treatment via a number of routes:

- Self-referrals. Problem gamblers can self-refer by contacting one of the many available community addiction centres and clinics where they can have an individual consultation before commencing a treatment programme. Some providers will allow individuals to drop in without an appointment.
- General practitioner (GP) referrals. Some GPs have undergone additional training in addiction management and run special clinics within their own surgery. When this is the case, a GP may not necessarily refer someone to another centre. Many GPs, however, will refer the person to the local addiction specialist for an assessment and a treatment plan. These units have specialist addiction management psychiatrists and nurses, counsellors, and social workers working with them. Often treatment is provided on a “shared-care” basis. This may involve the GP providing certain parts of the treatment, for example, appropriate prescriptions and treatment for addiction-related health problems, while the specialist addiction team unit provides ongoing monitoring and counselling. Where possible, a person is given the choice of where he or she is treated. Some prefer to be looked after in the familiar surroundings of their general practice, and, even if the GP is not able to provide the treatment, often arrangements can be made for the person to be seen by the community specialist addiction nurse or counsellor within the general practice. However, other people prefer to be looked after at a specialist addiction unit because of the anonymity this allows and the fact that everyone is there for the same reason.
- Private clinics. Some private clinics do not accept self-referrals. For example, Priory Hospital accepts potential patients for outpatient, day care, and inpatient treatment only through referrals from GPs, an employee’s company occupational health doctor (not a company occupational health nurse), or a non-Priory consultant (see [www.prioryhealthcare.co.uk](http://www.prioryhealthcare.co.uk)).
- Court referrals. It is also worth mentioning that there are an increasing number of court cases involving problem gambling and that judges often give non-custodial sentences alongside referral for gambling treatment. One of the real problems with this particular referral path is that the problem gambler may not have any motivation to want to stop. It is not unknown for a

problem gambler to say they will attend gambling treatment as a way of helping them get a reduced sentence.

### 3.3 The Gaming Industry and Gambling Addiction Services

The British gaming industry has typically viewed pathological gambling as a rare mental disorder that is predominantly physically and/or psychologically determined. It supports recent findings that suggest many problem gamblers have transient problems that often self-correct. Currently, gambling providers in the UK are not compelled to supply patrons with help and advice about gambling problems, and have been reluctant to engage directly in interventions. However, some gambling providers have taken the initiative to address the issue of gambling addiction within their businesses. Secondary prevention efforts by the gaming industry have included the development and implementation of employee training programmes, mandatory and voluntary exclusion programmes, and gambling venue partnerships with practitioners and Government agencies to provide information and improved access to formal treatment services.

Implementation of secondary prevention efforts by the gaming industry, such as employee training programmes and exclusion programmes, have not always been of the highest quality and compliance has often been uneven. In addition, observations from abroad appear to demonstrate that efforts by the gaming industry to address gambling addiction tend to compete with heavily financed gaming industry advertising campaigns that may work directly to counteract their effectiveness (Griffiths 2005e). Although advertising of gambling was very restricted up until September 2007, it has now become much more widespread as gaming companies (including casinos and betting shops) are now legally allowed to advertise on television, radio, and other media.

Although social responsibility has not always been high on gaming operators agendas until recently, there are a number of areas where advances have been made:

- Employee training. Staff training generally focuses on increasing understanding of problem gambling, identifying behaviours suggestive of

patrons' gambling problems, increasing knowledge of resources for problem gamblers in the community, and providing strategies for assisting patrons with problems. Increasingly, training in problem gambling prevention is being built into broader training and certification programmes for gaming management. Employee training programmes have been implemented primarily in the casino and video lottery terminal sectors of the gaming industry.

- Exclusion. For example, if people identify themselves as having a gambling problem to an operator of a gambling venue, the operator might issue an exclusion order for that person. There does appear to be value in involving problem-gambling counsellors in interviews with individuals seeking exclusion and research is needed to assess the effectiveness of such involvement in improving treatment seeking and access after exclusion.
- Partnerships with practitioners. For example, Gala Coral Group actively supports GamCare and its commitment to promoting responsible attitudes towards gambling. In order to assist players in gambling responsibly, Coral has worked with GamCare to develop responsible policies and practices.

### 3.4 Problem Gambling Services and the National Health Service

Currently, there are almost no treatment services for problem gambling available on the British National Health Service (NHS). Almost all treatment for problem gambling is provided by private, charitable organisations, the major ones of which receive funding from the RIGT (e.g., GamCare, Gordon Moody Association). In 2006, GamCare received over 30,000 calls to the national helpline, with 67% of these calls being made by the gamblers themselves (GamCare 2007). Betting continued to be the dominant gambling activity accounting for 30.7% of callers. A decline in slot machine playing for the third year running and a small rise in fixed odds betting terminals (FOBTS) meant that these were the next most popular activities at 22.2% and 22%, respectively. A low proportion of callers cited problems with national lottery products, though there was a small rise in scratchcards, up from

1.8% to 2.1%. Over 500 gamblers also accessed face-to-face treatment services at GamCare.

The Responsibility in Gambling Trust (RIGT) is an independent charitable body, funded by the UK gaming industry, that commissions treatment, education, and research into problem gambling. RIGT was set up in response to recommendations made by the independent Gambling Review Body (the Budd Report), which was commissioned by the British Government in 2001. The Budd Report recommended that an independent charitable trust should be set up and provided with voluntary funding by the gaming industry to research and limit problem gambling. The Trust decided to make progress in advance of the proposed new legislation, and, by January 2005, it had paid annual grants in excess of €1.39 million to organisations providing support for problem gamblers, and public education about the risks of gambling. GamCare and Gordon House (organisations that help and treat problem gamblers) are two of the major recipients of funding from RIGT.

The Budd Report recommended that the RIGT should be funded to the tune of €4.17 million per annum and that if the industry did not fund the charitable trust, a statutory levy would be introduced. The current level of gaming industry donations is insufficient. Even if the industry donated €4.17 million a year, this equates to only €13.89 per adult problem gambler (based on there being approximately 300,000 adult problem gamblers in the UK)—and that does not include help for adolescent problem gamblers. Thus, 4.17 million Euros a year for all research, prevention, intervention, and treatment is inadequate and is “small change” to a billion Euros gaming industry.

Arrangements in which funding for “problem gambling services comes largely through voluntary or mandatory levies on revenues derived from legalised gambling operations and generally flows through major academic institutions and/or quasi-governmental bodies” is an accepted practice internationally (Abbott et al. 2004, p.15). However, it has been argued that problem-gambling services in Britain should be provided under the NHS, as other addiction services are (Griffiths 2001b; 2004). Currently the NHS Direct website refers people inquiring about gambling addiction services to various private and charitable support organisations. It is unclear whether the current system is preferable

to one in which funding for problem gambling treatment services is provided through mandated levies from all sectors of the gaming industry, and/or a system in which treatment for problem gambling is funded directly by the Government. At the very least:

- Treatment for problem gambling should be provided under the NHS.
- The gaming industry should donate at least €7 million per annum to fund research, prevention, intervention, and treatment programmes.

## 4 Conclusion

### 4.1 Impact of the Gambling Act 2005 on Problem Gambling

It has been predicted that the upcoming expansion in gambling opportunities enabled by the Gambling Act 2005 can be expected to result in an increase in problem gambling in the UK (Griffiths 2004). This is because the new legislation, which began being implemented in September 2007, will significantly increase access to electronic gaming machines and other continuous gambling forms, including online gambling. Risk profiles are also likely to change, with disproportionate increases in problem gambling among women, ethnic, and new migrant minorities. There is also concern about adolescent gambling, although the latest national prevalence survey did show that adolescent problem gambling is on the decrease (MORI/International Gaming Research Unit 2006). However, newer technologies like internet gambling may be more attractive to this sub-group. While research is starting to suggest that increases in problems may level out over time, this appears to be part of a complex process involving, among other things, social adaptation, the implementation of public health policies, and the provision of specialist treatment services. It also appears to be an uneven process that affects different groups of people in different ways.

The Gambling Act 2005 enhances opportunities to gamble in a multitude of ways, and research has shown that increasing the availability of particular forms of gambling can have a significant impact on the prevalence of problem gambling within a community (Griffiths 1999; 2003a). It is important

to appreciate the differences between various forms of gambling and their link to problem gambling, as, increasingly, evidence suggests that some types of gambling are more strongly associated with gambling-related problems than others (Abbott & Volberg 1999).

Abbott (2006) has noted that in periods when new electronic gaming machines are being introduced or made highly accessible, substantial changes can occur over relatively short periods of time in the population sectors at highest risk for problem gambling. The RIGT note that, in that situation, existing services may need to change to be able to engage and work effectively with large numbers of different types of problem gamblers. With disproportionate increases in problem gambling expected among women, youth, and ethnic and new migrant minorities, the development of targeted services and services that are culturally and demographically appropriate may be essential.

Furthermore, Abbott (2007) has noted that raising public awareness of the risks of excessive gambling, expanding services for problem gamblers and strengthening regulatory, industry, and public health harm reduction measures appear to counteract some adverse effects from increased availability. However, what is not known is how quickly such proactive mechanisms can have a significant impact and whether or not they can prevent problem gambling if they are introduced concurrently with increased access to “harder” and more “convenient” forms of gambling such as internet gambling (Griffiths et al. 2006). There are many recommendations that can be made in a number of different areas:

#### 1 Healthcare professionals should:

- Be aware of the types of gambling and problem gambling, demographic and cultural differences, and the problems and common comorbidities associated with problem gambling. The need for education and training in the diagnosis, appropriate referral, and effective treatment of gambling problems must be addressed.
- Understand the importance of screening patients perceived to be at increased risk of gambling addiction.
- Routinely screen for gambling problems among participants in alcohol and drug treatment facilities, mental health centres, and outpatient clinics, as well as probation services and prisons.

#### 2 Gambling operators and service providers should:

- Supply information on gambling addiction, treatment, and services to patrons.
- Support development of centralised training for gambling venue staff to ensure uniform standards and accreditation.
- Promote exclusion programmes across all sectors of the gaming industry with clearly defined penalties both for operator and patron to improve enforcement.
- Consider the possibility of industry-based sources of funding for treatment and education. In, for example, the USA and Australia, sectors of the industry provide funds for public health programmes and treatment, which are independently administered through the public sector. In Britain, the Budd Commission mandated a €4.17 million per annum levy on the industry to pay for problem gambling research, education, and treatment. This fund is administered by the RIGT.

#### 3 Problem gambling service providers should:

- Highlight information about gambling addiction services, in particular services in the local area, and should be readily available to gamblers. Although some gambling services (such as GamCare and GamAid) provide information to problem gamblers about local services, such information is provided to problem gamblers who have already been proactive in seeking gambling help and/or information.
- Be made more available on the NHS (either as stand alone services or alongside drug and alcohol addiction services). Such provision could follow the tiered system of treatment used for drug addiction, as outlined by the UK Department of Health. Both the Budd Commission and the RIGT-commissioned review (Abbott et al. 2004) recommended the adoption of a system of stepped care for the treatment of problem gambling along these lines, and this suggestion is reiterated here. In this scenario, the modalities utilised for the treatment of drug problems could be adapted to suit the particular requirements of problem gamblers and to fit with the services and modalities that already exist in this area. However, it should also be noted that problem gambling is idiosyncratic and that the



analogies between problem gambling and other drug-based addictive disorders may not always be of direct relevance. Where possible, treatment should be based on individual needs following a full assessment.

- Expand provision of dedicated problem gambling treatment, advice, and counselling services. At present, such provision is sparse and unevenly distributed throughout the country. Wherever possible, information and treatment services should be sited close to gambling venues, as research suggests that increased proximity of the former to the latter increases the efficacy of support.
- Get increased funding for the development and evaluation of targeted services (such as for ethnic minorities, young people, women, and family members).

#### 4 Public policy should:

- Focus on public education. Given that severe problem gambling is difficult to treat, and that large numbers of the population may at some time be at risk from developing problems with their behaviour, it makes sense to focus on public health and awareness raising initiatives in order to prevent the development of problems in the first place. Such strategies have been successfully deployed in countries such as Australia, New Zealand, and Canada.

#### 5 Research:

- There should be regular surveys of problem gambling services, including helplines and formal treatment providers, and evaluations of the effectiveness and efficacy of these services.
- Support research into the impacts of gambling, including health, family, workplace, financial, and legal impacts.
- More research into the association of internet gambling and problem gambling should be conducted.
- Fund more research, including long-term studies, into problem gambling, treatment, and impact of gambling legislation on prevalence of problem gambling. More research is also needed on why some people develop problems and, just as importantly, why the majority do not develop problems. Understanding of problem gambling is seriously hindered by a lack of high-quality

data, both internationally and especially in Britain. It is important to expand the research base on the causes, progression, distribution, and treatment of gambling problems. One way to begin to tackle the problem could be to link up with overseas networks and researchers in order to pool knowledge and expertise. Alternatively, gambling as a health issue should be included in other national surveys on health (such as the General Health Survey).

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# 8 Hungary

Zsolt Demetrovics

## 1 Background

Hungary is a constitutionally limited parliamentary democratic country, with free multi-party elections every 4 years. Currently, five parties are represented in the parliament, with the left-of-centre Hungarian Socialist Party as the senior governing party and the liberal Alliance of Free Democrats as the junior party in the coalition. The opposition is made up of three right-of-centre parties, with the Federation of Young Democrats being the major party of opposition, the Christian Democrats, and the Hungarian Democratic Forum as the smallest party in the opposition. The system is fairly stable insofar that since 1989, every government served for the full 4 years of its mandate, and the constitutional framework is not under fundamental threat. Meanwhile, popular and political enthusiasm for the regime is remarkably low. In the four parliamentary elections since 1989, turnout varied between the mid-50% and the high 60%, with record turnouts at the last two elections in 2002 and 2006 at 72% and 68% respectively. Cities and municipalities enjoy large powers of self-government. Hungary has been a member of the European Union since May 1, 2004.

Since 1989, Hungary underwent rapid and fundamental economic and social changes in connection with the transition from a largely state-owned command economy to an almost fully privately owned market economy. During the early years of transition, overall production dropped significantly, with unemployment soaring and inequalities rapidly increasing. More recently, the process

has somewhat stabilized and, for the past 10 years, production has been steadily growing, together with the average standard of living. However, inequalities seem very well entrenched, with about one quarter to one third of the society trapped in long-term poverty. Unemployment dropped below 6% in 2001, but has slightly increased in the past 2 years (7.2% in 2005; 7.5% in 2006).

Hungary's total area is 93,030 square kilometres. Hungary has a population of over 10 million people. As a result of the Treaty of Trianon in 1920 and population transfers after World War II, Hungary became one of the most ethnically homogeneous countries in Eastern Europe. Unlike most European languages, the Hungarian language stems from the Finno-Ugric language family, not related to any other language of the neighbouring countries.

### 1.1 The National Gambling Market

#### 1.1.1 *History of Gambling in Hungary*

The judgement and practice of gambling in Hungary, and its regulation, has gone through several major changes during the last centuries. The first regulation of gambling was created in 1753, when Maria Theresa introduced a law that declared a state monopoly on gambling. However, lottery gambling connected to fairs and markets had already appeared in the 16th century. Count Cataldi, rector of the Austrian lottery, obtained concessions in the territory of Hungary. Lottery gambling has been continuously present in Hungary from 1770 until

the present day—except for a nearly 60-year-long break from the turn of 1900 until 1957. While in the beginning the income from lottery was divided equally between public treasury, regional road and water construction authority, and organizers of the lottery company, the state has been continuously demanding more and more of a share. At the end of 1787, Joseph II took the whole management of the Austrian lottery into his hands.

For a long time, the lottery had little popularity in Hungary. Because of its foreign origin, its relatively complicated rules, and the fact that it was organized by Austria, Hungarian citizens basically boycotted the game. During the war of independence in 1848–1849, the first independent Hungarian government banned the Vienna-centred lottery. The situation changed in 1867, after the establishment of the Austrian–Hungarian Monarchy. The lottery's organization was carried out by the Hungarian Royal Lottery Directorate, established within the Monarchy through the 1868 Act XV. Revenue subsequently increased the Hungarian state budget. The lottery was abolished by the Parliament in 1897 and other games were introduced instead.

At the end of the 19th century, popular games, especially certain card games, were identified with the aristocracy, while other forms of card games were played by the impoverished lower gentry. Horse racing was introduced by Count István Széchenyi on June 6th 1827, based on an English model. Kincsem Park was built in 1925, and it was one of the most modern European racecourses at that time, although horse racing did not gain widespread popularity in Hungary. The first casino, the National Casino, was also set up by Count István Széchenyi in 1827. His aim was partly to avoid the Hungarian aristocracy going to Vienna for that kind of entertainment, but also to strengthen the Hungarian civil society. In the following two decades, casinos were also established in many other cities.

Political changes after World War II fundamentally altered the political and ideological view of gambling. In particular, quick enrichment connected to luck contradicted the ethos of hard work. In the era of socialism, the idea of equality was a fundamental ideology. This was shown in salaries, as the difference between the lowest and highest salaries was relatively modest. Central values of the system were mediocrity, steady performance,

safety, reliability, and, in connection to these, a guaranteed and well-predictable future, and poor but generally available goods (Komlósi, Móricz, Horváth, Groenland & Bloem 2000). It can be easily seen that this ideology does not reciprocate with the possibility of enrichment by luck, and not even with the phenomenon of risk taking. It was an age of reliable safety, and not an age of risk. Although horse racing, which emerged in the 19th century, did not disappear during socialist times, visiting the race tracks and betting on a horse race was considered to be a deviant behaviour, contradicting the prevailing system. After World War II, every other game of chance was banned. Casinos closed together with any other chances for gambling. Only Toto Pools was introduced in 1947, aiming to use the income to help the preparation of sportsmen for the 1948 Olympic Games, and to finance their journey to London. Besides that, there were some drawings for the holders of so-called Plan Loan bonds and Peace Loan bonds, where participants could win the multiplied value of the face value of their bonds instead of receiving interest. However, this was not considered to be gambling as the primary goal of “loans” (i.e., payment for the state) was not the game but reconstruction of the post-war country, and construction of a socialist state.

Easing of the system in the second half of the 1950s brought change, and the lottery was reintroduced. Soon after the first drawing on March 7, 1957, the lottery gained enormous popularity, probably partly due to its “valve” function. Next to the gradually appearing private enterprises, this game could mean a possible breakout from “equality”. The appearance of risk-taking chance games generated strong interest in a world that basically rejected individual risk, together with the chance of personal success (and personal failure) as a result of risk-taking. In the first 20 years of the lottery, drawing of goods had a significant role. During these 20 years, in the monthly drawing of goods, 500 privately owned flats, almost 600 cars, more than 200 family and holiday houses, and nearly 20,000 televisions and many other goods (altogether 250,000 pieces) were drawn in connection with the lottery game. It must also be noted that at that time, Hungary was characterised by a scarcity of goods—especially in relation to the aforementioned goods—so these drawings seemed very attractive. As scarcity of goods became less significant, the attractiveness and

role of such drawings decreased, and, in 1991, drawing of goods finally ceased.

A real market of gambling only appeared after the change in the system at the beginning of the 1990s. One of the most important elements of this change was the concept of free risking that determined the mentality of the people. The concept of free risking is closely related to the characteristics of gambling. Safety, and low living standards of the previous socialist era, were replaced with fundamentally uncertain times, where risk (including risk resulting from entrepreneurship) had a major role, and, together with great gains, huge losses also appeared as possible outcomes. Finally, in 1988, a 6/45 lottery was introduced, along with different number draw games, scratch tickets, and new types of sports betting.

### 1.1.2 Current Regulatory Framework

Gambling is regulated in Hungary by the 1991 Act No. XXXIV, along with some other connected Acts and Decrees of the Government and the Ministry of Finance. In Hungary, the 100% state owned *Szerencsejáték Zrt.* has exclusive rights—with some exceptions—for the conduct of gambling, while the national control of gambling organization activity is done by a separate body, the so-called Gaming Board, which operates within the tax authority. Horse race betting and bookmaker type betting are exceptions from the state monopoly, although the latter is not typical in the country. Operation of slot machines is also a liberalized gambling activity. Slot machines can be operated in gaming arcades, and up to two machines can be operated in restaurants. Operation of gaming arcades and slot machines is licensed by the Gaming Board. Non-systematic drawing games are not restricted if the total number of tickets is under 1,000 or if the total value of prizes does not exceed 200 Euros. The total value of the prizes must reach 80% of the value of the income from ticket sales. Basically, this covers occasional raffles organized for smaller events. However, even if these conditions are met, the game must get Gaming Board approval.

In general, in Hungary, those under the age of 18 years cannot participate in gambling. Playing on slot machines is forbidden for minors even if the machine is operated in a restaurant that is open for people under the age of 18 years. However,

entering gaming arcades and casinos is forbidden for people under the age of 18 years.

### 1.1.3 Available Gambling Opportunities

As mentioned previously, the modern history of gambling in Hungary started in 1947 with the introduction of Toto pools. For a short time between autumn 1952 and spring 1953, people could also bet on the result of football matches, but, as prizes were of low value, this game gained little interest. Therefore, this supplementary “*Góltotó*” game was ended. A five-number Lottery reappeared almost 10 years after the introduction of Toto Pool. In this game, the 5 numbers drawn from a total of 90 numbers have to be guessed. For the first draw, more than 1.5 million tickets were bought, illustrating the success of the game. During the socialist era, gambling opportunities were horse race betting and a certain type of scratch ticket sold by hawkers. The extension of product range began just before the change of system in October 1988. This began with the introduction of a six-number lottery using a 6 out of 45 drawing system. This was followed by several other number-draw lottery games (such as *Joker*, *Kenó*, *Scandinavian lottery*, *Luxor*) and other scratch tickets. The range of sports betting was also extended with *Goal Toto*<sup>1</sup> and *Tippmix*<sup>2</sup>. Finally, in November 2005, a quick game called *Puttó* was introduced. *Puttó* is actually a number-draw game, but it differs from other games in the frequency of drawing (*Szerencsejáték Zrt.* 2005; 2007). Table 8.1 summarizes different number-draw games, sports-betting products, and scratch tickets currently available in Hungary.

The different games shown in Table 8.1 are organized by the state-owned *Szerencsejáték Zrt.* founded in 1991. Besides the operation of Toto Pools and the lottery, the first scratch tickets were

<sup>1</sup>*Goal Toto* is a totalisator type game in which one bets on the final score of each team participating in the 6 football matches, which are chosen by the bettor from the 14 matches present in the Toto program. The tickets with 6, 5, or 4 hits are eligible for winning.

<sup>2</sup>In *Tippmix*, one bets on the occurrence or outcome of at least 1 and at most 14 of the usually 200 events listed on the betting offer of the *Szerencsejáték Zrt.* To win, a bettor must have the right tips for all events they bet on. *Tippmix* pays according to the odds given for the matches.

TABLE 8.1. Games organized in Hungary by *Szerencsejáték Zrt.*

<b>Number-draw games</b>				
Name of game	Introduction	Price/game (€)	Largest weekly revenue (million single games)	Highest prize (million €)
Five-number lottery (5/90)	1957	0.7	21.1 (1990: 21st week)	20.1 (2003: 48th week)
Six-number lottery (6/45)	1988	0.7	4.2 (1998: 11th week)	2.35 (2003: 17th week)
Scandinavian lottery (7/35)	1999	0.7	3.5 (2003: 5th week)	1.56 (2005: 32nd week)
<i>Joker</i>	1993	0.7	1.2 (2003: 7th week)	1.16 (2007: 2nd week)
<i>Kenó</i>	1996	0.4	3.0 (1997: 39th week)	1.0 (1997: 30th week)
<i>Luxor</i>	2001	0.7	1.1 (2002: 10th week)	0.38 (2003: 11th week)
<i>Puttó</i>	2005	0.6	2.8 (2005: 49th week)	0.008 (9 December 2005)
<b>Sports betting</b>				
Name of game	Introduction	Price/game (€)	Largest weekly revenue (million single games)	Highest prize (million €)
<i>Toto Pool</i>	1947	0.3	20.8 (1985: 5th week)	0.19 (2002: 18th week)
<i>Goal Toto</i>	1999 (1952–1953, 1993)	0.3	0.1 (2001: 22nd week)	0.06 (2002: 24th week)
<i>Tippmix</i>	1997	0.8	—	Maximum: 0.0016/ticket
<b>Scratch tickets (sold in 2005)</b>				
Name of game	Introduction	Price/game (€)		
<i>Állati Mázli</i>	2005	0.6	—	—
<i>Black Jack</i>	1995	0.6	—	—
<i>Legyen malaca</i>	2005	0.6	—	—
<i>Astro</i>	2005	0.8	—	—
<i>Fáraók kincse</i>	2000	0.8	—	—
<i>Álomutazás</i>	2005	0.8	—	—
<i>Méhecske</i>	2005	0.6	—	—
<i>Bombagól</i>	2005	0.8	—	—
<i>Bingó</i>	2005	0.8	—	—
<i>Bankó</i>	2005	0.6	—	—

*Szerencsejáték Zrt.*, 2002; 2003; 2004; 2005

introduced in 1992 and the company gained interest in the casino market, and entered the organization of horse race betting (although the company withdrew from this in 1995). In 1993, the company began to extend its sales network and to modernise its technologies. By 2000, almost all points of sale were provided with online terminals, and offline sales were discontinued in 2001. The number of online terminals was 3,901 in 2005, which means a slight increase when compared with the former years (3,611 in 2003; 3,650 in 2004). In addition to the online terminals, there were 3,066 other shops in 2005 (2,981 in 2003; 3,394 in 2004), where only scratch tickets are available.

The other liberalized sector of gambling besides *Szerencsejáték Zrt.* is constituted by more than 30,000 slot machines operated by almost 1,200 entrepreneurs (as of 2005). Apart from these, casinos and (to a decreasing extent) horse race bet-

ting, also have a share in the gambling market. Companies that conduct gambling games are united by the Euromat-member Hungarian Gambling Association (2005). Gambling through the internet—except through *Szerencsejáték Zrt.*—is not allowed in Hungary. However, enforcement seems to be associated with many problems. Media reports and anecdotal data clearly show that many gamblers engage in internet gambling by accessing international sites. Unfortunately, there is no official data on the extent of this kind of gambling.

### 1.1.3.1 Slot Machine Market

After a modest initial interest in 1994, the number of companies organizing liberalized gambling activities has substantially increased (see Fig. 8.1). Since 1997, more than 1,000 companies are present in the Hungarian market. In the last 2 years, almost

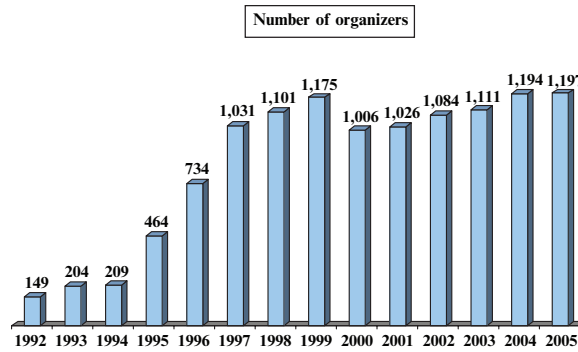


FIG. 8.1. Changes in the number of organizers of gambling activities between 1992 and 2005 (Hungarian Gambling Association, 2005)

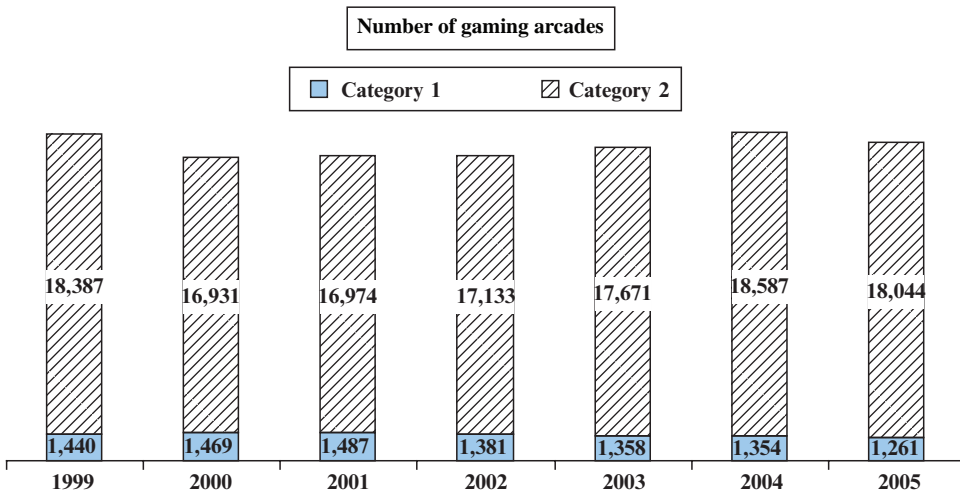


FIG. 8.2. Changes in the number of gaming arcades of category 1 and 2 between 1999 and 2005 (Hungarian Gambling Association, 2005)

1,200 companies operated slot machines and gaming arcades.

In Hungary, certain types of slot machines can only be operated in gaming arcades or in casinos. The Act on Gambling Operations generally classifies the gaming arcades into category 1 and 2. In simple terms, it can be said that genuine gaming arcades belong to category 1, while restaurants and bars licensed to operate slot machines belong to category 2. In the case of category 2 slot machines, the stake for one game cannot be more than 0.8 Euros, and the payout cannot be more than 25 times the stake. In the case of category 1 slot

machines, the upper limit for the pay out can be up to 200 times the stake. However, the Hungarian slot machine market is overwhelmed by category 2 gaming arcades. Their market share is constantly above 90% (see Fig. 8.2 for the number of gaming arcades of category 1 and 2).

Because a category 2 place can only operate category 2 machines, the dominance of category 2 gaming arcades also means that the slot machine market is dominated by category 2 machines. In December 2005, there were 5,903 category 1 and 25,657 category 2 slot machines having a licence in the country. Compared with December 2004,



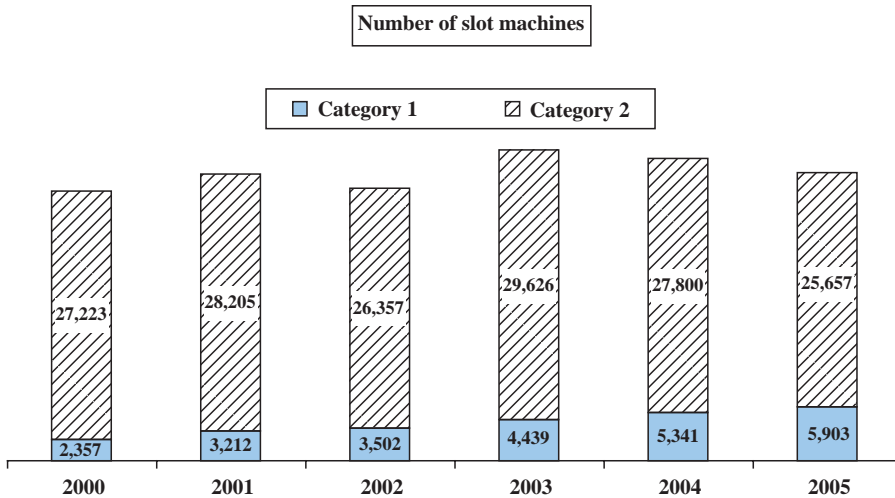


FIG. 8.3. Changes in the number of category 1 and category 2 slot machines between 2000 and 2005 (Gaming Board, 2001; 2002; 2003; 2004; 2005)

the total number of machines decreased (31,560 in 2005, and 33,141 in 2004), but the overall quality increased, as the number of category 2 machines decreased by 2,143, and the number of category 1 machines expanded by 562. This means that the proportion of category 1 machines increased from 16.1% to 18.7%. In the last 6 years, the increase in quality is even more obvious; in 2000 only 8% of the machines were of category 1 (see Fig. 8.3).

#### 1.1.3.2 Casino Market

The Hungarian casino market was formed around 2001 and 2002. In Hungary, six casinos are in operation, three in Budapest and three in larger provincial towns. Two out of the three countryside casinos are owned by the state gambling operator, and the others pursue their activities within concession contracts. State-owned casinos operate by using exclusively the Hungarian Forint (HUF), while the other four casinos operate by using foreign and Hungarian currencies (one uses the HUF and US Dollar, the other three use the HUF and Euro).

#### 1.1.4 Statistics About Total Public Revenue

The total public revenue of gambling market has been increasing sharply in the last 15 years. The 211.6 million Euros revenue of 1992 increased fourfold by 2005 (889.3 million Euros) (see Fig.

8.4). After a stable period during the mid-1990s and aside from a short lapse in 2004, the total public revenue of gambling market has been continuously increasing in the last one and a half decades.

In the last few years, the greatest proportion of gambling market income originates from draw-based games (listed in Table 8.1), over 50% since 2002. Another one third of the revenue comes from slot machines (in the last 6 years the proportion varied between 31% and 36%) (see Fig. 8.5). In the last 6 years, betting games contributed by 6 to 12% to the total revenue, while casinos contributed 4 to 8%. Recently the proportion of both casinos and betting games in the total income has declined.

The central budget revenue from gambling activities has two components. The first is the so-called game tax, and the second is the personal income tax paid after gambling prizes. In 2005, the game tax was 272.2 million Euros, more than half of it (53.6%) originating from the operation of slot machines, while another 38.7% originated from draw-based games (see Fig. 8.6).

Revenue originating from personal income tax is significantly lower than game tax revenue. Altogether, 63.3 million Euros, and a substantial proportion of this state revenue (53.5 million Euros), originates from draw-based games (see Fig. 8.7). This type of tax does not appear in connection to casinos, slot machines, and amusement machines.

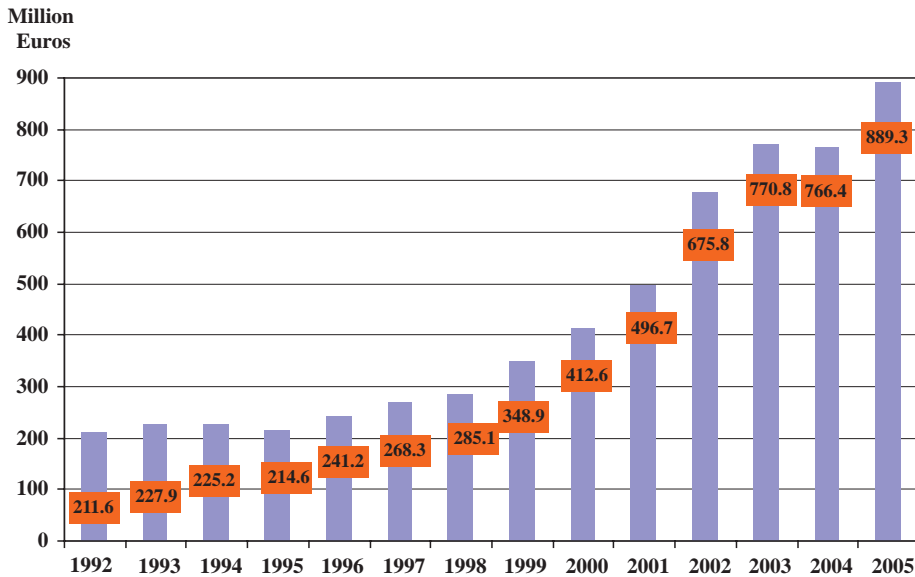


FIG. 8.4. Changes in the total revenue from gambling between 1992 and 2005 (Hungarian Gambling Association, 2005). Note: When interpreting the numbers, it is important to consider that HUF/Euro rate has changed significantly between 1992 and 1997. While in 1992, 1 Euro was equal to 102.1 HUF, that same rate in 1997 was 1 to 241.2 (the HUF/Euro rate has not changed much in the past 10 years). That also means that if we calculate in HUF instead of Euros, than the sharp increase was already present from 1992. The total public revenue increased almost tenfold if counted in HUF (that is, 21.6 billion HUF in 1992 and 220.6 billion HUF in 2005)

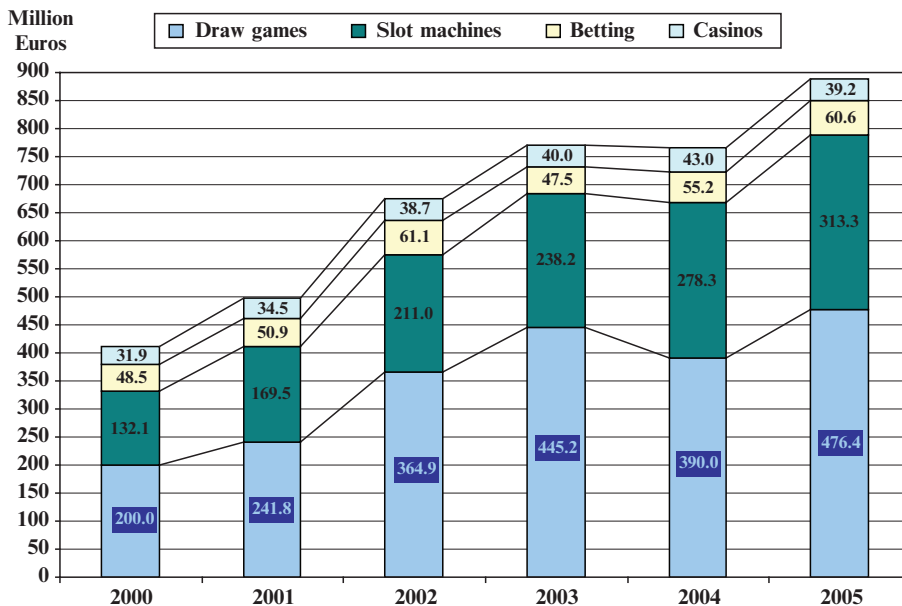


FIG. 8.5. Changes in revenue of gambling market originating from the different types of games between 2000 and 2005 (Gaming Board, 2001; 2002; 2003; 2004; 2005)

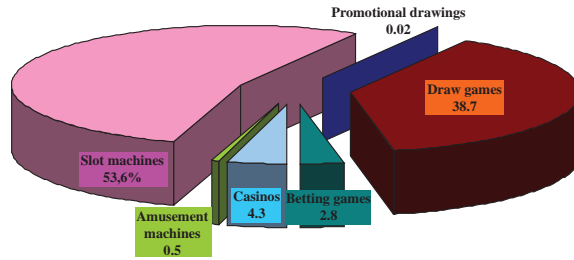


FIG. 8.6. Market share of games in 2005 based on paid game tax (Gaming Board, 2005)

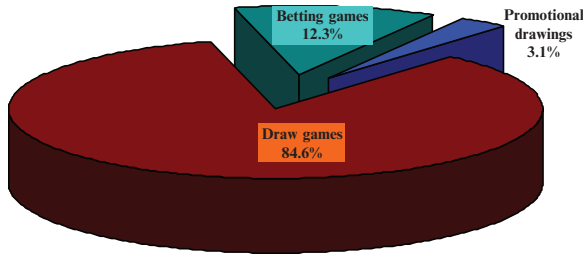


FIG. 8.7. Market share of different games in 2005 based on paid personal income tax (Gaming Board, 2005)

## 2 Evidence

### 2.1 Overview

To date, in Hungary, almost no empirical research on (problem) gambling has been carried out. During spring 2003, Borbála Paksi and Zsuzsanna Elekes conducted a drug and alcohol epidemiological research on a national representative sample (Alcohol and Drug Epidemiology [ADE]). This research included some questions on the frequency of different types of gambling and the amount of money spent on these games (Paksi 2007). However, this research is not suitable for estimating the prevalence of problem gambling, as that was not the aim of the study. A National Survey on Addiction Problems conducted in April–May 2007 (OLAAP), measured the epidemiology of a broader range of behavioural addictions. Accordingly, the test battery included the Hungarian version of the South Oaks Gambling Screen (SOGS) questionnaire (Lesieur & Blume 1987). In the section on epidemiological research, data will be reported on the 2003 results of the ADE research, however, the results of the 2007 research are not yet available.

In addition to the research outlined above, another investigation of the topic was done in a Hungarian–

Dutch co-operation (Kömlösi et al. 2000). However, this research, similarly to other studies (see for example, Jankó & Tóth 2000), did not set out to investigate the phenomenon of gambling and problems associated with gambling but to explore decision-making mechanisms, and psychological components of risk taking and the gaming situation. In autumn 2005, the Marketing Centrum conducted a population survey to the order of *Szerencsejáték Zrt.* (Marián, Mérő & Somorai 2006), and Németh and colleagues published a summary on 12 patients more than 10 years ago (Németh et al. 1996). Furthermore, there are also some Hungarian theoretically oriented works on the psychology of games and decision-making mechanisms in the literature of gambling (Kömlösi 2003; Kömlösi & Móricz 2003), and some writings summarizing specifically the phenomenon of pathological gambling (Demetrovics & Kun 2007; Kelemen 1994; Lakatos 1993; Németh, Csorba & Tóth 2005; Németh & Vandlík 2000; Pekáry 2001; Veér & Eröss 2000).

### 2.2 Extent of Gambling Participation

#### 2.2.1 Epidemiological Research

Information on the frequency of participating in different gambling activities can be found in the

TABLE 8.2. Frequency of participating in different types of gambling during the past month and money spent on gambling in the past month (among people who gambled in the past 1 or 2 months).

	n	Never (%)	Once (%)	2–5 times (%)	6–10 times (%)	<greater than>10 times (%)	Does not know/remember (%)	Spending <greater than> €50 on gambling in the past month (%)
Went to casino	379	97.1	1.3	1.4	0.1	0	0.1	21.9
Played on slot machines	382	91.8	2.1	4.9	0.5	0.4	0.2	4.5
Bet on sporting events	379	90.5	1.8	6.7	0.6	0.3	0.1	2.8
Played lotto or instant tickets	452	6.7	11.4	78.1	2.6	1.0	0.2	1.8
Played cards for money	379	97.5	0.3	1.7	0.3	0	0.1	11.6
Other gambling	378	97.9	0.3	1.3	0	0.2	0.2	0

ADE research conducted by Borbála Paksi and Zsuzsanna Elekes (Paksi 2007). The research sample was a normative sample—representative of gender, age, and place of residence—of 3,675 adults aged between 17 and 53 years. Results showed that 19.2% of the participants reported gambling every month or every other month. The prevalence of those who engage in gambling activities daily or several times a week was below 1% (0.2% and 0.6%, respectively), while 11.2% gambled weekly. A more detailed investigation of the different types of gambling activities was carried out only on those who gambled at least every month or in every second month. In these cases, the number of gambling days in the last 30 days and the amount of money spent on the given gambling activity within the last 30 days were asked (see Table 8.2). Overall, the prevalence rates for gambling were found to be relatively low. Significant regular gambling activity was found only in relation to the lottery.

In another study, Marián et al. (2006) differentiated between four types of gamblers with the use of cluster analysis.<sup>3</sup> This study examined the amount of money spent on gambling, and was based on variables describing gambling habits (what, how, and how often does the person gamble) and knowledge of games

(rules, costs). The first category contained those who cannot be considered as gamblers, as they had not been engaged in any gambling activity in the past 6 months (45%). The study reported that 13% were occasional gamblers, 35% were regular gamblers, and that 7% can be considered as heavy gamblers.

### 2.2.2 Market Information

In addition to market data on number-draw games and sports betting included in Table 8.1, data are also available on the casino market. According to these data, while the number of casino customers increased by one quarter between 2000 and 2001, after 2001 there were only few percentage differences in this sector of gambling (see Fig. 8.8). The number of foreign casino guests has been constantly above 50% (57% in 2003; 59% in 2004; 55% in 2005). In 2005, the amount wagered by the customers in casinos was 11.9 million Euros, which was significantly lower than in the previous year (13.8 million Euros). Previously, this market sector was characterised by a continuously increase (9.8 million Euros in 2001; 10.0 million Euros in 2002; 11.7 million Euros in 2003).

## 2.3 Prevalence of Potential Gambling Problems at the National Level

According to the research of Marián et al. (2006), 7% of the adult population (12% of gamblers) can be considered as heavy gamblers. They are the ones who consider gambling as a profession but also do it

<sup>3</sup>The research included only products of *Szerencsejáték Zrt.*, and not the whole range of gambling activities available in Hungary. In addition to the normative population sampling (6,112 people), the research also included an in-shop data collection, but again only within the sales places of *Szerencsejáték Zrt.*

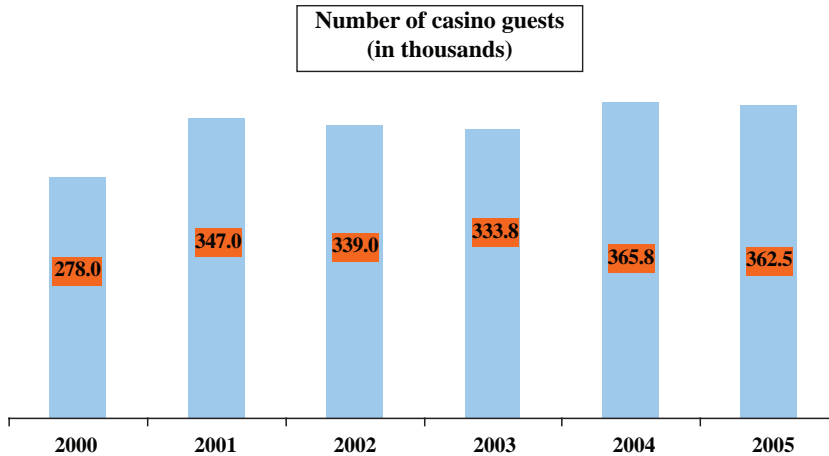


FIG. 8.8. Number of casino guests between 2000 and 2005 (in thousands) (Gaming Board, 2001; 2002; 2003; 2004; 2005)

in an impulsive manner. This is in contrast to occasional gamblers who basically perceive products of *Szerencsejáték Zrt.* as “normal” consumer’s goods. While occasional or social gamblers spend money on gambling on a regular basis, but in a planned and responsible way, the group of heavy gamblers is characterized by an entirely different gambling pattern. They are the ones playing multiple games and with multiple bets, and they are the ones who tend to significantly increase the amount of money spent on betting as the first prize increases. Thus, as the top prize in lottery increases, they risk more and more money. However, it should be noted that this research did not use any standardized method to determine the prevalence of problem gambling.

#### 2.4 Profile of Treatment Seekers

Németh et al. (1996) analysed the data of two psychiatric clinics in a 2-year period (between January 1, 1994 and January 1, 1996). The authors identified 12 patients who received treatment for pathological gambling. All patients were male, with an average age of 31 years (aged between 21 and 50 years). With one exception, all were single. Two patients had a higher education diploma, six had finished secondary school education, and four had finished only elementary school. The majority (seven people) were manual workers, two were entrepreneurs, one did intellectual work, one was in school, and another was unemployed. Interestingly, Németh et al. (1996) identified psychiatric disorder among

first-degree relatives in the case of seven people (in two cases, the identified disorder was pathological gambling), and, with three exceptions, all gamblers were diagnosed with another axis I or II disorder besides pathological gambling. The most frequent gambling types were roulette and slot machines. Apart from the outlined research, which provides some information on characteristics of pathological gambling, there is no other Hungarian research that helps us in the identification of high-risk groups.

### 3 Action

#### 3.1 Current National Policy to Tackle Problem Gambling

The preparation of a national gambling strategy is a task of the Gaming Board belonging to the Ministry of Finances. The preparation of this strategy started in 2003, and it was followed by a modification of the Act on Gambling Operations in 2005. However, the strategy itself has not been published. The basic concerns of this strategy were the principles of market regulations and aspects of legal regulations. Although the slightly increasing number of related publications and the occasional media interest indicate the presence of a problem, at the moment, the phenomenon of problem gambling is not salient and does not seem to be significant. Thus, the politicians are not urged to prepare a strategy that would also consider psychosocial aspects and

treatment of the phenomenon. At the moment, the problem does not reach an extent—or at least not in an obvious way—to provoke great social pressure to treat the phenomenon at a policy level.

However, it should be noted that the structure of different addictions has undergone a significant change in the past 15 to 20 years. Hungary has been confronted with illegal drug problems in a significant way only in the beginning of the 1990s (Demetrovics 2001; 2006), and, since then, this problem dominates both scientific and policy interest in addictions. This dominance not only means that alcohol and cigarette problems are widely neglected, even though they are actually of a greater threat to public health, but it also means that other addictions such as pathological gambling get less attention.

Since 1999, illegal drug issues were coordinated on a deputy state secretary level in public administration, and the government provided significant financial resources for prevention of the problem, for treatment of psychosocial consequences, and for harm-reduction activities. A national strategy to combat the illegal drug problem was subsequently prepared (Ministry of Youth and Sport 2000). These phenomena contribute to strengthening of the relevant civil sector, while such policy interest and strengthening of a similar civil sector did not happen in the case of alcohol, cigarette, and other addictive problems. This means a deficiency not only in the creation and implementation of programmes, but also in relevant civil organisations that could mediate public expectations to correct these deficiencies. Consequently, the latter fields can rather be characterised by administrative, regulation-based treatment, while preventive tools, psychosocial care, and harm-reduction activities are not included in policy strategies. Scientifically based analysis of strengths and weaknesses of national gambling regulatory structures has not happened in Hungary yet.

### 3.2 Prevention of Gambling Problems

At present, Hungary does not have a programme to prevent problems originating from gambling. Prevention of addictions focuses primarily on universal prevention programmes in schools. These programmes concentrate mainly on the prevention of illegal drug use. Prevention of the use of

legal drugs (alcohol, cigarettes) is not emphasised and behavioural addictions such as pathological gambling are actually completely missing from these programmes (Paksi & Demetrovics 2002; Paksi et al. 2006). However, those programmes that do not directly aim the prevention of drug usage, but a more general health promotion, sometimes deal with the field of behavioural addictions. Furthermore, information material related to addiction disorders, description of symptoms, and prevention material are available via internet. In general, the majority of such materials are for inquisitive laymen or for family doctors and other specialists, and the quantity of materials written for youth is modest, just like the quantity of materials targeting addicted people or other people at risk.

### 3.3 Treatment of Gambling Problems

Patients with pathological gambling, similarly to people with other addiction disorders, are usually treated in general departments of psychiatry, or in departments of addiction. Outpatient treatment is provided by the network of psychiatry attendants and by the so-called Regional Welfare Centre for General Prevention of Addictions (TÁMASZ) ambulances. Besides treating psychiatric patients, these ambulances also treat people addicted to alcohol and deal with the treatment of addiction to other psychoactive drugs. The treatment of pathological gambling and other behavioural addictions gets significantly less attention. Although there are some patients searching for treatment for non-psychoactive drug addiction or for some other behavioural addiction in drug outpatient centres, they are of small number and these treatment places are not prepared to help them.

Besides the above-mentioned places, there are (or there were) inpatient treatment units based on the Minnesota model<sup>4</sup> for addicted patients in two Hungarian psychiatric wards. The unit in the Addiction Department of the hospital in Szigetvár (Southwest Hungary) is specialised primarily for

<sup>4</sup>The Minnesota Model is a comprehensive, interdisciplinary abstinence-based treatment approach for addiction problems. It combines the elements of the medical model and the philosophy of the 12-step self-help models (e.g., Alcoholics Anonymous, Gamblers Anonymous) (McElrath 1997).

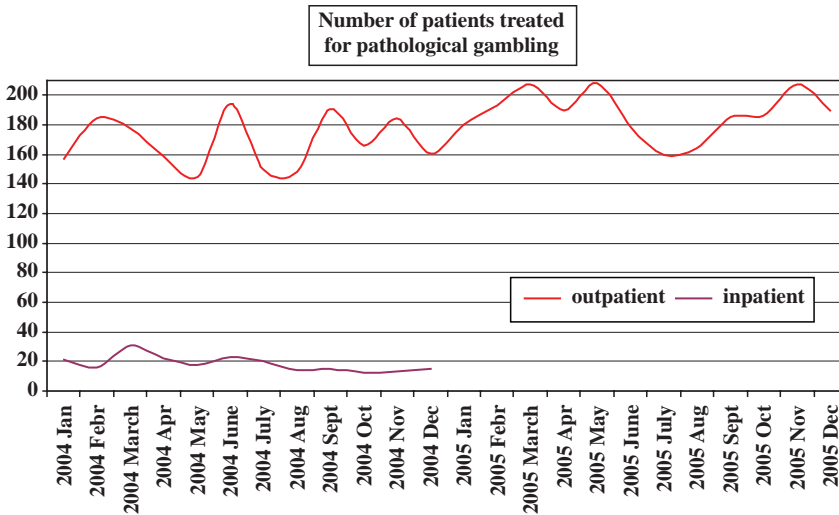


Fig. 8.9. Number of inpatients and outpatients treated for pathological gambling in 2004, and number of outpatients treated in 2005 (Internet-based Hungarian Health Datawarehouse; see <http://hawk.eski.hu:8080/Tea>)

the treatment of alcoholism, but also treats patients with other psychoactive drug addictions and behavioural addictions—specifically with pathological gambling. The other place specialised for treating pathological gambling clients was created in Budapest in the 2nd Department of Psychiatry of Nyírő Gyula Hospital under the leadership of Dr. Attila Németh. This unit was active between October 2004 and June 2006 using the Minnesota model. However, during a reorganization of the hospital, the team was disintegrated and the unit closed.

Due to the small number of patients in health services, only a limited amount of data is available. Figure 8.9 includes the number of outpatients and inpatients treated for pathological gambling in 2004, and the number of inpatients treated during 2005. The monthly number of inpatients in 2004 was between 12 and 31, while the number of outpatients treated in a month was between 145 and 208 in 2004 and 2005. The majority of patients (almost 90%) were male.

In addition, some patients presumably find help, especially psychotherapy, in private health centres, and the activities of Gamblers Anonymous (GA) is relatively well-developed in Hungary ([www.gamblersanonymous.hu](http://www.gamblersanonymous.hu)). The first Hungarian GA group was created in 1995, but due to a relapse of its members, this initiative stopped in 1997. The

leader, Szilveszter Horváth, who also wrote a book based on his life (Fekete 2005) reorganised the GA group in Budapest. Since then, GA has been continuously active, and since spring 2007, in addition to the five groups in Budapest, there are other groups in four major countryside towns. Special telephone helpline services for gambling problems is not available in Hungary, however, those services that provide help for mental health problems, or specifically for addiction problems, also provide help for gamblers. For example, information about treatment services offered to gamblers or about the meetings of GA is available through these helplines.

## 4 Conclusion

Unfortunately, it must be concluded that while the supply side of the gambling market is clear and well documented, there is little accurate information on the demand side. Due to modern regulations, supply of the gambling market is clear. *Szerencsejáték Zrt.* and the other participants of the market place great emphasis on the presentation of their activities, sometimes even in a more pronounced way than what is specified under law. In contrast to this, fields of research, treatment, and prevention have little interest in the topic. Epidemiological research on a normative population sample was

started in spring 2007 for the first time and it will be followed by specific research on endangered populations and by investigations of predictive and protective factors in the following years. At present, these issues have not been investigated in Hungary. Also, there is neither a comprehensive national strategy on psychosocial consequences of problem gambling, nor specific programmes. In addition, preventive work does not carefully consider addiction to gambling, while the only specific treatment centre in Hungary had to close in 2006. Apart from general departments of psychiatry, the strongest sector for seeking help seems to be GA. In the future, a professional supervision covering psychosocial aspects must be localised in public administration, the civil sector must be strengthened, and preventive and therapeutic activities must be created.

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# 9

## Iceland

Daniel Thor Olason and Sigurdur J. Gretarsson

### 1 Background

Iceland is Europe's western-most country and the second largest island in Europe, with a population of 304,334 as of September 2006 (Statistics Iceland 2006). The island was settled in the ninth century by Norwegian farmers, and after three centuries of independence it came under Norwegian and then Danish rule. The Icelandic economy was based on farming and small-scale fishing until the 20th century. Iceland became an independent state under the Danish king in 1918 and became a republic in 1944. The country was among the poorest at the turn of the 20th century, but modern times have brought on economic growth, industrial development, urbanization, and modernization on a remarkable scale. Icelanders currently enjoy living standards that rank among the highest in the world. The country is not a member of the EU but it is a member of the European Economic Area (EEA), along with Norway, Lichtenstein, and the member states of the EU, involving regulations, trade, and mutual obligations in several areas. About 60% of the population is concentrated around the capital, Reykjavik, but the rest of the island is sparsely populated, with inhabitants in townships and farm-lands, mainly along the coastline.

#### 1.1 The Gambling Market in Iceland

The gambling market in Iceland is very small in comparison to markets in neighbouring countries in Europe. The first general gambling law

in Iceland is from 1926 (Lotteries and Tombolas Act No. 6/1926) and was based on a tradition that existed regarding lotteries at that time (Ministry of Justice and Ecclesiastical Affairs 1999). The law from 1926 stated that any gambling operation in Iceland was illegal without the permission of the Ministry of Justice and Ecclesiastical Affairs and that any participation in foreign lotteries was illegal. The main aim of the law was to prevent illegal gambling operations and to keep Icelanders from participating in foreign lotteries, thus preventing any movement of capital from the country. The University of Iceland Lottery was the first gambling operation permitted by law in the year 1933.

Until the mid 1980s, the gambling market in Iceland was relatively small and consisted mainly of three monthly lotteries, the weekly sports pool, and the operation of low-stake Finnish slot machines named Payazzo (a coin flick game, in which players use their skill to flick a coin into the correct chute). However, during the last 20 years, a number of different forms of gambling have been legislated, each one by special law, and today the legal gambling market in Iceland consists of electronic gambling machines (slot machines), scratch-cards, monthly lotteries, National Lotto, Viking lotto, football pools, fixed-odds sports betting, and bingo. Casinos are not permitted in Iceland and any forms of organized betting on card games (e.g., poker) including internet gaming (casino games) are illegal.

There is no legal age restriction on participation in most gambling activities in Iceland except for

gambling machines, which are illegal for anyone under the age of 18 years. However, a number of gambling operators have set their own age restrictions. For example, you need to be 18 years old to buy scratchcards or lottery tickets, to bet on football pools, or participate in fixed-odds sports betting, and some arcades with gambling machines have restricted access to their premises to those aged 20 years and older.

The operation of all gambling activities in Iceland is restricted to non-governmental institutions or charities and the gambling revenues constitute a substantial part of their financial support. In 2005, the total revenue of legalized gambling in Iceland was approximately 83 million Euros and the total profit figures for the year were 28 million Euros. Turnover figures from different forms of gambling reveal that the electronic gambling machines generate about 48.5% of the total revenues, the monthly lotteries and scratchcards about 23.2%, Lotto and Viking Lotto about 21.2%, and the football pools and fixed-odds sports betting about 7% (Ministry of Justice and Ecclesiastical Affairs, personal communication). Table 9.1 is a review of legal Icelandic gambling companies, information on the types of gambling they operate, and the funding of charities or governmental institutions.

The Lotteries and Tombolas Act No. 6/1926 was the general existing law on gambling in Iceland until 2005. In 1999, a special committee for the future organization of lotteries had recommended a revision of the lottery law in Iceland to provide a clear legal framework for the expanding gambling market (Ministry of Justice and Ecclesiastical Affairs 1999). Furthermore, in March 2004, the Icelandic government received a letter of formal notice from the European Free Trade Association (EFTA) Surveillance Authority (ESA), in which it was pointed out that limiting lottery license to Icelandic companies was in violation of the European Economic Area agreement (Örnberg 2006).

A new bill on lottery with a revision of rules for granting licenses for new lotteries was passed through parliament in April 2005 and took effect in July 2005 (Law on Lotteries No. 38/2005). The new law emphasizes the need to maintain public order and to counter possible harmful effects of gambling. As before, money lotteries can only

operate with specific authorization by law, or with an ad hoc license from the Minister of Justice and Ecclesiastical Affairs. This does not exclude European lottery companies from operation in Iceland but hardly encourages them to operate either, as is clear from article 3 within the general law: "A license to operate a lottery or a tombola ... can only be granted to a company, association or institution that is established in the European Economic Area, for the purpose of obtaining money for public benefit in Iceland, such as for social issues, nursing and caring, cultural issues, sports or charity, and international humanitarian work" (Law on Lotteries No. 38/2005, p. 1). Thus, the second part of article 3 clearly states that all revenues must go to charities or non-governmental institutions in Iceland. The law also states that the Minister of Justice and Ecclesiastical Affairs is authorized to restrict a new lottery license holders to limited advertising and provide funds for research and measures aimed at fighting problem gambling and its consequences.

As the above history of gambling in Iceland indicates, it is only in the last two decades that gambling other than monthly lotteries, sports pools, and tombolas have emerged. Although gambling problems were not unknown around private playing in illegal clubs, the gambling landscape has changed radically in the last decades, with more continuous games and largely increased opportunities for gambling.

## 2 Evidence

Public discussion of increased problematic gambling in Iceland emerged around 2000, but a lack of systematic research often limited this discussion to anecdotes and guesswork. The current review is based on the first large gambling study project in Iceland and was initiated in 2002 by the psychology department of the University of Iceland and the University of Iceland Lottery. Prior to that, one study had been conducted on the prevalence of gambling, initiated by Icelandic Games (IMG-Gallup 2000). The results from the survey, although hampered by a small sample size, indicated rather low prevalence rates and made it obvious that more detailed, extensive, and systematic research was warranted of gambling in Iceland.

TABLE 9.1. The legal Icelandic gambling market.

Companies	Gambling operation	Funding
University of Iceland Lottery	The University of Iceland Lottery operates three types of gambling: scratchcards, class lottery (tickets available on the internet), and electronic gambling machines. The lottery runs about 450 machines located in arcades, bars, or restaurants with a liqueur license. Some machines are interconnected to accumulate jackpot prices	The profits fund buildings and equipment for the University of Iceland
DAS lottery	Class lottery (tickets available on the internet)	The profits fund homes for the elderly in Iceland
SIBS lottery	Class lottery (tickets available on the internet)	The profits mainly fund a rehabilitation centre
Icelandic games	The Icelandic games run about 600 electronic gambling machines that are distributed in about 300 locations, such as refreshment shops, fast food restaurants, video rentals, and bars/restaurants with a liqueur license. The machines are not interconnected and most are low-stake machines. In public places, the maximum winning is about 110 Euros, but in bars and restaurants with a liqueur license, the maximum is about 1,100 Euros	The profits fund the operation of the Icelandic Red Cross, Icelandic Association for Search and Rescue, and the National Center for Addiction Medicine (SAA)
Icelandic sport pools	Icelandic sport pools run football pools in cooperation with Svenska Spel from Sweden. Players can either bet on the outcome of 13 games in English football (Swedish football in the summer) or on the outcome of 13 games within different European football leagues. Icelandic sport pools also run sports betting in which players can bet on the outcome of different sports events (e.g., football, handball, golf, etc.). Each event has certain odds and players can either bet on individual games or on three to six games in total. Players can also bet on events during individual games, such as who scores the first goal. People can also play the football pools and sports betting on the internet	The profits fund the operation of the National Sport Association and the National Youth association
Lotto Iceland	Lotto Iceland runs three types of games of chance, the National Lotto, Viking Lotto, and Joker. The National Lotto started in 1986. Players guess which 5 numbers, out of 38, will turn up in a random draw. The Viking Lotto started in 1991 with five other countries (Denmark, Norway, Sweden, Finland, and Estonia). Players guess 6 out of 48 numbers to win the jackpot. Joker is a game played along with the Icelandic Lotto or Viking Lotto. Players choose five numbers from the numbers 0–9 and win the jackpot if all five numbers are in the correct order. Tickets for all three games are available on the internet	The profits fund the operation of the Icelandic Sport Association, the Icelandic Youth Association, and the Icelandic Association for the disabled
Turnover town	Turnover town runs a Bingo, played three times a week with monetary prices. Prices vary, but normally the highest price every evening is about 1,100 Euros. There is also a cumulative pot but that can never be higher than about 4,395 Euros	The profits fund the operation of the Icelandic temperance organization IOGT

## 2.1 The Icelandic Gambling Project

The Icelandic gambling project is a research enterprise that started in late 2002. It is housed in the Department of Psychology at the University of Iceland and has been funded by public research grants and a large grant from the University of Iceland Lottery. The main aim of the project is

to collect data on the prevalence of gambling and problem gambling for both the adult and adolescent populations in Iceland. Four studies have been conducted during a 3-year period and the main results from these studies are reported in this chapter.

The project's first aim was to conduct extensive studies to examine the prevalence rates of gambling and problem gambling in Iceland. An

important first step was the selection and validation of problem gambling screening instruments for both adults and adolescents. The South Oaks Gambling Screen (SOGS; Lesieur & Blume 1987) or its derivative, SOGS, Revised (SOGS-R) have been the most commonly applied instruments for the evaluation of prevalence of adult pathological gambling worldwide (Abbott & Volberg 2006). However, already in 2002, several concerns were raised by a number of researchers regarding the construct validity of the SOGS and an unacceptably high rate of false positives in non-clinical samples (e.g., Battersby, Thomas, Tolchard & Esterman 2002; Shaffer, Hall & Vander Bilt 1997; Stinchfield 2002a). Therefore, two more recently developed instruments with acceptable psychometric properties were chosen for validation, the Problem Gambling Severity Index (Ferris & Wynne 2001) and the 19-item version of the Diagnostic Interview for Gambling Severity (DIGS; Stinchfield 2002a; 2003). For the measurement of adolescent problem gambling, the two most widely used instruments were chosen for validation, the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Multiple Response, Revised for Juveniles (DSM-IV-MR-J; Fisher 2000) and the SOGS Revised for Adolescents (SOGS-RA; Winters, Stinchfield & Fulkerson 1993).

A standard methodology for translation and validation of the Icelandic versions of these instruments was applied. Two independent translations of all four instruments were examined and one final version for each instrument was. A professional translator back-translated the final Icelandic version of all instruments and the back-translations were compared with the original English versions to ensure accuracy. The instruments were then pre-tested on 24 university students (adult instruments) and 23 high school students (adolescent instruments) to ensure readability and clarity. During the pre-test, the students in both samples received a definition of gambling and were asked to write down the meaning of each item on the instruments. The responses were examined and led to minor adjustments in wording of three items from the DSM-IV-MR-J scale but none for the other three items. Finally, the factor structure and reliabilities of these instruments were examined in a sample of 1,266 university students (the adult scales) and 750 students from upper secondary and

comprehensive schools who were 16 to 18 years old (the adolescent scales). The psychometric properties of all four scales were satisfactory and concurred with the original findings (see Olason, Finnbogadottir, Hauksdottir & Barudottir 2003; Olason, Sigurdardottir & Smari 2006).

For the sake of comparability of the adult and adolescent studies in this review, only the findings from the DSM-IV-derived screening instruments for probable pathological gambling (DIGS and DSM-IV-MR-J) are presented. An earlier comparison of results regarding different types of screens revealed that prevalence figures for SOGS-RA indicated somewhat higher estimates of problem gambling among adolescents than was obtained with the DSM-IV-MR-J (see further in Olason, Sigurdardottir & Smari 2006), but the prevalence figures for both adult screens were similar (see further in Olason, Barudottir & Gretarsson 2006).

### 2.1.1 *The Studies*

#### 2.1.1.1 Adolescent 1 Study

The sample consisted of 750 students who were 16 to 18 years old from 12 upper secondary and comprehensive schools in the greater Reykjavik area and in Akureyri. Students from both vocational and academic schools participated, 379 male and 371 female students (mean age, 17.0 years). The study was conducted in spring 2003 and the questionnaire was administered to students during class. The questionnaire included the DSM-IV-MR-J gambling screen (Fisher 2000) and questions on gambling participation. A more thorough description of the sample and procedures is found in Olason, Sigurdardottir, and Smari (2006).

#### 2.1.1.2 Adolescent 2 Study

The sample consisted of 3,511 adolescents who were 13 to 15 years old, 1,711 boys and 1,791 girls. Participants were recruited from 23 primary schools in Reykjavik and included 77% of all adolescents in this age range in Reykjavik at the time of the study. The study was conducted in the spring of 2004 and the questionnaire was administered to students during class. The questionnaire included the DSM-IV-MR-J gambling screen (Fisher 2000) and questions on gambling participation. A more thorough description of the sample and procedures

is found in Olason, Skarphedinsson, Jonsdottir, Mikaelsson, and Gretarsson (2006).

### 2.1.1.3 Adult Study

A national random sample of 5,000 adults aged 18 to 70 years were drawn from the national registers. Information was gathered by telephone and all telephone interviews with respondents were performed by trained interviewers at the Social Science Institute at the University of Iceland between February and April 2005. Up to 10 attempts were made to contact each person. From the total sample, 192 were considered not eligible respondents (due to death, illness, or residence overseas) rendering a total sample of 4,808. From eligible respondents, 546 (10.9%) could not be reached, 882 (17.6%) refused participation, and a further 22 (0.4%) terminated the interview. Thus, 3,358 respondents completed the interview. The response rate was 69.8%. The interview questionnaire included the 19-item version of the DIGS (Stinchfield 2002a; 2003) and questions on gambling participation. To reduce bias due to non-response, the final sample was weighted for gender, age, and residence distribution according to information obtained from the national registers in Iceland.

### 2.1.1.4 Instruments for Attention Deficit Hyperactivity Disorder (ADHD) and Cognitive Distortions

Instruments for the measurement of ADHD and cognitive distortions were included in the adult and adolescent 2 studies. ADHD was assessed using two separate 18-item DSM-IV-derived instruments with acceptable psychometric properties for the measurement of current (last 6 months) adult and adolescent symptoms of ADHD (Conners 1997; Olason, Magnusson & Gretarsson 2006). The items from both instruments were answered on a scale ranging from 0 (never) to 3 (very often) and scored as a binary variable according to the classification of the DSM-IV criteria for ADHD (American Psychiatric Association 2000). A respondent was classified with symptoms of ADHD if a score of 2 or 3 was obtained on at least six items from either the inattention or the hyperactivity-impulsive subscale. Cognitive distortions were assessed in both studies with the Cognitive Distortion Questionnaire (CDQ) that includes six statements

related to gamblers' fallacy, illusion of control, and interpretive bias (Olason, Skarphedinsson, Jonsdottir, Mikaelsson & Gretarsson 2005). The CDQ had adequate internal consistency among adults ( $\alpha=.66$ ) and adolescents ( $\alpha=.76$ ).

## 2.2 Gambling Participation Among Adults and Adolescents

Gambling participation is a common pastime among both adults and adolescents in North America, Europe, and Australia. The results from numerous studies in these countries indicate that about 70–90% of adults and adolescents have gambled sometime in their lives and many (60–80%) have done so within the past year (e.g. Delfabbro, Lahn, & Grabosky 2005; Derevensky & Gupta 2000; Fisher 1999; Jacobs 2004; Jonsson 2006; National Research Council 1999; Productivity Commission 1999; Raylu & Oei 2002; Volberg, Abbott, Rönnerberg & Munck 2001). The results from the three Icelandic studies reveal similar trends, as about 79% (adolescent sample 1), 70% (adolescent sample 2), and 69% (adult sample) of respondents had gambled at least once in the preceding year of the studies. Gambling was more popular among male than female respondents in all samples. Gambling involvement by type of gambling activity can be seen in Table 9.2 for all three samples. The most popular gambling activities among adolescents were scratch tickets, gambling machines, and the Lotto. The three most popular gambling activities among adults were the Lotto, scratch tickets, and gambling machines. Further examination of Table 9.2 indicates that adolescents gamble more frequently than adults in all gambling games except the Lotto.

The results regarding the popularity of the Lotto among Icelandic adults are in line with international findings that show that Lotto (national/state Lotto) is the most popular adult game in these countries (Jonsson 2006; Lund & Nordlund 2003; Orford, Sproston, Erens, White & Mitchell 2003; Welte, Barnes, Wieczorek, Tidwell & Parker 2002). However, results on the most popular game among adolescents differs somewhat between countries. For example, although private card games and games of personal skill with family and friends are popular, the trend seems to be that wherever commercial games (such as the lottery

TABLE 9.2. Gambling involvement by adolescents and adults in Iceland during the previous 12 months by type of gambling activity.

	Adolescent sample 1 n=750			Adolescent sample 2 n=3,511			Adult sample n=3,358		
	Occasional <sup>a</sup> gambling	Regular <sup>b</sup> gambling	Total <sup>c</sup> gambling	Occasional <sup>a</sup> gambling	Regular <sup>b</sup> gambling	Total <sup>c</sup> gambling	Occasional <sup>a</sup> gambling	Regular <sup>b</sup> gambling	Total <sup>c</sup> gambling
Lotto	29.7%	0.7%	30.4%	27.2%	0.9%	28.0%	47.2%	9.2%	56.4%
Gambling machines	41.0%	5.7%	46.7%	29.9%	2.1%	32.0%	10.8%	1.2%	12.0%
Scratch tickets	52.9%	0.8%	53.7%	46.7%	1.5%	48.3%	16.4%	0.3%	16.7%
Games of skill	22.3%	2.2%	24.5%	24.1%	1.8%	25.8%	1.7%	0.1%	1.8%
Football pools <sup>d</sup>	19.0%	4.5%	23.5%	14.3%	3.1%	17.4%	6.5%	1.4%	7.9%
Sports betting	—	—	—	10.7%	2.0%	12.7%	3.6%	0.4%	4.0%
Card games	19.3%	1.0%	20.3%	23.9%	1.3%	25.2%	3.3%	0.1%	3.4%
Bingo	13.9%	0.3%	14.2%	12.2%	0.4%	12.6%	3.8%	0.1%	3.9%
Internet gambling	2.0%	0.4%	2.4%	1.5%	0.5%	2.0%	0.3%	0.1%	0.4%

<sup>a</sup>Gambling less than once a week

<sup>b</sup>Gambling once a week or more

<sup>c</sup>Gambling at least once during the previous 12 months

<sup>d</sup>The figures for football pools in adolescent sample 1 is a combined figure for participation in both football pools and sport betting

or gambling machines) are widely available, adolescents increase their participation even though they are not legally permitted to participate in these games (Felsher, Dervensky & Gupta 2004; Fisher 1999; Griffiths & Wood 2000; Jacobs 2000; 2004; Stinchfield 2002b). This pattern is also revealed in adolescent studies in Finland and Norway, where commercial games such as electronic gambling machines are illegal for adolescents but still widely available and more popular than private card and personal skill games (Ilkas & Aho 2006; Johansson & Götestam 2003; Rossow & Hansen 2003).<sup>1</sup>

The situation is similar in Iceland, where gambling machines are widely available in public places and the results of our studies show that the gambling machines, which are the only illegal gambling activity for Icelandic adolescents, was the second most popular game in both adolescent samples.

### 2.3 Prevalence of Problem Gambling Among Adults

As is common in other surveys of adult problem gambling, respondents scoring 3 or 4 points on the DSM-IV criteria as assessed by the DIGS

were classified as current “problem gamblers”, while respondents scoring 5 or more points were classified as current “probable pathological gamblers” (Abbott & Volberg 2006). In Iceland, 0.6% ( $\pm 0.3\%$ ) of the weighted sample scored as current probable pathological gamblers and an additional 0.5% ( $\pm 0.2\%$ ) scored as current problem gamblers. Thus, somewhere between 573 (0.3%) and 1,720 (0.9%) Icelandic residents aged 18 to 70 years could be classified as current probable pathological gamblers. In addition, between 573 (0.3%) and 1,338 (0.7%) could be classified as current problem gamblers.

Before testing for demographic differences for the adult sample, we followed the convention of grouping together “problem gambling” and “probable pathological gambling” groups into one group denoting problem gambling (problem gamblers coded as 1, and non-problem gamblers as 0). Table 9.3 presents the demographic differences of current non-problem and problem gamblers in Iceland (columns 2 and 3). The importance of the demographic variables was assessed in a multivariate binary logistic regression (columns 4 to 6). The results in Table 9.3 show that gender, education, and marital status are important risk factors for problem gambling in adulthood, but not age and residential status. Men, single people, and those who have only finished primary education were

<sup>1</sup>Age restriction differs between Finland and Norway. In Finland it is 15 years but in Norway it is 18 years.

TABLE 9.3. Demographics of non-problem and problem gamblers among adults (n=2,147).

	Non-problem gamblers	Problem and pathological gamblers	B	Wald test	Odds ratio
Gender					
Males	97.7%	2.3%	0842	4.057*	2.321
Females (reference group)	99.3%	0.7%	—	—	—
Education				10.457**	
Primary	96.4%	3.6%	2.491	5.568*	12.071
Secondary	99.0%	1.0%	1.396	1.706	4.039
University (reference group)	99.8%	0.2%	—	—	—
Age (years)				6.653	
18–25	95.4%	4.6%	0.451	0.412	1.570
26–40	98.4%	1.6%	0.878	1.778	2.406
41–55	99.6%	0.4%	–0.979	1.130	0.376
56–70 (reference group)	99.3%	0.7%	—	—	—
Marital status					
Single	96.3%	3.7%	1.175	6.950**	3.237
Married/cohabiting (reference group)	99.3%	0.7%	—	—	—
Residence				1.636	
Reykjavik and capital area	98.6%	1.4%	–0.186	0.250	0.830
Countryside (reference group)	98.2%	1.8%	—	—	—

\* $p \leq 0.05$ ; \*\* $p \leq 0.01$

more at risk of becoming problem gamblers than women, married/cohabiting people or those with university education.

Comparing the results of this study with current prevalence rates of probable pathological gambling in other countries suggests that the current prevalence rates obtained in the Icelandic study is somewhat lower than is typically reported in North America. For example, an early meta-analytic study of 120 problem gambling prevalence surveys conducted in North America during the years 1975 to 1997 suggested that the mean current prevalence rate of probable pathological gambling was 1.1% among adults (Shaffer et al. 1997). A later re-analysis on the data from Shaffer et al (1997), including only the 49 general population-based studies (excluding clinical or institutional datasets), revealed a median value of 0.9% for current pathological gambling (National Research Council 1999). One of the most recent national population based studies on adults in the United States suggests that current prevalence rates might be increasing because the probable pathological gambling rates in that study ranged from 1.3% (based on a DSM-IV screen) to 1.9% (based on SOGS; Welte, Barnes, Wieczorek, Tidwell & Parker 2001).

However, there is a problem with comparing these prevalence figures to the Icelandic findings because the prevalence rate of problem and pathological gambling varies considerably between instruments. The majority of the above-mentioned studies in North America used the SOGS, but the SOGS or its derivatives tend to yield higher prevalence rates than DSM-IV-derived measures (Abbott & Volberg 2006; Derevensky & Gupta 2000; Neal, Delfabbro, & O’Neil 2005; Olason, Sigurdardottir & Smari 2006; Stinchfield 2002a). A conservative solution to this is to restrain the comparison of the results from problem gambling surveys with other surveys that have used the same or similar type (e.g., different instruments based on the DSM-IV criteria) of instruments. This method was applied when comparing the Icelandic findings with other European studies.

Relatively few studies in Europe report current DSM-IV prevalence rates for probable pathological gambling but the results from these studies suggest similar rates to those found in Iceland (Götestam & Johansson 2003; Lund & Nordlund 2003; Orford et al. 2003; Rönnerberg et al. 1999). For example, the current prevalence rates of probable pathological gambling (DSM-IV  $\geq 5$ ) in Britain was



0.3%; in Sweden, 0.3%, in Norway, 0.3%; and in Denmark, 0.1% (Bonke & Borregaard 2006; Lund & Nordlund 2003; Orford et al. 2003; Rönnerberg et al. 1999). In fact, only the results from Denmark differ considerably from the Icelandic results. The demographic differences in prevalence rates in Iceland also concur with international findings (e.g., Orford et al. 2003; Raylu & Oei 2002; Volberg 2001).

## 2.4 Prevalence of Problem Gambling Among Adolescents

Results from numerous studies in different countries suggest that problem gambling among adolescents is considerably higher than among adults. For example, a meta-analysis on studies conducted in North America from 1984 to 1994 suggested that the problem gambling prevalence rates among youth ranged between 4.4% and 7.4% (Shaffer & Hall 1996). These results have been confirmed in more recent studies in both Canada and the USA (e.g., Derevensky & Gupta 2000; Gupta & Derevensky 1998; Westphal, Rush, Stevens & Johnson 2000; Wiebe, Cox & Mehmel 2000). Although adolescent studies are fewer in Europe, similar results have been obtained and suggest that prevalence rates of problem gambling among European youth is higher than among adults (e.g., Becoña 1997; Fisher 1999; Johansson & Götestam 2003; Moodie & Finnigan 2006; Rossow & Hansen 2003; Wood & Griffiths 1998). The results from the two Icelandic adolescent studies also suggest higher prevalence rates among adolescents compared with adults (see Table 9.4).

Following the convention in adolescent surveys using the DSM-IV-MR-J, a score of 0 or 1 points on the nine DSM-IV criteria classifies respondents as “non-problem” gamblers, 2 or 3 points as “at-risk” gamblers, and scoring 4 or more points suggests

“problem” gamblers (Fisher 2000). Prevalence of problem gambling was similar in both adolescent studies (see Table 9.4). About 2% of adolescents were identified as problem gamblers, with about 3.2 to 3.7% at risk for problem gambling. In both studies, male adolescents were more likely than female adolescents to have gambling problems. Gender differences comparable to those obtained in the two Icelandic adolescents study are commonly reported in the literature (Raylu & Oei 2002) and suggest that Icelandic boys are more at risk of generating gambling problems than girls.

Although the estimates of problem gambling among Icelandic adolescents are higher than those for adults, the youth prevalence rates are lower in Iceland than is typically seen in comparable (using DSM-IV-J/DSM-IV-MR-J instruments) youth studies in North America, Australia, or Europe. For example, the current prevalence rates of adolescent problem gambling (DSM-IV  $\geq$  4) in England and Wales was 5.6% (Fisher 1999); in Scotland, 9% (Moodie & Finnigan 2006); in Canada, between 3.4% and 4.7% (Derevensky & Gupta 2000; Gupta & Derevensky 1998); and in Australia, 4.4% (Delfabbro, Lahn & Grabosky 2005). Similar prevalence rates have though been reported in Spain and Norway (Becoña 1997; Johansson & Götestam 2003). However, the comparison with the results from Norway is complicated since the problem gambling estimates are seemingly based on an adult version of the DSM-IV criteria with a cut off score of 5 or more (see further discussion in Olason, Skarphedinsson, Jonsdottir, Mikaelsson & Gretarsson 2006).

## 2.5 Risk Factors of Problem Gambling Among Adults and Adolescents

Reviews of the literature reveal that the number of correlates or potential risk factors of problem gam-

TABLE 9.4. Prevalence of problem gambling among adolescents.

	Adolescent sample 1 n=750			Adolescent sample 2 n=3,511		
	Non-problem gamblers	At-risk gamblers	Problem gamblers	Non-problem gamblers	At-risk gamblers	Problem gamblers
Males	77.6%	5.5%	3.7%	68.8%	7.0%	3.4%
Females	70.1%	0.8%	0.3%	59.1%	0.6%	0.4%
Total	73.9%	3.2%	2.0%	63.9%	3.7%	1.9%

Non-gamblers were not included in the table; 20.9% were non-gamblers in sample 1 and 30.5% were non-gamblers in sample 2

bling are numerous, and it is possible that different combinations of a number of factors may explain the development of problem gambling for different individuals (Orford et al. 2003; Raylu & Oei 2002; Volberg 2001). Results from cross-sectional studies can be useful in terms of estimating the potential importance of such factors, although experimental or longitudinal studies are necessary for causal explanations. In the Icelandic studies, a number of potential correlates of problem gambling was included (see Olason, Barudottir & Gretarsson 2006; Olason, Skarphedinsson, Jonsdottir, Mikaelsson & Gretarsson 2006; Sigurdardottir, Smari & Olason 2004), and in this chapter we examine the association between problem gambling and three variables estimated in two of the three prevalence studies, the adult study and the adolescent 2 study.

In general, problem gamblers invest more time and money, and usually participate in a larger number of games than non-problem gamblers (Ferris & Wynne 2001; National Research Council 1999; Welte et al. 2002). Problem gambling also seems to be more strongly associated with certain types of gambling than others. Research findings indicate that continuous games with an element of skill or perceived skill are more strongly associated with problem gambling than other types of games (Dowling, Smith & Thomas 2005; Griffiths 1999; Griffiths & Wood 2004; Productivity Commission 1999). The relationship between problem gambling and regular participation (monthly or more) in different games was therefore examined for both studies.

The variables of ADHD and cognitive distortions were included in both studies, as research has shown both variables to be related to problem gambling (Benhsain, Taillefer & Ladouceur 2004; Delfabbro 2004; Raylu & Oei 2002; Specker, Carlson, Christenson & Marcotte 1995). For example, adult problem gamblers report a higher than normal number of symptoms of childhood ADHD and a recent study on 12- to 18-year-old Canadian adolescents found a strong relationship between problem gambling and current symptoms of ADHD (Hardoon, Derevensky & Gupta 2002; Raylu & Oei 2002; Specker et al. 1995). In addition, several studies have shown that people tend to be irrational in terms of laws of probability and randomness when they are gambling (Benhsain et al. 2004; Delfabbro 2004). Evidence also suggest that problem gamblers are more likely than non-problem gamblers to agree with statements that reflect common cognitive distortions such as illusion of control, gamblers fallacy, availability heuristics, and attributions errors (Griffiths 1994; Ladouceur, Sylvain, Letarte, Groux & Jacques 1998; Sigurdardottir, Smari & Olason 2003; Toneatto 1999).

Table 9.5 presents the association between the three correlates and problem gambling for both samples. Adolescent problem gamblers were more likely than non-problem gamblers to participate monthly or more in all gambling activities and the difference between the groups was greatest for gambling machines and private card games (columns 4 and 5). Among adult gamblers, problem gamblers were more likely than non-problem

TABLE 9.5. Association between problem gambling and potential risk factors among adults and adolescents.

	Adult sample n=2,122		Adolescent sample 2 n=2,218	
	Non-problem gamblers	Problem gamblers	Non-problem gamblers	Problem gamblers
Lotto	29.4%	23.5%	3.7%	25.8%**
Gambling machines	4.2%	55.9%**	9.8%	64.1%**
Scratch tickets	3.0%	12.1%*	7.8%	47.7%**
Games of skill	0.6%	3.0%	6.8%	43.5%**
Football pools	4.4%	20.6%**	8.6%	43.8%**
Sports betting	1.8%	12.1%**	5.9%	31.7%**
Card games	0.6%	14.7%**	4.7%	57.8%**
Bingo	0.2%	0.0%	0.8%	22.2%**
Internet gambling	0.2%	3.0%	0.4%	25.4%**
ADHD symptoms	0.8%	8.6%**	7.6%	52.7%**
Cognitive distortion: mean (standard deviation)	2.63 (2.49)	5.04 (3.38)**	4.93 (3.24)	9.41 (3.93)**

\* $p \leq 0.05$ ; \*\* $p \leq 0.01$

gamblers to participate in games related to sports, card games, and on gambling machines. Lotto was the only game where participation was higher among non-problem gamblers, but the difference was not significant (columns 2 and 3). Both among adults and adolescents, problem gamblers scored significantly higher on the CDQ than non-problem gamblers. Interestingly, mean scores on the CDQ were in general substantially higher for adolescents than for adults. Although there were significant differences in prevalence of ADHD between gambling groups in both samples, the effect was much stronger for adolescents. Indeed, half of adolescent problem gamblers could be classified with ADHD symptoms, whereas 8.6% of adult problem gamblers were classified with ADHD symptoms. Previous analysis on the same data has shown that the prevalence of current ADHD symptoms was 0.9% ( $\pm 0.3\%$ ) in the adult population and 7.2% ( $\pm 0.9\%$ ) among adolescents in Reykjavik (Olason, Magnusson & Gretarsson 2006; Olason et al. 2005). This suggests that problem gamblers are between seven (adolescents) and eight (adults) times more likely to have symptoms of ADHD than the healthy population of adults and adolescents.

The univariate analyses suggest that monthly participation in most gambling activities, symptoms of ADHD, and cognitive distortion are associated with problem gambling among adults and adolescents. However, it is important to determine the relative contribution of these variables to problem gambling after controlling for demographic

differences. The data of both samples was therefore reanalyzed with a binary hierarchical logistic multiple regression. In the logistic regression for adults, we entered in the first step the categorical variables of gender, education, and marital status as well as subsequently, in step 2, the monthly gambling data (1 = monthly or more; 0 = less than monthly), ADHD (1 = symptoms of ADHD; 0 = no symptoms of ADHD), and the scores from CDQ. The logistic regression for adolescents was identical, except that in step 1 only gender was entered as the control variable. The results of the logistic regression analysis for both samples are presented in Table 9.6. The analyses show that gambling machines and card games are important risk factors for problem gambling for both adults and adolescents. Additionally, adolescents and adults with symptoms of ADHD or the tendency to think irrationally about their chances of winning are more at risk for problem gambling than those who do not have symptoms of ADHD or who think rationally about their winning chances.

The most interesting finding from the logistic regression is that card games and gambling machines are the most important risk factors for problem gambling in Iceland. These results concur with research findings from other countries that suggest that games with an element of continuity, skill, or perceived skill are potentially more addictive than non-continuous pure chance games such as lotteries (Dowling et al. 2005; Griffiths 1999; Griffiths & Wood 2004; Productivity Commission

TABLE 9.6. Logistic regression for adults and adolescents: past year problem gambler.

	Adult sample (n=2,122)			Adolescent sample 2 (n=2,218)		
	B	Wald test	Odds ratio	B	Wald test	Odds ratio
Lotto	-0.201	0.169	0.818	-0.139	0.057	0.870
Gambling machines	2.607	34.959**	13.557	0.834	4.875*	2.302
Scratch tickets	0.800	1.434	2.226	0.609	2.397	1.839
Games of skill	-2.747	1.240	0.064	0.683	2.833	1.980
Football pools	0.437	0.313	1.548	0.626	1.408	1.871
Sports betting	-0.169	0.030	0.844	0.150	0.071	1.161
Card games	1.701	5.059*	5.479	1.130	7.422**	3.096
The a Bingoa	—	—	—	1.106	2.391	3.023
Internet gambling	0.675	0.079	1.964	0.623	0.664	1.864
ADHD symptoms	1.876	4.512*	6.528	2.193	36.900**	8.963
Cognitive distortion	0.172	7.328**	1.187	0.184	12.102**	1.202

Gender, education, and marital status were controlled for adults at step 1. Gender was controlled for adolescents at step 1 \* $p \leq 0.05$ ; \*\* $p \leq 0.01$  Because no problem gamblers played bingo monthly, it was not included in the logistic analysis for adults

1999). Further support for the addictive potential of gambling machines is that they seem to be predominantly reported as problematic in self-help groups and treatment centres in the world (Becoña 1996; Griffiths 1995; 1999; Griffiths & Wood 2000; 2004).

Measurements of current ADHD symptoms do not qualify as a formal diagnosis for ADHD (American Psychiatric Association 2000). Still our results suggest that current symptoms of ADHD are an important risk factor of problem gambling, especially for adolescents. This concurs with a number of studies that show that ADHD impairs a number of major life activities. Children with ADHD commonly have academic performance problems and drop out of school much earlier than their peers (Barkley, Fischer, Smallish & Fletcher 2006; Conners & Erhardt 2001; Mannuzza, Klein, Bessler, Malloy & Hynes 1997), and they are more likely to engage in antisocial activities (stealing, truancy, and aggression towards persons or animals), and to use tobacco, alcohol, and illegal drugs to a greater degree than other children (Conners & Erhardt 2001).

The overlap between problem gambling and ADHD among adolescents is therefore not surprising, because problem gambling has also been shown to correlate with antisocial behaviour, drug use, and educational deficiencies (Gupta & Derevensky 1998; Ladoceur, Boudreault, Jacques & Vitaro 1999; Olason, Skarphedinsson, Jonsdottir, Mikaelsson & Gretarsson 2006; Stinchfield 2004). Further, impulsivity is a core feature of ADHD (along with attention deficits and hyperactivity), and a number of studies among both adults and adolescents have identified impulsivity as an important risk factor for problem gambling (e.g., Specker et al. 1995; Steel & Blaszczynski 1996; Vitaro et al. 1998). For example, data from a longitudinal study of 765 adolescent boys in Canada showed that substance abuse was related to problem gambling and impulsivity was related to both problem gambling and substance abuse (Vitaro, Ferland, Jacques & Ladoceur 1998). It is therefore plausible that ADHD acts as a general risk factor for a number of deviant behaviours among adolescents, including problem gambling. However, a more extensive research applying longitudinal designs is necessary to examine the possible causal role of ADHD on problem gambling.

## 3 Action

### 3.1 National Policy on Treatment and Prevention for Problem Gambling

Problem gambling is a relatively new topic in Iceland. Public discussions on problem gambling were not common in Iceland at the end of the 1990s. This is evident in a report from the committee on the future organization of lotteries from 1999, in which problem gambling was hardly raised as an issue in the consideration of rewriting the Icelandic Lottery laws from 1926 (Ministry of Justice and Ecclesiastical Affairs 1999). However, problem gambling has been more prominent in public debate during the last 7 years and the new law for gambling regulations reflects this change (Law on Lotteries No. 38/2005).

The new law explicitly recognizes the need for responsible monitoring of gambling by granting the Minister of Justice and Ecclesiastical Affairs the authorization to restrict various aspects of gambling. Restrictions include limitations on advertising and the mandatory funds for research and measures aimed at fighting problem gambling and its consequences. The Ministry has also held a conservative stance regarding legalizing new types of gambling, and no new gambling companies have been licensed under the new law. The last license was issued in 1994 when Icelandic Games were licensed for the operation of low-stake gambling machines (Law on Collection Boxes No. 73/1994).

The Minister of Justice and Ecclesiastical Affairs has not used the authorization to claim funds from the gambling companies to fight problem gambling. Instead, the ministry encourages the gambling companies to support research and treatment for problem gambling. However, this current state of affairs is not likely to produce long-term funding of evidence-based treatment programs and prevention efforts to fight problem gambling and its negative consequences in Iceland.

### 3.2 Treatment and Prevention Efforts

Treatment and prevention of problem gambling in Iceland does not follow a special national policy on these issues, and no evidence-based treatment programmes for problem gamblers are available

within the Icelandic health care system. Also, no national helpline for problem gamblers exists and no self-exclusion programs from arcades or other places with gambling machines have been implemented. However, the National Center for Addiction Medicine offers an outpatient service for problem gamblers. The Center operates a hospital and detoxification clinic, mainly for alcoholic and drug addicted patients, along with two outpatients units. Each person who comes for alcohol or drug treatment is screened for problem gambling with the lifetime version of the SOGS. Individuals who score 4 points or more on the SOGS are offered an interview with a problem-gambling counselor, and, depending on the results, may be further offered to attend support groups and a weekend course for problem gamblers (Thorkelsson, personal communication, 2007).

Problem gamblers without substance abuse can also contact the counsellors directly through the telephone and can participate in the outpatient services. Additionally, the Center offers support interviews for relatives. Since 1999, between 96 and 180 people have been interviewed yearly at the Center and about 100 problem gamblers participate every year in the support groups or the weekend course. The weekend course includes a Gamblers Anonymous (GA) component and many continue attending GA meetings afterwards. No systematic evaluation of the treatment outcomes of the outpatient program has been offered by the Center (Thorkelsson, personal communication, 2007).

Problem gamblers can also seek help from general therapists in the health system, but the extent of this is unknown. Further, a few GA groups operate around the country on an irregular basis but no official data on their number or size are available. Finally, some private initiatives on helping problem gamblers have emerged and receded periodically, but again no sound data exist as to their membership or effectiveness.

## 4 Conclusion

The results from the Icelandic Gambling Project reveal that prevalence of problem gambling in Iceland is comparable to international findings. About 1.1% (problem and pathological gamblers) of the adult population has (severe) gambling prob-

lems, with gender, education, and marital status as important risk variables. Further, the findings from the two adolescent studies show that problem gambling is more common among adolescents than among adults. A caveat should, however, be noted for this comparison because the cut-off scores for the adolescent instruments were lower than for adults and it is likely that lower cut-off scores for adolescents explain, in part, the higher prevalence rates (see Stinchfield & Winters 2004, for further discussion). In Iceland, adult and adolescent card and electronic gambling machine players are potentially more at risk of generating gambling problems than players in other types of gambling.

A notable feature of the Icelandic gambling situation is the distribution of gambling machines and their accessibility. Low-stake machines are easily accessible in many public places, such as kiosks, fast food restaurants, and video rental stores. Higher-stake machines, including electronic gambling machines with cumulative jackpot prizes, are found in a number of arcades as well as in bars and restaurants with alcohol licenses. An earlier examination of electronic gambling machine participation in different locations revealed that both adults and adolescents gambling machine players gamble more frequently on low-stake machines in public locations than they do in arcades or in restaurants and bars. However, although problem gamblers play more frequently in all locations than non-problem gamblers, the effect was stronger for locations with high-stake or jackpot machines than for locations with low-stake machines only (Barudottir 2005; Olason Skarphedinsson, Jonsdottir, Mikaelsson & Gretarsson 2006).

Overall, these results might lead to the conclusion that the relative easy access to low- and high-stake gambling machines in Iceland is a risk factor for problem gambling among adolescents. However, an important caveat is the considerably lower prevalence rate of problem gambling among Icelandic adolescents compared with other countries (Delfabbro et al. 2005; Derevensky & Gupta 2000; Fisher 1999; Gupta & Derevensky 1998; Moodie & Finnigan 2006; Johansson & Götestam 2003). The reason for the lower prevalence rates of problem gambling among Icelandic adolescents is unknown but comparable to findings in Norway, which has a high distribution of gambling machines, high participation rates among ado-

lescents, but relatively low prevalence figures of problem gambling among adolescents (Johansson & Götestam 2003; Rossow & Hansen 2003).

All in all, gambling and problem gambling prevalence rates in Iceland are in general similar to neighbouring countries. Some specific features regarding accessibility of gambling machines, treatment, and prevention need specific attention in the near future, and accessibility and types of electronic gambling machines available in Iceland may need re-evaluation within the regulatory framework. The agenda of government agencies, gambling operators, and researchers now clearly includes the development of responsible gambling strategies in the Icelandic community as well as implementation of evidence-based treatment forms for problem gamblers in Iceland.

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# 10

## Italy

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### 1 Background

Italy, officially the Italian Republic, is located on the Italian peninsula in southern Europe, and on the two largest islands in the Mediterranean Sea, Sicily and Sardinia. Italy's capital, Rome, has been the centre of western civilization, and is the centre of the Roman Catholic Church. Today, Italy is a democratic republic, and a Developed country with the seventh-highest gross domestic product (GDP) and the 17th-highest human development index rating in the world. It is a founding member of what is now the European Union (having signed the Treaty of Rome in 1957), and also a member of the G8, the Council of Europe, the Western European Union, and the Central European Initiative.

As of January 1, 2007, Italy became a non-permanent member of the United Nations Security Council. The latest population estimate from the Italian Statistics Office (ISTAT) shows that there are 59,131,287 inhabitants in Italy as of December 2006, an increase of 3% since 2001. Italy has the fourth-largest population in the European Union (after Germany, France, and the United Kingdom), and the 22nd-largest population in the world. Gradual increase of population is mainly supplemented by immigrants and an increase in life expectancy of 79.8 years. Despite population growth, Italy is rapidly ageing. With a fertility of 1.35 children per woman, almost one in five Italian inhabitants is a pensioner. If this ageing trend continues, the Italian population could shrink by a quarter by 2050.

The literacy rate in Italy is 98% overall, and school is mandatory for children aged 6 to 18 years. Approximately two thirds of the population live in urban areas. According to GDP calculations, Italy was ranked as the seventh-largest economy in the world in 2006, behind the United States, Japan, Germany, China, the UK, and France. According to the Organisation for Economic Cooperation and Development (OECD), in 2004, Italy was the world's sixth-largest exporter of manufactured goods. This capitalistic economy remains divided into a developed industrial north, dominated by private companies, and a less developed agricultural south. Italy's economy has an "underground" sector that is not included in the official data, which has recently been calculated by the Ministry of Finance to account for something close to one sixth of the official GDP. Italy's economic performance has at times lagged behind that of its EU partners, and the current government has enacted numerous short-term reforms aimed at improving competitiveness and long-term growth.

#### 1.1 The Gambling Market

Gambling is formally forbidden by the Italian law, according to the Articles 718–72 of the Penal Code 2, while Article 110 of the Social Welfare Act contains a list of the illegal games. An exception of this general principle is the Italian lottery game *Lotto*, by the state lotteries and, in general, by all the games expressively authorized notwithstanding the existing provisions of the law. Namely,

since the latter half of the 1990s, there has been a progressive and relentless offer of new games, and of more and more opportunities to gamble in different places, while the social problems linked to forms of gambling are becoming more and more evident alongside a lack of action. There are many indicators highlighting this dramatic change. One indicator relates to expenditure on different forms of gambling. Expenditure increased from €7.73 billion in 1993 (value relative to the prices in 2006) to €35.4 billion in 2006, demonstrating a real increase of 273% (see Table 10.1). In comparison to other things, the annual expense for education is about €50 billion and has suffered a drop of 18% in the same period of time. In other words, people now gamble four times more than in 1993 while investment in state schools is one fifth less.

As shown in Table 10.1, the increase of expenditure is not a linear one. Since 2000, Italian lottery games (such as *Lotto* and *Superenalotto*), despite an increase in the number of places to gamble and a doubling of the weekly expenditure, have lost their appeal (linked to the illusion of winning a lot of money). Additionally, the games associated with the sport competitions' calendar, the *Totocalcio* in particular, have decreased. However, during the same time, the spread of video poker games has increased. Furthermore, many video poker centres are managed by the Mafia, and their proceeds are not always controlled. During this period, Italy witnessed an economic upturn, and the GDP increased

by 2.9%. There seems to be an inverse relationship between gambling and economy. In fact, as the data on north–south differences indicate, when the economy thrives, gambling decreases. In short, when there is economic instability, people gamble more. Otherwise, during times of economic stability, people invest and risk more on their jobs and on enterprise rather than on the hope of a magic number.

The expenditure of the Italian people on gambling, even if it is not sufficient to represent the image of the gambling revolution, can nevertheless underline the growing importance of “gambling with money” among the daily priorities of single people, families, social groups, different generations, and genders. In the past, traditional gamblers (such as those betting) were nearly all men, while the ones who put their money on the lottery were mainly seniors and women. The whole population used to play the New Year's Lottery, and people used to gamble in predetermined places and times along static and defined social and generational roles. Within the space of a few years, the expenditure for different forms of gambling has come to represent a “payment”, which in 2005 equalled 4.1% of personal income tax, while the figures for 2006 saw an increase to at least 4.5%. It is interesting to note that the families living in the southern areas were those who spent more, while the expenditure of those living in the more developed and dynamic areas of the centre-north and of the north-east were below the national average. In other words, those who gambled more heavily were the ones who had less economic and contracting possibilities. This observation is confirmed by analysis of how much Italian families spend in the 20 regions of the state. As shown in Table 10.2, the weight is inversely proportional to the per capita income of the families in the various geographic areas. The dualisms between northern and southern Italy in terms of development rate, available wealth, and (physical, human, and social) capital availability are well known.

A 1998 survey conducted by the Italian Institute of Statistical Research and Public Opinion showed that 56% of the medium-low social classes, 47% of the poorest classes, and 66% of the unemployed used their subsistence income for gambling. Gambling expenditure is concentrated in the areas characterised by economic development difficulties.

TABLE 10.1. Gambling expenditure.

Year	Values relative to prices in 2006 (in billion Euros)
1993	7.73
1994	8.29
1995	9.42
1996	11.09
1997	11.34
1998	15.03
1999	21.33
2000	16.06
2001	16.15
2002	17.37
2003	18.51
2004	25.57
2005	28.40
2006	35.40

Based on data by the Ministry of the Economy and the Amministrazione Autonoma dei Monopoli di Stato (AAMS)

TABLE 10.2. Gambling expenditure by region (2005).

Region	Total (million Euros)	Per capita in Euros	Per family in Euros	% of income tax
Sicilia	2,213.0	441.2	1,170.8	6.5
Campania	2,554.6	441.4	1,278.0	6.5
Sardegna	740.0	447.9	1,233.4	5.7
Abruzzo	629.9	483.8	1,260.3	5.3
Puglia	1,393.2	342.3	954.7	4.8
Molise	112.0	340.0	905.4	4.7
Calabria	574.7	286.3	781.9	4.6
Marche	690.8	453.5	1,177.3	4.2
Lazio	2,623.6	496.4	1,249.3	4.1
Umbria	372.0	429.7	1,100.5	4.0
Lombardia	4,808.6	509.6	1,125.6	3.5
Emilia Romagna	2,033.6	487.7	1,140.6	3.5
Friuli V.G.	505.6	419.2	963.1	3.2
Basilicata	130.8	219.7	596.3	3.2
Valle D'Aosta	51.5	417.4	919.8	3.2
Liguria	652.9	407.3	852.6	3.1
Toscana	1,301.0	360.3	869.6	2.9
Piemonte	1,606.3	370.6	842.4	2.8
Veneto	1,457.7	309.0	787.9	2.5
Trentino A.A.	320.2	326.9	733.5	2.3
Total	24,860.3	424.2	1,066.5	4.1

Based on data by the Ministry of the Economy and AAMS

TABLE 10.3. Expenditure for different gambling forms (in million Euros).

	2003	2004	2005	2006
<i>Lotto</i>	6,938	11,689	7,315	6,588
<i>Superenalotto</i>	2,066	1,836	1,981	2,000
Lotteries	282	594	1,546	3,970
Sports betting	1,621	1,747	1,847	2,586
Race course betting	2,962	2,903	2,775	2,909
Bingo	1,257	1,542	1,553	1,755
Slot machine	367	4,474	11,470	15,436
Casino	322	393	404	421
Total	15,814	25,179	28,891	35,664

Based on data by the Ministry of the Economy and AAMS. Values are relative to prices as of 31.12.2006

Marketing strategies also have the objective to initiate gambling amongst people living in the richer and more developed provinces of Italy who present a large area for expansion in gambling.

Gambling diversification, multiple locations, high accessibility, and new technologies have allowed “made to measure” gambling opportunities for the Italian people. As a consequence, gambling—not only in the elitist forms such as casinos and race courses, but also in the “popular” ones—have become a part of the lifestyle of the upper classes. The gambling market appears

to be well segmented characterised by inter-class respectability. Gambling has become interesting and enjoyable for people living in the suburbs and people living in exclusive neighbourhoods. This business model (see Table 10.3) has seen a real increase of gambling expenditure, by 127%.

## 1.2 Historical Analysis of the Gambling Policy

There have been significant stages of the development of gambling policy in Italy. In the first stage, from the end of the 19th century to the last decade of the 20th century, gambling was regulated by a state monopoly system, where the legislator appeared to be “monopolizing in order to limit”. In other words, the state tried to impose formal and social rules of gambling as gambling was viewed negatively. In 1992, the first step towards a change was made. In the summer months, Italy risked default for the inability to face the public debt and the government saw a fiscal policy measure in gambling. It was not a simple measure to generate funds quickly but to overturn an obsolete financial model. The number of state lotteries increased significantly, together with the addition of the second weekly gambling of the *Lotto* game,

and the introduction of the *Superenalotto* with extremely large jackpots. Within 5 years, these new games became “a winning card” in raising funds for the government and brought the country within the Maastricht parameter again. However, the new games brought about a regressive form of taxation, with the lower classes spending more of their disposable income. During these years of uncertainty, economic stagnation, and radical policies undertaken to relieve the public debt, Italy saw a gambling boom, both legal and illegal.

The period between 1994 and 1999 represented 6 crucial years for the finance of the country, during which the authorized use of Italian peoples’ money for stakes, gambling, and lotteries increased from a total of €3.29 million to more than €21 million (see Table 10.1). According to Imbucci’s (1999) historical surveys, the relationship between gambling and economic and social background underlined two main trends. In those times characterized by a general perception of welfare, gambling had a ludic function (where the individual and general sense of guilt was mobilized, releasing its inhibitions and allowing a greater gambling consumption). During the following recession, gambling had the contrary compensative function. In this vein, gambling would be interpreted as a “substitute of hope” and as a “compensating expedient” which finds its motivations in those mechanisms of its own integrity defence. Hope was one of the indispensable elements of this integrity. Therefore, the illusion given by gambling would have a vicarious, biologically central function. What is perhaps worth noting is that gambling is no longer interpreted as a ludic and compensative action but rather as a regressive action. This is because we are seeing: (a) a rapid and heterogeneous growth of gambling in a context of economic and social crisis; (b) the prevailing of games based on risk rather than games of skill; (c) the disillusionment of the world and of the politics with the rapid growth of abstention and tax evasion; and (d) a clear uncertainty about the future. Gambling can become risky for many people and the lower classes seem to be more at risk. Additionally, gambling has become an activity to direct many of their frustrations (otherwise destructive) caused by the unobtainable goals, and of values socially desired by the middle class. Gambling has become a “reassuring container” where people can accept personal failures and share the hope and

the excitement of a win. In this analysis, the general behaviour, influenced by market proposals, tends to censure the sense of guilt. People are pushed to gamble by a new permissive morality, and therefore gambling loses its primary function and for some people becomes a repetitive compulsion.

But the change that is taking place in Italy relating to gambling is not only related to the quantity, but also to the quality. This has caused a transformation of gambling habits, of sociability, and a decrease in social capital. It is easy to find gambling structures outside the contexts traditionally related to gambling, and the types of the games proposed present more risks of addiction. In fact, the new technological games, even if developed on the basis of some traditional ones, can be solitary and asocial, and have risks of falling into problematic and pathological ways of gambling. This change of the gambling landscape began with the diffusion of technologically high-risk, high-speed, and widely accessible video poker machines in pubs. In spite of the legal regulations, video poker machines became a social and a criminal matter when it was confirmed that the winnings paid with money represented a breach of the gambling law.

This concern has grown stronger after spreading to other similarly related illegal actions (e.g., the involvement of criminal organisations, tax evasion by the operators and the winners, the use of video poker machines by minors). According to the 2000 data by the Minister of Finance and the Minister of Interior, in a one and a half-year period, more than 800,000 video poker machines were installed in Italy, with a turnover of more than €20 billion.<sup>1</sup> In fact, the introduction of video poker machines represented a historical change, by both increasing gambling and changing the gambling itself (see Table 10.4).

## 2 Evidence

### 2.1 Gambling Research in Italy

It is curious and indicative to observe that, against increasing gaming opportunities and the more evident problematic nature of the gambling (as

<sup>1</sup> Senate of the Republic, 9 December 2000.

TABLE 10.4. Change of the gambling market.

Past	Present
Social games: people played with other people and the game satisfied their needs or offered socialization	Solitary games: modern games are now more characterised by the fact that money lost by a gambler is won by another one, and are characterised by a person gambling against an organization or a machine
Difficult access: participation to some games required the access to special and delimited places, for example with the exclusion of minors and, in the case of casinos, even of residents or of particular professional categories	Easy access: it is and it will be more and more possible to find games in places where people go also for other purposes and with far fewer controls
Rituals: gambling was part of a common ritual and it was often limited to particular occasions: e.g., tombolas at Christmas	Consume: game loses its value and its ritual aspect and it is "consumed" in different occasions "chosen" by the subject
Slowness: many games required to be played slowly	Rapidity: most of the new games require to be played quickly and do not allow pauses
Suspension: gambling was regulated not only in certain places but also in certain times	Continuation: with some games, for example those on the internet, it is possible to play continuously
Complexity: many games of chance presented complex elements of agon	Simplicity: games are easier and easier and characterized by the prevalence of risk
Contextualization: games (e.g., many card games) were linked to territorial traditions and rules were often handed down from one generation to another	Globalization: games are more and more similar and local and cultural differences are flattened
Not immediate collection: the collecting of the winning was not always immediate	Immediate collection: the collection of winnings is immediate and sometimes virtual
Manual dexterity: games were handled (e.g., handing of cards, the throwing of dice, the drawing)	Technology: people play against a machine or a site. The physical action often corresponds and is limited to a "click"

reported by the news and by the mass media, and the data collected by the public services and by the voluntary organizations), social policy is inadequate, and that large-scale epidemiological research has not been carried out. This fact makes it difficult to evaluate the real dimension of the phenomenon, and of the cost/benefit relation related to increased gambling in Italy. The first research study about gambling on a large scale was carried out by Eurispes (2000). It is interesting to point out that a few months before the research began, the same researcher had taken part in the creation of a society for the promotion of a bingo game in Italy (*Formula Bingo*). A well-known national press agency, together with some commercial enterprise associations, were part of this society. As a consequence, the promotion and the opening of the first bingo rooms (i.e., the diffusion of the results of the Eurispes' research, mass media coverage about the overwhelming "passion" of Italian people for the new gambling game, the involvement of contractors pushed to make investments in the new business, etc.), caused some doubts about the scientific credibility of the research. As to the reasons for gambling, 37.2% of men and 28.5% of women said that they gambled to earn money

while 21.1% of men and 24.2% of women said that they gambled for fun. People who did not gamble were asked about their reasons. They responded that they had little interest in gambling, and they thought it was a waste of time and money, and that they thought themselves unlucky. As regards the definition of gambling, there was a difference between men and women. Women had negative opinions and talked about gambling as a vice, as a way that led to ruin. It is worth mentioning that 6% of men and 1.1% of women said they had asked for a loan to be able to play. When asked if they knew some people who were ruined because of gambling, 47% of men and 48.2% of women answered affirmatively. When comparing the data relating to age, old people seem to content themselves with gambling in a more ritual way, making it quite a habitual pastime (Eurispes 2000).

In March 2000, the *Consulta delle Fondazioni Antiusura*—a specific anti-usury organisation created by the Episcopal Conference of the Italian Catholic Church—disseminated the results of research on gambling and on the impact that the construction of a fiscal policy through the public forms of gambling would have on the Italian society. The survey underlined the link between

gambling, prize games, prognostics, and lotteries, and the spreading of the usury phenomenon, that is, of the illegal loaning, that takes place not only as a black market but also with very high interest rates (Fiasco 2000).

Also in 2000, the first Italian gambling conference took place, organized by the Alea Association. After this meeting, a growing sensitivity to the social impact of gambling by social operators, doctors, and voluntary organizations began to spread in Italy. At this conference, the first data, the first research studies, and the first experiences and intervention ideas were presented and compared with other experiences in foreign countries (see Croce & Zerbetto 2001). Among the Italian research presented was a study by Lavanco and Lo Re (2001) with approximately 1,000 gamblers in the Sicily area. This research reported that it was possible to differentiate gamblers in the following types: horse race bettors; *Lotto*, lotteries, and “*gratta-e-vinci*” scratchcards gamblers; and *Totocalcio*, *Totip*, and similar games gamblers. The data collected allowed a differentiation of gamblers according to the value given to themselves, or to external causes to determine the results of the bet: horse race bettors differed from the other gamblers and had a strong sense of belonging and of community that bound them to the others. Their over-confidence allowed them to be competent in gambling; the *Lotto*, lotteries, and “*gratta-e-vinci*” scratchcards players perceived the dynamic of the game as most oriented to the risk component, it was the “blindfold goddess” that determined the result of the game. Finally, the *Totocalcio*, *Totip*, and similar games players perceived the game as based on a balance between alea and agon, and completely relying on fate.

Azzimondi, Cice, and Croce (2001) presented research on betting rooms that highlighted the function of an inter-class place attended by people of different ages. According to Augè’s anthropological analysis, the authors pointed out that the betting place represents, for the ones who attend it, an “extra-place”, a place parallel to life, full of meanings, roles, and emotions for the gamblers. Finally, Capitanucci and Biganzoli (2000) presented the data of research carried out on a sample of drug addicts. Among 40 participants interviewed (aged between 25 and 44 years, with an average age of 36 years), 32.5% were reported to be “problematic gamblers”

and two participants (5% of the sample) presented some difficulties related to gambling.

## 2.2 Population Research

Research conducted between October 2003 and February 2004 in northern Italy had the objective to examine past-year prevalence of gambling behaviour in the population of the Pavia province (Biganzoli, Capelli, Capitanucci, Smaniotto & Alippi 2004). The South Oaks Gambling Screen (SOGS) questionnaire was used in a telephone sample of the adult population, which was representative of age, gender, and occupation. All participants were interviewed with the aim of collecting information about socio-demographic factors, the perception of the spread of gambling in their own territory, and about the knowledge of the treatment facilities available in the Province. In the 1,093 interviews of 18- to 74-year-old people, only 60% were considered valid. A total of 23% said that they played non-lottery forms of gambling during the past year, while 39% said that they staked money on the state lottery. The lottery was not considered by most of the participants as a gambling game. The amount of money staked on the lottery was between a maximum of €20 in a year for 84% of the sample, and more than €1,000 in a single day for 1.1% of the participants. The strongest motivation was to win money. As regards the perception of the problem, 1.1% knew a relative that had some problems with gambling, while 8.8% said the same thing about their friends and acquaintances. Moreover, 61% said that they perceived that gambling was a problem for the province in which they live, while 82% said that they did not know anything about help and support offered to problem gamblers. The results of the SOGS showed that 98.9% did not have a problem with gambling, while 0.7% were probable problem gamblers and 0.4% were probably affected by pathological gambling.

Another study in Reggio Emilia by the Centro Sociale Papa Giovanni XXIII was presented in December 2006 during a conference on self-help and therapy for gamblers and their families.<sup>2</sup> The data

<sup>2</sup>Of the 2,000 questionnaires given, 1,520 were considered to be valid to realize a sample representative of the population of the town.

collected showed that 80% of the participants gambled at least once during the last year. People who gambled more often typically were those aged 30 to 49 years (39%). After a more careful analysis of the data, we calculated that problem gamblers were mainly found in the group of those who gambled more than three times a week, for more than 3 hours a day, and spent more than €50 to €150 per day. If these assumptions are correct, this corresponds to 6.7% of the participants. Further results showed that as a total monthly expense, the sample spent €51,552. The money lost amounted to €25,644. Taking into consideration that the sample interviewed represented 1.27% of the people living in Reggio Emilia who are “in the age range of possible gamblers” (excluding children and people over 80 years), it is assumed that in Reggio Emilia, people spend €43,149,000 every year, of which €24,230,550 is lost. To make a comparison, the budget for the year 2006 in Reggio Emilia was estimated to be €25,248,000, a smaller sum than the one put on gambling. Of course, these figures are only indicative, as they correspond to the subjective perception of loss–win of the people interviewed, and if, on the one hand, sums said to be staked on gambling seem to be excessive, on the other hand, the relation between money staked and money lost (6 to 1) seems to be strongly undervalued. This means that people think they staked more money on gambling (and perhaps more than they actually do), but they also think they lose much less than they actually do. Finally, as regards the reasons to gamble, 40% played to try their luck, 26% played to win money, 21% played as a pastime, and 13% played to test their skill.

Recent research (Pini et al. 2006) on 684 students of Livorno examined the relationships between various risky behaviours such as excessive drinking, smoking, and gambling. The sample comprised 45.2% male students and 54.8% female students. The average age was about 17 years, in an age range from 16 to 22 years. The participants who were addicted to one substance were classified as “mono-addicts”, while the ones who were addicted to two or more substances were classified as “poly-addicts”. As regards male students, higher consumption of wine and beer correlated with higher scores on the SOGS in comparison with female students. The occurrence of problem and pathological gambling was about three times higher among male than among female students. Moreover, the SOGS scores correlated positively

and significantly not only to the number of cigarettes smoked every day, but also to the consumption of wine and beer. Finally, the “poly-addicts” and the cannabis users showed higher values than others on the SOGS.

There has also been some research on adolescent gambling by Biganzoli, Capitanucci, and Smaniotto, (2006). Problem gambling prevalence and reasons for gambling were investigated in a sample of Italian students in September 2005. The entire population attending a technical high school in northern Italy, comprising 579 students (520 boys and 59 girls), aged 13 to 20 years, who anonymously completed a translated SOGS, Revised for Adolescents (SOGS-RA) questionnaire and a demographic questionnaire during their class work. Sports betting was found to be the most popular form of gambling (practised more than once a week by 14% and more than once a month by 13% of the sample). A small minority was classed as high-risk gamblers (7.9%) or pathological gamblers (5.9%), with boys getting higher SOGS scores than girls. Furthermore, pathological gambling strongly correlated with gambling out of habit, to relax, or to demonstrate personal skill through chance games. These findings suggest the need of preventive efforts for pre-adolescents.

### 2.3 Motivations to Gamble

The motivations behind gambling, the emotions linked to it, the types of gamblers, factors linked to the frequency of gambling, the time spent for gambling, the money staked on gambling, etc. are the focus of different research projects carried out by the University of Palermo. A survey (Di Maria, Lavanco & Lo Re 2000) involved 100 gamblers of *Totocalcio*, *Totip*, and similar games, of which 79 were male and 21 were female participants, aged 15 to 72 years. The average age was about 30 years. Gamblers lived in the Sicily territory and were selected randomly while they were betting inside some “*ricevitorie*” (i.e., small gambling offices), tobacco shops, bars, race rooms, and race courses. The survey collected information to outline the profile of gamblers and bettors, and it aimed to find out if the tendency of the participants to ascribe whether successes or failures in gambling

were linked to external influences (e.g., luck) or to internal conditions (e.g., competence). Generally, gambling first began in adolescence: In fact, 45% of the participants began gambling regularly by the age of 15 to 18 years. With regard to the locus of control, the bettors interviewed tended to determine outcome as depending on themselves. Their answers mostly focused on internal values, suggesting the sample tended to consider losses or wins as depending on their ability and competence more than on luck.

Video poker machine players were the focus of a second study (Lavano & Varveri 2006). This study investigated player's knowledge, emotions, and behaviour in relation to video poker games, gambling style, consequences of gambling, and the relationship with the environment. The study comprised 120 male participants living in Sicily, who were all video poker machine players. As with the previous study, the aim was to outline the profile of video poker players, to examine their locus of control, and to assess the level of the problematic nature of the players' behaviour. The profile of the video poker machine player was found to be male, 28 years old (on average), unmarried, still living with his parents, and holding a diploma of secondary school. Players had typically been gambling for more than 2 years, with a frequency of one to three times a week. The lowest amount staked per session was €10.33, while the highest was €51.60. Players were financially stable and used the money earned at work to gamble. Moreover, gamblers stated with certainty that "you don't win" on video poker machines. The video poker machine gamblers involved in this study typically displayed an external locus of control. Namely, they ascribed the success to luck. It was interesting to note that habitual gamblers scored significantly higher than occasional gamblers on this scale.

Finally, a third study examined bingo gambling in detail (Lavano, Varveri & Vaccaro 2003). The survey was carried out in Sicily, and the sample comprised 80 participants (44 men and 36 women), selected randomly at two game rooms. In this study, all participants seemed to be oriented towards the internal locus of control. The results showed that the highest percentages of problematic behaviour were related to habitual gamblers (22.2%) and to men (20.5%). Therefore, gender and visit

frequency seemed to be the main individual risk factors. Women showed the lowest percentage of problematic behaviour (8.3%), even if they were the most frequent goers and those who were more attracted by the game.

Another study carried out by Baiocco, Couyoumdjian, Langellotti, and Del Miglio (2005) had the aim to examine in-depth some core aspects of pathological gambling among adolescents living in Rome. The group comprised 300 adolescents (118 boys and 182 girls) of secondary schools in the Rome province, aged 14 to 20 years. Analysis of the gambling behaviour showed that adolescents preferred games of skill, and only secondarily games with cards, *Lotto*, *Superenalotto*, and lotteries. Two thirds of the sample (67.3%) gambled in a non-problematic way, 8.4% were classed as "at-risk gamblers", and 2.3% as "pathological gamblers". As regards the psychosocial, relational, and motivational variables, the authors noted that they could only continue analysis of the data for the boys' sample, as the girls' sample was too small. In relation to school failure, the results confirmed that the adolescent pathological gamblers had more problems in terms of progress and discipline at school. Moreover, adolescents at-risk of developing a problematic gambling behaviour were those who scored higher on impulsive sensations. The results also showed a significant difference on aggressiveness and the level of alienation in their family. Thus, participants at-risk seemed to be characterized by a more evident attitude to an aggressive behaviour and by a deeper isolation from the family dynamics. In fact, they did not seem able to count on their family to solve their problems, and they felt less important and not understood. Furthermore, these young people felt a stronger resentment against their parents. What emerges is a compensatory mechanism, where adolescent problem gamblers feel excessively distant from their parents, and are compelled to excessively engage in a particular object or activity. Quite paradoxically, this approach seems to take place in a way that was learned in the family context. In fact, the survey showed that the gambling activity of the parents seemed to influence the later gambling dependency of their children, as most of the adolescent problem gamblers stated they shared this activity with their parents.



### 3 Action

#### 3.1 National Policy and Treatment Options

Despite the lack of policies and governmental action related to the health, legal, and social problems caused by gambling, there is an increasing series of initiatives both by public services and by voluntary organizations. With regards to the Italian health legislation, it was with the Ministerial Decree Sirchia-Maroni of 14/06/02 (Art. 1, Comma 1), that, for the first time, provided information related to gambling on a national scale. According to this decree, as regards the national health service, the Department for the Addiction Treatment—together with other departments, such as the Department for Mental Health—have to deal with dependencies of all types, including other types of dependencies different from substance dependence, and gambling was clearly mentioned. This is an important point to highlight, because the previous laws only highlighted drug addiction as a cause for intervention and not non-substance addictions.

Nevertheless, the second part of this decree, related to action in the context mentioned above, was never made operative because of some recourses by some Italian regions (Capitanucci 2006; Frati 2002). The next Fini bill of law included gambling in a marginal way under Article 104: “Prevention actions will be able to be linked and to be extended to other young people problems and dependences, such as alcoholism, nicotinism, food-related disorders, and gambling”. Even if the problem was mentioned and the school was given the responsibility of preventative action, no consideration was given to possible treatments. Furthermore, in Italy, the responsibilities for the programming of the new social health system and the power to make laws related to the problem are given to the regions. Some regions did at least begin to point out the potential problematic nature of gambling. An example is represented by the Piedmont region. In the social health plan for the period 2006–2010, approved by the Council, it recognized that “[...] in the recent years, there has been a growing social alarm regarding dependencies: First of all pathological gambling, because of its social, economic, and health impact”. In the same way, in some northern regions, such as Lombardy, Veneto, and

Piedmont, some service operators created working parties to face the gambling problem.

It is impossible to specify the number of gamblers who seek treatment in Italy. However, it is estimated that 25,000 people seek treatment in public services. Unfortunately, a helpline for problem gamblers does not exist. Within the public health services in Italy, regarding gambling dependence, the main actor is the *Servizi Pubblici per le Tossicodipendenze* (SerTs), the public services for drug addiction, formed by the law 162/90. The SerTs are, in general, concerned with prevention, rehabilitation, and reinstatement in relation to drug addiction and to related pathologies. More and more SerTs have started experimental projects for pathological gamblers, because of many factors. These factors includes the sensitivity of many operators, the spreading of such services on the national territory, the growing number of help requests by gamblers or by their relatives, the evidence related to the comorbidity between gambling and use/abuse of legal or illegal substances, the similarities among these addiction behaviours, and the contribution given in some cases, according to the law 45 of 99, related to drug addiction. The type of response given by the SerTs is spreading, and, in this context, there are more and more projects and data (Scardina, Picone & Lipari 2006; Zanda 2001).

For example, in the period between 2005 and 2006, one study pointed out that, in the Veneto region, interventions for pathological gamblers were made exclusively by the public or private services related to the dependence treatment system. Within 21 departments operating in the region, 15 have one or more public services able to give advice or assistance on interventions for gamblers. In an additional department, the assistance is given by private groups and by voluntary groups. In total, the assistance institutions counted in a census are 19 SerTs, 4 Gamblers Anonymous (GA) groups, 2 additional voluntary groups, 1 nursing home, and 1 therapeutic community. The SerTs usually extend to problem gamblers the same formal acceptance given to drug and alcohol addicts: direct and free access (without a doctor’s request). Slightly more than half of the public services for drug addiction is available for long-term assistance to problem gamblers, the others offer advice and short-term interventions. The survey showed that, for the

treatment of the pathological gamblers, most of the services instituted various therapeutic strategies and techniques of proven usefulness in the field of substance dependence (e.g., psychological support, motivational and relapse prevention counselling, pharmacotherapy of psychiatric comorbidities). Furthermore, a smaller number of services offer more specific interventions for pathological gambling (e.g., behaviour therapies, rearrangement activities and financial management, cognitive therapy, specific pharmacotherapy). In the period in which the research was carried out, 150 patients/families of pathological gamblers were given assistance (Bellio et al. 2006).

### 3.2 Gambling and the Use of Psychoactive Substances

The research related to the correlation between gambling and use of psychoactive substances is strong (Croce 1993; 1996; 1998; Rigliano & Croce 2001). Among the research aimed at highlighting the comorbidity between the use of psychoactive substances and gambling, in addition to those studies already mentioned (Capitanucci & Biganzoli 2000), is a multi-centre research project, carried out by the *Gruppo Azzardo Sovrazonale* (G.A.S.), in the Lombardy region (Capelli, Capitanucci, Prestipino, Mangili & Cheli 2004), on the patients of 17 Services for Addiction Treatment in Lombardy, located in seven different provinces. What came out from the frequency analysis is that pathological gamblers represented 20.2% of the clientele, while the percentage of excessive gamblers was 12.3%. These data highlight the much greater involvement of drug-addicted patients in problematic gambling behaviours than people in general, and this finding is in accordance with the literature of between 10% and 33% (Agus 1998; Lejoyeux, McLoughlin & Adès 2000; Lesieur, Blume & Zoppa 1986; Spunt, Lesieur, Hunt & Cahill 1995). Furthermore, poly-substance users were reported to be problem gamblers to a greater extent than mono-substance users. Bellio and Fiorin (2004) reported a study on a sample of 95 drug addicts, mainly men, treated at the SerT of Castelfranco Veneto. The games preferred by the drug addicts who were also pathological gamblers were slot machines, *Lotto*, and cards.

In 2005, the first data was published from a study aimed to understand the correlation between use/

abuse of psychoactive substances and problem gambling and to check the relationship between patients' gambling and the typology of Blaszczynski and Nower (2002). This was done in order to prepare a medical interview for drug addicts with a comorbid diagnosis of pathological gambling, for the purpose of analysing and activating the "area of the awareness, of the self-efficacy, and of the relation between psychoactive substances and gambling", promoting treatment compliance. Among the studies carried out to understand the personality traits of pathological gamblers was a study by Cocci, Benci, Bonicolini, and Dimauro (2006). This preliminary investigation aimed to study the personality traits of a sample, represented by nine pathological gamblers under treatment, at the Department for Addiction Treatment—Gambling and New Addictions of the local health unit A-Usl 8 in Arezzo.

Another study of particular interest, not only in the context of the correlation between gambling and use of psychoactive substances, but also in the context of the correlation between addiction and territorial penetration of the gambling opportunities, was carried out in 2004 by Pavarin, Head of the *Osservatorio Epidemiologico Metropolitan Dipendenze Patologiche* (Metropolitan Epidemiological Observatory of Pathological Dependences), at the local health unit (A-USL) of Bologna. The objective of this study was to evaluate the prevalence of risky behaviours, in relation to the use of drugs and the abuse of alcohol, of problems linked to gambling addiction, of psychological, psychiatric and social health problems, among patrons in the bars of the suburbs of Bologna, with a particular attention to the more risky groups, in order to direct future prevention projects. In general, the data suggested the need for different approaches for potential prevention projects. In fact, the analysis of the features of the participants highlighted different targets according to the type of locale: the meeting-place locales were attended mainly by men, over 40 years old, retired, artisans, and manual workers, who lived in those quarters, with middle-low education and income levels. There was also a significant number of foreign people. The happy hours locales had a target of younger people, who were students and clerks, with a high percentage of women and of people living outside the province, who had middle-high education and income levels. Finally, the "passing-by" locales were attended by people who worked nearby (young

people with high income, graduated, self-employed or employed in the services sector, of whom a significant percentage was represented by women and by people living outside the province) who went to the bar to have breakfast/lunch.

### 3.3 Actions by Private Associations to Face Problem Gambling

In addition to public services, some private or voluntary groups provide assistance to pathological gamblers and their families. Among the various initiatives, the first therapy group for pathological gamblers and their families was founded in 1998 in the Friuli–Venezia Giulia region. The underlying ethos of the treatment was that the objectives for change concern not only the gambler, but also their whole family. A study was carried out on an experimental sample represented by 63 pathological gamblers (in comparison with a control group with 52 participants, representative of the general population). Gamblers were visited before the group therapy and after 6, 12, and 18 months of treatment, which lasted at least 4 years. The study noted that gamblers in treatment showed no more gambling behaviours, with a progressive reduction of their depression, anxiety, and impulsivity levels. Some results of clear improvement were obtained regarding some specific traits of the gambler's personality, such as the longing for something new (seen as the pathological gambler's extreme sensitivity to new stimulations, and the excessive involvement, as an answer to these, in exploration activities, culminating generally in rash decisions). Moreover, the participants in treatment showed a significant reduction of behaviours of reward dependence and of transcendancy (seen as the trend to the complete participation in extremely involving situations, in the context of relationships or of specific activities in which the participant was a protagonist). In spite of the improvements, some significant differences were still seen between the gamblers in treatment and the participants in the control group. The comparison between the two groups showed that gamblers in treatment were more depressed, anxious, impulsive, and showed higher levels of longing for something new and for transcendancy. Moreover, they still seemed to have difficulties regarding self-control (i.e., their attitude to develop an individual and autonomous "self") and their

cooperation abilities (i.e., the ability to accept others in virtue of a personal feeling of belonging to the society) (Savron, DeLuca & Pitti 2007).

At present, the therapy groups contain ten people at a time, and more than a hundred people have attended. Group therapy takes place once a week and lasts at least 3 years. In this context, in 2000, some ex-gamblers and their relatives founded an association that is actively concerned with the gambling problem from the social, political, and scientific point of view. The association's website lists the most important statute aims and many initiatives that the Associazione degli ex Giocatori d' Azzardo (A.GIT.A) promotes in terms of meeting organization, and educational and cultural meetings about gambling, which are open to the population ([www.sosazzardo.it](http://www.sosazzardo.it)). In addition to this initiative, other gamblers' work-groups were founded, and, in 2004, the *Coordinamento Nazionale dei Gruppi per Giocatori d'azzardo* (CoNaGGA) was established, gathering diverse group intervention projects for gamblers. In 2000, the Società Italiana di Intervento sulle Patologie Compulsive (SIIPaC) was established in Bolzano. The treatment follows a multi-pathway approach with the presence of a psychotherapist, a tutor, a lawyer, and a commercial expert. In fact, the treatment, both at outpatients departments and at the clinic, according to the diagnosis made, includes the combination of different kind of interventions for the patients and/or their relatives. This includes motivational interviewing, information and psycho-educational interventions; psychotherapy for single people, for couples, for relatives, and for couple-groups; tutoring; and psychiatric and legal advice ([www.siipac.it](http://www.siipac.it)).

At the 5th European Conference on Gambling Studies and Policy Issues, a study was presented on the influence exerted by psychological help over the life quality of pathological gamblers (Guerreschi 2002). A significant difference between pathological gamblers who had received psychological help and pathological gamblers who had not, in relation to life quality, was assumed (e.g., free time, job, familiar relationships, economic situation, self-esteem). Moreover, a difference between the two groups regarding depression symptoms and anxiety was hypothesized. The research was carried out by administering three instruments to two different groups of participants. The first was an experimental group of 20 participants comprising pathological

gamblers who had been treated for 6 months or more at the SIIPaC. The second was a control group comprising 27 pathological gamblers who had not yet begun treatment. The age of the participants interviewed was between 18 and 70 years, and 45 men and 2 women participated. Data collected on the perception of life quality showed that there were no significant differences regarding free time, economic situation, and housing. However, in relation to all three areas, the experimental group scored higher than the control group, an indication of a higher satisfaction level. Moreover, significant differences were seen in the health area. The group who had received treatment showed lower negative feelings than the control group, and higher scores relating to the perception of their health condition. Also, there were significant differences between the two groups in relation to self-esteem and the general perception of life quality. The experimental group scored 9.1 for the Beck Depression Inventory (Beck 1967), which corresponded to “normal fluctuations of the mood”, while the control group scored 17.1, which corresponded to “light depression”. In relation to anxiety, there were no significant differences.

In April 2000, a non-profit cultural association, the Alea ([www.gambling.it](http://www.gambling.it)), was founded. The Alea involves professionals who have been concerned with problem gambling over the last few years in Italy. The aims of the association are: (a) to promote and to spread a culture of a “responsible gambling”, which gives value to its potentialities, while underlining its risks, through information and awareness campaigns, and through campaigns for the prevention of illicit behaviours, addressed mainly to young people; (b) to realize a network of reference people for the private–social, institutional, and self-employment spheres, who are able to work together on the problematic aspects of gambling; and (c) to start updating initiatives for operators who are already working in similar areas and to stimulate updating initiatives for the operators of gambling offices, so that they can intervene to limit gambling-related problems, in accordance with the philosophy of “responsible gambling”, already followed with success in other European countries (Zerbetto 2001).

There are also increasing interventions of a residence type. In fact, in addition to therapeutic communities for drug addicts that accept and organize specific programmes for pathological gamblers,

the SerT of Rivoli and the Orthos Association of Siena ([www.comunitaorthos.it](http://www.comunitaorthos.it)) offer various services, including both counselling and psychotherapy services (for individuals, couples, and families).

### 3.4 Self-help Groups

On December 18, 1999, a group of GA met for the first time in Milan. They are organized on the model of the American Gamblers Anonymous, founded in 1957 in Los Angeles, and on Alcoholics Anonymous, and face the problem through the recovery programme entitled “twelve steps”. The method offers the possibility of sharing with others the experience of impotence towards gambling, discussing the deceiving and self-deceiving ways that are used, and proposing abstinence from gambling. The starting point is to admit that pathological gambling is a progressive disease that cannot be treated but that can be stopped. Only by starting from this belief, is it possible to undertake and practice abstinence. The second group of GA was founded in Padova on February 2, 2000. This was also the date on which the activity of Gam-Anon was inaugurated, which provides support to relatives and friends of pathological gamblers ([www.cestep.it](http://www.cestep.it)). At present, there are 26 GA groups operating in the national territory, with a high prevalence in the northern areas of the country. The Gam-Anon groups operate in parallel to the GA groups. On the website, [www.giocatorianonimi.org](http://www.giocatorianonimi.org), it is possible to access information about the GA associations. There is also some information about pathological gambling, with a specific self-examination instrument (GA 20 Questions), and, finally, some written testimonials by ex-gamblers who succeeded in getting to abstinence from gambling thanks to these groups and to the support they were given. In addition to the developing of group interventions on the model of the “twelve steps”, there are more and more additional examples of self-help groups.

## 4 Conclusion

The conclusions outlined here have a number of diverse objectives: on the one hand, to overview the situation in Italy, and on the other hand, to outline future intervention and action strategies.

### 4.1 Epidemiological Research and Social Policies

It is necessary to ask why, in Italy, there is neither epidemiological research nor a national observatory of problem gambling. As highlighted in this chapter, there is some research on clinical cases or on clinical groups, even in region and town contexts, but it seems that there is no political willingness to realize a “map” of problem gambling at a national level. There could be many reasons for this. Certainly, the fiscal policy and the importance that the profit from gambling has for the national revenue is evident. In practice, gambling allows a fiscal return, which is considered a solution for the national budget by many Italian politicians. That is why there is a clear underestimation of the problems linked to gambling, and even a denying of the problems.

### 4.2 Mafia and Crime

Gambling in Italy (and not only in the south) is in some parts linked to crime and the Mafia. Organized crime not only controls a significant part of the illegal gambling (betting, gambling houses, etc.), but also has returns from illegal activities linked to gambling (laundering of money illegally obtained, usury, prostitution, blackmailing of gamblers, etc.). A great part of this hidden world escapes from social science research, and therefore it is impossible to get a detailed outline. For example, through gambling, criminals can blackmail people in debt or victims of usury in many ways. Therefore, the interests and incomes of the criminals

are different and range from the direct control of gambling to the criminalisation of the gambler, considering the gambler a real criminal object for their illegal business. However, a perverse relation between the offer of legal gambling and that of illegal gambling should also be noted, in relation to a “naïve” position that submits the relation between legal gambling and illegal gambling to a simple and misleading summing logic. To increase legal gambling should correspond to the decrease of illegal gambling. Therefore, in order to prevent or to impede illegal gambling, it would be desirable to offer more opportunities to gamble legally. The relationship between legal and illegal gambling seems to have, on the contrary, a multi-faceted character (see Fig. 10.1). Through the creation of a vicious circle, which involves, in the first place, the introduction of new gambling opportunities, a greater number of gamblers, who take risks, thus, offering new opportunities to the illegal sector through the inclusion of people expelled by the legal sector, the offer of more remunerative wins, and a better articulation of the gambling ways: “In the second place, the increase/diversification of people involved promotes the lending with usury to gamblers. In the third place, the illegal gambling promotes the legal gambling, giving a motivation to justify the introduction of new games. In turn, the legal gambling promotes the illegal gambling, raising the number of people who get in touch with the criminal offer” (Fiasco 2001, p. 340).

Here, the relationship between legal and illegal gambling derived from this trend should be clarified. The slot machine legalization has determined the absorption of the legal system in the illegal



FIG. 10.1. The vicious circle between legal and illegal gambling

one that happens when the business model is not equipped with a real normative ability of the state. At the time of writing (September 2007), the newspapers reported the results of an investigation, ordered by Genoa's bench and carried out by the Financial Guard, on slot machines: 100,000 of these had been seized because they turned out to be irregular in Italy. Although they displayed the stamp "safe game", they allowed winnings that are higher than the authorized limits. The brand was forged and they were installed in about 50,000 bars, pubs, nightclubs, and other commercial premises. The machines, authorized and guaranteed by state monopoly through the logo "safe game", have allowed winnings higher than the sanctioned limits. In fact, the conformity statements given by the certified corporations turned out to be ideologically false. Thus, the Italian government has abandoned its normative/containment function and has created a regressive income taxation (the proceeds are a higher burden, by percentage, on those who have a lower income), then it "has overcome" fiscal aims in preference to the aims of a business model.

Gambling, when linked with crime, shows many dark sides, and those data are to be considered with great caution. In fact, in criminology, the ratio of crimes known/crimes done and the unknown number of the various types of crimes is strongly correlated to some factors able to determine, to a greater or lesser extent, the gap between known and hidden crime. In other words, the difference between the number of crimes done and of those identified would be in relation to the type of crime, to the victim's behaviour, to the criminal, and to the behaviour of the institutional bodies. In the case of gambling, the victim's behaviour is very relevant. If the gambler is considered a victim of usury, it is possible to assume that gamblers, who have fallen into the trap of the organized crime, rarely ask the intervention of the court. This is not only in relation to the risk of threats by the usurers, but also to the delicate and ambivalent relationship (for some aspects, similar to that between drug addict and pusher) with the usurer himself, who "offers" money to allow the gambler to gamble; to the hope of a great win that will allow the solving of all of the problems; and also to the social prejudice on the gambler, with the consequent fear to be considered not as a victim, but as a cause of the fact. If the denouncement and the behaviour of the victim

represent two important ways to reduce the ratio of crimes known/crimes done of a particular type of crime, it also needs to be taken into consideration that crimes done by gamblers are often repeated at work or among acquaintances. It is not rare that, in this context, people tend to give up the accusation, contenting themselves, as regards their job, to resign and—also in consideration of the situation, the personal relationship, the distrust to get back money—they prefer not to act against the perpetrator through a penal proceeding. Therefore, the number and the types of crimes done in relation to gambling probably are strongly underestimated.

### 4.3 Prevention in the Social Sphere

In the Italian social sector, until the 1990s (and in part still today), prevention has been characterized by charitable motivations and self-interested parties rather than by a professional and/or scientific approach. This point of view also concerned the professional social operators. In fact, prevention, according to them, was not considered a job, but rather a hobby or a mission. This situation shows that, with the treatment territorialisation and the relative demedicalisation of the behaviour problem, the therapeutic power associated to the medical role becomes only one of the various resources usable (next to social operators such as psychologists, social assistants, and educators; natural educators such as parents, teachers, and priests; and city dwellers as well as volunteers). The process of treatment territorialisation, even if it brings important benefits, is surely complex and comes with some difficulties. One is the difficulty of the community to live together with "different minorities". What should have been an integration process came out to be a process of confirmation of one "normality", therefore many co-natural differences of each sector of the population have been belittled or even repressed.

Regarding the complex and articulated context of gambling, greater attention has been given to negative consequences, and there have been many efforts to find adequate therapeutic paths. On the contrary, the existence of social gambling has been often disregarded. The social gambler is characterized by the wish to relax, the incentive of earning without effort, the pleasure derived from the stimulation of various ego functions, and also

the attraction of the risk. The social gambler is motivated more by a desire of pastime and fun than by conflict and lust satisfactions, such as is the case of the pathological gambler. In the category of the social gambler, there are also professional people who make money from gambling; this is because the most important things are the gambling control dimension, the respect of the limit, and knowing when they have to stop; things that are not familiar to pathological gamblers, who, on the contrary, when they win, continue gambling until they lose everything; and, when they lose, continue gambling, increasing their debts.

In the near future, it will be necessary to take into consideration some predicting factors, that is, factors that predict the presence of an excessive gambling behaviour:

- **Gambling venues.** To gamble in a place created for that purpose seems to strengthen such behaviour and to increase the risk. Gambling loses the positive aspects linked to fun and socialisation, and turns into a problematic behaviour.
- **Frequency of gambling.** Frequency of gambling represents a risk factor that could have considerable weight in relation to the possibility of developing pathological gambling patterns. It is important to take into consideration the average duration of each visit to the gambling venue. In general, the longer the time spent for gambling, the longer the time taken away from other things, and the greater is the personal failure, beyond the interactive-symbolic sphere of gambling itself. A more general consideration related to time includes the frequency of gambling. The higher the frequency of stakes, the shorter is the time available to be able to think, to meditate about one's gambling behaviour, while the possibilities to stop decrease quickly. On the basis of this criterion, it is possible to differentiate hard games (such as video-poker or slot machines) and soft games (such as lotteries).
- **Money.** The Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) diagnostic criteria include gambling with bigger and bigger amounts in order to reach the desired excitation level. However, it should be taken into consideration that the economic value of money is limited. Money is an instrument that allows the gambler to continue the gambling activity and to continue the "illogical logic" of the pursuit. The real value of money is lost, in some situations to such an extent that people cannot live in comfort anymore.
- **Family context.** Family lifestyle and family gambling style represent important factors for the understanding of the gambling behaviour of an individual. An important example refers to the impact of a parent's gambling behaviour on adolescents.
- **Peer group.** To associate with a group of gamblers surely strengthens gambling dynamics, in relation to the influence exerted by these relationships on the gambler's behaviour. The group activates mutual comprehension, emphasizes the feelings of support and solidarity among members, supporting and strengthening the behaviour itself, both functional and/or dysfunctional.
- **The situation described clearly shows that gambling is associated with positive and negative aspects.** Obviously it is important to promote and to consolidate the positive aspects and to limit and even reduce the negative aspects. These aims are to be found also in community psychology, which is interested in gambling as a way to bring well-being to the individuals and the community. Many results have been obtained in terms of tertiary prevention, however, it is necessary to lead everybody's efforts to secondary prevention and, above all, to primary prevention, giving particular attention to children, adolescents, and also to older people, who may become a new part of the population at risk of problem gambling. In order to reach these objectives, it is essential to develop some non-destructive prevention and information campaigns, through which to promote a "responsible gambling" culture, to overcome, on the one hand, the severe prohibition, and, on the other hand, the superficial permissiveness that disregards the possible social costs charged to those parts of the population who are more vulnerable. Gambling should be considered in the context of its common daily reality, and not as an extraordinary experience related only to distant and different characters. This stereotype, remaining in the collective imagination, hinders the knowledge process above all regarding its problematic configuration, which, as already underlined, is more difficult to understand and to diagnose. Regarding prevention, and information

addressed to gamblers about the risks linked to gambling, it can be concluded that there is no institutional communication form at a national level and that the advertising communications on gambling push people to gamble. However, there are many prevention projects activated by private organisations or by the public service. There are also interesting initiatives taken by some towns to organize some communal regulations aimed at limiting the gambling opportunities or at making gamblers aware of the risks. In the near future, the following objectives need to be developed:

- To establish epidemiological research
- To regularly review and make an evaluation of all the known initiatives, of the programmes, of the strategies, and of the policies
- The evaluation must be an integrated part of all the initiatives that aim at facing the themes linked to pathological gambling
- In the research, going beyond the bio-medical aspects is recommended, as is focusing the social-economic impact of the gambling phenomenon
- Owing to the different sides of the nature of all the problems linked to the phenomenon, co-ordination and co-operation are essential ways of operating
- Regarding illegal gambling, a global, multi-disciplinary, and integrated answer needs to be followed.

In considering the Italian situation, we suggest a further intervention strategy for gambling that matches with the interests of the community psychology. It is, in particular, a network model, through which all the territory resources are optimized, making all the social support systems in the community interact in order to realize an intervention able not only to reduce the suffering of those in trouble, but also to change the way people relate to them and to train the community to have a greater competence and attitude to initiatives and projects.

The premise is the plot of relationships among problem gamblers, oriented to an objective and to needs that are a challenge to the resources available in the network of connections activated among the gamblers. When the resources are not adequate to reach the objectives of the single gambler, people get into a risky area. Having this perspective of gambling means to consider not

only involving the gambler, but also many other people: members of the family, relatives, friends, colleagues, neighbours, and others. The network can be considered as a construction of links among gamblers, who have a large number of needs, who put into relation a large number of resources and are oriented to objectives that can be different. The relationship network can be of different types, the primary network is represented by the (informal) relationships with members of the family, relatives, friends, and neighbours; and the secondary networks are based on formal relationships, characterized by the dynamic between obligation and commitment, they are based on right and on monetary exchanges, and are characterized by the participation of all the social characters who have, as an institutional order, the task to offer treatment, prevention, and rehabilitation services. Secondary networks of a third sector are characterized by non-profit organisations and base their exchanges on right and solidarity (e.g., voluntary associations or self-help groups). Secondary trade networks are those that activate relations and base their exchanges on money and on profit (e.g., gambling operators). The different stakeholders can be connected through various types of links of different intensity: information and collaboration; economic exchanges; common projects; obligations and commitments; or bureaucratic connections.

Finally, it could be useful to highlight the philosophy at the base of the network approach—the logic of the possibility and opportunity to use all the resources available in the network, focusing the relationships, and all the links that can be established among the different social characters. Another aspect to be underlined is the inestimable value of participation, which represents at the same time an instrument, an aim, and a value to be spread. Within the network, all the characters take active part with everybody taking some responsibilities. The objective is that common people become competent and less dependent on services.

#### 4.4 Community Interventions

In the Italian social health context, the concept of community intervention is a rather recent one. In fact, people have been talking exclusively about treatment for a long time. Today, with prevention



interventions, people have the objective to identify relevant factors in order to intervene and to avoid the worsening of serious conditions. In addition, it is important to understand that gambling, in social terms, has a positive value to promote—therefore, we need to intervene so as to highlight the social function that even gambling, in an adequate and controlled way, can assume. Overall, the community interventions include the following actions that, in Italy, are being tried on different levels:

- Motivation speeches. Motivation speeches are very important to make gamblers aware of the seriousness of what is happening to them.
- Individual psychotherapy. It will help the problem gambler to consider all the mechanisms that engage and intersect in gambling (affectivity, sensitiveness, sexuality).
- Psycho-educational interventions. Psycho-educational interventions encompass three elements: information meetings, groups for pathological gamblers, and groups for their family members.
- Tutoring. Gamblers are supported by a tutor, who has the task to manage the financial aspects, trying to pay back debts, and with whom gamblers will be able to agree upon a sum they can manage alone during the day.
- Couples therapy. This kind of therapy is important, so that these meeting opportunities could be considered as opportunities, and not fight or conflict situations. In addition, multi-couple therapy can be functional to get a complete analysis of the dynamics of social interaction.
- Family therapy. In some cases, the family of the pathological gambler will be totally destroyed, both financially and psychologically. The objective then is to recover the resources of each member, and to strengthen them so as to help the family out from suffering.
- Psychiatric advice. Various psychological pathologies can be present at the same time. If applicable, these pathologies could be treated through a pharmacological intervention, which must be not too strong or too long to avoid the risk of creating a new dependence.
- Self-help groups. Self-help groups such as GA, mostly run by people who had or still have gambling-related problems, are available to support others in overcoming their gambling addiction.

It can be concluded that the Italian situation is lacking and limited, however, this is caused by a poor national health policy, and by the influence of the organized crime. Thus, it is necessary for Italy to learn from other countries what a national dimension of the intervention means, but it is also necessary for Europe to learn from Italy about the effort to face the gambling Mafia, which, in Italy, is largely widespread, and to diffuse the results of experimentation.

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# 11

## Lithuania

Norbertas Skokauskas

### 1 Background

Lithuania is a country on the Baltic Sea. In the north, Lithuania borders with Latvia; in the east and south, with Byelorussia; in the south west, with Poland and the Kaliningrad region of the Russian Federation. The population of Lithuania is 3,384,800 (as of the January 1, 2007). Lithuania is a member of the EU and NATO. The Litas is the national currency, although in the near future it will be replaced by the Euro. Inflation was 0% in January 2007 (Department of Statistics to the Government of the Republic of Lithuania 2007).

Lithuania was first mentioned in 1009 in the Qedlinburg annals. Lithuania as a state (the Great Duchy of Lithuania) emerged in early 13th century. At the end of 14th century and the beginning of the 15th century, Lithuania became one of the most powerful states in the Europe (Šapoka 1989). At one stage, the Great Duchy of Lithuania occupied territory from the Baltic Sea to the Black Sea. Official documents from those times state that people not only gambled in Great Duchy of Lithuania, but also had problems because of their gambling behaviour. Official documents claim that a few people even were sent to prison because of gambling-related problems. Moreover, gambling was called a “very dangerous and harmful behaviour” (Baliulis & Meilus 2001).

In 1569, the Union of Liublin sealed the Poland–Lithuania Union into a Commonwealth. After the partitioning of the Commonwealth in 1795, Lithuania was incorporated into Russia. On

February 16, 1918, Lithuania became an independent republic. In 1940, the Soviet Union occupied Lithuania. Soviet occupation was one of the darkest periods in the history of Lithuania. The Communist Party strictly controlled the economy. Gambling was prohibited, although a few state lotteries existed to support the Red Army. Casinos and gambling were synonymous with “rotten capitalism”. However, people used to play cards and dice games, mainly at home and for fun.

On March 11, 1990, Lithuania re-established its independence. Dramatic changes took place in the all areas of life. Free-market economy was re-introduced and private initiatives were welcomed again. Despite major changes, gambling was not initially legalised. Interestingly, gambling was also not prohibited. Simply, there was no gambling law. It is important to mention that there have been various incentives and attempts to legalise gambling, however, they faced a strong opposition from Catholic parties and the Catholic Church itself.

Gambling remained officially not legalised, but, during the initial years of Lithuanian capitalism in the early 1990s, certain common forms of gambling became widespread. Some, such as casinos, formed part of an illegal market. Others, such as slot machines, were “semi-legal”. Many slot machines were registered as “computer games” or “gaming machines” and were placed in stations, bars, and shops. There were no adequate controls, and even children could gamble with impunity. Instead of state lotteries, a number of private enterprises appeared without any kind of age restriction. It is

unknown how big the illegal and “semi-legal” gambling markets were in the 1990s. However, when the Gambling Law was introduced, the Lithuanian Gambling Control Commission put a lot of effort into eradicating illegal gambling (Lithuanian State Gambling Control Commission 2004; 2005). This might indicate that the illegal gambling market had a very strong position in Lithuania.

Gambling tourism was another interesting phenomenon. Lithuanian people who wanted to gamble but did not want to be involved in the illegal activity went abroad. In the 1990s, gambling was legal in most of the neighbouring countries. In fact, Lithuania was probably one of very few European countries where gambling was illegal. Lithuania is a relatively small country and a couple of hours by car were enough to leave the country and gamble legally outside it. One of the main arguments for introducing legal gambling was to prevent “gambling money” from leaving the country. It can only be speculated how much Lithuanians spent on gambling in the 1990s, but there is little doubt that Lithuanians gambled both inside and outside the country.

Even at present, there is very little objective information on pathological gambling in Lithuania in the 1990s; however, the “pathological gambling card” was played a lot in the battle against legalisation of gambling. Furthermore, campaigners against legalisation of gambling used the fear of gambling-related crime. Political variances also brought changes into the gambling market. Finally, in 2001, the gambling business was legalised in Lithuania.

### 1.1 Law on Games and Law on Lotteries

The Law on Games (*Azartinių lošimų įstatymas*) of May 17, 2001 (No IX-325) established the conditions and procedures for the operation of gaming in the Republic of Lithuania (Seimas of the Republic of Lithuania 2001). Interestingly, in the official translation, it is called the Law on Games, but in the majority of Lithuanian–English dictionaries, the word “*lošimas*” translates as “gamble”. The State Gaming Control Commission is a main player in terms of control of the Lithuanian gambling market. The Control Commission consists of six people. The President of the Republic of Lithuania,

the Chairman of the Seimas (Parliament), and the Prime Minister each appoint two people to the State Gaming Control Commission for a term of 5 years. The activities of the people that operate gaming businesses are supervised and controlled by the Control Commission. The State Gaming Control Commission has controlled and supervised national lotteries since January 2004. Prior to this, the Lithuanian Finance Ministry had supervised the lottery sector. The latest Law on Lotteries was introduced on July 1, 2003 (No IX-1661) and this law regulates the conditions and procedures for operating lotteries (Seimas of the Republic of Lithuania 2003).

The Lithuanian Law on Games includes the following types of gambling:

1. Machine gaming. Games by gaming machines are played when coins or tokens are inserted into a gaming machine and the winnings are paid out in money or tokens. On September 1, 2002, amendments to the Gaming Law came into effect. They introduced some changes in the gaming machine sector. Gaming machines were divided into categories A (unlimited payouts) and B (limited payouts). Since then, category A gaming machines can be operated only in casinos (together with gaming tables) and category B machines can only be operated in gaming machine halls.
2. Bingo. Bingo is played with cards bearing numbers and a scoreboard. The amount of winnings depends on the total amount of stakes and the combination of numbers selected at random. The total bingo winnings fund comprises at least 50% of the total amount of stakes.
3. Table games. Table games are roulette and card/dice games. Roulette is a game that is played by guessing in which slot a ball dropped on a spinning wheel will stop. The amount of winnings depends on the total amount of stakes and the winning ratio, which is fixed in advance. Card or dice games are played when the winner and the amount of winnings is determined on the basis of symbols of the cards dealt or the score of dice.
4. Totalisator. Totalisator is a game that is played by guessing the result of a sporting event in which the amount of winnings depends on the ratio between the bet size fixed in advance by

totalisator operators and the winnings fund. The total totalisator winnings fund comprises at least 50% of the total amount of the bets made.

5. Betting. Betting means mutual betting on the outcome of an event, based on guessing. The amount of winnings depends on the amount of the bet made and the betting ratio fixed in advance by the betting intermediary.
6. Lotteries. The Law on Lotteries of July 1, 2003 (No IX-1661) divides lotteries according to their scale into national and local lotteries (Seimas of the Republic of Lithuania 2003). According to their nature, the Law divided lotteries into:
  - (a) Numeric lotteries in which a correct choice of numbers and/or other symbols leads to winning a prize. The prize and its amount are pre-determined by the sum paid for the lottery ticket and the selection of numbers and/or other symbols chosen by the player matches the winning selection in a lottery. The price of a numeric lottery ticket is fixed or the player may choose the ticket price.
  - (b) Instant lotteries in which prizes and their amount become known immediately after the player purchases a lottery ticket and checks it in accordance with the procedure set out in the lottery rules. The price of an instant lottery ticket is fixed.
  - (c) Classic lotteries in which prizes are won by choosing a lottery ticket with printed numbers and/or symbols unknown to the player, while the prize and its amount is pre-determined by the number of numbers and/or other symbols printed on the lottery ticket that matches those drawn in a lottery. The price of a classic lottery ticket is fixed.
  - (d) Sports lotteries in which a correct choice of numbers and/or other symbols that specify the result of a sporting event leads to winning a prize, while the prize and its amount are pre-determined by the number of correct numbers and/or symbols chosen by the player, which depends on the result of the sporting event. The price of a sports lottery ticket is fixed.

According to the manner of distributing lottery tickets, data processing, and paying out prizes, lotteries are subdivided into:

1. Remote communication computer lotteries in which lottery tickets are sold and prizes are paid out through remote communication computer network terminals located in different places of the Republic of Lithuania and linked by way of telecommunication with the central host computer, which ensures a centralised recording of lottery ticket sales and prize pay-outs.
2. Offline lotteries in which lottery tickets are sold and prizes are paid out without the use of remote communication computer network terminals.
3. Telephone lotteries in which the information required for entering a lottery is transmitted to the lottery's computer database by telephone and a recording is made in the database evidencing participation in the lottery. The player pays for entering the lottery through a telephone network operator.
4. Online lotteries in which the information required to enter a lottery is transmitted to the lottery's computer database by the internet and a recording is made in the database evidencing participation in the lottery. The player pays for entering the lottery through telecommunication service systems of credit institutions.

The State Gaming Control Commission issues gaming licences. Prior to issuing a gaming licence, the Control Commission must receive the conclusions of the State Security Department, the Financial Crime Investigation Service under the Ministry of the Interior, the Special Investigation Service, and the Police Department under the Ministry of the Interior. Gaming is operated by public and private companies, which act in accordance with the procedure established by the Company Law and which have obtained a licence to carry out this activity and permits to open gaming machine halls, bingo halls, and gaming establishments. The advertising of gaming is prohibited in the territory of the Republic of Lithuania, except where it contains only the name of a gaming company, gaming establishment (casino), bingo or machine hall, totalisator or betting station, the address of places at which gaming is operated, types of gaming, and the number of gaming devices in a gaming establishment (casino), bingo, or machine hall.

According to Gambling Law, people who are under 18 years of age shall be prohibited from participating in gambling. People who are 21 years

of age and over may participate in the games operated in gaming establishments (casinos). People under 21 years of age shall be refused entrance to gaming establishments (casinos). The gaming operator must ensure compliance with the above requirements. Furthermore, the gaming operator has to register, in accordance with the procedure established by the Government, people who either exchange cash for tokens or make a stake, or collect a winning in excess of 3,500 Litas (1,014 Euros) or an equivalent amount in foreign currency. The State Gaming Control Commission already has started to work on a new edition of Gambling Law. A new edition of Lithuanian Gambling Law probably will be presented to the Seimas (Parliament) by the end of 2007.

## 1.2 Lithuanian Gambling Market Overview

In 2006, 14 companies organised gaming in Lithuania. Seven companies organised gaming only in casinos, two companies organised gambling with gaming machines of category A, and three companies were involved in the betting business (Lithuanian State Gambling Control Commission 2006). At the end of 2006 in Lithuania, there were 24 casinos, 71 gaming machines halls, and 119 betting stations. Compared with 2005, the number of casinos had increased by 26%. The number of gaming machines halls had increased by 26%, and number of betting stations had decreased by 16%. The country's only bingo hall closed in 2006 (see Table 11.1 for a detailed overview).

In 2006, the gaming companies' income increased by 50% and was 861.5 million Litas (249.5 million Euros). In 2006, income from gaming tables compared with 2005 increased by 40% and was 392.7 million Litas (113.73 million Euros; see Table 11.2). Income from category A gaming machines compared with the previous year increased by 42% and was 149 million Litas (43.2 million Euros). Income from category B gaming machines increased by 77% and was almost 227 million Litas (65.7 million Euros). Income from betting stations increased by 53% and was 92.2 million Litas (26.7 million Euros). The dynamics of financial indexes of gaming companies in the past 4 years can be found in Fig. 11.1. It shows that incomes of gaming companies steadily grew year

by year in Lithuania. In 2006, the majority of gaming companies' incomes came from gaming tables (45.6%) and category B gaming machines (26.3%) (see Table 11.3)

### 1.2.1 Casino Gambling

The first legal casino in Lithuania opened in March 2002. There were 24 casinos by the end of 2006. Five new casinos were opened in 2006. There were 197 gaming tables and 956 category A gaming machines in Lithuanian casinos at the end of 2006.

### 1.2.2 Machine Gaming Outside Casinos

As mentioned above, category A gaming machines can only be operated in casinos (together with gaming tables) and category B machines can only be operated in gaming machine halls. There were 1,326 category B gaming machines at the end of 2006.

### 1.2.3 Bingo

Bingo has never been very popular in Lithuania. The only bingo hall was in the capital of Lithuania and it closed in 2006. At present, there are no bingo halls in Lithuania.

### 1.2.4 Totalisator

Totalisator is included in Lithuanian Gaming Law. However, it has never been organised in Lithuania.

### 1.2.5 Betting

In 2006, there were three companies organising betting in Lithuania. The two leading betting operators were JSC "Top Sport" with 66 outlets, and JSC "Orakulas" with 35 outlets. However, only the smallest player in the betting market, JSC "Omnibetas" (19 outlets), opened a new betting hall. The largest two companies closed a number of betting venues in 2006 (see Table 11.1).

### 1.2.6 Lotteries

In 2006, six joint stock companies had licences to organise Lotteries: JSC "Olifja", JSC "Žalgirio loto", JSC "Fortuna Baltica", JSC "Televizijos loterijos", JSC "Winloto", and JSC "Garsuva". However, "Winloto" and "Garsuva" have yet to open for business. In 2006, Lithuanians spent 85.6 million Litas (24.79 million Euros) on lottery

TABLE 11.1. Dynamics of gambling places in Lithuanian from 2002 to 2006.

Company	Number of gambling organisation places.															
	Casino				Machines halls				Betting stations				Bingo halls			
	2003	2004	2005	2006	2003	2004	2005	2006	2003	2004	2005	2006	2003	2004	2005	2006
<i>JSC Olympic Casino Group Baltija</i>	4	5	8	10												
<i>JSC Casino Planet</i>	2	2	2	1												
<i>JSC Nesė</i>	1	2	2	3	1	3	4	4								
<i>JSC Pokervegas</i>	1	1	1	1												
<i>JSC "VSGA"</i>	1	1	1	2												
<i>JSC Savas kazino</i>	1	1	1	2												
<i>JSC Grand Casinos Europa</i>	1	1	1													
<i>JSC Grand Casino World</i>				1												
<i>JSC City Casino</i>		1	2	2												
<i>JSC Lydia Ludic</i>					10											
<i>JSC Jokey club</i>					6											
<i>JSC Tete-a-tete kazino</i>					3	23	34	41								
<i>JSC Egivela</i>			1	2	2	5	7	8								
<i>JSC Unigames</i>						8	11	18								
<i>JSC Top Sport</i>									33	70	83	66				
<i>JSC Orakulas</i>									19	35	42	35	1	1	1	
<i>JSC Omnibetas</i>									9	13	17	18				
<b>Total</b>	<b>11</b>	<b>14</b>	<b>19</b>	<b>24</b>	<b>22</b>	<b>39</b>	<b>56</b>	<b>71</b>	<b>61</b>	<b>118</b>	<b>142</b>	<b>119</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

tickets and they won 43.5 million Litas (12.6 million Euros) in lotteries. *JSC "Olifja"* dominated in the lotteries market in 2006. This company sold 96% of all lotteries tickets. *JSC "Žalgirio loto"* sold 2.3%, *JSC "Fortuna Baltica"* sold 0.2%, and *JSC "Televizijos loterijos"* sold 1.5%. Financial indexes of lottery businesses can be found in Table 11.4.

### 1.2.7 Internet Gambling

Internet gambling is not mentioned in Lithuanian Gaming Law, therefore, it is not officially allowed. However, since 2004, betting operators have been

allowed to accept stakes online. But this is not real online gambling, because gamblers have to go to the operator's office, sign a contract, and put money into their online betting account. Only then it is legal to put stakes on Lithuanian betting operators' sites.

Some international and national companies (or just groups of people) have launched gambling sites in Lithuanian. Gambling sites in English, Russian, and Polish (the three most popular foreign languages in Lithuania) are also accessible in the country. According to the Lithuanian Gambling Control Commission, all these gambling activities are illegal in Lithuania at present.



TABLE 11.2. Dynamics of gambling business in 2006 and comparison with 2005.

Period	Incomes Litas(Euros)	Paid in winnings Litas(Euros)	Result Litas(Euros)	No. of companies	No. of gam- bling places
<b>Gaming tables</b>					
1st quarter 2006	79,203,279 (22,937,526)	59,498,399 (17,230,929)	19,704,881 (5,706,597)	9	152
2nd quarter 2006	89,824,100 (26,013,351)	68,152,498 (19,737,184)	21,671,602 (6,276,166)	8	202
3rd quarter 2006	102,927,999 (29,808,282)	78,772,586 (22,812,796)	24,155,413 (6,995,486)	8	168
4th quarter 2006	120,748,582 (34,969,181)	92,929,042 (26,912,552)	27,819,540 (8,056,629)	9	197
Total in 2006	392,703,959 (113,728,340)	299,352,524 (86,693,462)	93,351,435 (27,034,878)	9	197
Total in 2005	280,012,478 (81,092,522)	212,883,230 (61,651,674)	67,129,249 (19,440,848)	9	152
<b>Gaming machines of category A</b>					
1st quarter 2006	33,691,363 (9,765,612)	23,651,150 (6,849,450)	10,040,213 (2,907,678)	9	836
2nd quarter 2006	33,009,045 (9,567,839)	22,384,435 (6,482,605)	10,624,611 (3,076,922)	8	978
3rd quarter 2006	38,621,106 (11,184,798)	26,158,677 (7,575,638)	12,462,429 (3,609,160)	8	872
4th quarter 2006	43,774,609 (12,677,269)	29,241,053 (8,468,304)	14,533,556 (4,208,965)	9	956
Total in 2006	149,096,124 (43,178,721)	101,435,315 (29,375,996)	47,660,808 (13,802,725)	9	956
Total in 2005	105,348,149 (30,509,166)	72,043,254 (20,863,960)	33,304,895 (9,645,206)	9	836
<b>Gaming machines of category B</b>					
1st quarter 2006	46,675,763 (13,517,452)	39,419,281 (11,415,952)	7,256,482 (2,101,500)	4	1,025
2nd quarter 2006	49,822,110 (14,428,645)	42,277,210 (12,243,617)	7,544,900 (2,185,027)	4	1,142
3rd quarter 2006	57,256,575 (16,581,690)	48,506,866 (14,047,746)	8,749,708 (2,533,943)	4	1,208
4th quarter 2006	73,133,540 (21,179,710)	61,312,187 (17,756,209)	11,821,353 (3,423,502)	4	1,326
Total in 2006	226,887,988 (65,707,497)	191,515,544 (55,463,523)	35,372,444 (10,243,974)	4	1,326
Total in 2005	128,148,155 (37,112,121)	108,221,669 (313,413,46)	19,926,485 (5,770,775)	4	862
<b>Betting</b>					
1st quarter 2006	18,476,544 (5,350,867)	15,317,645 (4,436,040)	3,158,899 (914,827)	3	137
2nd quarter 2006	22,575,272 (6,537,872)	20,861,024 (6,041,420)	1,714,248 (496,452)	3	134
3rd quarter 2006	22,745,580 (6,587,194)	20,940,501 (6,064,437)	1,805,078 (522,756)	3	129
4th quarter 2006	28,435,812 (8,235,103)	24,708,296 (7,155,603)	3,727,517 (1,079,501)	3	119
Total in 2006	92,233,208 (26,711,036)	81,827,466 (23,697,500)	10,405,742 (3,013,537)	3	119
Total in 2005	60,220,520 (17,440,058)	51,211,498 (14,831,016)	9,009,022 (2,609,042)	3	142
<b>Bingo</b>					
1st quarter 2006	390,112 (11,297)	296,018 (85,728)	94,094 (27,250)	1	1

(continued)

TABLE 11.2. (continued)

Period	Incomes Litas(Euros)	Paid in winnings Litas(Euros)	Result Litas(Euros)	No. of companies	No. of gam- bling places
2nd quarter 2006	182,497 (52,852)	130,811 (37,883)	51,686 (14,968)	1	1
3rd quarter 2006	0	0	0	0	0
4th quarter 2006	0	0	0	0	0
Total in 2006	572,609 (165,829)	426,829 (123,611)	145,780 (42,218)	1	1
Total in 2005	1,888,549 (546,930)	1,316,358 (381,221)	572,191 (165,708)	1	1
Total					
1st quarter 2006	178,437,061 (51,675,952)	138,182,493 (40,018,098)	40,254,567 (11,657,853)	14	2,013a
2nd quarter 2006	195,413,024 (56,592,245)	153,805,976 (44,542,709)	41,607,047 (12,049,536)	13	2,322a
3rd quarter 2006	221,551,259 (64,161,963)	174,378,630 (50,500,617)	47,172,629 (13,661,346)	13	2,248a
4th quarter 2006	26,092,544 (77,061,264)	208,190,578 (60,292,667)	57,901,966 (16,768,597)	14	2,479a
Total in 2006	861,493,887 (249,491,424)	674,557,678 (195,354,091)	186,936,209 (54,137,332)	14	2,479a
Total in 2005	575,617,851 (166,700,798)	445,676,009 (129,069,218)	129,941,842 (37,631,579)	14	1,850a

<sup>a</sup>Without betting halls

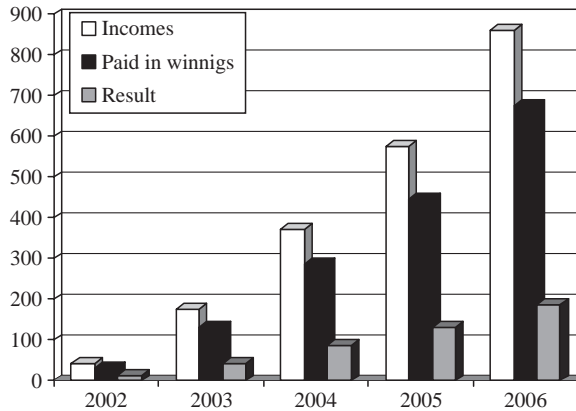


FIG. 11.1. Dynamics of financial indexes of gambling companies from 2002 to 2006 (in million Litas)

TABLE 11.3. Structure of incomes by gambling type (%).

	2002	2003	2004	2005	2006
Game tables	58.48	69.17	53.55	48.65	45.58
Gaming machines of category A	41.24	22.01	17.38	18.30	17.31
Gaming machines of category B	0.07	4.45	15.76	22.26	26.34
Betting halls	0.21	4.05	13.19	10.46	10.71
Bingo	—	0.32	0.12	0.33	0.07

TABLE 11.4. Financial indexes of lotteries business in 2006.

Period	Incomes Litas (Euros)	Paid in winnings Litas (Euros)	Result Litas (Euros)
1st quarter 2006	23,679,364 (6,857,620)	12,920,615 (3,741,852)	10,758,749 (3,115,767)
2nd quarter 2006	19,436,441 (5,628,856)	10,249,213 (2,968,205)	9,187,228 (2,660,651)
3rd quarter 2006	18,576,734 (5,379,882)	9,426,476 (2,729,938)	9,150,258 (2,649,944)
4th quarter 2006	23,870,136 (6,912,869)	10,860,604 (3,145,266)	13,009,532 (3,767,603)
Total	85,562,675 (24,779,228)	43,456,908 (12,585,261)	42,105,767 (12,193,967)

## 2 Evidence

### 2.1 Adolescent Pathological Gambling

For most of this time, there has been no professional approach to the phenomenon of pathological gambling in Lithuania. Even in the media, material on pathological gambling and pathological gamblers started to appear only in the late 1990s. The first case reports were published in the professional press in 2000 (Siurkute 2000).

The author of this chapter along with professors Satkeviciute and Burba conducted the first published study on pathological gambling in Lithuania in 2001. Data collection was based on interviews of 271 Lithuanian psychiatrists and psychotherapists about patients affected by pathological gambling before the legalisation of gambling. This survey showed that even before legalization there were pathological gamblers in Lithuania. Information on 77 clinical cases, 28.6% of whom were adolescents, was collected (Skokauskas, Burba & Satkeviciute 2002; Skokauskas, Satkeviciute & Burba 2003). Surprisingly, a high number of pathological gamblers were underage. The early onset of gambling is widely considered to be a risk factor in the development of gambling problems later in life. As a consequence, the first study on adolescent pathological gambling in Lithuania was conducted in Kaunas, the second biggest city in the country. This is so far the only Lithuanian gambling study conducted using internationally recognised gambling scales, thus it will be reviewed in more detail (Skokauskas & Satkeviciute 2007; Skokauskas, Satkeviciute, Burba & Rutkauskienė 2005).

Participants were randomly selected students in grades 5 to 12 (four classes from each grade) from all Kaunas secondary schools. Students from 32 classes from 24 schools and gymnasiums took part

in the study. There were 869 schoolchildren in the selected classes. In classes in which one or more pupils were absent on the day of the survey, up to three follow-up visits were arranged to complete the data set. In total, 835 adolescents, representing students from grades 5 to 12, answered questions and were included in the analysis. The response rate was 96%. The sample was 52.7% female and the mean age was 14.5 years ( $\pm$  2.2 years). Respondents were given a questionnaire to fill in during regular class time. Data collection took place in classrooms. All students in all 32 classes were given the same general instructions prior to commencing the study. Students completed the questionnaire individually, and were instructed that gambling is defined as an activity that involves an element of risk where money is wagered and could be won or lost. Participants were clearly informed that their participation was voluntary. At least two trained research assistants were present at all times to answer questions, and teachers were asked to leave the classroom. Respondents were requested not to write their names or surnames in order to maintain anonymity. Each student was assigned a unique identification code, which was noted on all documents.

A pilot study was conducted to test the working effectiveness of the questionnaire. This was administered to a sample of 35 participants. The revised questionnaire study comprised seven major sections and contained 47 questions. The first section included questions about respondents' demographics. Age and gender variables were each assessed by one item on the survey. In the second section, participants were asked if they had ever bet money on any of 12 named activities, or on "other types" of gambling. A list of all possible gambling activities available in Lithuania was prepared in conjunction with the Lithuanian State Gambling Control Commission. Respondents were asked to indicate

how often they had engaged in each type of gambling. Participants were able to list other types of gambling (“other type”) and to indicate how often they had engaged in each one. Since no Lithuanian instrument focuses specifically on the measurement of pathological gambling in adolescence, an attempt to adapt international gambling screens was made. Two different screening tests were used to assess gambling-related difficulties among adolescents. The third section of the questionnaire was composed of the South Oaks Gambling Screen (SOGS) Revised for Adolescents (SOGS-RA; Winters, Stinchfield & Fulkerson 1993). The fourth section of the questionnaire consisted of the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Multiple Response, Revised for Juveniles (DSM-IV-MR-J; Fisher 2000). Both adolescent gambling screens were translated into Lithuanian and back-translated to English. International experts compared the back-translation to the original version for accuracy, and this showed that the translated items closely resembled the meaning of the English items. The fifth section of the questionnaire included several questions about respondents’ experiences with gambling, including their perceptions of winning, typical gambling habits, gambling companions, initial gambling experience, and the gambling habits of their parents. In the questionnaire, adolescents were asked to indicate their reasons for engaging in gambling behaviour from a list presented to them. Also, participants were able to select “other reasons” and to enumerate them. Participants were allowed to indicate as many reasons as they thought relevant. The sixth section included questions about other factors that might be associated with pathological gambling in adolescence (emotional and academic factors, lack of social support, and involvement in computer games and the internet). A review of the literature provided support for factors possibly associated with pathological gambling in adolescence. The final section included questions about respondents’ legal and illegal drug use. The frequency of use of alcohol, cigarettes, and illegal drugs was measured on a five-point scale ranging from “never” to “every day”.

The adapted versions of international adolescent gambling screens were used for the first time in Lithuania. It was therefore important to test the instruments’ psychometric properties. Cronbach’s

alpha for the 12-item DSM-IV-MR-J in this sample was 0.80 (and 0.75 for the Lithuanian SOGS-RA). For item analysis, the SOGS-RA classification of social, at-risk, and pathological gamblers was used. All Lithuanian DSM-IV-MR-J screen items discriminate effectively between SOGS-RA-defined social, at-risk, and pathological gambling among adolescents in Kaunas. The differences between means of DSM-IV-MR-J scores in the SOGS-RA three sub-samples (social gamblers, at-risk gamblers, and pathological gamblers) were statistically significant. The correlation coefficient between the Lithuanian version of the SOGS-RA and the Lithuanian version of the DSM-IV-MR-J was also statistically significant. Using the DSM-IV-MR-J as the standard for pathological gambling in adolescence, the overall classification accuracy of the SOGS-RA was judged to be adequate, correctly identifying 34 out of 35 pathological gamblers. The false negative rate was low, but the false positive rate was higher (see Table 11.5).

Construct validity is a comparison of the measure with external validators. It is helpful to examine differences between pathological, at-risk, and social gamblers with respect to behaviours that are associated with pathological gambling but that are not included in the DSM-IV-MR-J. Measures related to gambling difficulties could include the frequency of gambling, the largest amount of money ever gambled in the past 12 months, or gambling using different modalities. The highly significant differences in the mean scores of regular (those adolescents who reported having gambled at least once per week) and occasional gamblers (those adolescents who reported having gambled less than once per week) on the DSM-IV-MR-J provided evidence of construct validity for the scale. Significantly more pathological gamblers (14.3%) than other gamblers (2.1%) spent a maximum of 100–200 Litas (28.96–

TABLE 11.5. Classification accuracy of the SOGS-RA.

SOGS-RA Score	DSM-IV-MR-J diagnosis		Total
	No	Yes	
<4	646	1	647
≥4	9	34	43
Total	655	35	690

SOGS-RA classification accuracy indices: sensitivity: 34/35 = 0.97; specificity: 646/655 = 0.986; false positive rate: 9/43 = 0.21; false negative rate: 1/647 = 0.0015

57.92 Euro) on gambling in the past 12 months. Pathological gamblers (71.4%) were also significantly more likely than non-pathological gamblers (51.8%) to gamble on more than two activities.

With regard to gambling participation, most respondents (82.7%) reported ever having engaged in at least one gambling activity. It is important to note that while 17.3% of adolescents reported never having gambled, female respondents accounted for a significant proportion of this group (66.2%). The mean age of the gambling group was 14.6 years. The most popular gambling activity among all gamblers was *Tele-Lotto*. Most respondents (53.9%) had played this lottery at some time. It was followed by other lotteries (36.8%) and betting (9.8%).

Based on the DSM-IV-MR-J, 4.2% (n=35) of participants were categorized as pathological gamblers, with a further 9.1% (n=76) classified as at-risk gamblers, 69.4% (n=579) as social gamblers, and 17.3% (n=145) as non-gamblers. Based on the SOGS-RA, 5.2% (n=43) of participants were categorized as pathological gamblers, with a further 10.5% (n=88) classified as at-risk gamblers, 67% (n=559) as social gamblers, and 17.3% (n=145) as non-gamblers. The DSM-IV-MR-J was found to be a more conservative measure of pathological gambling, identifying as it did 35 (4.2%) of the sample as pathological gamblers, whereas the SOGS-RA generated prevalence of 5.2%. The SOGS-RA identified a larger number of male respondents (8.4%) as pathological gamblers than did the DSM-IV-MR-J (6.3%). Both instruments identified equal numbers of female respondents (2.3%) as pathological gamblers. It was decided to use

the DSM-IV-MR-J as the main screen because of its conservative nature in identifying fewer pathological gamblers and because of its similarity to the DSM-IV criteria. Pathological gamblers endorsed all items more frequently than did social and at-risk gamblers, with using gambling as a way of escape or relieving dysphoric mood receiving the highest endorsement (65.7%). Other items frequently cited by pathological gamblers were preoccupation with gambling (60%) and lying about gambling activities to family members or others (51.4%).

In response to questions about their reasons for gambling (adolescents were able to select more than one response), the largest proportion of participants reported that gambling was mainly a form of enjoyment (49.1%). Other predominant reasons endorsed for gambling were "a chance to try luck" (44.6%), and "to win money" (34.1%). The top three reasons cited for gambling participation were the same for male and female respondents. The vprimary reasons given for engaging in gambling activities varied according to the severity of gambling (see Table 11.6). Of note was that gambling to win money was the reason given for gambling by the fewest pathological gamblers from among all the choices offered.

Adolescent pathological gamblers as compared with non-pathological gamblers were significantly more active on slot machines (51.4% vs. 8.1%), card games (17.1% vs. 6.9%), and short message service (SMS) gambling (28.6% vs. 8.9%). It is also noteworthy that non-pathological gamblers (66.3%) were significantly more likely than pathological gamblers (45.7%) to gamble only on *Tele-Lotto*. Pathological gamblers were found to be

TABLE 11.6. Reasons to gamble by gambling severity.

Reasons <sup>a</sup>	Social gamblers (n=579)		At-risk gamblers (n=76)		Pathological gamblers (n=35)	
	n	%	n	%	n	%
For enjoyment	284	49.1	42	55.3	13	37.1
To win money	211	36.4	21	27.6	3	8.6
In order to socialize	187	32.3	20	26.3	9	25.7
To relax	159	27.5	23	30.3	29	82.9
To distract myself from problems	108	18.7	24	31.6	23	65.7
To try my luck	258	44.6	37	48.7	13	37.1
To feel older	27	4.7	4	5.3	6	17.1
To improve mood	191	33	35	46	23	65.7
For excitement	114	19.7	22	28.9	13	37.1

<sup>a</sup>Respondents were able to select multiple reasons

older than at-risk and social gamblers. Gender differences were evident with respect to pathological gambling, with 6.3% of males and 2.3% of female respondents meeting DSM-IV-MR-J criteria for pathological gambling. It is noteworthy that significantly more pathological gamblers (14.3%) than non-gamblers (3.4%) and social gamblers (2.8%) had often thought about suicide. In addition, significantly more pathological gamblers (80.1%) compared with social gamblers (12.8%) reported that their parents gambled, and significantly more pathological gamblers (68.6%) compared with social gamblers (1%) reported that their parents gambled too much.

With respect to academic factors, significantly more pathological gamblers (34.3%) than social gamblers (6.9%) reported doing badly or very badly in school. Interestingly, with respect to poor academic achievement, no significant difference was found between at-risk (23.7%) and pathological gamblers (34.3%). More pathological gamblers (28.6%) than social gamblers (4.3%) reported having bad relationships with their parents. More pathological gamblers (28.6%) than at-risk gamblers (17.1%) reported having bad relationships with their parents, but this difference did not reach statistical significance.

Gamblers in the sample were found to use cigarettes and alcohol to a significantly higher degree than non-gamblers. Overall, 54.5% of gamblers reported ever having smoked as opposed to 33.1% of non-gamblers; 77% of gamblers reported ever having drunk alcohol compared with 44.1% of non-gamblers; and 16.5% of gamblers reported ever having used illegal drugs as opposed to 11% of non-gamblers. Pathological gamblers (57.1%)

were also more likely than were social gamblers (10.2%) to engage in regular (once a week or more often) alcohol use, and pathological gamblers (65.7%) were also more likely than were social gamblers (12.7%) to engage in regular smoking. A total of 2.9% of pathological gamblers reported using illegal drugs regularly as compared with 1.3% of social gamblers.

Internet addiction is another potentially addictive behaviour and internet relay chat (IRC) is said to be the most addictive internet application (Satkeviciute & Skokauskas 2000; Young 1998). A total of 34.3% of pathological gamblers, 32.9% of at-risk gamblers, and 19.2% of social gamblers reported that IRC was their favourite internet application. In order to ascertain how much time adolescents spent online and playing computer games, they were asked to indicate the average number of hours per day they currently spent at the internet and computer games. There was no significant difference between pathological, at-risk, and social gamblers in the average number of hours per day spent online or playing computer games.

A logistic regression explored the simultaneous effects of independent variables on the probability of being a pathological gambler. This analysis, summarised in Table 11.7, identified six characteristics that were significantly associated with pathological gambling in adolescence: being male, having cognitive distortions regarding gambling, having parents who gamble and gamble too much, using alcohol regularly, and smoking regularly.

Certain limitations of this study should be considered in interpreting the findings. First of all, this study used exclusively self-reported data. However, questionnaires based on self-reporting

TABLE 11.7. Independent variables significantly associated with pathological gambling in adolescence.

		OR	95% CI
Gender	Male Female	2.14* 1a	1.32–3.51
Familial factors	Having parents who gamble Not having parents who gamble	1.55* 1a 5.71* 1a	1.21–1.62 2.32–20.0
	Having parents who gamble too much Not having parents who gamble too much		
Alcohol use	Regular use (“every week” or more often) Irregular use (“every month” or less frequently) Total abstinence	1.32* 1.05 1a	1.23–1.54 0.95–1.13
Smoking	Regular smoking (“every week” or more often) Irregular smoking (“every month” or less frequently) Total abstinence	1.54* 1.22 1a	1.31–1.92 0.90–1.59
Cognitive distortions	Having cognitive distortions regarding gambling Not having cognitive distortions regarding gambling	2.2* 1a	1.40–3.61

OR odds ratio; CI confidence interval Reference \*p < 0.05

are the norm in research into adolescent gambling and other adolescent areas. Secondly, the results may not be generalisable to students in different geographic areas of the country because, according to the Lithuanian Gambling Control Commission, in Lithuania, gambling business is mainly concentrated in the big cities (Lithuanian State Gambling Control Commission 2004).

Overall, the study suggests that, in spite of legal restrictions, adolescents in Kaunas reported having engaged in all forms of gambling. Gender differences in young Kaunas gamblers were somewhat consistent with international studies (Jacobs 2000). More adolescents surveyed had gambled on *Tele-Lotto* than on any other gambling activity. *Tele-Lotto* was the favourite gambling activity of both occasional and regular gamblers, regardless of gender. The "other lotteries" category was the second commonest gambling activity among all gamblers. The popularity of lotteries for adolescents seems to be based primarily on the absence (contrary to the situation in most other countries) of a legal prohibition of such lotteries in Lithuania. Most adolescents probably have some difficulty gaining access to casinos or slot machines parlours, but they can easily buy lottery tickets (because they are legal). A second reason for the popularity of lotteries may have to do with advertising. *Tele-Lotto* is widely promoted as a form fulfilling one's dreams. A final reason for teenagers' fascination with *Tele-Lotto*, in particular, is that it offers a cheap opportunity of winning a very large jackpot.

Based on DSM-IV-MR-J, 4.2% of participants were categorized as pathological gamblers. This shows that most adolescents in Kaunas had control over their gambling behaviour. However, the results also clearly indicate that a small but identifiable number of adolescents had a significant gambling problem. Given that Lithuania has a liberal gambling policy (especially regarding lotteries) and a recent history of uncontrolled gambling, these rates should not be considered high. Prevalence rates of adolescent pathological gambling in Kaunas are similar to those reported in similar international studies (Becoña 1997; Fisher 1999; Gupta & Derevensky 1998; Jacobs 2000; Lesieur & Klein 1987; Lupu, Onaca & Lupu 2002; NRC 1999; Shaffer & Hall 2001; Sullivan 2001; Wood & Griffiths 1998). However, these

findings contrast with those of a Norwegian survey (Johansson & Götestam 2003), which found lower prevalence rates for pathological gambling. The Norwegian authors investigated the prevalence of gambling and pathological gambling in adolescents aged 12–18 years in Norway using the DSM-IV with a cut-off point of 5 for pathological gambling and 3 for at risk of pathological gambling. It should be noted that DSM-IV questions rather than a specific adolescent gambling screen were used in the Norwegian study. In addition, the study was conducted through telephone and posted interviews, and this resulted in a relatively low response rate. The study outlined in depth here confirms findings from an earlier investigation (Derevensky & Gupta 2000) that the DSM-IV-MR-J is a more conservative measure than the SOGS-RA.

It is worth noting that, in the study here, the most common activity of pathological gamblers was slot machines. In addition, pathological gamblers were significantly more likely than were social and at-risk gamblers to gamble on slot machines. Slot machines are fast, aurally and visually stimulating, require a low stake, and provide frequent payoffs. The capacity to get hooked on such an activity is immeasurably increased by the multiple sights, sounds, and other stimuli that become associated with the activity, and that become attractions in themselves (Jacobs 2000).

The results show that a number of factors are more common to pathological gamblers than to social or at-risk gamblers. The study found that parents have a very important impact on the gambling behaviour of their children. Having a parent or parents who gamble excessively increases the odds of a child's pathological gambling by a factor of 5.71. It is important to emphasize that having a parent or parents who gamble to excess was the strongest predictor of pathological gambling in adolescence. Having a parent or parents who gamble increases the odds of child gambling to a pathological degree by a factor of 1.55. This shows that an adolescent living with a parent who has a gambling problem may ultimately develop similar gambling behaviours. The role family influences play in the cause, development, and maintenance of pathological gambling can be viewed from two perspectives (i.e., a genetic and a social learning perspective). Social learning theory suggests that individuals

learn, model, and maintain behaviours that are observable and are reinforced. Hence, some adolescents probably become pathological gamblers as a result of learning through parental modelling, and erroneous beliefs develop (Gupta & Derevensky 1997). On the other hand, genetic factors probably play a role as well. Molecular genetic techniques have been used to investigate the role of genetic factors in pathological gambling. Associations have been reported between pathological gamblers and allele variants of polymorphisms at dopamine receptor genes, the serotonin transporter gene, and the monoamine oxidase A gene (Ibáñez, Blanco, Perez de Castro, Fernandez-Piqueras & Sáiz-Ruiz 2003). Demographically, the odds of becoming a pathological gambler are more than twice as high for men. Male gender is widely considered to be a risk factor in the development of gambling problems (Griffiths 1991; Gupta & Derevensky 1998; Hardoon & Derevensky 2002; Jacobs 2000; Winters et al. 1993). Erroneous beliefs about gambling increase the odds of pathological gambling by a factor of 2.2. These findings suggest that cognitive biases play an important role in the development of pathological gambling. From the list of other addictive behaviours, regular alcohol use and regular smoking are significant predictors of pathological gambling in adolescence. These findings echo most of the previous research into adolescent gambling (Jacobs 2000; NRC 1999). Taken together, the study provided an important baseline from which future research can compare rates of change in the prevalence of gambling and pathological gambling among adolescents in Lithuania.

## 2.2 Gambling in Adulthood: Preliminary Evidence

Despite having some prevalence data on adolescent pathological gambling, in Lithuania, no reliable data exist for adults. However, in 2006, the Lithuania Gambling Control Commission ordered an opinion pool in order to investigate people's opinions about gambling and gambling-related problems. *Spinter Tyrimai*, a public opinion research company, carried out the survey. There were 1,002 people interviewed and the sample represented the Lithuanian population from age 18 to 64 years. A total of 30.1% of respondents admitted that they have

gambled. The majority of respondents (34.2%) gambled in private circles (with friends and people they knew), lower numbers gambled in betting halls (32.9%), gaming machine halls (27.6%), and casinos (6.6%). Interestingly, a high number of respondents choose the option "other" (28.9%). The majority of gamblers were men (69.7%) and younger than 35 years (59.2%).

Most of the gamblers (79.6%) stated that they had not had problems related to their gambling behaviour. A total of 2.1% of respondents stated they had financial problems because of their gambling, 2% had psychological problems, and 0.1% admitted that they had other problems because of their gambling. Furthermore, 1.1% had various problems because of their relatives' gambling. It is also worth noting that 13% of respondents did not answer the question about gambling-related problems (see Table 11.8 for more detailed information). Although this study employed a representative sample of the Lithuanian adult population, a lack of statistical analyses and absence of any gambling-related problem screen makes it less valuable.

## 3 Action

### 3.1 Prevention and Treatment of Pathological Gambling

Gambling was legalised only 5 years ago in Lithuania. Initially there was very little attention given to gambling-related problems. Pathological gambling and gambling-related psychological problems were not even mentioned in the first redaction of the Lithuanian Gaming Law. Moreover, pathological gambling was considered as a "media created illness", which had no real background. Therefore, prevention and treatment of pathological gambling in Lithuania remains in an early developmental state. As a consequence, currently there is no national pathological gambling prevention policy in Lithuania. However, some policies regarding pathological gambling prevention are likely to be included in the second redaction of the Lithuanian Gaming Law. Despite the absence of a National policy, single prevention projects have been carried out quite successfully.



TABLE 11.8. Gambling-related problems and respondents' demographic characteristics (%).

	Incomes divided per person in the family (Litas)											Place of living			Gender	
	Age groups (years)											City	Town	Village	Male	Female
	18-25	26-35	36-45	46-55	>56	<300	301-500	501-1,000	>1,000							
Had financial problems because of gambling	3.8	2.6	1.4	1.1	1.6	2.9	1.2	1.5	3.7	1.4	2.9	2.3	3.6	0.7		
Had personal or family problems because of gambling	1.1	0.9	0.5	1.1	2.2	3.6	0.3	1.2	0	0	1.8	2.0	1.5	0.7		
Had psychological problems because of gambling	1.1	3.5	1.8	1.1	2.2	3.6	2.4	0.9	2.4	1.4	1.5	3.3	2.1	1.9		
Had other problems because of gambling	0	0	0	0.5	0	0	0	0.3	0	0.2	0	0	0	0.2		
Had financial problems because of relative's gambling	1.6	0.4	0.9	0.5	1.6	0.7	0.3	1.8	1.2	0.7	0.4	2.0	1.3	0.7		
Had personal or family problems because of relative's gambling	0	0.9	0.9	1.6	0	0.7	0.6	0.9	0	0	1.8	0.7	0.6	0.7		
Had other problems because of relative's gambling	0	0.4	0.5	0	1.1	0.7	0.3	0.3	0.6	0.5	0	0.7	0.4	0.4		
Did not answer	12.5	11.4	12.9	12.8	15.3	7.2	13.3	12.4	15.2	24.9	5.5	3.3	12.4	13.5		

In 2004, the author and the Lithuanian State Gambling Control Commission prepared the first Lithuanian information flyer on pathological gambling (Skokauskas 2004). It can be found in casinos and in other gambling places. Around the same time, the first requests for self-exclusion reached the Lithuanian State Gambling Control Commission. Currently, there is an official self-exclusion programme, run by the Gambling Control Commission and gambling operators. Interestingly, the possibility of self-exclusion was not considered in the Lithuanian Gaming Law and, from a legal standpoint, this programme is somewhat complicated. Most likely, a self-exclusion possibility will be officially included in the new Gaming Law.

Currently, any person who wants to be banned from gambling venues writes a request (with a photo) and addresses it to the State Gambling Control Commission. The commission distributes that information among all gambling operators (or just those mentioned in the written request). In 2006, 173 gamblers requested self-exclusion. In total at the end of 2006, there were 253 gamblers (239 men and 14 women) in the self-exclusion programme. Unfortunately, the Gambling Control Commission has very limited information about people who participate in this programme.

In terms of treatment of pathological gambling in Lithuania, various options are available at the moment. In general, psychologists, psychiatrists, and counsellors provide help for people with pathological gambling. There is no special centre for gambling addicts in Lithuania. However, public centres for addictive disorders exist in the four biggest Lithuanian cities. Their aim is to assess and manage patients with mental and behavioural disorders due to psychoactive substance use at inpatient, day hospital, and community levels. However, it is well known that some people with addiction problems also use private institutions. According to the State Mental Health Centre, 53 patients with gambling addiction were treated in the public centres for addictive disorders in a period from 2005 to 2007. Of these, 39 were treated in the capital addiction centre, 13 in Kaunas, and one in Klaipeda. The majority of them were treated for card gambling, roulette gambling, and internet gambling (State Mental Health Centre & Skokauskas 2007). Unlike other European countries, there is no gambling helpline for people with gambling problems in Lithuania.

The first self-help group (Gamblers Anonymous [GA]) was established in the capital of Lithuania 5 years ago. This author was invited to the few meetings of the first Lithuanian GA group in 2002. Initially, there were only a few members. However, they were quite active and soon people not only from the capital but also from nearby towns started to attend meetings in Vilnius. For a few years, the GA group in Vilnius had been the only GA group in Lithuania. More recently, GA members started to get together in Kaunas and Klaipeda (the second and third biggest cities in Lithuania). Lithuanian GA members keep in touch with similar groups in Latvia and other nearby countries.

## 4 Conclusion

Gambling was legalised only a few years ago in Lithuania. However, illegal gambling existed for at least a decade prior to legalisation. There is evidence-based information that there had been pathological gamblers even before the legalisation of gambling in Lithuania. Since the introduction of Gaming Law, rapid growth of the legal gambling business has been noticed. Lithuanian Gaming Law, in some contexts, has less restriction compared with most European countries. For example, there is no age limit to play lotteries. The first adolescent gambling study, which adapted and used international screens, showed that adolescent pathological gambling was a serious problem in Lithuania.

Despite early predictions and later evidence for pathological gambling in Lithuania, relatively little has been done to prevent pathological gambling. A few successful projects have been carried out, however, there is a lack of general approach. It seems that gambling-related problems are likely to receive more attention in the second redaction of Lithuanian Gaming Law.

Pathological gamblers can get treatment in Lithuania, both in the public centres for addictive disorders and in private settings. Unfortunately, no special treatment centre for pathological gambling or a specialised treatment programme exists. Also, there is no telephone gambling helpline for pathological gamblers in Lithuania. However, there are very active self-help groups in all biggest cities.

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# 12

## The Netherlands

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### 1 Background

The Netherlands is a country in northwestern Europe, and is bordered by Germany to the east, Belgium to the south, and by the North Sea to the west and north. Around 16 million people inhabit this country (2007), and, with a surface of 41,500 square kilometres, it is the most densely populated country in Europe, and 23rd on the world rank list (United Nations World Population Prospects 2004). Aruba and the Netherlands Antilles (in the Caribbean) are also part of the Kingdom of the Netherlands. The Netherlands is a parliamentary democracy since 1848, and a constitutional monarchy since 1815. The politics are characterised by a multi-party system, resulting in a coalition government. The Netherlands is a member of the European Union, North Atlantic Treaty Organization (NATO), and the Organisation for Economic Co-operation and Development (OECD). It hosts the International Criminal Court, and is one of the Benelux nations. The gross domestic product of the Netherlands ranks 16th in the world, with the largest part consisting of the service sector. Industrial activity is predominantly in food processing, chemicals, and petroleum refining. Although agriculture only employs 4% of the labour force, the Netherlands ranks third worldwide on exports of products such as flowers and vegetables. Historically, the Netherlands is affiliated with a multitude of religions, but with 40% of the population having a religious affiliation, the country is one of the most secular in the world currently.

#### 1.1 Regulation of Gambling: Legal Framework

Until 1726, all gambling activities (mainly lotteries) were prohibited in the Netherlands. This changed in 1726 when the State Lottery (then called the *Generaliteitsloterij*) was established. In 1905, the Lottery Act legalised the other lotteries. In the 1930s, horse betting became legal in the Netherlands, followed by sports betting in 1958. This situation was incorporated in 1964 in one comprehensive Gambling Act ("*Wet op de kansspelen*" [Wok]) that regulated the State Lottery, other lotteries, horse betting, and sports betting. The Gambling Act was extended with (government-licensed) casinos in 1974 (initially there were 3 casinos; in 2007 there were 14 casinos), slot machines outside casinos were allowed in 1986, and scratchcards were allowed in 1994. The latest development in legalised gambling is an experiment with internet casinos, which is expected to be implemented by the end of 2007. In 2009, a new gaming law is expected to replace the Gambling Act. This law will install a completely new regulatory organisation (replacing the Netherlands Gambling Control Board), which will have much more authority and power.

Dutch politics has always been ambivalent with respect to gambling. However, since many people wanted to (and actually did) play games of chance, prohibition would cause a large illegal circuit. Regulation is seen as a way of keeping gambling out of the illegal circuit. The Dutch Gambling Act has three main objectives:

1. Channeling: more specifically, giving people who want to engage in gambling a legal opportunity (this is supposed to decrease illegal gambling). However, the number of providers is restricted by this law. The market of national games of chance is monopolised by the Dutch government.
2. Protection of customers: guaranteeing a fair game.
3. Prevention of gambling addiction.

Several court sentences have sanctioned the restrictive policy of the Dutch (and other) governments with regard to casinos and sports betting. However, European developments tend towards open markets and against the protection of local markets. This made it necessary (in order to comply with the aforementioned courts sentences) to bring the actual national policy more in line with the objectives of the Gambling Act. Therefore, in the last couple of years, the policy has become more restrictive (e.g., limiting advertising and sponsoring activities of providers of games of chance, and limiting the number of new casinos).

Providers of games of chance within the monopoly are not allowed to make any personal profit. All gains are either for good causes (sports betting, scratchcards, all lotteries, with the exemption of the State Lottery) or taxes (State Lottery, casinos). There is one exception to this rule: slot machines outside casinos may be (and are) exploited for personal gain.

All games of chance within the national monopoly (i.e., all aforementioned games of chance with the exception of slot machines outside casinos) are regulated by the Ministry of Justice, which is advised by the Dutch Gaming Control Board. Slot machines outside casinos are regulated both by the Ministry of Justice, which licenses the machine, and by the municipal authorities who are authorised to issue or deny a specific person or organisation permission to place the machines at a specific site. Local lotteries and small betting games, with a maximum prize money of 1,380 Euros, such as charity bingo and charity lottery, are regulated by the municipal authorities. Occasional lotteries (with prizes of 4,500 Euros or more) need the permission of the Ministry

of Justice. Furthermore, approximately 43,000 slot machines (including multi-player machines) were present outside casinos in 2004 (De Bruin, Benschop, Braam & Korf 2006).

Since the first government policy on games of chance was established, a ban on gambling activities has been the starting point of the Dutch gambling policy, and regulating gambling activities takes place by allowing licenses for specific gambling activities to specific stakeholders, as exceptions to the ban. Thus, in the Netherlands, an important part of gambling activities is state licensed. For example, only state-licensed casinos are present (*Holland Casino*), and the profits of the *Holland Casino* are returned to the treasury, and only state-licensed lotteries are present, with profits being spent on charity and/or returned to the treasury. The first casino establishment opened in 1976, and, in 2007, 14 establishments were present. In the Netherlands, games of chance are not defined as a “free market” service, by the Department of Justice. The Netherlands Gaming Control Board (*College van toezicht op de kansspelen*) was established in 1996, and functions as an independent advisory body to the Minister of Justice, as regards national gaming policy. The Gaming Control Board does not have any coercive or compulsory power. In spring 2007, a French Casino enterprise was denied access to the Dutch gambling market (decision by *Raad van State*, the highest institution for administrative law), after years of legal struggle. The background of the Dutch gaming regulation law is that, by regulating gambling, negative consequences of gambling, like problem gambling, illegal gambling, and criminal activities, will be diminished, and citizens will be protected from fraudulent gambling enterprises. The mission of the Netherlands Gaming Control Board is to supervise the national gambling monopolies. These consist of the Netherlands State Lottery, National Good Causes Lotteries (consisting of three different lotteries/organisations), “De Lotto” (scratchcard lottery, sports betting, and lotto), *Scientific Games* (horse betting), and *Holland Casino*. The Gaming Control Board advises the Minister of Justice on the licenses for these monopolies.

The Gaming Control Board publishes yearly reports on revenues of the gaming monopolies,

and commissions research to research institutes or bureaus.<sup>1</sup> For instance, it commissions a yearly study into the extent of interactive (i.e., telephone, internet, and television) gambling. With regard to television telephone games, which are abundantly present on commercial television during daytime (up to 15 hours a day, summed across four television stations), these games are “tolerated” and, until recently, no measures were taken. However, following debate in the national media, the Department of Justice prosecuted two providers of telephone games for providing games of chance without the necessary license. Thus, with this prosecution, legal repercussions will either follow or remain forthcoming for all providers, depending on the verdict on whether these “telephone games” should be regarded as illegal games of chance.

## 1.2 Available Forms of Gambling and Popularity

The total revenue of the gambling monopolies in the Netherlands, over the last 10 years, gives an interesting picture of changes in the total costs, and net revenues. As can be seen in Table 12.1 gross and net revenue increased from 1996 until 2003, after which a levelling off was present for the years 2004 and 2005. The Gaming Control Board ascribes this levelling off to the stricter regulation policy that has been in effect for the last years (*Jaarverslag* 2005 2006). Since this levelling off was during the last 2 years only, it is unknown whether this trend will be prolonged, or whether a further increase or decrease will take place.

Regarding slot machines that are placed outside *Holland Casino* establishments (and are not part of the gambling monopoly), estimations of yearly turnover from gambling machines range from 420 million Euros to 1,300 million Euros (Jansen & Braam 2003). In 2004, approximately 43,000 slot

TABLE 12.1. Gross and net revenues in million Euros for total Dutch gambling monopolies (excluding slot machines outside casino settings).

Year	Net Revenues	Taxes	Costs
1996	344	68	370
1997	374	76	403
1998	414	84	449
1999	458	92	500
2000	468	105	548
2001	517	128	644
2002	540	144	732
2003	606	148	747
2004	643	144	732
2005	579	190	731

machines (including multi-player machines) were present outside casinos. About 15,290 of these slot machines were located in 282 gambling and gaming arcades. Twenty of these gambling/gaming arcades offered games of skills machines only, and the total number of games of skills machines in gambling and gaming arcades was 1,220 in 2004 (De Bruin, Benschop et al. 2006). The remainder of slot machines outside casinos (about 27,000) is located in establishments such as bars and restaurants. The gambling machines outside casinos, by law, have a payout ratio of at least 60%, and the average loss on these machines is restricted to 40 Euros an hour. The Dutch casinos exploit about 5,000 slot machines. The main differences with slot machines outside the casinos are: 1) slot machines inside casinos have a payout ratio of at least 80% and 2) the amount of money one can lose on gambling machines inside casinos is unrestricted.

The number of slot machines has diminished since the implementation of a more restrictive gambling law in 2000, which, after a transitional phase, is now in full effect. Part of this policy was targeted at diminishing “automatic continuation of gambling”, such as adding an obligatory payout when winnings of 40 Euros or more are present. All of these policy efforts were targeted at slot machines placed in the catering industry. A reduction of the attractiveness of gambling machines was targeted by banning sounds and flashing lights when a slot machine is not occupied. A further reduction of slot machines took place by banning slot machines from “lower level catering establishments” (e.g., bowling alleys, sport canteens, and snack bars),

<sup>1</sup> Summaries in English, for example on studies on interactive gambling (yearly), participation in foreign games of chance in the Netherlands (Vermeer & Brouwer 2002; Vermeer & de Graaff 2004), and the effectiveness of problem gambling prevention policy of the *Holland Casino* (De Bruin et al. 2001b), can be found on the website of the Board, as well as full reports in Dutch: [www.toezichtkansspelen.nl/information.html](http://www.toezichtkansspelen.nl/information.html).

and by reducing the number of slot machines in licensed cafes, pubs, and restaurants to a maximum of two per establishment. In addition, local government can decide to allow no slot machines or only one slot machine per establishment. The minimum age to gamble was set at 18 years, and the legal age to enter a gaming hall (which also include skills machines), was also set at 18 years. Owners or managers of cafes or gaming halls have to have enough knowledge on the risks of gambling addiction, for which a national certification exists.

## 2 Evidence

### 2.1 Gambling Participation: Comparison with Gambling in Other European Countries

A recent report by the Swiss Institute of Comparative Law, as commissioned by the European Commission, compares the scope and extent of gambling services and expenditures of European Community Countries (Study of Gambling Services in the Internal Market of the European Union 2006). In this study, the propensity to gamble in the Netherlands is estimated at 0.45. This might seem fairly low, however, the numbers are skewed due to the high gambling propensity in Malta (2.73), and Cyprus (1.62), countries in which a large proportion of the gambling market consists of remote gambling. When comparing the Netherlands with neighbouring countries with comparable economic situations, it is apparent that more people gamble in the Netherlands compared with Belgium (0.25), Luxembourg (0.32), and Germany (0.39). A comparable propensity to gamble is present in the Netherlands as in Denmark (0.44) and France (0.48). A higher propensity to gamble is present in the United Kingdom (0.69). Expenditures on gambling in the Netherlands are estimated at 127.50 Euros per person. Compared with the gross gaming revenues (GGRs) in the European Union, the GGR of the Netherlands differs on several areas (Study of Gambling Services in the Internal Market of the European Union 2006). As is pointed out in Table 12.2 spending on casino gambling and on machine gambling outside casinos is relatively high, whereas expenditures on lottery and betting are much lower than the European average. Although data on bingo

TABLE 12.2. Percentage of gross gaming revenue (GGR) of European Union member states, and percentage of GGR of the Netherlands, spent at different gambling activities.

	% of GGR EU member states (2000–2004)	% of GGR Netherlands (2004) <sup>a</sup>
Lotteries	44.6	34.5
Casino gambling	14.6	28.7
Slot machine gambling outside casinos	18.8	36b
Betting	17.2	0.75
Bingo	4.8	0.5c

<sup>a</sup>Numbers may not amount up to 100%, due to rounding

<sup>b</sup>This estimate is based on an estimation from the Netherlands Gaming Control Board

<sup>c</sup>This estimate is based on data from 2001 (*Verkeerd gokken* 2001). Only charitable bingo is present in the Netherlands, and no legal commercial bingo exists in the Netherlands. Recent data on bingo GGR are not available for the Netherlands

are only present for 2001, bingo seems to account for a lower percentage of the GGR compared with the mean GGR in the European Union. However, since a study indicates that illegal commercial bingo facilities are present, the actual bingo expenditures will be higher (*Verkeerd gokken* 2001).

### 2.2 Prevalence of Gambling Problems at the National Level

This section of the chapter is based mainly on a recent population study (n=5,575) conducted in 2004 by the Center for Addiction Research (CVO; De Bruin, Meijerman, Leenders & Braam 2006). The research was commissioned by the Research and Documentation Centre of the Ministry of Justice (*Wetenschappelijk Onderzoeks en Documentatie Centrum* [WODC]). *Wired to more than one game* is a study on the nature and extent of problem gambling in the Netherlands. It consists of a cross-sectional study of Dutch inhabitants, aged 16 years and older. The sample was selected randomly, based on Dutch postal codes (i.e., a household sample). A total of 5,575 respondents were included, their mean age (weighted) was 43.8 years (standard deviation, 17.3; age range, 16–99 years). The sample was 56.6% female.

Overall, the response rate was 28%. The response in middle-aged women was higher than in young men, but lower in lower educated people and in people from ethnic minorities. In order to better generalise

to the Dutch population, the data were weighted on demographic features like gender and age but also on education, ethnicity, and household size. In this cross sectional study, a Mixed-Mode Questionnaire was used: respondents could fill in the questionnaire by telephone (Computer-Assisted Telephone Interview), via the internet (Computer-Assisted Web Interview), or respondents could fill in a printed questionnaire (Paper-Assisted Personal Interview) and send it back in a stamped return envelop.

The screening instrument used for assessing pathological gambling was a Dutch version of the South Oaks Gambling Screen (SOGS; Lesieur & Blume 1987). The SOGS consists of 20 items and is a commonly used and validated screener for pathological gambling. A SOGS score of 3–4 indicates a potential problem/pathological gambler (level 2 gambler) and a SOGS score of 5 or more indicates a probable pathological gambler (level 3 gambler). An important change that was implemented was the administration of the SOGS using both a lifetime timeframe, as in the original SOGS, and a variable timeframe (respondents were asked when the SOGS item occurred for the last time). In this way we could generate the prevalence of problem gambling in all sorts of time frames, such as last week, last month, and last year. However, the time frames for prevalence of problem gambling used and presented here are the lifetime prevalence (LTP) and the last year prevalence (LYP).

We found relatively small lifetime and last year prevalence rates for probable pathological gambling (see Table 12.3). About 1% of the Dutch population ever was a probable pathological gambler (i.e., a SOGS score of 5+), whilst 1.5% could be considered a potential problem/pathological gambler (i.e., a SOGS score of 3–4). Since 87% of Dutch inhabitants are estimated to have gambled at some point during their lifetime (11 million people), a relative small proportion experiences problems with gambling. It is estimated that, in the Netherlands, about 133,000 ( $\pm 35,000$ ) people have ever had a problem with gambling.

The last year prevalence for probable and potential problem/pathological gambling is much lower than the lifetime prevalence, indicating that a relatively large proportion of the lifetime problem gamblers are former problem gamblers. Generalised to the Dutch population, this means that there are approximately 40,000 ( $\pm 19,000$ ) recent probable pathological gamblers in the Netherlands. Besides these probable pathological gamblers, there are approximately 76,000 ( $\pm 26,000$ ) potential problem/pathological gamblers. The low response rate in the study (28%) requires some caution in interpreting these prevalence estimates. The low response rate could have led to a lower limit estimation for the true prevalence. Although this cannot be proven, exclusion of persons who were not at home, exclusion of persons with only a cell phone, and earlier estimations of 50,000 to 70,000 pathological gamblers, based on the Composite International Diagnostic Interview (Koeter, van den Brink & Niewijk 1996), a more stringent measure of pathological gambling than the current SOGS-based probable pathological gambling estimation (De Bruin, Benschop et al. 2006), suggest that the current estimation may more likely be a lower limit than an upper limit of the true prevalence.

The number of probable pathological gamblers in the Netherlands seems to be lower than was often assumed in Dutch addiction literature, although the most recent review of problem gambling research in the Netherlands estimated the prevalence of problematic gambling to lie between 0.25% and 0.76% (Van den Brink, Koeter, Derks & Poelijoe 1994). The study described above, conducted in 2004, indicates that the number of probable pathological gamblers can be re-adjusted to around 40,000. However, the 95% confidence interval of the estimate is relatively high, with a bottom margin of 21,000 and a top margin of 59,000. The bottom margin of the 70,000 estimate therefore overlaps with the top margin of former estimates.

One possible explanation for the lower estimation of probable pathological gamblers could lie in

TABLE 12.3. Prevalences of probable pathological gambling (SOGS  $\geq 5$ ) and potential problem/pathological gambling (SOGS 3–4) in the Netherlands.

		Non-gambler	SOGS 0–2	SOGS 3–4	SOGS $\geq 5$
Dutch inhabitants	Lifetime prevalence	13.0%	84.5%	1.5%	1.0%
16+ years old (n=5,460)	Last year prevalence	28.3%	70.8%	0.6%	0.3%



a number of policy measures that have been taken over the years. For instance, since the beginning of the 1990s, a trend has started at a municipal level to ban slot machines from accessible catering establishments such as snack bars and sports canteens. Another explanation for a decrease in the number of probable pathological gamblers is the efforts made by the suppliers of slot machines aimed at prevention. Since the 1990s, *Holland Casino's* prevention policy has improved, together with that of amusement arcades. Problem gamblers are, for example, approached about their gambling behaviour, and have the option to request a voluntary entry ban or visit restrictions. In the amusement arcades, visitors can allow their names to be added to a so-called "white list". *Holland Casino* and amusement arcade employees also receive training so that they can recognise and draw attention to gambling addiction. They also learn conversational skills to enable them to address problematic gamblers about their behaviour (De Bruin et al. 2001b).

An indication that the number of probable pathological gamblers has decreased can also be derived from the trend in addiction care organisations that has been noticeable since the mid-1990s. Since 1994, fewer and fewer persons have sought help at local mental health addiction institutes for gambling problems. The number of problem gamblers (with gambling as the primary problem) who reported at the Institutions for Addiction Care in 2003 decreased by more than half in comparison with 1994. In 1994, around 6,000 people sought help primarily for gambling problems at addiction care organisations, but, in 2002, only 2,800 people sought help. In 2003 and 2004, there was a slight increase in the number of people asking for help for the first time in 10 years. However, this trend did not continue in 2005. A possible reason for this phenomenon maybe the introduction of the Euro (in 2002) and the associated 75% price increase per game for slot machines (from a 25-cent piece to 20 Euro cents).

The number of probable pathological gamblers in the Netherlands is also relatively low compared with studies from abroad:  $0.3 \pm 0.14\%$  of the population aged 16 years and over. In Sweden and Norway, prevalence figures for pathological gambling were found to be between 0.2% and 0.6% of the population (Norwegian Gaming Board 2003). In Canada and the USA, recent prevalence figures for

pathological gambling were found to be considerably higher: 1.8% in Canada (Jacques, Ladouceur & Ferland 2000) and 1.9% in the USA (NORC 1999). Although participation in gambling is substantial (87% of the population aged 16 years and over), relatively few people seem to experience problems. But that does not alter the fact that persons who do have problems with gambling sustain considerable social, economic, and mental health problems. This not only applies to themselves, but also to people in their immediate environment such as partners, parents, and children. They also often have to deal with the long-term financial and social consequences of problem gambling.

### 2.3 Identification of High-Risk Groups, Risk, and Protective Factors

*Gender.* First of all, problem gambling is gender related; about 4% of the male respondents ever experienced gambling problems, for female respondents this percentage was below 1% (see Table 12.4). This means that, of the group of problem gamblers, only 11% are female. In terms of relative risk (RR), for the male population, lifetime prevalence RR is 9 and last year prevalence RR is 5 compared with women.

*Age.* Another risk profile for lifetime problem gambling is age (see Table 12.5). Research results indicate that a relatively small percentage (less than 1%) of adolescents between 16 and 18 years can be defined as a lifetime possible pathological gamblers. We see the highest prevalence of probable pathological gambling in the age groups between 18 and 50 years. The lifetime prevalence of probable pathological gambling is lower in the elderly (50 years and older), but no differences are present in last year prevalence for this age group.

TABLE 12.4. Potential and probable problem/pathological gambling prevalence by gender.

	SOGS 0–2	SOGS 3–4	SOGS $\geq$ 5
Lifetime prevalence			
Men	95.7%	2.5%	1.8%
Women	99.4%	0.4%	0.2%
Last year prevalence			
Men	98.5%	1.0%	0.5%
Women	99.8%	0.1%	0.1%

TABLE 12.5. Prevalence of potential and probable pathological gambling by age.

	SOGS 0–2	SOGS 3–4	SOGS ≥5
Lifetime prevalence			
Minor (16–18 years)	99.3%	0.7%	0.0%
Young adults (18–30 years)	97.7%	1.5%	0.8%
Adults (30–50 years)	96.5%	1.9%	1.6%
Adults (50+ years)	98.4%	1.1%	0.5%
Last year prevalence			
Minor (16–18 years)	99.3%	0.7%	0.0%
Young adults (18–30 years)	99.5%	0.0%	0.5%
Adults (30–50 years)	99.0%	0.8%	0.3%
Adults (50+ years)	99.1%	0.6%	0.3%

*Ethnicity.* Ethnicity is another demographic factor that seems to influence problematic gambling. Ethnic minorities are split into two groups: “first generation” refers to people who were not born in the Netherlands. “Second generation” refers to people born in the Netherlands with either Western or non-Western parents who were not born in the Netherlands. Western refers to European or North American, Japanese, and Indonesian descent. Non-Western refers to African, Arab, and Mid-American, or Asian minorities (except Japanese and Indonesian). The lifetime prevalence of problem gambling in native Dutch people is lower than in ethnic minorities (see Table 12.6). However, for recent problematic gambling, there is less probable pathological gambling (SOGS 5+) in ethnic minorities, but still they score higher on potential problem/pathological gambling (SOGS 3–4). Especially notable are the high SOGS 3–4 scores in second-generation non-Western minorities.

*Daily activities and employment status.* The highest prevalence of problem gambling is present in the unemployed (see Table 12.7). About 8% of the unemployed have been potential or probable pathological gamblers at some point during their lives. The largest group of potential/probable pathological gamblers in absolute numbers consists of the working class; about 3% of the people doing a paid job have problems with gambling. A third risk group consists of people who are retired or who live off private means.

*Other possible risk groups: Single men and lower educated persons.* The profiles of gamblers differ according to the form of gambling. Lotteries

TABLE 12.6. Prevalence of potential and probable problem/pathological gambling by ethnicity.

	SOGS 0–2	SOGS 3–4	SOGS ≥5
Lifetime prevalence			
Native Dutch	98.0%	1.2%	0.8%
First generation Western	95.5%	1.9%	2.6%
First generation non-Western	94.5%	2.9%	2.6%
Second generation Western	97.0%	1.3%	1.7%
Second generation non-Western	91.8%	8.2%	0.0%
Last year prevalence			
Native Dutch	99.3%	0.4%	0.3%
First generation Western	98.1%	1.9%	0.0%
First generation non-Western	98.4%	1.6%	0.0%
Second generation Western	99.7%	0.0%	0.3%
Second generation non-Western	96.4%	3.6%	0.0%

TABLE 12.7. Prevalence of potential and probable problem/pathological gambling by employment status.

	SOGS 0–2	SOGS 3–4	SOGS ≥5
Lifetime prevalence			
Unemployed	92.1%	3.1%	4.7%
Full-time job	96.8%	2.0%	1.2%
Retired	95.8%	3.2%	1.0%
Unemployed disabled	97.5%	1.4%	1.0%
Unpaid labour	98.4%	0.3%	1.3%
Part time job	99.1%	0.6%	0.3%
School/study	100.0%	0.0%	0.0%
Last year prevalence			
Unemployed	96.3%	3.1%	0.5%
Full-time job	99.0%	0.6%	0.4%
Retired	98.7%	1.3%	0.0%
Unemployed disabled	99.4%	0.4%	0.2%
Unpaid labour	99.8%	0.1%	0.1%
Part time job	99.6%	0.3%	0.1%
School/study	99.6%	0.4%	0.0%

are particularly popular amongst elderly Dutch citizens. Young people and non-Western immigrants are less likely to take part in lotteries. However, young people and, in particular, young men (Dutch natives as well as second-generation immigrants),

more often gamble on slot machines. They are usually unmarried, still at school, and belong to lower income groups. Casino gamblers have a completely different profile. More men than women gamble in casinos, but the difference is smaller than with slot machines. The average age, level of education, and disposable income of casino gamblers are much higher compared with slot machine gamblers. Casino gamblers usually have a paid full-time job or are self-employed entrepreneurs. The highest percentage of participants in casino gambling is found in the large cities and in cities where there is a *Holland Casino* establishment (the only legal casinos present in the Netherlands). Scratchcards are purchased by a much wider section of the population. Women are as likely as men to take part in this form of gambling. Elderly people purchase scratchcards less frequently. A noticeably large number of first-generation immigrants take part in scratchcard lotteries. It appears to be easier to define the type of gamblers who are involved in betting on horses. These people are generally highly educated Dutch natives with a high income.

However, the profile of potential and probable problem gamblers is not a direct reflection of the people who take part in gambling. Potential or probable pathological gamblers are usually unmarried men between the age of 30 and 50 years. Potential/probable pathological gambling is less prevalent among older people (50+ years) and among younger people (16–30 years). Other potential/probable pathological gamblers who become evident from the analyses are found among those with a lower level of education and among non-

Western immigrants. People from this group do not generally participate more frequently in gambling; however, those who do gamble appear to experience more problems. We also find a relatively high number of problem gamblers among the unemployed. Additionally, it appears that the respondents who are single or divorced are more likely to have problems with gambling than those who are married. Although women in general are less likely to experience gambling problems, those women who do have gambling problems are more likely to be unemployed due to health problems and more likely to have no children.

*Addictive potential of different gambling forms.* Besides linking problematic gambling to demographic features of the respondents, it is also possible to link problematic gambling to the games played. In this way we can answer the question if particular games of chance are generating more risks than others.

Most probable pathological gamblers take part in several different forms of gambling. The actual main form of gambling that is associated with the gambling problem is therefore often unclear. In the Netherlands, slot machines and casino gambling are more closely related to gambling problems than, for instance, lotteries and betting on horses (see Table 12.8). A larger proportion of punters in the illegal circuit have gambling problems. Gambling in the illegal circuit clearly appeals to potential and probable pathological gamblers in particular and much less to recreational gamblers. Participation in sports pools (at work, in cafes) and playing cards or dice for money are also popular pursuits for many of those who have a SOGS score of 3 or more.

TABLE 12.8. Last year gambling engagement with percentage of total of people engaging in specific activities, found in different gamblers, divided by SOGS scores and relative risk (RR).

Recent players (last year prevalence)	SOGS 0–2	SOGS 3–4	SOGS ≥5	RR (SOGS 3–4)	RR (SOGS ≥5)
Lotteries	99.2%	0.5%	0.3%	1.0	1.0
Scratchcards	97.6%	1.5%	0.9%	3.0	3.0
Slot machines	95.9%	2.2%	2.0%	4.4	6.7
Casino games	96.3%	2.5%	1.2%	5.0	4.0
Horse race betting	100.0%	0.0%	0.0%	0.0	0.0
Internet	100.0%	0.0%	0.0%	0.0	0.0
Illegal	91.2%	2.9%	5.9%	5.8	19.7
Playing cards and dice	95.5%	1.7%	2.8%	3.3	9.3
Sport pools	97.1%	1.2%	1.6%	2.4	5.3
Bingo	98.9%	0.4%	0.7%	0.8	2.3

Problematic gambling is not only linked to the type of gambling or the type of location, but also in particular to the *number* of different short-odds games in which the person is participating. In other words, most problem gamblers are addicted to more than one game. The combination of gambling on slot machines in amusement arcades and in the catering industry (for instance, in cafes or restaurants) shows the strongest link to problematic gambling, in this most recent problem gambling study in the Netherlands (De Bruin, Meijerman et al. 2006).

Furthermore, in the face-to-face interviews we encountered a relatively large number of problem gamblers who gamble mainly in amusement arcades. However, we must be cautious in concluding that this type of location has a stronger link with gambling problems than, for instance, branches of the *Holland Casino*. It appears from the analyses that gambling problems are not so much related to the location or the type of gambling as to the *frequency* with which gamblers take part in the relevant form or forms of gambling. Regular gamblers in *Holland Casino* experience problems with gambling just as frequently as regular gamblers in an amusement arcade. However, the amusement arcades largely attract visitors who enjoy gambling on slot machines. The people who visit these places do this relatively often. The *Holland Casino* attracts a much wider range of people going out—occasional visitors, tourists, but also regular visitors. The average visit frequency at a *Holland Casino* is generally lower than at amusement arcades. As a result of this, a much larger proportion of those present in an amusement arcade at any given time will be frequent visitors and have problems with gambling than in a *Holland Casino*.

## 2.4 Presentation of Implementation of Models on Problem/Pathological Gambling: Regulation of New Forms of Gambling

### 2.4.1 An Example of the Introduction of New Forms of Gambling: Scratchcards

In 1994, scratchcards were introduced in the Netherlands. The introduction of scratchcards was accompanied by a public debate on the addictive potential of scratchcards. The first study into the

prevalence of scratchcard gambling and correlates of at-risk gambling was done in the first year of introduction of scratchcards (Hendriks, Meerkerk, van Oers & Garretsen 1997). This study (n=4,497 scratchcard players) indicated that 4.1% could be defined as at-risk scratchcard gamblers. The definition of an at-risk gambler was the presence of at least one at-risk indicator, similar to loss of control indicators as present in the SOGS. Problem scratchcard gamblers comprised 0.7% of the sample, defined by at least one “problem indicator” such as financial problems, social problems, or psychological problems due to scratchcard gambling. At-risk and problem gamblers were more likely to be male (76% versus 59%), to have a poor socio-economic background, were more likely to be heavily involved in other forms of gambling, and were more likely to have used marijuana and to drink alcohol excessively.

Since it usually takes several years before gambling problems develop from gambling activities, this study was not able to assess the addictive potential of scratchcards (Hendriks et al. 1997). Therefore, a second study started 5 years after the introduction of the scratchcard lottery, and consisted of a prevalence (DeFuentes-Merillas, Koeter, Bethlehem, Schippers & van den Brink 2003) and an incidence study (DeFuentes-Merillas, Koeter, Schippers & van den Brink 2004). The prevalence study showed that, from a random sample of 12,222 scratchcard buyers, and, within this sample, from 3,342 regular scratchcard buyers (first scratchcard bought more than 6 months ago, 10 or more scratchcards in the previous month), 2.68% were potential problematic scratchcard players. Problematic scratchcard gambling was defined by having a score of 3 or more on an adapted scratchcard version of the SOGS (DeFuentes-Merillas et al. 2003). Only 0.24% met Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) criteria for pathological scratchcard gambling (PSG), as measured by a scratchcard version of the Diagnostic Interview Schedule, section T; and only 0.09% had a unique PSG diagnosis, the other 0.15% were also pathological gamblers addicted to other games of chance. The incidence study, with a 2-year follow up, of the at-risk scratchcard players from the first study, indicated that the 2-year cumulative incidence of PSG was 6.72%, and the 2-year incidence for the total sample was estimated

to be 0.24%. Stability of PSG was low (11% for the participants followed up), but ranged to 43% if all participants lost to follow-up were assumed still to have PSG. However, of all PSG at year 1, 50–68% still could be defined as problematic scratchcard gamblers 2 years later (i.e., SOGS scores <greater than>2). Although prevalence rates were stable over time, the number of new and recovered cases was almost the same, and, thus, it does not imply stable diagnosis over time. These findings indicate that PSG is a rare phenomenon in the Netherlands, comparable to the findings of other studies on scratchcard gambling (Aasved & Schaefer 1995; Hendriks et al. 1997; IPM 1993). Since people with unique PSG spend a relatively low amount of money on scratchcard gambling, and have less symptoms than those with PSG with another pathological gambling disorder, the appropriateness of the DSM criteria for this specific group is questioned by the researchers (DeFuentes-Merillas et al. 2003).

#### 2.4.2 Internet Gambling and Gambling Through “New Media” in the Netherlands

The Netherlands Gaming Control Board (*College van toezicht op de kansspelen*), commissioned a study in 2001 to gain insight into the development and the extent of paid interactive internet gambling and telephone or short message service (SMS) gambling (i.e., telephone games in which a prize or amount of money can be won through calling or SMS; e.g., gambling games on the national television). Since then, yearly studies are conducted to track down trends and new developments in internet gambling. Until now, providing or participating in internet gambling and other e-gambling has been illegal in the Netherlands. To provide a legal alternative for this illegal practice, a temporary test of internet gambling through the *Holland Casino* was expected to take place in the near future. The Senate voted against this experiment on April 1st 2008.

The sample size of the study on gambling through new media in 2005 was 12,717 participants, aged between 18 and 55 years (Motivation 2005). For 2002, the age group of 15–17 years was also included. The method used in each yearly sample was through an internet questionnaire, from a larger internet panel ( $n=62,112$ ), which was, for the most part, selected through a-select telephone calls.

Results of the study were weighted (correction for self-selection of samples) in order to produce a representative sample of the total population of Dutch internet users. Each year included, for the most part, different participants. Of those participants who participated in two consecutive years, 2-year consecutive continuation rates of internet gambling lay at 22% for 2002–2003, 24% for 2003–2004, and 27% for 2004–2005. E-commerce (e.g., buying regular lottery tickets on the internet) and free internet games (e.g., a free game or sweepstakes in which a train ticket can be won) are not included in the results discussed below. Of the adult Dutch population using the internet, 72–73% engaged in non-internet gambling in 2002–2005. Participation in interactive paid internet gambling was 3% in 2002, 4% in 2003, 5% in 2004, and 4% in 2005. For interactive paid internet gambling, socio-demographic characteristics are similar to gamblers involved in at-risk gambling activities (e.g., slot machine and casino gambling): they are more likely to be men, younger than 35 years, and more likely to have a medium level income. More men than women participate in paid internet gambling (male proportion respectively: 51% in 2002, 61% in 2003, 65% in 2004, and 63% in 2005). From 2002 to 2005, the number of young participants increases (age group 18–25 years: from 18% to 38%), and the percentage of older participants (over 35 years) decreases, whereas the percentage of participants aged 26–35 years remains stable (35–39%). Mean frequency of participation is 38 times/year for 2004, and 44 times/year for 2005. In 2005, the number of participants playing less than once a month increased significantly, from 45% to 51%, but the number of participants playing 10+ times/year also increased significantly, from 3% to 4%. For 2005, the most popular internet gambling activities were slot machines outside of casino sites (52%) and casino games in Dutch (38%).

The analysis of potential problem gamblers and problem gamblers in this “interactive gambling” study were based on three “potential problem questions” regarding internet gambling (during the past 12 months): (1) spending more time than planned, (2) spending more money than planned, and (3) unsuccessfully trying to stop or diminish internet gambling. Persons answering two or more of these questions with the answer option “more than once”, were classified as “potential internet prob-

lem gamblers". In addition, potential internet problem gamblers had to indicate that they gambled at least 500 Euros a year on internet gambling. Four "problem gambling questions" were also posed with regard to internet gambling (during the past 12 months): (1) borrowing money for paid internet gambling or to defray debts from internet gambling, (2) having sleeping problems due to internet gambling, (3) staying away from school/work due to internet gambling, (4) diminished school/work performance due to internet gambling. Persons answering two or more of these questions with the answer option "more than once", were classified as "internet problem gamblers". Persons answering two of the "problem gambling questions" affirmative, but gambling less than 500 Euros a year on the internet, were classified as "potential internet problem gamblers". Using these criteria, 86% were classified as recreational internet gamblers (mean participation rate: 22 times/year), 14% of the sample was characterised as potential internet problem gamblers (mean participation rate: 56 times/year), and no one was classified as an internet problem gambler (Motivaction 2005).

With regard to (problem) gambling related to telephone/SMS gambling, similar questions were asked of a random sample (1 out of 6), from the total sample of 12,717. Of the internet population, 35.6% participated in telephone gambling in the past 12 months. Again, participants in telephone/SMS gambling are overrepresented in the younger age groups (under 36 years), in lower or middle level education, and in lower or middle income levels. However, women are overrepresented in this group (40.9% of the women participated, versus 30.3% of the men). The majority of participants in telephone gambling (74%) participated less than once a month, whereas 1% participated more than 10 times a month. The same "potential telephone problem player" questions were asked with regard to telephone gambling, as with internet gambling, with a score of two or more times answered "more than once", and spending 500 Euros or more in 12 months, representing a "potential telephone problem gambler". For "telephone problem gambling", only two questions were asked: (1) borrowed money for telephone games or to defray debts from telephone gambling, (2) diminished school/work performance due to telephone gambling. When one or more of these questions was answered with "more than

once", and more than 500 Euros was spent in the last 12 months, someone was defined as a "telephone problem gambler". The largest part of the sample, 91%, was characterised as a recreational telephone gambler, 9% were classified as a "potential telephone problem gamblers", and no telephone problem gamblers were identified (Motivaction 2005). Underage e-gambling participants were only included in the first internet gaming report of 2002. Of the total population of e-gambling participants, 4% consisted of underage e-gamers (15–17 years) (Blok, Schiere, Waart & Piters 2002).

### 3 Action

#### 3.1 National Policy for Problem Gambling: Implemented and Evaluated Responsible Gambling Strategies

In 2001, a report was published on the effectiveness of the prevention of problem gambling policy of the *Holland Casino* (De Bruin et al. 2001b). This study was commissioned by the Gaming Control Board. It consisted of open interviews with key figures, file and document research, questionnaire research with gamblers at the *Holland Casino* regarding their familiarity with the prevention policy and regarding levels of problem gambling.<sup>2</sup> The prevention policy of *Holland Casino* consists of training employees to detect problematic gambling in *Holland Casino* visitors, and training employees to approach problematic gamblers and talk to them about their gambling behaviour. As the most important part of the prevention policy, visitors of *Holland Casino* can request a visit limitation, consisting of a limitation in the number of times one can visit one of the *Holland Casinos*, to a maximum of eight times a month, which can be implemented for 6 months, 1 year, or permanently. The second preventive measure consists of a visit ban, which means an entry ban for all *Holland Casino* establishments, for 6 months, 1 year, or permanently. When the ending of the limitation measure or the

<sup>2</sup>The full report can be accessed online, in Dutch, at :: [www.toezichtkansspelen.nl/verslagen](http://www.toezichtkansspelen.nl/verslagen), and a summary in English can be found at [www.toezichtkansspelen.nl/cijfers/visitors\\_hc\\_2001.pdf](http://www.toezichtkansspelen.nl/cijfers/visitors_hc_2001.pdf).

entry ban takes place, an employee will talk with the visitor on their first revisit to a *Holland Casino* establishment. Visit bans at amusement arcades take place through the white lists. The number of people who place themselves on white lists in amusement arcades is not known. There is no central registration of white lists. Registrations are not comparable between different chains of amusement arcades because procedures to be placed on a white list and the duration of the white lists differ considerably. Since entrance in *Holland Casinos* is based on identification (e.g., driver's license or passport), identification of people who have a visit limitation or ban is highly effective. In amusement arcades, however, the white list is based on photo identification and thus most likely is less efficient, since employees have to recognise persons on the white list and, if necessary, deny them entrance.

The recent study on preventive efforts at the *Holland Casino* and amusement arcades, consists of a sample of randomly selected 1,000 *Holland Casino* visitors (De Bruin et al. 2001b) and a sample of 450 regular amusement arcade gamblers with whom in-depth interviews were held (De Bruin, Meijerman et al. 2006). Of the earlier larger study consisting of 1,000 *Holland Casino* gamblers, about half of the sample was aware of the existence of *Holland Casino's* prevention policy, and 42% were aware of the existence of a brochure "The risks of the game". This brochure had a direct influence on gambling behaviour in 3% of the respondents. About 5% of this sample had a SOGS score of 5+. The weighted estimate of the number of probable pathological gamblers in the *Holland Casino* is 40,000 a year. Of these 5% of probable pathological gamblers, 40% was reached by the policy of prevention of gambling addiction, either by (1) asking for a protective measure themselves (24% entry ban; 18% visit limitation), and/or (2) by being approached by a *Holland Casino* employee about their gambling behaviour (16%). Of the 60% that were not reached by the policy, more than a quarter were not aware of its existence.

Between January 1998 and April 2000, in total, 9,878 protective measures (entry ban and/or visit limitation) were taken, which equals 4,390 measures a year. Given the estimated 40,000 SOGS 5+ visitors a year, this means that, in reality, about 11% of the probable pathological gamblers are reached with a protective measure, and not the

estimated 40%. Given the fact that 50% of the respondent's requests for protective measures came from respondents who never had any problems with gambling but who wanted to prevent problems (SOGS score 0 and no problem gambling in the past), this percentage is likely even lower. Although the entry limitation and ban seem to be effective measures, this study also indicates that the majority of the probable pathological gamblers (SOGS 5+) is not yet reached by the *Holland Casino* preventive measures (De Bruin et al. 2001b). A later study in 450 regular gamblers (126 from the national study and 324 through advertisements in newspapers and on the internet, through addiction treatment services, and visits to amusement arcades and casinos), and through "snowball methods", was interviewed (face-to-face) with regard to knowledge on prevention policies (De Bruin, Megeeman et al., 2006). Of this more recent study, 83% of the *Holland Casino* problem gamblers who were interviewed were aware of entry limitations and visit bans, 13% of these persons had had a form of entry limitation (two thirds of this group was satisfied with this measure, and 50% of this group gambled elsewhere when the casino ban was in place). Of those problem players from amusement arcades, 59% was aware of the white lists, and 20% had been placed on a white list at some point (80% were satisfied with this preventive measure and 75% gambled elsewhere when the preventive measure was in place).

The prevention policies of amusement arcades and of *Holland Casino* can make an important contribution to the prevention of gambling addiction or to the limitation of the adverse effects of this. *Holland Casino's* prevention policy is better known among the general public than that of the amusement arcades. Nonetheless, the proportion of problem gamblers who actually use the visit-restriction measure (the white list) in the amusement arcades is higher than at the *Holland Casino*. The majority of the respondents who had been affected by a protective measure were satisfied with these. Many found the measure to be a needed rest and were able to relax (in financial terms) during the period of the voluntary entry ban.

A significant proportion of the respondents who had themselves banned from an amusement arcade or from the *Holland Casino* had looked for alternative ways of gambling during the period of the

entry ban. Half of the respondents who took a protective measure at *Holland Casino* went to gamble at another location during the term of the measure. Slot machine gamblers usually went to gamble in an amusement arcade, but also to catering establishments, or abroad. Casino gamblers often started gambling abroad or in an illegal casino during the entry ban. The proportion of problem gamblers who had themselves banned from an amusement arcade and started gambling elsewhere during this ban was slightly higher than at the *Holland Casino*. Three-quarters of the respondents who had their names placed on a white list gambled at other locations until the entry ban was lifted, primarily in other amusement arcades or in catering establishments. None of them gambled in the *Holland Casino* during this time (De Bruin, Megerman et al., 2006). With regard to the protective measures (*Holland Casino's* voluntary entry bans and visit restrictions and the amusement arcades' white list), a large proportion of the key informants were of the opinion that the effectiveness of these could be increased considerably if they applied to both the *Holland Casino* and all amusement arcades. The results of this research confirm this belief. Frequent gambling and gambling at many different locations are key characteristics of at-risk gamblers and problem gamblers. In addition to this, a number of these people do not appear to be able to withstand the temptation to gamble elsewhere for the duration of the protective measure. The research has shown that a considerable proportion also flees to other amusement arcades or catering establishments during this time. In order to prevent the aforementioned displacement effects, consideration should be given to allowing measures for the prevention of gambling addiction to apply to the gambling industry as a whole. Linking *Holland Casino's* prevention policy to that of amusement arcades would be a step towards "industry-wide" prevention.

### 3.2 Area-Specific Prevention Measures

With regard to area-specific measures (restricting gambling in certain establishments), it is considered that removing slot machines from accessible catering establishments such as cafes and restaurants would be advisable, as this would mean that young people would not come into contact with slot machines at an early age (in the Netherlands, the

legal age to drink alcohol is 16 years, and, therefore, the presence of adolescents between 16 and 18 years in cafes can be substantial). Dissatisfaction was expressed with the level of commitment and effort on the part of the catering industry and local authorities in the implementation of preventative measures within this sector. Some representatives from welfare services, self-help organisations, and the Netherlands Gambling Control Board have therefore recommended the removal of slot machines from accessible catering establishments. However, opinion is divided as to whether this is feasible (De Bruin et al. 2001b; De Bruin, Meijerman et al. 2006).

Another decisive point mentioned is that different local authorities operate different policies with regard to combating gambling addiction and that responsibilities are not clearly designated at a municipal level. Recommendations for improving policy implementation at municipal level vary from tightening the laws on gambling and issuing clearer information, to transferring (or returning) policy jurisdiction to national government.

Expected future developments and developments abroad will certainly influence gambling policy in the Netherlands. In particular, European developments in the near future could have a significant effect on the organisation of the Dutch gambling policy. National decisions in the field of prevention policy will need to be placed within the context of European developments, expected policies, and economic trends. It is recommended that comparative research be conducted on an international level, which would allow differences in government and regulations to be compared against each other. Insight into this could also have a short-term effect on decisions to be taken with respect to "bones of contention" in current gambling policy that have come to light during this research: the linking of protective measures and the role of the catering industry in this, the regulation of Internet and telephone gambling, and the tackling of illegal providers of internet gambling.

### 3.3 Moving Towards an Integral Problem Gambling Prevention Policy

A basic principle of gambling policy that directly relates to prevention is that the risk of addiction must be minimised. In practice, we see that establishing risks and taking preventative measures is



generally limited to the form of gambling in question. The perspective of the relevant players in the field of gambling policy seldom extends to the mutual relationship between different forms of gambling on offer and the risks for gamblers or the formation of clear and effective prevention policy.

One of the most important conclusions from this research is not only that the type of gambling is linked to problematic gambling habits, but also that the number of different types of locations where gambling takes place and the number of different forms of gambling in which the gambler participates represent risk factors for problem gambling. As the number of forms of gambling in which the person takes part increases, so too does the extent of problematic gambling behaviour, probably in a linear (or even exponential) manner.

In order to further develop gambling addiction policy, it is therefore important to aspire to an integral program of prevention options. Short-term discussion of further prevention options from different angles, involving representatives from amusement arcades, the catering industry, the *Holland Casino*, national government, local authorities, and welfare services is recommended. In conclusion, on the basis of this research, the following recommendations for the improvement of prevention are made:

- A uniform approach to all forms of gambling
- A clear and unambiguous sanction policy
- Improved collaboration between welfare services, local and national government, businesses and supervisory bodies in the development, implementation, and evaluation of preventative measures
- Clear distribution of responsibilities in the above collaboration process with regard to development, implementation, evaluation, supervision, and sanctions
- Development and implementation of gambling industry- and location-wide preventive measures, such as linking the protective measures of the *Holland Casino* with those of amusement arcades and any other providers
- Additional preventative measures to reduce the risk of gambling addiction in catering establishments: a ban on slot machines, improvement of prevention policy, and/or participation in linking preventive measures
- Clarity in local government policy and regulation with regard to amusement arcades

- A prevention policy based on evaluation of the effects of policy, monitoring of developments in the gambling market, and monitoring of the nature and extent of gambling problems

### 3.4 Existing Treatment Options for Problem Gamblers

#### 3.4.1 Treatment in Regular Addiction Treatment Settings

In the Netherlands, outpatient treatment for pathological gamblers is provided by public addiction treatment institutions. Obligatory health insurances pay for these services, if needed. Referrals generally are offered through a general practitioner. However, referrals through the justice system are also possible.

A national information system (National Alcohol and Drug Information System [LADIS]) on alcohol and drug treatment also provides information on treatment seeking of problem gamblers or pathological gamblers within these public health addiction treatment centres.<sup>3</sup> Data are provided by local addiction and mental health treatment centers. Through client monitoring computer systems, data are provided and clients can be followed over the years. Gambling as the primary problem makes up 4% of the total share of treatment demand (e.g., alcohol accounts for 47%, followed by opiates, 27%; cocaine, 15%; and cannabis, 9%). LADIS estimates the total amount of problem gamblers to be 70,000 in the Netherlands, and 4% of this group seeks treatment in public addiction care, with gambling as their primary problem (n=3,019 in 2005; n=3,056 in 2004). When we take the newer estimation based on the most recent problem gambling study as a starting point (De Bruin, Meijerman et al. 2006), an estimated 7.5% of all probable problem gamblers seeks treatment.

With regard to the age of persons seeking treatment for gambling problems, two different trends can be discerned. A picture emerges of steady decrease in the last 20 years in the age group 15–29 years. In 1986, 66% of problem gamblers seeking

<sup>3</sup>Yearly reports of LADIS can be found online in English and Dutch at: [www.sivz.nl/content/\\_files/key\\_figures\\_2005.pdf](http://www.sivz.nl/content/_files/key_figures_2005.pdf).

treatment were between 15 and 29 years old. This percentage steadily decreases to 61% in 1996, 51% in 1999, 43% in 2001, and 33% in 2003; whereas an increase in treatment seeking for problem gamblers is seen in the age range 30–39 years (20% in 1986, increasing to 35% in 2004), and 40 years and older (14% in 1986 to 33% in 2004). However, if treatment seekers aged 15–24 years are selected, a somewhat different picture emerges: Between 2000 and 2005, problem gamblers aged 15–24 years seeking treatment became more abundant (about 40% was aged 15–24 years old in 2005, compared with about 30% aged 15–24 years in 2000).

In general, problem gamblers seeking treatment are younger in comparison with people seeking treatment for other addictions, such as alcohol or cocaine. Only people who seek treatment for cannabis use as their primary problem are younger than problem gambling treatment seekers.

Female problem gamblers are a minority within this group: from 16% (2000) to 11% (2005). Within this gambling group, 25% consisted of “not previously treated” clients who had not been in contact with addiction care before. For problem gambling, the number of “treatment contacts” within a group-based level is 13%, which is the highest compared with the other primary problem clients (e.g., 10% in alcohol treatment, 1% in opiate treatment). Still, the majority of problem gambling treatment contacts consists of individual public health contacts (78%). Of primary problem gambling treatment seekers, 82% did not seek treatment for another problem, 9% had alcohol problems as a secondary problem, 5% had secondary cannabis problems, 2% had secondary cocaine problems, and 2% had other secondary problems. Problem gambling treatment shows the lowest number of contacts for treatment (12.5 per person), and treatment duration was short, with 226 days until discharge (for all problems together, the mean number of contacts is 18.6, and 329 days until discharge). Of this group of treatment seekers, a relatively high percentage was of non-Western ethnic minority groups (27%), compared with the overall average of 14% within addiction care.

Treatment seeking for problem gambling has declined in the last 10 years. When 1996 is taken as the reference year, a steady decline was present until 2002, when the demand for gambling treatment as a primary problem declined to 53% of such treat-

ment requests in 1996. However, in the following years, a small increase was seen again, to 57% in 2003, 62% in 2004, and 61% in 2005. In other publications, explanations for the decrease in treatment seeking for gambling problems include the restriction for slot machines, first made at a local government level (1990–2000), and later included in a national law on slot machines. Thus, from 1990 on, a decrease of slot machines in places such as snack bars and sports canteens took place, and a maximum of two slot machines in each cafe or restaurant was set. In 2000, this measure became national, and outside of gaming alleys and casinos, slot machines are only to be found in “high level catering establishments”. These have to meet the following criteria: (1) a liquor license is present; (2) a visit to such an establishment is a goal in itself, no other activities take place that could take place independently; (3) activities are targeted mainly towards persons 18 years or older. For example, bowling alleys and cinemas do not have slot machines. Video game machines and pinball machines, are defined as “skills games”, and are not included in this law. Data on the effectiveness of treatment of problem gamblers is not provided by LADIS, and other national data on treatment efficiency is not available.

### 3.4.2 *Treatment Through Self-Help Groups: Gamblers Anonymous*

In the Netherlands, an active gamblers anonymous organisation has been present since 1981, Anonymous Gamblers and Environment of Gamblers (AGOG). This self-help organisation targets problem gamblers and their direct environment, such as family members, significant others, and friends. The goals of AGOG are to help gambling addicts become non-gamblers, and help them in continuing being abstinent, to support their direct environment, and to learn how to deal with the gambling addiction or the gambling addict. AGOG receives financial support from the national and local government. A lot of AGOG groups meet in local addiction treatment centres, and, thus, exchange between public addiction treatment services and this self-help organisation is established.

In the Netherlands, 27 local AGOG groups are present, spread over the entire country. Almost all groups have an AG group, for persons with a

gambling addiction, and an OG group, for relatives/friends (usually the partner, or a parent). Of the AG group members, 55% have an OG group member. Usually, weekly meetings are held on a specific evening. An AG member is supposed to stop gambling immediately, and have his finances covered by a relative (often the OG member). Honesty and respect are highly valued, as are the ability to listen to one another. Usually, a theme is discussed, an AG member talks about their issues, or one of the 12 steps is discussed, as based on Alcoholics Anonymous. With regard to the 12-step method, it should be noted that one of the first Dutch AGOG groups developed a "Guideline" since they did not agree with the 12-step method. Both 12-step methods and this "Guideline" are used in the groups. Next to the recognition of the gambling problem, important themes are diminishing risks, learning to communicate and discuss, slow return to one's own financial independence, gambling problems and financial solutions, behaviour and changes in behaviour, and relation and family problems. AGOG has a large website, which includes information and advice on gambling and problem gambling in Dutch ([www.agog.nl](http://www.agog.nl)).

A large study into relapse within AGOG, and the way in which it is integrated in the self-help groups, was published in 2001 (De Bruin et al. 2001a), and partly based on an earlier study on AGOG (Fris 1999). The methods of research of this study were (1) analysis of AGOG self-help documents on (gambling) addiction, (2) in-depth interviews with key figures (n=2), and self-help group leaders (n=8), interviews on relapse with members of AGOG (n=10), and analysis of questionnaires filled out by anonymous gamblers (n=163) and relatives/friends (n=81), and by group leaders (n=45). Results from this study indicated that about 80% of AGOG members had experienced a relapse before attending AGOG, whereas they experienced a mean of 35% relapses while being an AGOG member or after they had been a member. Risk factors for relapse were psychological, relational, or school- or work-related problems. A striking finding was that a decrease in gambling problems (such as financial problems) can result in a higher risk to relapse. Gamblers who still experienced a craving to gamble were also more likely to relapse, as were people without a daily routine such as a job or

school. However, a full-time job was a risk factor for relapse, possibly due to a better financial situation. The combination of both attending AGOG meetings and receiving other treatment reduced the chance of relapse (De Bruin et al. 2001a).

Other gambling treatment sources not affiliated with public addiction treatment centers or AGOG are also available. An online self-help course for problem gamblers is available through a forum on problem gambling ([www.gokhulpverlening.nl/cursus.php](http://www.gokhulpverlening.nl/cursus.php)). A telephone gambling helpline exists through the Human Assistance Network for Daily Support (HANDS), which is a free telephone helpline in addiction care. The *Holland Casino* works with this organisation in its prevention policy. No knowledge regarding numbers of people calling telephone help lines is currently available. Finally, private (international) addiction treatment services also have emerged in the Netherlands during the last couple of years, and offer outpatient addiction care within the Netherlands and inpatient care in private clinics abroad.

### 3.4.3 Future Developments in Problem Gambling Treatment

A recent addition to self-help for pathological gamblers or problem gamblers has been introduced on the internet. Regular public addiction treatment centers provide information, advice, and tests on problem gambling through the internet. Most of them also provide treatment or advice through email, and some have live chat sessions within their internet treatment (e.g., [www.jellinek.nl](http://www.jellinek.nl)). Through the opening of the Dutch public care system to an open market system, health insurance companies can "buy" care and treatment, and offer it to their costumers. It is therefore likely that, for instance, public health organisations, such as mental health treatment centres and addiction treatment centers, will diversify their treatment services, and/or will invest in internet treatment. Currently, an online course on diminishing or stopping alcohol use is already available through an online mental health institute. This treatment institute works through evidence-based and public funded care, and it is likely that more, and more diverse, treatment services will be offered in the future, possibly also targeting pathological gambling.

## 4 Conclusion

At the end of this chapter, a diverse picture of gambling in the Netherlands emerges. Contradictions between policy and practice seem present, whereas a changing and increasingly stricter gambling regulation policy is taking place currently (2007). Most research efforts have taken place in the last 10 to 15 years, and it can be expected that these research findings will, perhaps slowly, have an effect on gambling policy.

One contradiction that we would like to point out is the “No, unless” policy that applies to providing or initiating gambling activities in the Netherlands. Opening a gambling establishment or introducing new forms of gambling is banned unless a license is granted. In the last 10 years, the introduction of scratchcard gambling as a new form of gambling is an interesting example. The introduction of scratchcard gambling was coupled to a large-scale population study into the possible addictive potential of this form of gambling. As such, scratchcard gambling is an example of the restrictive gambling policy in the Netherlands. On the other hand, some forms of gambling, such as telephone gambling games on television, were “tolerated” for a substantial number of years. However, recent developments (Spring 2007) indicate that the time of tolerating these television games may soon be over. The introduction of several restrictions on the placement of slot machines, obligating payout when certain wins take place and restricting the sound and light effects of slot machines in the catering industry, are examples of prevention policy targeted at the environment, and the gambler. The association between the decrease in the number of individuals that refer to treatment for help with their gambling problem, starting in the late 1990s, and taking place until 2002, and the policy starting in the 1990s, banning slot machines from sites such as sport canteens, cinemas, and snack bars, is easily made. Although plausible, this conclusion is not based on research findings. The fact that national spending on games of chance showed a steady increase over the years contradicts this conclusion. Thus, a decrease in treatment requests for gambling problems is accompanied by an increase in money spent on gambling nationally. One possible explanation is that persons with gambling problems

have alternatives for seeking help at local addiction treatment centres, for example, on the internet. Another possible explanation is that the policy measures did result in a lower addictive potential of, for example, slot machines.

The recent (smaller) rise in demand for problem gambling-related help, and the rise in very young problem gamblers (aged 15–24 years) searching for help, is difficult to explain. It has to be seen whether demand for problem gambling treatment will rise again, and whether “newer” forms of gambling, such as internet gambling, will remain to play a small role in problem gambling. It is clear from the 2004 prevalence of problem gambling study that, overall, problem gamblers in the Netherlands experience problems with a diversity of gambling forms. A higher problem gambling severity is strongly related to a higher number of gambling activities endorsed. Furthermore, “short odds” forms of gambling like slot machine gambling and card game gambling have a higher association with problem gambling compared with “long odds” forms of gambling like the lotteries (De Bruin, Meijerman et al. 2006).

Prevention efforts have increased during the 1990s and, when implemented, they have a positive effect on reducing gambling problems (De Bruin et al. 2001b). However, the lack of uniformity in preventive efforts targeted at problem gamblers results in a shifting of gambling venue for a large proportion of problem gamblers as a “solution” for their gambling ban. This leads to a strong plea for improving secondary and tertiary prevention efforts, by connecting the system of entry limitations and bans between the *Holland Casino* and amusement arcades as well as between different chains of amusement arcades. With regard to primary prevention, the example of the brochures present at the *Holland Casino* seem to be a successful example, since it leads to a decision to limit gambling in 3% of the people that read the brochure. The popularity of slot machine and casino gambling is higher in the Netherlands than in other European countries (as expressed in the percentage of the GGR). Given the relative risk associated with slot machine and casino gambling for problem gambling (De Bruin, Meijerman et al. 2006), it can be argued that the largest preventive effect will be present when these specific forms of gambling are targeted with preventive efforts.

Gambling-related research in the Netherlands has greatly increased in the last 15 years, which is due to research initiatives from the Gambling Control Board, the Organisation of National Mental Health Providers (GGZ), The Netherlands organisation for Health research and development (ZONMW), the gambling industry, and the Ministry of Justice. As such, there is more and more knowledge regarding (changes in) gambling involvement, gambling problems, and preventive efforts in the Netherlands. A problem that still exists is the relative lack of consistency in problem gambling research and the lack of longitudinal studies. For example, each year, a study is done into the extent of interactive gambling, but this research targets different people each year. Regarding the existing studies of problem gambling in the Netherlands, these differ with regard to their sampling strategies, and the definitions they used for "problem gambling", and their results are therefore hard to compare. Combining research into problem gambling and into knowledge of prevention measures and gambling treatment facilities could shed light on relations between different studies. For example, it would be informative to study whether the minority of problem gamblers who seek treatment for their gambling problem differs in severity of gambling problems or financial problems from problem gamblers as defined in prevalence studies on problem gambling. It would also be informative to investigate whether the increasing group of very young problem gamblers who seek treatment experience problems with similar or with different gambling activities as compared with older problem gamblers.

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# 13

## Norway

K. Gunnar Göttestam and Agneta Johansson

### 1 Background

Norway is a European country located on the Scandinavian peninsula, and is one of the Nordic countries. It borders Denmark in the south, Sweden and Finland in the east, Russia in the northeast, and Iceland and the Atlantic Ocean in the south, west, and north. Parts of the Arctic are claimed to be parts of the Kingdom of Norway (Svalbard, Jan Mayen, Peter 1st Island, and Bouvet Island). According to the Antarctic Treaty from 1959, Norway also includes a Norwegian claim of Antarctica (a conical sector on 65°). The population of Norway is 4.5 million, and the surface area is 323,878 square kilometres. Inhabitation is relatively low, at 13.9 inhabitants per square kilometre (The Economist 2005).

Norway has no foreign debt and a very high gross domestic product per head (49,080; the 2nd highest after Luxembourg), and Norway has the highest human development index, followed by Sweden, Australia, and Canada. Norway is, since 1905, a parliamentary democracy. The politics is characterized by a multi-party system, resulting in coalition governments. Norway is a member of the United Nations (UN), North Atlantic Treaty Organization (NATO), the Organisation for Economic Co-operation and Development (OECD), and the European Economic Community (EEC). Although a multitude of Christian denominations and other religions are represented in the population, Norway still has a Lutheran state church, to which the majority, in some respect, is affiliated.

Norway has a long history of different forms of aid to poor and war-stricken country populations, and Norway has also initiated negotiations for war-zone conflict situations and people.

#### 1.1 The Norwegian Gambling Market

The Norwegian State Lottery was inaugurated in 1912, and the Norwegian laws regulating betting date back to 1927. The first humanitarian organization to use systematic betting to raise money was probably the Norwegian Red Cross, which, in 1938, was given permission by the Department of Justice to use slot machines. Four hundred machines were installed with a payout of 50 öre, a halfcrown (€1 = 8 Norwegian Krone [NOK], in 2007). Profits have gone to numerous governmental and humanitarian organizations. In the Norwegian State Lottery, profits are used according to the decision of Parliament and go mainly to support sports and research (see Göttestam 1993). There are also many other state and private actors, such as *Norsk Rikstoto* or the *Red Cross*.

As late as in 1992 (Göttestam 1993), it was extremely difficult to gather information on the gambling market in Norway. The responsible governmental agencies were spread over six different National Departments, and no one could give reliable information on pathological gambling. This has now been rectified, and the market is now placed under the National Department of Culture and Church Affairs and The Norwegian Gaming Board. The aims of the work against gambling

problems are included in an “Action Plan of the Ministry of Culture and Church Affairs” (2003, revised 2007).

The first attempts to learn about the extent of gaming and pathological gambling in Norway in the beginning 1990s were difficult, because no complete registration of gambling in Norway existed at that time, although registrations were made in the 1980s. In Fig. 13.1, the total turnover is shown by year during 20 expansive years. Beginning with a period around 500 million Euro, there has been a steep increase. In particular, from 1999 onwards, there was a large turnover increase. There are 6 years however, when turnover figures were not registered, and The Norwegian Gaming and Foundation Authority is unable to account for the missing data. In a 10-year period, only the years

1994 and 1997 are presented. In 2005, the turnover had increased to about ten times the turnover in 1986. As a consequence, it was extremely difficult to get an overview of the problems with pathological gambling. Such overview is of great importance when it comes to prevention and intervention for those who have problems with gambling (Volberg, Dickerson, Ladouceur & Abbott 1996). In information from the Governmental Action Plan (see below), the turnover from 1991–2003 (in billion Euro) is separately reported for gaming machines, *Norsk Tipping*, and *Norsk Rikstoto*. This shows that the increase is mainly with gaming machines, while the other types of gambling appear stable (see Fig. 13.2). Strictly speaking, gambling is prohibited by law in Norway. However, there are some exceptions from the prohibition, which are regulated in three

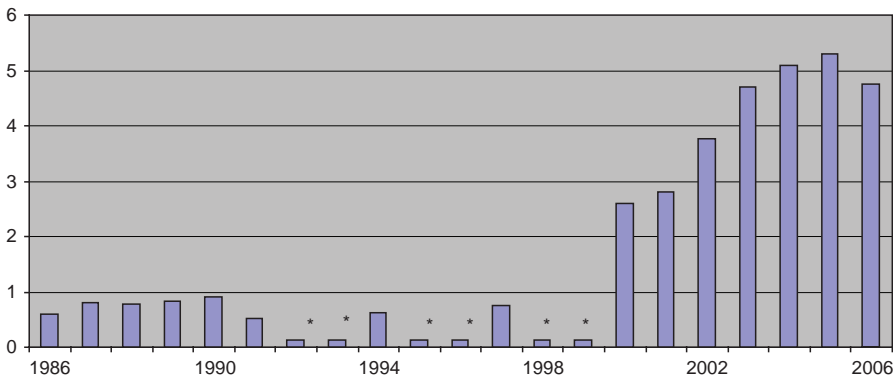


FIG. 13.1. Total turnover of gambling (in billion Euro), \* year not registered

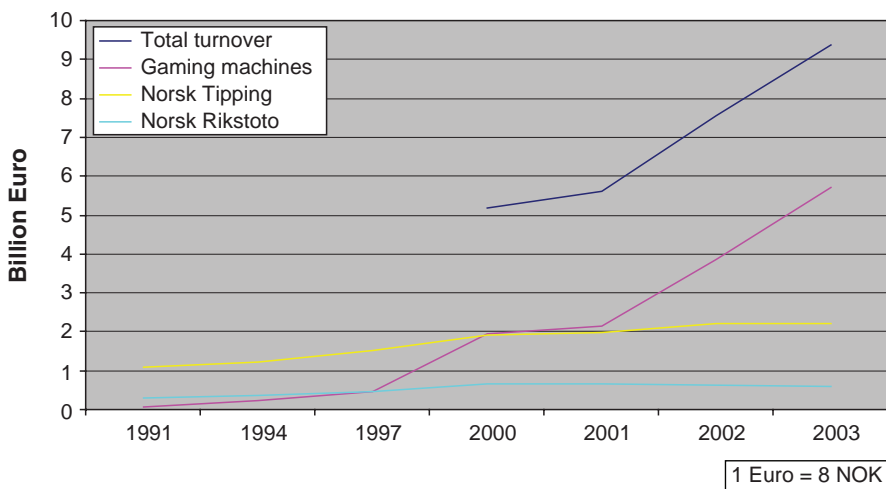


FIG. 13.2. Turnover for different gambling operators (in billion Euro)



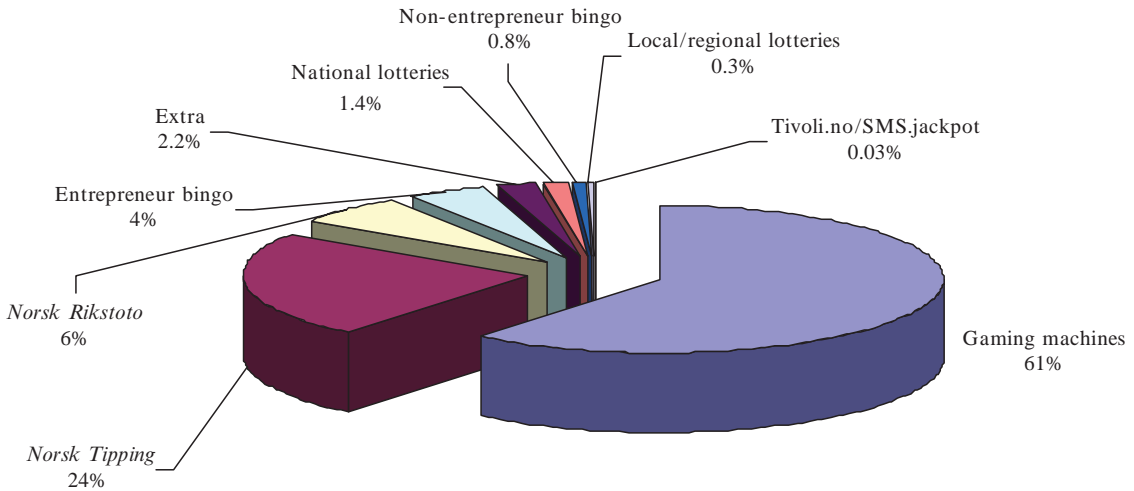


FIG. 13.3. The Norwegian gambling market: market shares of gross turnover (in 2003)

different laws, concerning lotteries and certain games. The figures for the Norwegian gambling market for 2003 indicate the different types and the market shares of gross turnover. Figure 13.3 depicts all types of gambling forms. There are no casinos in Norway, and gaming machines became the biggest shareholder in the market, followed by games administered by *Norsk Tipping*. The laws regulating lottery and games encompass (a) the lottery law (regulates private lotteries); (b) the law of money games (regulates state money games); and (c) the totalisator law (regulates horse betting). The list of legal games and lotteries include the different types of money games from *Norwegian Tipping* (*Lotto*, *Joker*, *Tipping*, *Odds*, etc.); all types of horse betting from Norwegian horse betting (*V65*, *V75*, etc.); certain gaming machines; lotteries, scratchcards, etc.; and number cards/games, sports games, betting games, etc. Gambling products are sold by commissionaires in many types of small retailers, shops of different kinds (e.g., news agents and shops that sell beverages). Gaming machines (currently 15,000, reduced from a higher number) have been distributed freely on many accessible premises. However, on July 1, 2007, the slot machines were banned. Plans are under way to reintroduce a “less addictive type” of machine in 2008. The details have not yet been decided. *Norsk Tipping* now has the monopoly on operating such machines. The current age restrictions for gambling is 18 years (increased from 16 years).

## 2 Evidence

Several studies on gambling-related problems have been performed on Norwegian samples. “Problem gambling” is a general term signifying problems with gambling, including pathological gambling, “at-risk gambling”, and their summation to “problematic gambling”. Early specific work with gambling problems in Norway started with treatment attempts at the University of Trondheim (NTNU) in the late 1970s (see Götestam 1993). Prevalence studies of such problems among adults were not made until the 1990s, and then only among adults, as adolescents were assumed not to have such problems. Most of these study findings are presented in Johansson (2006) and Johansson, Grant, Kim, Odlaug, and Götestam (2008).

### 2.1 Prevalence of Pathological Gambling in Adult Populations in Norway

#### 2.1.1 The NTNU 1 Study

The first Norwegian study of the prevalence of problem gambling (Götestam & Johansson 2003) was conducted 1997 in Trondheim at the Norwegian University of Science and Technology (NTNU). The aim with this study was to get an overview of the occurrence of problem gambling, specifically in the form of serious pathological

gambling. A representative sample of 4,820 individuals was recruited by a random-digit telephone dialing of residential dwellings, and this covered the entire country. The final sample ( $n=2,014$ ) was interviewed by telephone (47.8% response rate). The ten items from the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) were used to calculate pathological gambling (5+ affirmative answers), and at-risk gambling (3–4 affirmative answers). Because the DSM-IV questions are formed in a present tense format, the results are considered to give a good estimate of point prevalence. In addition to the DSM-IV items, the frequency of gambling with money was also assessed, that is, played “never”, “sometimes”, or “often”.

In the sample, 0.5% bet more than €6,250, 0.2% more than €2,500, and 0.1% more than €2,500 yearly. The majority (99%) spent less than €6,250 yearly. A substantial proportion had never gambled (31.2%). Men gambled more than women (25.5% and 17.7%, respectively). The most popular products were the *State Lotto* (76%), followed by football tipping (10.8%). Slot machines playing frequency was unexpectedly low (5.1%), but when examining frequencies of use among individuals with problem gambling, the highest proportion of pathological gambling was related to these slot machines, lotteries, *Football Tip*, and *State Lotto*. This means that, for instance, *Football Tip* is highly popular but less “addictive”.

Problematic gambling represents a problem for 0.6% of the adult population sample, more so for men than for women (0.95% and 0.28%, respectively; see Table 13.1). These results are within the expected range, that is, below 1%, but still reflect a substantial problem. The prevalence rate of pathological gambling among the younger age group (18- to 30-year olds) was 0.44% and thus higher than the prevalence rate among the elder age group (over 30 years of age) or among the total sample (0.15%), respectively. Of the DSM-IV criteria, the first criterion (preoccupied with gambling) appeared to be filled out the most (3.1% of the entire population). Other criteria giving relatively high responses are criterion 2 (needs to gamble with increasing amounts; 2.4%), criterion 5 (a way to escape from problems; 2.1%), and criterion 6 (returning back or chasing; 2.1%). No one affirmed criterion 9 (lost significant relationship, job, or

TABLE 13.1. Problematic gambling diagnosed by DSM-IV in adults (NTNU 1).

	Total (%)	Male (%)	Female (%)
Pathological gambling	0.15	0.21	0.09
At-risk gambling	0.45	0.74	0.19
Problematic gambling	0.60	0.95	0.28

Reprinted with permission from Götestam & Johansson 2003, Table 3, p. 194

educational or career opportunity). There were relatively low but significant correlations between degree of gambling and the established risk factors (sex, age, and education level). Daily smoking was also correlated with gambling.

### 2.1.2 The SIRUS 1 Study

A second study of adults aged 15–74 years ( $n=5,235$ ) was conducted during 2002 by SIRUS (Lund & Nordlund 2003). A sample of 10,000 individuals, assumed to be representative for the Norwegian population, were called by telephone. Those not reached were sent the questionnaire as a postal survey. The main screening instrument used was South Oaks Gambling Screen (SOGS; Lesieur & Blume 1987) in a revision (SOGS-R) developed by Volberg, Abbott, Rönning, and Munck (2001). In addition, to cross validate the data, the National Opinion Research Center DSM Screen for Gambling Problems (NODS) instrument was also used (Gerstein et al. 1999). Table 13.2 shows the distribution of percentages of diagnostic criteria according to SOGS-R and NODS. With NODS as a base, lifetime pathological gambling was 0.6% and at-risk gambling was 0.8%, point prevalence is 0.3% for pathological gambling and 0.4% for at-risk gambling. However, the SOGS-R scores showed a somewhat lower prevalence rate of problematic gambling compared with the NODS scores. In comparison, the first NTNU study received confirmation by the second study from SIRUS. The NTNU study had a very low response rate (47.8%). In comparison, SIRUS phone interviewed 3,581 individuals (response rate 65.3%), and received 1,651 forms for the postal survey (response rate 40.8%; total response rate 55%).

TABLE 13.2. Distributions according to SOGS-R and NODS criteria for problematic gambling (SIRUS 1).

		At-risk gambling (%)	Pathological gambling (%)
NODS	Lifetime prevalence	0.8	0.6
	Point prevalence	0.4	0.3
SOGS-R	Lifetime prevalence	0.7	0.3
	Point prevalence	0.4	0.2

## 2.2 Prevalence of Pathological Gambling in Adolescence

### 2.2.1 *The NTNU 2 Study*

The higher prevalence shown in the youngest group of men in the first study made it important to investigate children and adolescents for pathological gambling. A second study was thus conducted at NTNU, on problem gambling among youth and adolescents. This study was conducted in 1999 (Johansson & Gøtestam 2003).

A representative sample of 10,000 phone numbers to households with adults with expectations of a high proportion of youth aged 12–18 years was acquired from a survey company. A letter of information about the telephone interview was sent to the caregivers. After a week, a Computer-Assisted Telephone Interview (CATI) was performed. Another representative sample of 3,000 individuals aged 12–18 years was retrieved from the central person registry of Norway, for a postal survey. The response rate in the telephone interview group was 45.6%, and for the postal survey was 44.6%. A total response rate for the entire material of 3,237 respondents was 45.2%. One group of participants were interviewed by telephone (n=1,913) and another group completed a postal survey questionnaire (n=1,324). Basic demographic information was also assessed (sex, age, schooling, work, domicile, etc.). For the assessment of pathological gambling, the DSM-IV screen was chosen. Respondents who answered “yes” to 5 or more of the 10 criteria were classified as pathological gamblers, and those answering positively on 3–4 criteria were classified as at-risk gamblers.

Gender distribution was 51% male and 49% female, with a mean age of 14.9 years. The proportion of respondents who had never played was 17.6% (13.8% male and 21.6% female respondents). Of all

Table 13.3. Distributions according to DSM-IV for problematic gambling among adolescents (NTNU 2).

	Total (%)	Male (%)	Female (%)
Pathological gambling	1.76	2.79	0.69
At-risk gambling	3.46	5.03	1.83
Problematic gambling	5.22	7.82	2.52

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participants, 24.9% played weekly (36.2% male and 13.1% female respondents). Analysis of the main demographic variables (sex, age, and geography) revealed that there were only small deviations between the population proportions and the proportions in the studied sample. The frequency of pathological gambling and at-risk for gambling (“problematic gambling”) is displayed in Table 13.3. Pathological gamblers comprised 1.76% (2.79% male and 0.69% female respondents), with all problematic gambling comprising 5.22% of the sample. Among the diagnostic criteria according to the DSM-IV, criterion 6 (chasing) and criterion 9 (needs to gamble with increasing amounts of money) received the most affirmative answers (7.8% and 5.9%, respectively).

For pathological gambling, the prevalence rate was higher for the telephone interview (2.24%) as compared with the postal survey (1.06%). Similarly, for at-risk gambling, the prevalence for the telephone interview gave higher values than the postal survey (3.97% vs. 2.72%). Analyses showed significant differences between the two interviewing procedures for both pathological gambling and at-risk gambling. Although the prevalence differences are highly significant, their numeric differences are very small.

### 2.2.2 *Technological Addictions*

Technological addictions can be defined as behavioural addictions that involve human–machine interactions. For example, an excessive use of computer games, video games, or even the internet can cause problems. In a series of studies, Johansson and Gøtestam (2004a; 2004b) have determined prevalences of technological addictions as excessive playing without monetary rewards (such as computer games). Some of the results are summarized in Table 13.4 (see below).

TABLE 13.4. Main information about the different epidemiological studies, with pathological gambling and at-risk gambling.

	NTNU 1	SIRUS 1	NTNU 2	NTNU 3	NTNU 4	NTNU 5	NOVA	SIRUS 2	MMI
Authors	Götestam & Johansson (2003)	Lund & Nordlund (2003)	Johansson & Götestam (2003)	Johansson & Götestam (2004a)	Johansson & Götestam (2004b)	Götestam et al. (2004)	Rossov & Hansen (2003)	Lund & Nordlund (2003)	Kavli & Berntsen (2005)
Conducted in	1997	2002	1999	1999	1999	1999	2002	2002	2005
Instrument	DSM-IV criteria point prevalence	NODS point and lifetime prevalence	DSM-IV criteria lifetime prevalence	YDQ lifetime prevalence	YDQ lifetime prevalence	LBS lifetime prevalence	LBS + DSM-IV criterion chas-ing lifetime prevalence	LBS lifetime prevalence	CPGI lifetime prevalence
Sample type	Community Representative	Community Representative	Community Representative	Community Representative	Community Representative	Community Representative	Community Representative	Community Representative	Community Representative
Sample size	2,014	5,235	3,237	3,237	3,237	5,251	11,960	5,235	3,135
Age	18+	15-74	12-18	12-18	12-18	12-18+	13-19	12-18	18-30
P (%)	0.15	0.6 (lifetime) 0.3 (point)	1.76	1.98	2.7	0.54 (adults) 5.6 (youth)	3.2	0.6	1.9
At-risk (%)	0.45	0.8 (lifetime) 0.4 (point)	3.46	8.68	9.82	—	—	0.7	3.6

NODS National Opinion Research Center DSM-Screen for Gambling Problems (Gerstein et al. 1999); YDQ Young Diagnostic Questionnaire for "Internet Addiction" (Young 1998); LBS Lie/Bet Screen (Johnson et al. 1997); CPGI Canadian Problem Index (Ferris & Wynne 2001); P (possible) pathological/excessive

## 2.3 Other Relevant Research

### 2.3.1 NTNU 5 Study LBS 1— A Mixed Sample

The Lie/Bet Screen (LBS) was introduced by Johnson et al. (1997) as a quick and rapid procedure for screening purposes. It has only two questions and is built on the “lie” and “bet” questions from the DSM (criterion 7 and criterion 2). With affirmative answers on both items, the individual is classified as a possible pathological gambler, and with one item, the individual is classified as at-risk for developing pathological gambling. This short questionnaire is shown to have high sensitivity and specificity, and to be a feasible short and valid screening instrument, specifically in situations in which a rapid screening could be followed by a more elaborate assessment on fewer individuals (Götestam, Johansson, Wenzel & Simonsen 2004).

With use of the two earlier reported samples (Götestam & Johansson 2003; Johansson & Götestam 2004a), the LBS made a valid screening of problematic gambling with a prevalence of 0.54% for adults, and 5.6% for adolescents. Compared with prevalence rates from the full DSM, the corresponding prevalence is 0.45% for adults and 5.22% for adolescents. Thus, LBS seems to be a good screening device to uncover pathological gambling or those at-risk for developing pathological gambling.

### 2.3.2 Study LBS NOVA—Adolescents

As part of a larger study conducted about “Being Young in Norway” (Rossow & Hansen 2003), the two questions from the LBS (Johnson et al. 1997) were used along with DSM-IV criterion 5 (chasing). Adding the chasing question as an extra criterion decreases the level of pathology. A sample of 13,000 adolescents (mainly aged 13–19 years) was used for the study conducted in 2002. The response rate was 92% (which is a typical rate when such a survey is performed in school settings). In the final sample ( $n=11,960$ ), the prevalence of gambling problems was estimated to be 6% with two criteria, and was reduced to 3.2% with the use of three criteria (5.2% for boys and 1% for girls). The two adolescent samples have a similar age span (NTNU 2 with 12–18 years; and NOVA with 13–19 years), and the prevalence rates for the two

prevalence studies are also very similar (5.22% and 6%, respectively).

### 2.3.3 Study LBS SIRUS 2—Adults

The earlier mentioned SIRUS study (Lund & Nordlund 2003) also used LBS as a control of the results. They calculated a pathological gambling prevalence for lifetime as 0.6% and those at-risk as 0.7%.

### 2.3.4 Study MMI-CPGI

Another approach was used by Kavli and Berntsen (2005), who used the interview form Canadian Problem Gambling Index (CPGI; Ferris & Wynne 2001), based on nine short questions, which could be read by the individual self, or, usually, asked over the telephone. The sample comprised 3,135 participants, aged 18–30 years. They found that 1.9% had money gambling problems, while 3.6% were at risk to develop such problems. The key characteristics of the different epidemiological studies are outlined in Table 13.4.

## 3 Action

### 3.1 The Norwegian Helpline

The Norwegian Ministry of Health wrote a letter in 2001 asking whether pathological gambling was a diagnosis that allowed treatment in ordinary outpatient facilities or, if necessary, in inpatient facilities. Apart from these options, a helpline can give information, advice, and support about gambling problems, treatment possibilities, etc. It is connected to institutions, support groups, and professional treatment. There is no cost if calling from a landline (but calling from a mobile phone incurs charges). Those with a gambling problem and/or their relatives can use the helpline and get in touch with psychiatric or drug abuse institutions for help. Information provided also includes lists of treatment institutions from each county and names professionals to contact. Treatment is usually offered on an outpatient basis, with 1–2 hours a week for 8–12 weeks. Those below the age of 18 years are usually referred to the Children and Youth Psychiatric facilities. Half-year statistics show a strong increase in calls about videogame playing. During the first 6 months of 2007, there were 96

calls, compared with 49 for the entire 2006. Poker on internet or mobile phones is decreasing (down 39% this year).

### 3.2 Professional Treatment of Problematic Gambling

In general, the development of treatment procedures for individuals with pathological gambling and at risk for pathological gambling is not sufficient in Norway. Biological approaches include medication with anxiolytics (selective serotonin reuptake inhibitors). However, anxiolytics and other similar drugs show only a weak effect in reducing pathological gambling. In contrast, blocking agents on the opioid receptors seem to have a strong effect on gambling but these drugs appear to have too many side effects for problem gamblers to tolerate.

Several studies of psychological treatment (cognitive behaviour therapy) of gambling disorder have shown a good efficacy. The long-term effects have not been fully understood, but cognitive behaviour therapy could be recommended based on its promising short-time effects (Echeburúa, Fernández-Montalvo & Báez 2001; Petry & Armentano 1999; Toneatto 1999). Treatment trials are under way in Norway, with use of antidepressants, and more extensive treatment trials with cognitive therapy. None of these studies have so far been completed.

### 3.3 Governmental Action

It is of great importance that the government gets a sound understanding of the main mechanisms in prediction, prevention, and treatment of pathological gambling. The epidemiological overview is important to have, to plan actions, and to enable monitoring over time. Furthermore, the planning of actions of the government must be integrated in close collaboration between professionals in the area. Regulations of the gambling market (such as age limits, availability, and distribution of slot machines) are important steps in the reduction of gambling problems. Sometimes it will be a very delicate task to keep gambling problems at lowest possible level, but to run the gambling business in the most efficient way. This may be a tricky and difficult dilemma. The challenging situation in most European governments lies in the difficulty

of allowing the liberalizing of the gaming industry while at the same time trying to limit the number of problem gamblers.

The Norwegian Gaming Board has been given the task to make an action plan for the Ministry of Culture and Church Affairs (2003, revised 2007). This initiative is directed towards three main goals:

1. The knowledge base concerning gaming and gambling problems must be expanded (through research on gambling problems) by:
  - (a) Collecting data on a continuous basis
  - (b) Systematizing statistical data from the helpline, voluntary support groups, and relevant official registers.
2. The number of people developing gambling problems is to be reduced by:
  - (a) Restricting the availability of gambling and setting an 18-year age limit on "risk games"
  - (b) Introducing marketing restrictions on gambling
  - (c) Correcting gambling rules and regulations in relation to risk elements
  - (d) Developing and implementing specific, targeted information programmes.
3. The extent of damage caused by gambling problems is to be reduced: gambling problems are to be revealed in the early stages by developing courses and providing information for groups of professionals that come into contact with problem gamblers in the early stages, and drawing up manuals of recommendations for financial advisory services for use in the social services sector in connection with debts arising from gambling problems. In addition, more people are to be offered the possibility of receiving treatment by developing and implementing training programmes for personnel in child and juvenile psychiatry, and developing and implementing training programmes for personnel in the health and social services sectors. Also, the scope and quality of easily available programmes are to increase. Finally, financial support for operating and project expenses for voluntary support groups, and the operation of the helpline on a permanent basis have to be secured.

It should be noted that some steps taken by the Norwegian Government appeared to have had an immediate effect. When banknotes were banned for

use on gaming machines, the use of slot machines decreased. Furthermore, when the age for gaming was increased from 16 to 18 years, there was another reduction in machine gambling.

On June 17, 2003, the Norwegian Parliament adopted legislation granting the state-owned *Norsk Tipping* a monopoly on the operation of gaming machines. Historically, slot machines were operated by private companies and charitable organizations under a licencing system. The new regime was mainly motivated by the wish to prevent gambling addiction and crime, and a model with a state-owned company holding exclusive rights is considered to better secure the gaming machine market. The Norwegian decision was overruled by the European Free Trade Association (EFTA) Surveillance Authority, and a long discussion has been going on, ending in June 2007 by EFTA's confirmation of the Norwegian decision from 2003 on granting *Norsk Tipping* monopoly of operations of gaming machines.

## 4 Conclusion

On international, national, and community levels, a collaborative network should be established by the different stakeholder groups (gambling owners and operators, researchers, therapists, patients, and magnates). The goals should be to develop a responsible gaming strategy and to enforce the empirical knowledge base. For instance, this could involve the developing of games that are entertaining but not addictive. The World Lottery Association is an international organization of state lotteries worldwide. It has the highest use of advertising money in the world. This organization could establish a financial fund for research on mechanisms of gambling (development and relief of gambling problems), as well as the prevention and treatment of pathological gambling. Researchers could be invited to apply for research money for their scientific projects.

There also needs to be a development and implementation of treatment methods, by a specific programme to spread knowledge about the treatment of pathological gambling. Authorization is also required for specialists in treatment of pathological gambling (for cognitive therapy and other evidence-based treatments). Finally, there needs

to be an educational package developed for education of health personnel, school workers (teachers, special groups, and administrators), parents, school pupils, and others, who could specialize on gambling and problem gambling. This package should be made available to anyone interested. This would help build up awareness and competence in the community.

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# 14

## Poland

Bartłomiej Dzik

### 1 Background

Poland is one of the larger countries in Central Europe, with a population of 38.2 million. The gross domestic product (GDP) per capital reached €1,000 in 2006 in terms of Purchasing Power Parity (PPP). Poland was the first country in the former communist block that switched to a modern democratic market economy, after the so-called Round Table talks. The transformation was successful in many ways, and the Polish economy is flourishing despite the high rate of unemployment and many other structural problems. In 2004, Poland, along with eight other countries, joined the European Union. One of the most prominent, yet unexpected results of accession was the fact that hundreds of thousands of Poles found new jobs in Western European countries, especially in Great Britain. This significantly reduced the rate of unemployment, but also created a shortage of qualified workers in many sectors, like building and health care.

However, the 16 years after the breakdown of communism was not long enough to fully develop a modern political system and the institutions of civil society. Polish economic and political life suffers heavily from corruption and a shady net of informal links between business, politics, and organized crime. This constitutes a serious obstacle to any major economic or social reforms. The leading party, Law and Justice, won the elections in 2005 with the radical programme of fighting corruption, redesigning the legal system, and shifting

the economy towards a less liberal and more social model. Because of the large problems of building a majority coalition, the reforms are being introduced rather slowly.

In general, the problem of addiction is well recognized in Polish public opinion and social debates, but it is heavily focused on alcohol addiction, which constitutes a very serious social problem in Poland. There are several legal acts regulating the prevention and treatment of alcohol addiction, and there is even a separate body to handle these issues: the State Agency for the Prevention of Alcohol-Related Problems (PARPA). Alcohol-related problems, especially family violence and drunk driving receive broad media coverage and are the target of many social campaigns by the state and non-governmental organizations (NGOs). Therapy for alcohol addiction is readily available free of charge in numerous addiction treatment centres, and close-ended therapy in mental hospitals is also possible and sometimes required by law.

Drug addiction is also well recognized, and Polish law takes a rigid stance against illegal drugs (not only dealing, but also possession of drugs is considered a crime). The anti-smoking policy is less developed than in leading European countries, yet regular campaigns are being conducted and a total ban on smoking in public places is currently being discussed in Poland. Other addictions, including gambling addiction, receive much less public attention than their aforementioned counterparts.

## 1.1 Gambling in Poland

Before the breakdown of the communist era in 1989, state lottery, scratch tickets, and small-scale horse racing constituted the only forms of legal gambling available in Poland. There were also some illegal casino-style venues located in private apartments that were even portrayed in a few movies of that era, but reliable data on the scale of illegal gambling before 1990 is missing. Compared with other countries in the former communist block, Poland was rather liberal in terms of tolerance to Western-style forms of entertainment, including gambling. Some unpublished evidence even suggested that in the late 1980s the communist regime in Poland studied the model of casino gambling used in the United Kingdom, and considered introducing casinos in Poland.

Nevertheless, the rapid yet peaceful fall of communist regime dramatically changed the Polish gambling scene. The first 2 years of free-market era featured legal chaos, especially in the area of regulating economic exchange, and resulted in many fast-growing local fortunes, many fast bankruptcies, and several spectacular scams, like large-scale pyramid schemes. During that time, casinos and arcades were treated just like any other businesses, without any special requirements regarding licensing, supervision, accounting, and taxation. Because of these favourable conditions and the rapid inflow of capital to the emerging market economy, gaming industry officials consider the early 1990s a “golden age” of Polish casinos. In 1992, the Polish government introduced the *Gaming and Wagering Law*, which regulated the market in a style similar to rather strict regimes of Western European economies. Gross gaming revenues were small compared with Western countries, but they grew at more than 15% per year. Table 14.1 presents gaming revenues split by sectors for the years 2003–2005. This table notes the very large increase in the number of amusement with prize machines (AWPs) between 2004 and 2005. In 2005, the gross budget revenues from gambling tax reached €209 million (Ministry of Finance 2006).

The recently proposed amendments to the *Gambling and Wagering Law* (Ministry of Finance 2007) are aimed at fighting grey market gambling (including internet gambling). For example, it bans poker games (like Texas Hold'em), because between-player cash flows create the possibility

TABLE 14.1. Gross revenues of gambling in Poland (€million).

Type of gambling	Year		
	2003	2004	2005
Lotto (state monopoly)	591	619	608
Casinos	229	247	251
Slot machines in arcades	166	200	272
Parimutuel and bookmaking	137	166	172
Scratchcards	37	30	18
Bingo	5	4	2
Amusement with prize machines (AWPs)	n/a	90	350
Total	1,165	1,356	1,673

Due to different accounting methods, these gross revenues are not perfectly comparable with gross gaming revenues in other jurisdictions

of money laundering. This new law also aims to increase state revenues from all forms of gambling, mostly by imposing additional tax-style fees on casino games, slot machines, and bookmaking. Poland is preparing for the organization of 2012 Union of European Football Associations (UEFA) European Football Championship, and decision makers concluded that some gambling revenues would be earmarked to build a National Sport Centre in Warsaw (the biggest stadium and sports facility in Poland).

Lotto games are operated by a state monopoly, *Totalizator Sportowy*, which is the biggest player in the Polish gaming scene, accounting for more than one third of gross gaming revenues in Poland. There is a classic 6/49 lotto drawing three times a week, with around 10 million bets placed every time, and a popular 20/80 number game (*Mutilotek*) played every day. Lotto tickets in Poland are subjected to a special tax called the “*dopłata*” which is technically equal to a 25% sales tax, with 80% of the “*dopłata*” earmarked for the development of Polish sports, and 20% earmarked for culture. *Totalizator Sportowy* also offers scratchcards, but this form of gambling accounts for a very small fraction of its revenues, and the popularity of scratchcards is systematically diminishing. Lotto and scratchcards are available without age restriction, whereas for all other forms of gambling, the legal gambling age in Poland is 18 years.

Localization limits were imposed on casinos, arcades, and bingo parlors—casinos could have

been placed only in large town or tourist resorts, the initial limit resulted in 35 possible licenses, of which, 33 were granted at the peak. The limit was relaxed in 2003, allowing placement of a casino virtually everywhere, but no new casinos were opened in smaller towns. The maximum number of slot machines in casinos was set to 30, and in amusement arcades to 70. There was no maximum limit for table games, but in practice no venue had more than 20 tables. Casinos and arcades were available to adults only, and casino guests had to register with their ID card or passport any time they entered a venue. There was also a small entrance fee required by law (collected by casinos, but fully transferred to the state budget). Every game in a casino must be video recorded and archived for 30 days. Gaming tax for casinos and arcades was initially set to 45%, then changed to a progressive scale, then set back to 45%. Heavy taxation caused several casinos to go bankrupt in the early 2000s, during the period of economic slowdown in Poland. Furthermore, the *Gaming and Wagering Law* required the gaming establishment to be fully owned by domestic shareholders, so foreign owners had to sell their businesses after 1992. This requirement was lifted in 2004, after EU accession, because of the principle of the free flow of goods and services. The first new casino run by foreign company opened in 2007, in Warsaw.

Bookmaking venues, operated by several private companies, were small but numerous and conveniently placed in high-traffic areas, and young men constituted the vast majority of their consumers. Bookmaking was more favourably taxed than other forms of gambling, and it was the fastest growing segment in Polish gaming market until 2004. Most bookmaking involves sports betting, but betting on any event is possible, such as the results of elections or popular television shows like the Polish edition of *"Dancing with the Stars"*.

Bingo in Poland constitutes a very interesting sociological phenomenon—this game, popular in other countries, was never a favourite pastime of Polish gamblers. Several bingo parlours suffered declining profits year after year, and finally bingo become extinct (the last active license became void) in 2006. The "extinction" of Bingo could only be explained by gamblers' preferences, because regulatory regimes for bingo were in fact more favourable than for casinos or arcades.

The biggest change on the Polish gambling scene was the legal introduction of AWP in 2003. The reason for legalizing AWP was to combat the grey market of illegal slot machines, estimated to be between 5,000 and 20,000 machines. The existence of illegal slot machines were mostly based on the loophole well known from other jurisdictions, that is, the machines were marked "for amusement only", and payouts were made by a bartender or similar person. AWP feature limits imposed on the bet (a maximum of 7 eurocents) and on the payout (a maximum of €15)—"classic" slot machines located in arcades have no such limits. Neither AWP nor slot machines have restrictions on the payout ratio, so these games may be very unfavourable in terms of statistical expectations—such as having payout ratios significantly below 90%. To make the things worse, Polish Gambling law does not require perfect randomness, and it is legal to operate a slot machine that artificially generates a high rate of so-called "near-misses" (see Griffiths 1991).

AWP are taxed in a different way than classic slot machines, with a flat tax of €80 per machine per month. They can be placed in any venue such as bars, shops, or a small kiosk, with up to three machines per venue, making them an equivalent to "pokies" in New Zealand or Video Lottery Terminals (VLTs) in Canada. The limit of three machines per venue is sometimes exceeded, with a few adjacent kiosks, separated only by a thin wall, forming a "cluster" of six or nine machines. AWP have experienced a very large market growth, becoming the second most popular form of gambling in 2005. The introduction of AWP was met with criticism and opposition from other market players. Because of their availability and the lack of rigid control, AWP are accused of being money-laundering tools and the source of gambling problems (Discussion Panel 2005).

The amended *Gaming and Wagering Law* from 2003 also allowed the introduction of VLTs—an advanced network of gaming machines operated by the state monopoly. However, it is not clear to what extent VLTs will differ from existing slot machines and AWP, and thus the question arises of state-owned gaming machines cannibalizing commercial arcades and AWP (for more discussion on this topic, see Dzik 2003). VLTs have not been introduced so far because of high cost

of building a country-wide network, in addition to legal flaws in the *Gaming and Wagering Law* regarding their taxation.

Finally, internet gambling is becoming increasingly popular in Poland, and new gaming providers have entered the Polish market and offered support for Polish players (e.g., translated web pages and support in Polish language). The status of internet gambling is unclear—some argue that it is totally illegal, others argue that it is in fact legal, but that the winners should pay income tax on their winnings, while Polish offline casino winnings are tax exempt. In order to fight the grey market and generate budget revenues, the Polish government initially planned to introduce a state monopoly on internet gambling. The Gdańsk Institute for Market Economics (IBNGR), an independent economic think-tank, conducted a study about the possibility of introducing legal internet gambling in Poland (IBNGR 2006) and concluded that online gambling could generate about €37 million in budget revenue a year. However, the authorities finally decided to explicitly ban internet gambling and the project of an amendment to the *Gambling and Wagering Law* was presented in May 2007 (Ministry of Finance 2007). This law assumes an extremely severe stance against internet gambling, unmatched by any regulations in other European jurisdictions. The amended *Gambling and Wagering Law* would not only disallow players to gamble online, but would also require internet providers to block access to internet casinos and banks, and to report suspicious transactions that might be connected with internet gambling cash flows. Table 14.2 presents a summary of the number of commercial gaming operators and their gaming venues.

TABLE 14.2. Number of commercial gaming operators and venues.

Type of gambling	Companies	Venues
Casinos	5	27
Slot machines in arcades	13	175
Parimutuel and bookmaking	8	1,655
Bingo	2	3
Amusement with prize machines (AWPs)	35	9,675

## 2 Evidence

Quantitative evidence related to the extent of gambling participation in Poland is very scarce and incomplete. No prevalence studies of pathological gambling have ever conducted in Poland, either on the local or on the national level. Thus, the rate of problem and pathological gambling remains unknown. However, we may expect the rate to be lower than in Western Europe because of relative small popularity of gambling games other than lotto, as estimated on the basis of gross gaming revenues and the number of gambling venues presented in Tables 14.1 and 14.2. Robert Przespolewski (2005) from the Development Division of *Totalizator Sportowy* made a similar argument, claiming that pathological gambling was never a serious social problem in Poland.

While pathological gamblers living in bigger cities have a relatively good chance of finding help in addiction treatment centres and at Gamblers Anonymous (GA) meetings, they probably constitute only the tip of the iceberg of Polish problem gamblers. There are not even rough estimates on the scale of gambling addiction in small towns or in the countryside, and we may expect thousands of people in less developed regions to have gambling problems. Poor living conditions, lower levels of education, and the vast availability of grey market slot machines and AWP's potentially create a very dangerous combination. This is the area that desperately needs a prevalence study and prevention campaign in Poland. However, neither the government nor local authorities are doing anything to address this issue. However, the increasing availability of gambling opportunities will probably lead to an increasing number of individuals with gambling-related problems.

## 3 Action

### 3.1 Treatment

There are no national level prevention programmes or helplines for problem gamblers in Poland. However, treatment services for problem gamblers have been available since 1992, first in the Addiction Treatment Centre in Warsaw, set up by the well-known addiction treatment expert, Dr. Lubomira Szawdyn. According to Szawdyn and

Rogowicz-Angierman (2000), in the late 1990s, the typical addicted gambler in Poland was a middle-aged self-employed man. More than 80% of Polish addicted gamblers also had parallel alcohol-related problems. Lubomira Szawdyn is now retired but she is still helping addicted gamblers who are seeking treatment and, on average, she receives around 30 calls for help every month (Szawdyn, 2006, personal communication). Attendees of GA meetings in Warsaw surveyed by More (2007) stressed the fact that it was quite difficult for them to find therapy for their gambling addiction. It was not uncommon for a gambler actively seeking treatment to be rejected by several therapists. The reason for not being given therapy was usually the lack of experience with gambling addiction, but sometimes the therapist also neglected the problem (i.e., they seemed to not treat problem gambling as a real addiction).

During the first 8 years, almost 5,000 addicted gamblers sought treatment in the aforementioned centre in Warsaw. More than 60% of patients were addicted to slot machines, casino table games, bingo, and horse racing. The remaining 40% were addicted to state lottery, betting parlours, and television lotteries. The vast majority of addicted gamblers were men (85%). Young gamblers (below 25 years old) constituted 20% of all patients, and senior gamblers (over 60 years old) accounted for only a small minority of the addicts (5%). Respective numbers for 2006 are not available because, for the vast majority of addicts, gambling problems are co-dependent with primary alcohol addiction, and for legal reasons, it is more convenient for state-sponsored treatment centres to register these people as addicted to alcohol. State-sponsored addiction treatment centres are now available in all bigger Polish cities, and they also offer help for pathological gamblers free of charge. However, treatment programmes are based on modifying the approaches for alcohol addiction. Well-tuned treatment and prevention programmes that include gambling-specific elements (like explanation of cognitive biases) still need developing in Poland. The fraction of gamblers in commercial treatment centres is negligible.

Gamblers Anonymous (GA) meetings are also available in Poland, with the first meeting taking place in Warsaw in 1995. Regular meetings then

started in Poznań and several other bigger cities. Now GA meetings take place in nine big cities, usually once a week, and there are up to three meetings per week in Warsaw. Meetings take place near psychotherapeutic/addiction treatment centres or Catholic church facilities. Groups are rather small and, because of the informal nature, there are no statistical data available regarding attendance or recovery rates. Polish GA have an internet website ([www.anonimowihazardzisci.org](http://www.anonimowihazardzisci.org)) with a forum with good coverage about the meetings, recovery programmes, and articles about pathological gambling. The recent initiative of Polish GA is a new portal that targets female problem gamblers ([www.hazardzistki.org](http://www.hazardzistki.org)).

### 3.2 Public Debate

The leading political party, the right-wing Law and Justice, treats gambling as a rather suspicious activity, but their position seems to be purely grounded in their anti-corruption programme. That is, gambling is dangerous because it allows for money laundering, not because of its adverse social consequences. While being suspicious of commercial gambling, the current government plans to introduce a network of state owned VLTs in 2008. In addition, Law and Justice created an amendment to the *Gaming and Wagering Law* that delegatizes AWP. However, this amendment has yet to reach parliament. In the explanation for this amendment, the problem of money laundering is mentioned three times, but no mention is given to pathological gambling or to public health considerations in general. The latest amendments to the *Gambling and Wagering Law* (Ministry of Finance 2007) also stress the money laundering and grey market gambling problems. For the first time, the issue of gambling addiction is mentioned, but this was used to explain the ban on internet gambling and the ban on gambling advertising.

Gambling is present in the Polish media, but in unsystematic and anecdotal way. Countrywide and local newspapers and magazines occasionally publish gambling-related stories, sometimes related to gambling addiction, mostly in the form of case studies rather than the description of general phenomena. Each of the three most popular Polish television series featured an episode about gambling problems in one of the characters. Heavy

and famous gamblers appeared several times in popular talk shows. The biggest media attention given to gambling was connected with the (unsupported) accusation of gigantic €2.5 million bribe connected with the amendment to the gaming law in 2003 regarding AWP. However, the discussion regarding AWP focused on corruption and politics, and hardly touched any addiction and public health issues.

The very limited public debate on gambling in Poland is heavily politicized and lies far from the public health perspective. Political discussion in the Polish parliament focuses mostly on economic issues, with arguments about addiction being used infrequently by the radical and populist anti-gambling speakers. The relation between political orientation (left wing or right wing, liberal or conservative) and being pro- or anti-gambling is quite peculiar in Poland and does not match the typical pattern found in other countries. Amusement with prize machines were introduced by social democratic government and strongly supported by the left-wing Polish Peasant Party. The representatives of Polish Peasant Party argued that AWP were needed in the countryside and small towns, because they would constitute the only form of available entertainment.

To illustrate the lack of insight in Polish public debate about gambling, it may be useful to quote a very unusual case of consumer protection. In 1995, the Commissioner for Civil Rights Protection and recognized professor of law, Ewa Łtowska, took the side of one casino gambler, banned because of his aggressive behaviour, arguing that he should have the right to chase his losses. The rationale was the following: the gambler lost most of his money and the casino should give him a chance of chasing his losses, in order to avoid creating the feeling of social degradation (Domagalski 1995).

### 3.3 Responsible Gambling Policies and Casinos

Overall, only single approaches can be identified that are aimed at minimizing gambling-related problems. For example, one of the Polish casino operators granted financial support to the Warsaw Addiction Treatment Centre in late 1990s and early 2000s, and the casino staff were trained to

identify at-risk gamblers (Szawdyn & Rogowicz-Angierman 2000).

The most salient form of responsible gambling policy found in most Polish gambling venues is the use of self-exclusion programmes. Self-exclusions are neither required nor regulated by gaming law, and are offered solely at the discretion of casino managers. Each casino operator and each individual casino may have a slightly different policy on self-exclusions, and is not bound by the decisions of the competitors or other casinos of the same chain. As a consequence, gamblers banned in one venue may enter venues of other operators and sometimes other casinos of the same company. Arcades may also offer self-exclusions, but they have a psychological rather than a practical meaning. There is no registration at arcades and there are many venues to choose from, therefore, self-exclusion can be easily bypassed by the gambler. Another important feature of self-exclusions is that they have no legal meaning; neither the casino nor the gambler is required by law to obey a “self-exclusion contract”, the gamblers may change their minds any time they want, the casinos may or may not lift the ban in such situations purely at their own discretion. Thus, the pre-commitment effect of self-exclusions in Polish casinos is only modest. On the other hand, the requirement to register with ID on every visit makes self-exclusions and bans (technically) very effective, as the excluded/banned gambler has no real chance of “sneaking” into the casino.

One of the Warsaw casinos supplied quantitative data about the number of self-exclusions, bans, and lifted bans in an 11-month period. These data are presented in Table 14.3. The ratio of self-exclusions is about 1 per 1,300 visits—these figures are very similar to those obtained in Switzerland (Häfeli 2005). There are about as many casino-imposed bans as self-exclusions. The average number of visits before self-exclusion is 81, and 105 before a casino-imposed ban, but the distribution is very uneven, ranging from 1 to 916 visits. There were also three situations when gamblers were banned after the first visit, and one situation of self-exclusion after the first visit.

For every three self-exclusions there is one lifted ban. Lifted bans may have different reasons, and they may concern both self- and casino-imposed bans. Some casino-imposed bans are on temporary

TABLE 14.3. Self-exclusions, casino-imposed bans, and lifted bans in one of the Warsaw casinos during 11 consecutive months.

Month	Visits	Self-exclusions	Casino bans	Lifted bans
1	4,327	1	1	1
2	4,520	6	4	—
3	5,318	4	10	2
4	4,276	4	2	2
5	4,572	—	2	—
6	4,295	1	1	—
7	3,722	4	3	—
8	4,711	4	7	1
9	4,277	2	4	5
10	4,319	8	2	1
11	2,092	2	4	1
Total	46,429	36	40	13

Data from one of the Warsaw casinos, the casino management wants further details to be left unpublished

basis (e.g., the gambler is banned for 1 month, and then the ban is lifted automatically); some are open-ended (e.g., permanent, at least theoretically), but managers may eventually decide to lift the ban if they think that a particular gambler will no longer cause problems in their venue. Sometimes the ban is lifted relatively quickly. In the sample presented in Table 14.3, there were five instances of lifting the ban after only 1 month. There was also one situation when a habitual gambler self-excluded himself, the ban was lifted next month, but the gambler eventually decided to self-exclude himself a second time after another month. There was also one similar situation concerning a casino-imposed ban (a first ban, a lifted ban, and a second ban during the consecutive 3 months).

There is also another reason to lift a self- or casino-imposed ban, namely, economic considerations. Polish casinos are small and rely mostly on local gamblers. Because of high gaming tax, the casino business is not very profitable. When multiple casinos operate in a single town, the competition is fierce. The profits are very concentrated and a small group of a few high rollers can generate more than half of the gaming revenue of a particular casino. It is perfectly understandable that casino managers will think twice before

banning a gambler who generates 10% of their gaming revenues, knowing that the gambler may simply choose their competitors. The argument is raised not only by casino managers, but also by gamblers themselves—they may demand the cancellation of their self-exclusion, arguing that otherwise they would spend money in adjacent competing casinos. The situation in Poland reveals the advantage of the “global ban policy” used for the first time in Switzerland (Häfeli 2005). High rollers in Polish casinos know their impact on casino revenues and take advantage of it, knowing that the venue may tolerate their improper behaviour (e.g., vulgar language). Some high rollers, in addition to gambling, make money in casinos working like loan sharks. The situation in Polish casinos and arcades is complex because there seems to be permanent tension between the attempts to introduce responsible gambling policies and low profit margins creating the risk of bankruptcy.

### 3.4 Responsible Gambling Policies and State Monopoly

At face value, the state lotto monopoly, *Totalizator Sportowy*, declares the will to protect gamblers from the harmful consequences of excessive gambling. However, this is done mostly by conducting campaigns against other forms of gambling, especially AWP, as opposed to the “soft and harmless” lotto (Discussion Panel 2005). In 2005, during the debate on the EU Services Directive, *Totalizator Sportowy* argued for the exclusion of gambling service from the directive, in order to protect Polish consumers from gambling-related problems (Przespolewski 2005). To complicate their position, *Totalizator Sportowy* plans to launch several thousand VLTs in 2008, and up to 50,000 VLTs in 2012 (Tokarz 2007). This makes their current opposition against AWP hypocritical and purely economic based. There is no responsible gambling policy targeted at lotto gamblers, such as warning messages or revealing the odds, and no responsible gambling information is provided at its very popular website ([www.lotto.pl](http://www.lotto.pl)).

Unlike other gaming providers, *Totalizator Sportowy* can freely advertise their games. Most advertisements concern frequent rollovers in the 6/49 lotto, but some marketing campaigns of

*Totalizator Sportowy* constituted a very questionable way of promoting gambling. For example, *Totalizator Sportowy* offered free add-ins to newspapers, with such elements as a famous person discussing her “lucky numbers”, clearly promoting superstitious behaviour. There were television advertisements showing lottery winning presented as a way to change someone’s life, a young couple could finally afford their own home or an office worker could quit their boring job. The Multilotek number game was presented as a form of strategy game, with a male player portrayed as Napoleon, to create a parallel between the choice of number and real-world strategic decisions. *Totalizator Sportowy* also used the number of jackpot winners (498 people as of the end of 2006) as a way to lure the players—a campaign clearly based on exploring the cognitive bias known as availability heuristic (Kahneman, Slovic & Tversky 1982).

## 4 Conclusion

As a result of the rapid and partly chaotic transformation from communism to a market economy, the gambling market in Poland took a shortcut in its development and while the available gambling games quickly reached the developmental level of their Western counterparts, there was never a serious discussion in Poland about the role and negative side effects of legalized gambling. Government officials always looked at gambling as a source of budget revenues. Every year, the Polish Ministry of Finance publishes a report about gaming and wagering market in Poland, which does not include a single word about gambling addiction or the social costs of gambling in general. The leading political party, the right-wing Law and Justice Party, takes a reserved stance on gambling, but only because of the fact that it may result in possible corruption and money laundering. However, the recent plans to amend the *Gambling and Wagering Law* in order to fight grey market gambling and increase gaming revenues to build sport facilities for the 2012 Euro Football Championship creates the opportunity for a new social debate about the role of gambling in Polish society.

In particular, Poland needs prevalence studies and an assessment of the impact of AWP and

grey market slot machines on the population in small towns and rural areas. With the quantitative estimates, the preliminary assessment of the social costs of gambling could be made, and public debate on gambling would be able to shift from purely fiscal to a public health perspective. Finally, studies on the effectiveness of responsible gambling policies are strongly recommended.

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# 15

## Romania

Viorel Lupu

### 1 Background

Romania is a country situated in southeastern Europe and it became a member of the European Union on January 1, 2007. Romania has a surface area of 237,500 square kilometers, and a population of approximately 22.28 million inhabitants, with a gender ratio of 95 men/100 women. The percentage of the population under the age of 15 years is of 16%, while 19% is over 60 years old. In Romania, 99% of the male population and 97.3% of the female population is literate (World Health Organization [WHO] 2005).

According to the criteria established by the World Bank in 2004, Romania belongs to the medium-low income countries. Data released by the WHO in 2005 show that the gross domestic product assigned to health is 6.5%, with the total expenditure per capita for health being €384. Of this, €05 is assigned by the Ministry of Health and Family. The official language of the country is Romanian, and the country's population comprises 90% Romanians and 10% ethnic minorities (of which Hungarians and Roma feature prominently). The major form of religion is Orthodox (over 70%), but there are also other forms of religion and religious cults, such as Protestant, Roman-Catholic, and Greek Catholic. According to the WHO (2005), life expectancy at birth is 68 years for men and 75 years for women, while health expectancy is 61 years for men and 65 years for women.

### 1.1 Laws Regarding Gambling

An article published on August 3, 2006 by the Wall Street Editorial (the most frequently read online business journal in Romania) reported the legal framework of the Ministry of Finances relating to the organization and functioning of gambling. The aim was to maintain a balance between the monopoly of the National Lottery in certain domains and other competitors dealing with gambling. According to the legal framework, the Romanian Lottery had a monopoly on organizing different forms of gambling (such as lotto and betting in sports). The Romanian lottery would be exempt from paying taxes relating to license and authorization. The actual legislation accords the Romanian Lottery exclusivity for gambling activities including lotto, express, football coupons (*pronosport*), lottery tickets, and instant lotteries. In March 2006, the Commission (Council) of Concurrence (CC) requested a modification of the law regarding gambling, which formerly granted fiscal facilities to the National Lottery. In 2007, the CC decided that the Romanian National Lottery had to pay €13.03 million for the illegal and incompatible material support it had benefited from, as well as €1.85 million in interest. In detail, in 2006, the Association of Gambling Organizers in Romania submitted a complaint at the CC relating to the preferential treatment received by the Romanian National Lottery in the gambling market. The complaint more specifically referred to the games called *Parilotto* and *Videolottery*. According to the CC,

*Parilotto* is a type of sports gambling with a fixed bet quota, the main operators on the gambling market being the *CN Romanian National Lottery*, *SC Stanleybet Romania*, *Mozzart*, *Global Sport Bets*, *SC Astra Sport Bets*, etc. Furthermore, according to the gambling market operators, the *Videolottery* terminals owned by the Romanian Lottery function as an electronic device that generates prizes, like those used by private operators. The only difference was the fact that the payment of the prize was via a printed ticket. After the National Lottery, the main operators on the Romanian market are *Intertop-Admiral*, *Max Bet*, and *Merkur*. All operators in the gambling market have to pay the annual tax for a license and a social stamp-tax (representing the 10% of monies generated).

The current legislation by the CC allows the Romanian National Lottery to be tax-exempted for lotto, express, football coupons (*pronosport*), lottery tickets, and instant lottery (activities for which it already has a monopoly). However, for *Parilotto* and *Videolottery*, the Romanian Lottery should have paid the same tax for its license as the other companies in the gambling market. Furthermore, since the beginning of 2002, the National Lottery should have transferred monies relating to the social stamp-tax into the account of the National Solidarity Fund. This fund is a part of welfare support, but the transfer of monies never happened. In addition to these non-transferred monies into the State Budget, the CC concluded that the National Lottery also benefited from other types of support. This has distorted the competition in the gambling market. It had either cashed in extra amounts of money, thus increasing its profit quota, while charging the same prices as the other competitors, or it maintained lower selling prices (which have not been included in the taxes due to the state) that favored the players in choosing the Romanian National Lottery.

It should also be noted that the Romanian National Lottery has contested the decision of the CC in court and the case is currently ongoing. In response to the requests of the CC, the Ministry of Finances has launched a public debate regarding the new gambling law. At present, the Romanian National Lottery may organize games of chance (other than *6 of 49*, *Joker*, *Luck/Noroc*, *5 of 40*, instant lotteries, and other types of lotto, and mutual bets such as football coupons [*pronosport*]), if it

has a license and authorization obtained according to the ordinances of the law in force. The National Lottery has given notice of appeal to the decision of the CC, by noting that, according to the legislation in force, it possessed the necessary licenses both for *Parilotto* and *Videolottery*, which should not happen after the new law proposed by the Ministry of Finances would be adopted. The sole modification brought by the new law would be represented by the introduction of obliging the Lottery to pay the license and authorization taxes for other games than lotto and sport-bets.

In Romania the minimum age for access to casinos and other gambling locations, including sporting bets, is 18 years. According to the new law, the taxes for remitting the licenses necessary for the organization of gambling, as well as for the authorization necessary for exploiting gambling should be paid in advance. Thus the Ministry of Finances has the possibility of modifying the amount through a governmental decision.

In order to obtain a legitimate license, the tax license has to be paid completely for a period of 3 years. The amount of this tax for the period of validity is €82.35 per year. The tax for authorizing the exploitation of gambling generated by randomizing elements organized through the use of different devices is €705.88 for each device. In these cases, the devices are machines, equipment, mechanical, electrical, electromagnetic, electronic installations, video-automatons, and games exploited through mechanisms in which gaining implies both the dexterity of the player and risk. For each special table of live roulette in a casino, the operator pays an authorization tax of €29,411.76, and for each special table other than the live roulette table, the tax authorization tax is €23,529.40.

For each bingo room, the authorization tax is €8,823.50, to which 3% of the nominal value of the purchased cards from the National Printing house is added. The validity of the license regarding the organization of gambling is for 3 years, while the authorization for each gambling device or location is for 1 year. The changes brought by the Ministry of Finances to the law regarding the organization and functioning of gambling may bring about a banning of television broadcasting of the so-called interactive contests (competitions), especially those with very simple solutions (e.g., "guess the word"), which facilitates the on-air participation from

a number displayed on the television screen. According to the Romanian legislation, gambling organized through the internet and intra-net, on fixed or mobile telephony, and within television and radio broadcasting, are forbidden. The main problem is that interactive contests do not yet belong to the category of gambling (as they are not considered as gambling). In the most recent type of classification proposed by the Ministry of Finances, the following types of chance games belong to gambling: all types of lotteries, video-lotteries, tombola, bingo, keno, and any other type of chance game in which winning is exclusively determined by risk, regardless of whether the casting of lots happens before or after participation at the game. Currently, whether these games should be included in the category of television gambling is an issue of debate. This is because in order to be on-air to give the right answer, the lucky viewers have been electronically selected (drawn) after being registered. Practically anybody can win if they are lucky enough to be drawn (Obae 2006).

## 1.2 Gambling Opportunities

According to the polls done by *Insomar* in 40 counties of the country and Bucharest, between February 11 and February 20, 2000, by surveying 1,241 people (Bucur 2000), gambling was considered by Romanians as the last chance to improve their standard of living. Almost two thirds of Romanians (63%) said they had gambled or won at different chance games. Of the remaining 37% who stated that have never gambled, 23% reported that they intended to play in the future. Most of those surveyed believed that they would not win, 49% stated that they did not have a good chance of winning, 27% said they had no chance at all of winning, and 24% believed that they would win. A majority of Romanians (86%) believed that those who win are lucky, while 14% were skeptical, hinting at the possibility that winners were helped by the operators. Just over a third of Romanians surveyed (36%) considered that gambling was their only way of becoming rich, 13% considered that gambling was a swindle, while 25% considered that gambling was “a sad show which hides our great poverty”.

The same poll revealed that, monthly, 33.2% of the players were willing to spend €1–2 per session

on gambling, 22.9% between €2 and 4, and 12.4% of the Romanians surveyed were prepared to spend over €4. The results of the survey also revealed that the favored games were televised bingo, with lotto (6 of 49) ranking at fourth place (see Table 15.1).

In the last few months of 2006, there was a massive increase in the number of locations where gambling was possible, especially in Bucharest, confirmed by the number of authorized licenses granted by the Ministry of Finances. Next to the classic casinos, there were approximately 900 operators that already owned authorized gambling devices, some of these firms developing real networks, thus greatly enhancing the number of locations where gambling becomes possible.

According to the representatives of the Ministry of Finances, there are approximately 23,000 gambling devices in the country. This equates to one device for 1,000 inhabitants, from classic electronic poker games in locations in the outskirts to the most sophisticated devices in luxury casinos. The number of authorized licenses granted by the Ministry of Finances reveals two massive increases in the number of gambling devices. The first one was at the beginning of the 1990s and the second one was in the last 2 to 3 years. In between these periods, the “popular” places for gambling disappeared almost entirely (Bărbuneanu & Davidescu 2006).

The most important “advantage” of gambling is the fact that the “law of hazard” makes the tax vCode introduced the idea of taxing gambling with (say) 20% to 25%, most of the operators would escape taxing because the net profit (the difference between the amount of money bet and the amount

TABLE 15.1. Favourite gambling forms.

Gambling form	Participation rate (%)
<i>TeleEurobingo</i>	34.4
<i>National TV Bingo Liberty</i>	24.1
<i>Super Bingo</i>	19.1
Lotto	9.5
Other gambling forms	7.1
Lottery tickets	2.0
All bingo-type contests	1.7
Football coupons ( <i>Pronosport</i> )	1.4
<i>Ora 1 a venit</i>	0.8

Bucur 2000

won) is impossible to prove. For example, casinos only pay tax for chance games such as tombola and those games that have a jackpot of over €90. The rest is non-taxable, because, according to the representative of the Association of Casino Organizers in Romania, cited by Bărbuneanu and Davidescu (2006), the amount initially invested by the gamblers cannot be determined.

In addition to the problems regarding taxing the profit from gambling, the Treasury (Ministry of Finances) has other complaints. One of these is money laundering, which has been going on for several years and where serious effort has been invested in an attempt to eradicate the problem. Consequently, renowned casinos are imposed on to identify each player and to have clearly audited books regarding money income and outcome, simultaneously being equipped with video cameras in an effort to identify criminal activity.

When the executive of the Treasury began a campaign of control and inspection and announced that several casinos would be shut down, the casinos continued their activity without any problems at all. The situation is even less controlled in the case of lower level operators, which, even if they function as casinos, do not bureaucratically belong to this category. Thus, games as electronic poker or roulette take place with a minimal license of authorization under the nose of the Treasury, with no control whatsoever over the profit (i.e., the circulated amount of money) on the behalf of the state.

The brokers on trade capital maintain that compared with the organizers of gambling, they are disadvantaged by the financial treatment. The head of the Association of Brokers in Romania gave as an eloquent example of the situation, in which the exemption from taxes is applied in the case of gambling on a limit of €76.50 per day, a stipulation incorporated in the new Financial/Fiscal Code. For the time being, the limit is €235.30 per day. Theoretically, those who constantly win in casinos could avoid taxes for annual incomes amounting to over €60,000. The brokers contest the taxes established by the Ministry of Finances for the year 2007, maintaining that these would divert and/or direct potential investors towards more advantageous markets regarding financial/fiscal regimes. The changes are aimed at increas-

ing taxes on profits obtained by the investors from selling title properties owned for more than 1 year with 16% compared with the 1% stipulated by the law, respectively, the payment in advance of a quota of 5% of the transaction profit, followed by a complete application of 16% taxing of the net profit at the end of the year (Bărbuneanu & Davidescu 2006).

In the last 10 years, betting came into vogue in Romania. In a short historical presentation regarding the spread of betting in Romania, Coroamă (2006) maintained that, in 1996, the company *Soccer*, sponsored in collaboration by investors from Cyprus and the UK, opened several agencies all over the country that, initially, because of inefficient advertising, did not have success. In 2000, *Astra Sport Bets* and *Wettpunkt* organized the betting market in Romania, which succeeding in stirring the interest of the Romanian population. Concurrent firms have appeared, as *Stanleybet*, *Global Sport Bets*, and *Gamebookers*, with *Gamebookers* also covering online betting. In 2006, there were 500 betting agencies in Romania, of which, 100 were in Bucharest. Those who bet in 2006 won 12% more than in 2005, the highest winning amount of money exceeding over €100 million. The highest amount in 2006 was €765,000, won with a combined ticket involving the European and national football championship. In months without special events, Romanians used to bet approximately 4,000,000 tickets, a number that is continually growing.

Five years ago, among the 18- to 25-year olds, 1 in 10 Romanians gambled on sports betting. This number has risen sharply to 8 out of 10. The highest chances of winning are on the tickets on which three to five events are bet, with a mean of €1.76 per ticket. Occasional bettors differ from "professional" bettors in that the latter come to the betting agencies accompanied by their close entourage helping them to copy the ticket, while the occasional bettor spends long periods of time in the agency and decides more slowly before taking action (Coroamă 2006). Most frequently, Romanians bet according to a pre-established order, on the games played by the national football team, followed by the games played by the *Steaua* football team. Most recently, with the stipulation of the law that forbids the participation in sports

betting of those persons who are directly involved in the organization of sport events, the number of sport bettors has been significantly diminished.

At the end of 2006, the *Mozzart* betting agency appeared on the Romanian market and since October 2006 has opened 20 agencies. In January 2007, the agency extended its network in the large cities of Transylvania. The *Mozzart* agency is the most powerful betting agency in Siberia. During the 2006 Football World Cup in Germany, 30 Romanian bettors predicted the France–Italy final, and had the chance to win 40 times more than the invested amounts of money. Approximately 12,000 Romanians bet on Brazil to be the World cup winners in 2006, while 100,000 Romanians lost their bets staking on other teams, or for example, on betting that Ronaldo would be the top goal scorer of the competition. The match with the largest amounts of money both won and lost in Romania was the game between the Netherlands and Portugal. In total, during the 2006 Football World Cup, Romanians bet more than € million (Bufnilă 2006).

At the *Astra Sports and Bets* agency in Cluj-Napoca, the number of bets during big championships compared with other periods is doubled, while the number of those who lose exceeds 70%. When there are no major sport events, most of the people direct their attention to different football matches, tennis, etc. People of all ages bet, regardless social class, with the amount of money bet varying between €1.5 and €300. There are three types of bettors: (a) those that go to the betting agency two to three times a week and bet minimal amounts of money (€0.5–1); (b) those who bet relatively large amounts of money (€30) on a single event (e.g., a football match); and (c) those who bet for maximum prizes and play in a syndicate with three or four other individuals. For football games, most betting takes place in Cluj-Napoca (90%), while bets on other sports such as volleyball, baseball, motor racing, and rugby are less represented, although the betting agencies have an obligation to introduce them into the betting system (Tîmbuc 2006).

Another notable trend is represented by games that take place on the internet and have the advantages of person-to-person interactions. In these cases, poker or backgammon are played, at any

time of the day, and the organizing agency warrants the prize as soon as both players have deposited the participation money in the account. In a similar way, there are casinos and bingo halls, where gamblers may play on 50 cents to €500 for a period of 5 minutes or 24 hours, after which they may withdraw from participation.

“When spring comes, the entire country plays bingo” was the motto of a comedy show presented in Cluj-Napoca at the end of the 1990s. Nevertheless, in 2006, bingo is seldom played. From over 100 bingo saloons in the years 1994 to 1995, only 10 have remained in Bucharest, Cluj, Târgu-Mureş, Sibiu, Constanţa, Iaşi, and Craiova. In 1993, two Spaniards brought bingo to Cluj-Napoca and opened the first bingo hall on June 21, 1993, at the former *Timpuri Noi* movie theatre. Chronologically, this was the fourth location in Romania. Since opening, there has been no advertising for bingo, with publicity being spread from person to person. One of the most important roles was played by its location in the centre of the city. At the same time, because of the pyramidal game called *Caritas*, with headquarters in Cluj, in 1993, non-money prizes emerged. The prizes consisted of television sets, refrigerators, cars, and scooters. The peak time of development for the bingo game was between 1995 and 1996. Although the playroom had a seating room capacity of 130 tables, daily attendance at the game was approximately 250 players. Most of the players came to the bingo hall alone, but some of them brought their wives along. At that time, in Cluj-Napoca, there were 8 bingo halls and over 100 bingo halls throughout the country. The highest prize won in bingo hall in Cluj-Napoca in 1995 was €1,000. However, by the early 2000s, the Romanian population had lost its interest in bingo. One of the reasons for this was the introduction of taxes on profit (20–25% of the profit was retained, with an additional 10% for cards). On the other hand, the number of casinos offering higher prizes with resulting higher taxes increased. Slowly, the district bingo halls have been closed, mostly after the stipulation of the law that forbade the functioning of such facilities in buildings where apartments also existed. Thus, in November 2006, the last bingo hall in Cluj-Napoca was closed.

## 2 Evidence

### 2.1 Gambling: Evidence with Regard to Adults

At the moment, there are no studies regarding the prevalence of adult pathological gambling in Romania. An interview with one of the most important staff members of a big casino in Bucharest revealed that this phenomenon has become an increasing problem in Romania. This is despite the fact that there are only 14 casinos in Bucharest. In addition to these, there are seven other casinos in the large cities Cluj, Timișoara, Iași, Bacău, and Constanța. Each casino houses an average of ten gaming tables.

Roulette is the most frequently played game in Romanian casinos. The average number of people attending a casino a day in Romania is approximately 270, depending upon the day of the week, with weekends being the best attended. Adult casino players are predominantly middle aged. Gamblers come from all social categories, some preferring to attend casinos by themselves, while others are accompanied by friends. Most of the gamblers refuse to be called at home by the casino marketing department, because they are afraid that their family might find out about their gambling. The interview also revealed that many casino patrons play the games they learn quickly, their main motivation being an instant prize and the “elevation of the adrenaline level”. This might be one of the explanations why roulette is so frequently played in Romanian casinos, as this game offers the highest percentage of prizes compared with initial bets. Nevertheless, there are also gamblers who are mostly attracted by the special atmosphere in casinos, an atmosphere they cannot find in other places.

The pyramidal game called *Caritas* became hugely popular in Romania between 1991 and 1993. The number of individuals participating in the game was over 250,000, and they deposited large amounts of money at the *Caritas* agencies, which had its centre in Cluj-Napoca, hoping that the deposited amount would multiply by seven to eight times. The game made over €38,000,000 in a 2-year period. Based on this phenomenon, a devaluation of the notion of money and a disjunction of the connection between earning money

and honest working has appeared. A considerable number of participants are losing large amounts of money in this way without sufficient deliberation. The tendency to increase the stake at registration also exists, with players falsely believing that this may lead to prolonging the participation at the game, thus controlling profit. This was one of the ways in which the large expansion of gambling happened both at the social and individual level. Finally, the entire gambling business proved to be a huge financial swindle, the “game” ending in June 2003, leaving behind a large number of victims, while the executive of the agency *Ioan Stoica* was arrested on August 25, 1994, and received a 6-year prison sentence. After scamming hundreds of thousands of people all over the country, the legislative body ratified the law regarding gambling, which regulates, forbids, and punishes the creation of financial pyramids. Accordingly, the organization and development of games, regardless their name, where individuals are lured into depositing or collecting money, thus leading to financial benefits by enlarging the number of recruited or enlisted participants, is considered an infraction and is punished with a 2- to 7-year prison sentence or a fine. Similarly, the proposition to deposit money or enlist in the conditions previously described is also considered an infraction, and is punished with a prison sentence from 1 to 4 years, or a fine.

### 2.2 Gambling and Pathological Gambling: Evidence with Regard to Adolescents

Lupu, Onaca, and Lupu (2002) carried out research regarding the prevalence of pathological gambling in Romania on 500 high school students in three counties (Cluj, Sălaj, and Bacău), with ages between 14 and 19 years, 56.6% being girls (n=283) and 43.4% being boys (n=217). An anonymous questionnaire included a standardized scale called “20 Questions of Gamblers Anonymous” and another 20 questions about age, gender, family, income, school, drug abuse, gambling preferences, the frequency and the amount of money they use in gambling, etc.

A total of 34 schoolchildren representing 6.8% of the assessed population were identified with scores of seven or more, reflecting the presence of pathological gambling. Of the identified participants,

17.64% were girls ( $n=6$ ), while 82.36% were boys ( $n=28$ ), representing a proportion of 4.6 to 1 in favor of boys. The games most frequently played by Romanian adolescents were poker (35.29%), pool (55.88%), bingo (32.35%), basketball bets (5.88%), blackjack (2.94%), and roulette (2.94%). The largest amounts of money staked were between €3.5 and €35 for 14.7%, between €3.35 and €3.5 for 20.58%, between €4.2 and €8.35 for 32.35%, and between €0.42 and €4.2 for 32.35% for the surveyed adolescents.<sup>1</sup>

Regarding the frequency of gambling, 63.63% played very frequently, 9% played rarely, and 9% played very rarely. Most of them played in groups (82.35%), while 17.64% played alone. The age at which the participants began gambling was 13.72 years ( $\pm 1.8$  years). The study carried out by Lupu et al. (2002) further revealed that 17.64% of the adolescent pathological gamblers had fathers with alcohol-related problems, and 11.76% had fathers with gambling-related problems. This research also revealed that most of the gamblers (52.94%) had modest school performances, and 64.7% had a high number of absences without leave, mostly due to gambling. A total of 41.17% of the adolescents came from families with modest incomes, and 58.83% came from families with good or very good financial background. The fact that there had not been significant differences found in pathological gambling depending on family income (financial situation) shows that this disorder does not depend on the disposable amount of money, because pathological gamblers were present in both high- and low-income conditions.

Another study (Lupu, Boroş, Miu, Iftene & Geru 2001a) analyzed the risk factors for pathological gambling in Romanian adolescents who were high school and vocational school children ( $n=231$ ), with ages between 14 and 18 years, in Cluj, Satu-Mare, and Argeş counties. The most important risk factors for pathological gambling were divorce/the separation of parents, a serious physical illness of one of the family members, the death of a family member, family break-up, the psychological disorder of one of the family members, and participation in a severe accident. In 14% of the

pathological gamblers, comorbidity with the use of illegal drugs was also revealed, while sexual abuse of adolescents had also been identified as a potential risk factor for pathological gambling. Overall, two profiles of adolescent pathological gamblers could be delineated. The first profile was adolescents of 15–16 years of age, from an unfavorable family and social environment, where they have to deal with stressful, traumatic experiences, such as neglect, physical, and/or sexual abuse. In these cases, one may interpret dependency on gambling as a coping mechanism of chronic stress. The second profile was adolescents of 15–16 years of age from a favorable family and social environment with a medium to high income, where the most frequent reason for neglecting the adolescent is the parents' extremely busy schedule. In these cases, gambling may be a way to spend time and/or to attract a parent's attention.

As in the study conducted by Lupu et al. (2002), the "20 Questions of Gamblers Anonymous" were used to assess gambling-related problems. However, the authors changed the scoring of the items by including a category of sub-clinical diagnosis, which offered more information about the frequency and proportion of gambling. This led to the following categories: (a) non-/occasional gambling (0–1 positive answers = level 1); (b) problem gambling (2–6 positive answers = level 2); and (c) pathological gambling (7–20 positive answers = level 3).

The data revealed that 34% of the participants did not gamble at all, or only gambled occasionally, 54% were problem gamblers, and 12% could be classified as pathological gamblers. Cluster analysis disclosed a grouping of risk factors for gambling in three categories: personal risk factors (physical/psychological illness, severe accidents), family environment (physical abuse, neglect, education, separation of parents, number of siblings), and stressful events (the break-up of a romantic relationship, social mobility, number of schools attended, family traumas, sexual abuse). For problem gamblers, the most important risk factors were change of residence (61%), the existence of psychological (60%) or severe physical disorders in one of the family members (59%), the death of a family member (57%), severe physical illness (55%), and being an only child (50%). For pathological gamblers, the most important risk

<sup>1</sup>The average income in Romania at the time of the survey was €70 a month.



factors were witnessing severe accidents, the psychological or somatic illness of a family member, the break-up of a romantic relationship, the death of a family member, and the divorce of the parents. The number of pathological gamblers was significantly higher (29%) in those who suffered a severe accident compared with those who did not (10%). Sexual abuse was twice as frequent in the case of pathological gamblers compared with problem gamblers, and significantly more frequent when compared with non-/occasional gamblers.

The analysis of a synthetic index, which additionally comprises sexual abuse (stressful events), showed a significant difference in mean frequencies between pathological gamblers and non-/occasional gamblers. The same significant difference was also found in the case of another synthetic index (unfavorable family environment), with frequencies between 5.8 (in the case of non-/occasional gamblers) and 7.3 (for pathological gamblers). The third synthetic index circumscribes personal risk factors and registered a difference in the same direction (non-/occasional gamblers vs. pathological gamblers). Table 15.2 shows all significant differences between non-/occasional gamblers, problem gamblers, and pathological gamblers.

Not surprisingly, a small proportion of the non-/occasional gamblers (11%) gambled significantly lower amounts of money than those reported by pathological gamblers (48%). The mean of the stakes in gambling was 30 times higher in the case of pathological gamblers compared with non-/occasional gamblers. Also, the pathological gamblers attended a much larger number of chance games than non-/occasional gamblers. Regarding comorbidity with other types of dependence, the most important one was the correlation between gambling and use of illegal substances, 3% of the non-/occasional gamblers reported that they had used at least once such kind of substance compared with 14% of the pathological gamblers, results that are confirmed in the wider literature (e.g., Lesieur et al. 1991; Saiz-Ruiz, Moreno & Lopez-Ibor Alino 1992). The most important consequences of pathological gambling appear to relate to the deterioration of the parent-child relationship. The pathological gamblers had a significantly higher number of arguments with parents because of gambling (parents usually forbade gambling). Pathological gambling strongly correlated with the number of school absences, a fact underscored by the significantly

TABLE 15.2. Risk factors of adolescent pathological/problem gambling.

	Non-/occasional gamblers (mean)	Problem gamblers (mean)	Pathological gamblers (mean)
Sexual abuse <sup>a,b</sup>	0.00	0.09	0.18
Physical abuse	0.36	0.40	0.57
Traumas in family <sup>a</sup>	0.46	0.61	0.68
Unfavourable family environment <sup>b</sup>	5.82	6.34	7.29
Stressful events <sup>a,b</sup>	13.36	17.23	19.20
Personal risk factors	7.79	8.47	11.11
Gambling at the moment of assessment <sup>a,b</sup>	0.05	0.22	0.36
Has ever bet <sup>a,b</sup>	0.11	0.30	0.48
Monthly bet amount of money (€) <sup>b</sup>	3	33	34.7
Frequency of gambling <sup>a,b</sup>	-35.50	10.89	50.27
Has ever gambled <sup>a,b</sup>	0.3	0.58	0.7
Highest amount of money invested in gambling (€) <sup>b</sup>	2	15.5	54
Drug use <sup>b,c</sup>	0.03	0.00	0.14
Arguments with family because of gambling <sup>b,c</sup>	0.06	0.19	0.55
Deterioration of relationship with parents <sup>b,c</sup>	1.59	1.73	2.14
Forbiddance of gambling on behalf of the parents <sup>a,b</sup>	0.18	0.39	0.53
Number of absences from school in the last year <sup>b,c</sup>	13.36	14.72	22.86
Low grades for conduct <sup>b,c</sup>	0.03	0.10	0.25

<sup>a</sup>  $p < 0.05$  (significant difference between non-/occasional gamblers and problem gamblers)

<sup>b</sup>  $p < 0.05$  (significant difference between non-/occasional gamblers and pathological gamblers)

<sup>c</sup>  $p < 0.05$  (significant difference between problem gamblers and pathological gamblers)

higher number of pathological gamblers (25%) for whom the grade for conduct was lower, compared with non-players (3%).

In summary, this study analyzed prevalence and a wide range of possible risk factors for pathological gambling in the case of Romanian adolescents. The initiation and the persistence of the game as well as the maladaptive behavior seem to predominate in the case of adolescents originating from unfavorable family and/or social environments, where these adolescents have to deal with different stressful and traumatizing factors, ranging from neglect to physical and/or sexual abuse. In this context, the dependency on gambling may be interpreted as a coping mechanism targeted to manage chronic stress. The chronological development of dependence starts with the progressive deterioration of the relationship with the parents, and of the educational situation, and the peaking of these consequences leading to social maladjustment. The mean age of the pathological gambler within Romanian adolescents is 15–16 years. Most of the pathological gamblers are either in the situation of being an only child, coming from families with medium to high financial status, where the adolescent is neglected because of the heavy schedule of the parents, or from low-income families with many children. In these cases, gambling seems to be a way to spend time and to attract the parents' attention, as well as to be a coping mechanism elicited by the unfavorable family environment.

The significant prevalence of pathological gambling among Romanian adolescents analyzed in this study and confirmed by similar cases in the clinics of child psychiatry and/or of private offices, is a sign that this kind of disruptive and/or maladaptive behavior, next to drug dependency, should be seriously taken into consideration, as target of primary prevention programs.

### 3 Action

#### 3.1 National Politics to Approach Pathological Gambling

At present in Romania, there is no coherent strategy regarding the prevention and treatment of pathological gambling. This is despite the fact

that the disorder is recognized by the Romanian specialists, being diagnosed, coded, and reported according the WHO–International Classification of Diseases (ICD)-10 classification, at the levels of psychiatric hospitals, ambulatories, and private offices. Because of increased gambling opportunities and the high prevalence of gambling among Romanian adolescents, young people, and adults, this issue is more and more frequently debated by the media. Currently, there are national prevention and control programs for drug use in schools and institutes of higher education, successfully implemented in the entire country, and coordinated by the National Anti-Drug Association (NAA). Within this program, several complex anti-drug actions, public debates, sporting events, concerts, and exchanges of experiences have been undertaken concerning this issue with young people from abroad. All of these actions have had a great impact in the media and the entire community.

Taking into consideration the fact that there is an empirical correlation between drug/alcohol addictions and pathological gambling, the inclusion of gambling into the actions undertaken by NAA is extremely welcome, particularly because pathological gambling can be seen as a form of non-pharmacological dependency. The proposal of its inclusion was presented by Lupu, Boroş, Miu, Iftene, and Geru (2001b). On this occasion, a call had gone out for conjoining the efforts of community, legislative, and specialists within the mental health community to attain the proposed objective (see also Lupu 1999). In 2005, a partnership between the Ministry of Research and Education, and the Romanian Board of Psychologists, represented by the Romanian Association of Cognitive and Behavioral Psychotherapies, was approved, targeting schoolchildren, parents, teachers, and school psychologists. Within this national program of rational–emotive and behavioral education, the issue of pathological gambling and problem gambling in children, adolescents, and young people will also be approached.

The treatment methods currently available in Romania used for pathological gambling include:

1. Selective serotonin reuptake inhibitors (Fluvoxamine, Clomipramine, Prozac)
2. Mood stabilizers (Carbamazepine)

3. Individual and group cognitive and behavioral therapies (including rational–emotive and behavioral therapy)
4. Counseling the gambler’s family
5. Family therapy
6. Psychological counseling

These forms of therapy are available both for inpatients and outpatients. The vast majority of patients prefer to be treated as outpatients in private offices. Unfortunately, in Romania, self-help groups such as Gamblers Anonymous do not exist yet.

Taking into consideration the fact that the etiology of pathological gambling is multi-factorial, including family/genetic, sociological, and individual factors, all of these elements have to be attentively analyzed in order to conceive an efficient primary prevention, as well as a secondary and tertiary program in order to control pathological gambling in Romania. These programs have to target especially high-risk populations such as males, adolescents/young adults, those abusing alcohol and drugs, disruptive peer groups, and those with antecedents of gambling and addictive behavior in the family.

Since the issue of pathological gambling is mostly an individual one, it has to be approached in the family and social context as well. Similarly, in the case of adolescents, it has to be fully understood the way in which these individuals perceive gambling. In some cases, the social context may play an extremely important role in the pathogenesis of gambling. One of the best examples in this sense is that of a 16-year-old adolescent, hospitalized in 1994 at the Psychiatric Institute in Cluj-Napoca for pathological gambling, the debut of which coincided with the flourishing of the *Caritas*, completed by the fact that the boy’s father was one of the employees of this particular firm.

In order to be efficient, a prevention program of gambling has to target raising public consciousness of the aspects implied in gambling and the accessibility to treatment of those individuals who have already developed a gambling dependency. At the same time, the feeling of isolation and the illusion that the problems of gambling may be solved without specialized help, by simply continuing gambling, must be eliminated. Promising examples of such attempts are the broadcasting of “*Renașterea*” (“Rebirth”) from 2001, and an

interactive live television program organized by Lupu in 2002, at the “Tele Europa Nova”, on the issue of pathological gambling. These programs have had a huge impact on the public in Cluj-Napoca. A large number of individuals, family members of pathological gamblers, called on air, wishing to find out more about the possible forms of treatment in these disorders. Consequently, the access to treatment has grown drastically, with pathological gamblers being brought to specialized private offices by family members. This is an extremely important aspect, since pathological gambling is an ego-syntonic disorder, which leads to a low direct access to therapy.

Another essential condition necessary for the success of this program would be represented by the proper financing by allotting funds from the taxes paid by the gambling industry. This could be modeled along the lines of the so-called vice tax in Romania, whereby tax paid by each cigarette and alcohol buyer is transferred into the accounts of health programs, targeting the general population. All of these monies could be used for the consolidation of the infrastructure necessary for developing education, therapy, and research within pathological gambling in Romania. Creating coherent means for primary, secondary, and tertiary prevention for pathological gamblers would represent the ideal situation. Because these means are not yet clearly established in Romania, it is proposed that the elaboration of such norms is applicable in our country, based on the results offered by scientific research in countries more developed from this point of view (see Di Clemente, Story & Murray 2000; Fröberg 2006; Lavioe & Ladouceur 2004).

For primary prevention, informational lectures accompanied by video materials on gambling would be the most suitable, thus, being able to offer information about the game, the problems it produces, as well as about the entire gambling market. Simultaneously, the strategies that have to be followed in order to control the gambling behavior, as well as information about the risk factors implied in the development of dependency have to be presented. In order to make the primary prevention successful, controlling the access of minors to gambling by informing adults in this regard and by exerting influence on social attitudes needs to be attempted. Nevertheless, there is no general, overall pervasive strategy to prevent the development

of pathological gambling. Each approach has to be adapted to each target group depending on its particularities and/or uniqueness. However, prevention has to be applied as soon as possible, before minors get in touch with the game.

Secondary prevention refers to those persons who have already begun to gamble and who belong to a high-risk group, fulfilling one or more criteria necessary for being diagnosed with pathological gambling. The risks and the long-term negative consequences of gambling have to be presented, as well as the methods necessary for the acquisition of abilities involved in self-control during the game. This sub-group of gamblers may be considered problem players, and the proposed methods should be implemented by professionals, such as social assistants, school psychologists, and (child) psychiatrists. These acts of prevention would be applied at the level of the individual, of the family, and within peer culture, schools, social services, and legislation. Secondary prevention programs should primarily relate to the reduction of the influence risk factors play on the development of addiction and the simultaneous enhancement of the proportion of protective factors, such as (a) the development of problem-solving abilities at cognitive and social levels; (b) the optimization of pro-social behavior: appropriate social abilities, flexibility, and good communication skills; (c) powerful autonomy revealed through confidence in the person's own abilities, possibility of self-control, and responsibility for one's own actions; and (d) the development of optimistic future perspectives.

Tertiary prevention presupposes the assigning of considerable resources necessary for the treatment of pathological gamblers and the counseling of their families. Simultaneously, tertiary prevention requires the establishing of the treatment both for pathological gambling and for the associated psychological disorders, such as depression, anxiety, drug and/or alcohol addiction, and severe aggressiveness. The implementation of this step is necessary, because in many situations the gambling behavior represents a coping mechanism targeted to reduce the stress provoked by everyday hassles and unpleasant events, thus, it represents a modality of evasion from depression and anxiety. Treatment has to include pharmacological intervention as well as long-term individual and group cognitive-

behavioral psychotherapy. It is necessary to establish support groups such as Gamblers Anonymous. By the same token, motivational therapy of children, adolescents, and adults is also recommended, taking into consideration the fact that pathological gamblers express a lack of a wish to change, and a great ignorance regarding the locations where therapy of the disorder is offered.

The prevention of relapse is an essential part of the therapy. The relapse of pathological gamblers means that the approach to the particular case has not been appropriate, with additional problems remaining untreated. In this context, the identification of maladaptive patterns of thinking and defective assessment styles of risky situations become very useful. Simultaneously, a steadfast contract with the pathological gambler is agreed on, having as its main objective the total ending of gambling. In this case, the implication of the family in the therapeutic treatment is needed. Furthermore, the treatment has to be adapted to the stage to which the gambler corresponds (active or passive). These types of intervention have to take place in centres of mental health. In Romania these are under implementation, adhering to the standards imposed by the European Union, where the treatment of drug and alcohol addiction, as well as derived psychosocial problems is also possible.

## 4 Conclusion

Taking into consideration the fact that the number of adolescents and young adults who gamble has been dramatically increasing in Romania, urgent regulation of this issue at the national level has become a major issue. The few available evidence suggest that the most important risk factors implied in the development of pathological gambling among Romanian adolescents are divorce and/or the separation of the parents, the break-up of a romantic relationship, severe psychological disorders in the family, antecedents of accidents, and comorbidity with the use of illegal drugs. Even if there are no studies regarding the prevalence on pathological gambling in adults as is the case of adolescents, one may infer that there is a tendency of enhancement in this case as well, a fact underscored by the average of 270 of individuals attending casinos every day in Romania.

These observations should initiate the beginning of comprehensive empirical research in order to reveal the prevalence of gambling in adults and the monitoring of such tendencies in adolescents. These needs become more and more stringent especially because of the “explosion” in the number of locations where gambling has become possible in the last 2 to 3 years in Romania. This represents the second such “explosion” in Romania. The first one took place at the beginning of the 1990s, when television bingo was in vogue, followed by a period of calm. Most remarkably, in the last 2 to 3 years, sport betting has become more and more in vogue.

In relation to the Romanian legislation and regulation of gambling, numerous aspects still need to be rectified in order to control concurrence in this domain. A very good example to illustrate the dysfunctional aspect in this domain is the monopoly of the National Company of Romanian Lottery over a part of the gambling industry represented by lotto, sports betting, lottery tickets, and instant lottery, and that has led to the exempting of this company of paying serious amounts of money that should have been transferred into the state budget. The recent legislative regulations, which are going to be stipulated, would clear up such problems. Similarly, removing interactive games from television and radio stations, as well as removing those played through the internet and intranet is also planned.

Conclusions regarding the positive and negative aspects of the activities undertaken by national organizations should also be formulated. These warrant assistance and help coordinate the activity within primary, secondary, and tertiary prevention of gambling in Romania. The main deficiency, which has to be quickly remedied, is that there is still no coherent, specific strategy for controlling this issue at a national level. Similarly, there is no sufficient epidemiological data about pathological gambling, especially in the case of adults. For this intervention to be efficient, one must obtain adequate financing, which might come from the taxes paid by the gambling industry in Romania.

Besides sensitizing the population, intervention has to be closely integrated with the legislation and specialists in the domain of mental health. Thus, the Romanian population may find out when, where, and how one may ask help of a professional in this

regard in order to get treatment. A positive aspect is represented by the existence of the National Anti-Drug Association in Romania, which coordinates the prevention and battle against use of drugs in schools and universities. The issue of pathological gambling might be attached to the tasks of this organization, more specifically since dependency on drugs is frequently associated with dependency on gambling. Another positive aspect is the existence of a national program of rational–emotive and behavioral education addressing schoolchildren, parents, teachers, and school psychologists, programs that might also deal with the issue of prevention of pathological gambling. Regarding the treatment of pathological gambling in Romania, almost all types of pharmacological therapy and psycho-therapeutic intervention are available. Nevertheless, the urgent setting up of support groups such as Gamblers Anonymous is essential. In this way, Romanian patients will benefit from all types of intervention available in Europe and around the world. Empirically validated forms of intervention should be implemented, as soon as possible, targeting primary, secondary, and tertiary prevention of pathological gambling in Romania.

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# 16

## Russia

Sergei Tsytsarev and Yakov Gilinsky

### 1 Background

Russia, or the Russian Federation (RF), came into existence in 1991 after the breakdown of the Union of Soviet Socialist Republics (USSR). The Russian Federation occupies over 17 million square kilometres in size (greater than 6.5 million square miles). The population of the Russian Federation has grown from 102.9 million in 1951 to 148.7 million in 1991 and has reduced to 143 million by 2005. Seventy-eight percent of the population live in the European part of the country and 22% in the Asiatic part (west Siberia, east Siberia and the Russian Far East). The population is 47% men and 53% women. Seventy-three percent of the people live in urban areas and 27% in rural areas (Vishnevski 2006). The population is composed of a variety of ethnic groups. The Russians make up 83.5% of the population, the Tartars make up 3.8%, Ukrainians 2.5%, and Chuvashians 1.1%. Each of the other groups represents less than 1% of the total population.

The communist regime (1917–1991) was ineffective economically and politically. After 70 years of the experiment to establish a social utopia (the slogan on the gate of the Solovki Labor camp was: “Happiness for Everyone through Violence”), the country was abruptly thrown back onto the path of Western civilization. Michael Gorbachev’s “*Perestroika*”, started in 1985, was a response to an economic crisis that affected millions of people in the Soviet Union. It turned out to be a weak attempt to save the governmental structures by reforming

the communist system. However, the Gorbachev reforms were quite noticeable and resulted in freedom of speech and the mass media, the multi-party system, privatization of property, much better international relations, particularly with the West, the release of three states liberated and then occupied by Stalin during World War II (WWII), i.e., Latvia, Lithuania, Estonia, etc. With a few exceptions, none of Gorbachev’s reforms was fully completed. The massive disintegration of the Russian economics continued; political and financial power has been returned to the ruling class of bureaucrats now “married” with the new financial moguls (“oligarchs”) and organized criminals. Corruption, common in Russia, had taken on a monumental total scale in all branches of government, establishment, and law-enforcement agencies. The crisis shattered the health care system, education, transportation, and other social services. Spiritual and moral values became vague and poorly defined.

The beginning of the 21st century is characterized by the militarization of the economic and political life. Currently, the role of the law enforcement sector is extremely significant and such agencies as the Federal Security Service (FSB; former the KGB), the Ministry of Internal Affairs (MVD) and others are gaining an enormous power back. The government tolerates human rights abuses on a massive scale, particularly in the military and in the penitentiary institutions, where violence and torture dominate (Abramkin 1998; Christie 2000; Gilinsky 1998; Index on Censorship 1999; Position of Convicts in Contemporary Russia

2003; Walmsley 2003a; 2003b). The nationalists', anti-semitic, neo-fascist, and skinhead groups are active and merely tolerated. The number of hate crimes has dramatically increased. Attacks against the mass media in opposition began in 1999–2000 and continue hitherto. The ever-growing economic polarization of the population—visible in the stark contrast between the impoverished majority and the nouveau rich minority (the “New Russians”)—is a guaranteed source of continuing social tension and conflict. The death rate (per 1,000 population) in 1986 was 10.4; in 2003, it was 16.3. The life expectancy in 1994 for men was 57.6 years, and for women it was 71.2 years. In 2005, life expectancy for men was 59 years, and for women it was 72 years (Human Development Report 1999; Population and Society 2005; Vishnevski 2006).

A technological backwardness and the poor quality of the domestic production and services have manifested in the course of the reforms. A consequence of this is an inferiority complex in many employees, their marginalization and depression. A lot of the class of “excluded” (Finer & Nellis 1998; Paugam 1996; Young 1999) constitutes the social basis for various forms of deviant behaviour such as crime, suicidal behaviour, addictions, etc.

### 1.1 Gambling: A Historic Background

Playing cards became available in Russia in the 17th century. Almost immediately, the Tsar's government made playing cards illegal. In 1649, a part of the Legislation banning playing cards was listed under the title of Robbery and Stealing. Card players were supposed to be whipped and their fingers and hands could be cut off. In those cruel times, Russia was not alone in such harsh policy against gamblers. However, later, in the 18th century, during the era of Peter the Great, the first Russian emperor, the punishment for card playing was replaced with monetary fines.

In 1761, the empress Ekaterina II (known as Catherine the Great) made a distinction between legitimate (games of commerce) and non-legitimate (games of chance) gambling. Playing games was allowed if the victory depended not only on “fortune”, but also on the skills of the players, such as bridge. It was acceptable to play in the rich noble estates and making huge bets was prohibited. In the Royal Palace, card games took place almost

daily. It was forbidden to play roulette, shtoss, spot (pip)—the analogue of Blackjack—as well as lottery, or to bet on horse races. Gamblers were to pay a special tax to support the Fund for orphanages.

In the 19th century, gambling had become an epidemic phenomenon in Russia. All kinds of games had spread out and were common among many categories of citizens. However, higher and lower social classes played in different places and rarely mixed in new establishments, casinos, or clubs. A pattern of playing games and consuming large amounts of alcoholic beverages came into place. Particularly, gambling was popular among the military officers, including the high-ranking officers. Based on historic data, most likely all we know today about the social and clinical aspects of gambling was fully present in the Russian society of the 19th to the beginning of the 20th century. The consequences of gambling varied from losing family estates to embezzlement of governmental money (or regimental funds in the military) to suicide. A lot of noble families suffered from gambling addiction. Craving for playing roulette and cards was extremely well described in the Russian classical literature by the most famous authors, such as Alexander Pushkin (“The Queen of Spades”), and Feodor Dostoyevsky (“The Gambler”). The Gambler provides probably the best psychological description of pathological gambling in world literature.

Dostoyevsky was a pathological gambler himself. He made several trips to Western Europe to play and he inevitably lost a lot of his inheritance as well as the money of his wife's family. To understand his sufferings and those of his family, let us quote a few letters written by Feodor Dostoyevsky to his wife—Anna Grigorievna Dostoyevskaya:

“Anna dear, my friend, my wife, forgive me, don't call me a scoundrel! I committed a crime, I lost everything that you sent to me, all, to the last kreizer [small coin]. Yesterday I received the money, and I lost it yesterday right away! Anna, how could I look in your eyes now, what can you say about me? My friend, please do not guilt me completely! I hate my gambling, and I hated it yesterday and the day before, I damned it. As soon as got your money and changed the note, I went [to the casino] to win back at least something, to improve our circumstances. I believed so much in a small win! First, I lost a little, and once I began



to lose, I wanted to win back, and I lost even more, then I had to continue playing to at least regain the money that we need to travel back, and finally, I lost everything ...” (May, 24th, 1867, Hamburg).

In the great author’s letter, the psychology of a gambler is presented perfectly accurate. He wrote: “... I am giving you my last and great word ... that I will play only from 8 to 11 pm in the most sensible and rational way, I swear...” (November, 17th, Saxon le Bains) and “Angel Anna! I went there at 8 pm, and I lost everything. My dear friend! Let it be my last and final lesson, yes a terrible lesson!” (April, 4th, 1868, Bains-Saxon). Unfortunately, it was neither the last loss nor the “final lesson”.

## 1.2 Gambling in the Soviet Union

After the Socialist Revolution of 1917, all gambling activities were viewed negatively and gambling businesses (with a few exceptions) were closed. There were only two legal gambling activities that were supported by the state: various types of national and local lotteries (the information on their revenues has been always classified) and betting on horse races. Millions of people participated in the lotteries even though the chances to win were low, but (as in most games) not equal to zero. During the Soviet era, statistical data on gambling were not available. However, there is a lot of anecdotal evidence according to which gambling was a very widespread phenomenon.

For instance, thousands of people participated in betting on horse races that was mainly gambling for the wealthy. Since some part of the Soviet economy was always controlled by the organized white collar criminals, those individuals were affluent enough to spend money at race tracks and to laundry their illegal income via gambling. Some of them developed symptoms of pathological gambling, but compared to now, it was a minor societal issue.

In addition, there were many illegal professional gamblers (cheaters, card sharps), whose areas of operation were airports, hotels, overnight trains, and train stations. Although sometimes they were arrested, most of them had a leisurely life. Big cities and southern resorts at the Black Sea had infamous places (“*katran*”) for illegal gambling where professional cheaters made extremely good money. And finally, millions of non-professionals played cards, including some very sophisticated games.

One additional problem emerged during the end of the Soviet era and is still proliferating in Russia. This is a kind of illegal gambling called, in slang, “*lokhotron*” (a gullible person, a fool to be taken advantage of). Criminal elements have been in control of that industry for a number of years. People at market places, flea markets, airports, and other public places have been solicited and eventually become involved in a swindle that always seems to be very well orchestrated by the organized group of professional thieves. For example, in one of these scenarios, potential victims could be forced to play “numbers”, and they immediately win substantial cash, begin to lose, and try to stop gambling. Someone from the crowd would exclaim: “I will bet for him/her! I know he is going to win a lot!” in order to reinforce further gambling. Finally, the victim of the scam loses thousands of dollars in a matter of minutes. The gambling technology is clear and simple: in all instances, victims are initially given an opportunity to get a big win and therefore a hope to win more. The victim is totally set up. The crowd and the dealers constantly reinforce the individual to continue gambling. The outcome of such tricks could be detrimental for the players: they lost a lot of money, sometimes their cars, and even their apartments. Evidently, mostly the criminal community benefits from this kind of gambling. Of course, they pay a “kickback” to the owners of the market places and corrupt police officers to protect their business. Despite the widespread casinos and other legal gambling establishments, the “*lokhotrons*” have contributed a great deal to problem gambling in Russia.

## 1.3 Contemporary Gambling Industry

### 1.3.1 *The Period 1988–1998*

The gambling industry began at the dusk of the Soviet Russia in 1988. In 1991, there were three casinos and about 500 slot machines in the entire country. At the end of 1991, there were a few casinos in both Moscow and St. Petersburg. Three companies, *Nineviograd ANO*, *Loiko*, and *Konti* later made up a major part of this business, and had started about that time. The industry included the manufacturing of equipment for casinos, and a few companies began to specialize in that area (*KSI*, *RIO*, *Unikum*).

During next 2 years, a lot of new casinos and slot machine lounges were opened in Moscow and some other cities. The Association of Gaming Business was established to promote this type of enterprise in many regions of Russia. In 1994, according to data from the Department of Taxation, the growth of this type of business was quite visible: in 87 out of 89 regions of Russia, 496 gambling companies were registered. For instance, 86 enterprises were developed in Moscow, 57 in St. Petersburg, 12 in Rostov, 7 in Vladivostok, 51 in Krasnodar territory (a resort area at the Black Sea), 14 in Stavropol territory (another resort area), 20 in the Leningrad district (the territory around St. Petersburg), 15 in the Moscow district, 10 in Volgograd, and 9 in the Murmansk district.

The Department of Taxation was terrified by the fact that 315 out of 454 audited companies were not licensed and never paid taxes. Nevertheless, the Association of Gaming Businesses had developed good relations with the local governments, and in many instances, was able to “find good understanding” there. The lack of legal regulation of this type of business left a lot of loopholes and was an impediment for a normal dialogue between the government and rapidly developing gambling establishments. A few large companies operated in this area. Among others, currently well-known companies were already very active: *GEM*, *Kart*, and *ODA*. The most well-known casinos in Moscow were *Metropol*, *Golden Palace*, *Arbat*, *Metelitsa*, *Konti*, and *Beverly Hills*. About 80,000 people were employed in this business.

### 1.3.2 The Period 1998–2000

By the end of 1998, about 800 gambling establishments were in full operation in Russia. The Law #142-Φ that passed the State Duma (Parliament) “On taxes on gaming business” was quite helpful to monitor the growth in this industry. During 1998, the number of gambling places registered by the Department of Taxation increased by 40%. By the end of that year, 1,402 gambling establishments were legally functioning in Russia, but, by 2000, this number doubled to 2,622 places. A total of 76 regions of Russia were involved in this rapidly growing industry. The slot machine industry had about 800 factories in 1998 and 2,100 factories in 1999. At the end of 2000, there were 2,700 gambling establishments with 120,000 employees.

### 1.3.3 The Period 2001–2006

During 2001–2006, the gambling industry became particularly strong and was equipped with modern gambling equipment that was imported from various countries as well as produced by Russian industry. Not only big cities, but also small towns and even fairly small villages have gotten at least some slot machine lounges. All establishments now must be licensed, and over 6,300 licenses have been issued. Among the largest companies on the Russian market now are *Razio*, which manages slot machine enterprises such as *Vulkan*, *X-time*, and *Million*, as well as the casino *Desperado* in Moscow. The company *Jackpot* controls the chains *Lackpot*, *Igrovoi Meshok*, and *Metrocenter*, as well as casinos *Molodaya Gvardiya*, *Ibitsa*, and *Slavyanka* in Moscow. The company *Storm International* has a chain of clubs, *Superslots*, casinos *Udarnik*, *New York*, and *Karnaval* in Moscow and the companies *Megatron* and *RIO*. Among bookmakers, the most popular companies are *FON* and *Marathone*. It is difficult to rate casinos, although some experts would state that the level of service in casinos such as *Metropol*, *Golden Palace*, *Kristal*, *Europe*, *A-Club*, *Asia*, *Corona*, *Metelitsa*, and *Shangri-La* is much higher than the level of many famous casinos in Europe, Asia, and Latin America.

The number of people employed by the gambling industry has been consistently increasing: 150,000 in 2001; 200,000 in 2002; 300,000 in 2003; 500,000 in 2004; and in 2005–2006, over 550,000 people. In fact, this is a sizeable sector of the Russian economy. A similar tendency could be found in the production of gambling equipment. The quality of the Russian-made gambling machines has been viewed as good on the international markets. Currently, from 70 to 90% of the equipment used in casinos and other gambling places are domestically produced. Several Russian companies are successfully operating on the international market.

## 2 Evidence

### 2.1 Russian Attitudes Toward Gambling

Attitudes toward gambling were explored on a Russian sample by Kassino, Tsytsarev and Davidson (1998), and this publication remains the

only empirical study in this area. It was hypothesized that Russians would have positive attitudes toward many forms of gambling due to a widespread availability of gambling activities in their milieu, the promise of large payoffs, and the intermittent reinforcement underlying such games. In addition, it was believed that men would have significantly more positive attitudes than women, which has been found in the USA. The sample included 150 young male and female adults from various social groups in St. Petersburg. Five other variables were also assessed: (1) religion and religiosity were examined, because it was expected that the latter would be negatively related to the acceptance of gambling; (2) risk taking was expected to positively correlate to gambling attitudes; (3) liberal thinking as opposed to conservative thinking was expected to be associated with positive attitudes toward gambling; (4) it was hypothesized that individuals with previous gambling experience would have more positive gambling attitudes than would individuals who had no gambling experience; and (5) a measure of social desirability was included.

The results showed that, in line with the hypotheses, Russian attitudes were found to be equally positive toward gambling in general, as well as toward the lottery, betting in casinos, and betting on horse races. The gender differences were minimal, and contrary to expectations, it was Russian women (rather than men) who reported more positive attitudes toward the lottery. Religiosity in the US sample was negatively related to positive attitudes toward gambling in general, as well as positive attitudes toward gambling in casinos in particular. Interestingly, in Russia, these variables were not related to attitudes toward gambling. This may be explained by the emerging nature of religion in Russia. Religiosity as a trait implies the continuous involvement of activities such as prayer and church attendance, and belief in the principles central to religion. Russia was a country where such traits were not encouraged prior to 1985. Since then, as some Russians become more involved in religion, this variable may have a more important influence on attitudes toward gambling.

As predicted, liberalism and risk taking were positively related to gambling activities. Russia is a country of turmoil and upheaval, where taking a chance is a common, and even a necessary experience. As such, gambling is in line with the

common person's perspective on acceptable behaviour. In addition, it seems logical that gambling attitudes would be found to be associated with liberal thinking, as viewed in Russia, since liberalism incorporates the acceptance of capitalism, a risky economic system.

Finally, 74% of the Russian sample indicated they had gambled at some point in their lives. Those who previously gambled had more positive attitudes toward gambling in general, toward the lottery, casinos, and horse races. If more opportunities to gamble become available, it is likely that attitudes toward gambling will become even more positive. However, Russia is still going through rapid changes, and it is important to be cautious in making any conclusions. Most likely, the attitudes toward gambling will change one way or another along with economic, political, or cultural changes in Russia.

## 2.2 Pathological Gambling: A Russian Perspective

It is very hard to estimate the prevalence of problem gambling since there are no large-scale epidemiological studies. Our recent personal communication with nearly 50 leading Russian psychiatrists who participated in the World Congress of Dynamic Psychiatry (June, 2007) and the Vladimir Bekhterev Jubilee Session, has shown a lack of interest in most of them in this type of research and a typical underestimating of the gambling problem in Russia. None of them could provide us with any statistical data or with the information about treatment programmes. Only two recently published books on addictions have chapters on problem gambling, the content of which is mostly based on the Western research and some original small-scale studies (Mendelevich 2007; Starshenbaum 2006). However, they contain a lot of anecdotal evidence to support the hypothesis that, in Russia, problem gambling is a cause of suicide, depression, and loss of status for hundreds of thousands of people from all socio-economic classes: some of them play in the fancy casinos while others gamble at very small gambling halls by their local subway stations. The authors have also confirmed a prediction that, in Russia, gambling and alcoholism seem to be highly correlated, although one can only speculate about the cause and effect relationships.

Even before the massive exposure to the gambling industry, post-Soviet society had a lot of reinforcers for gambling and subsequent addictive behaviours. Not surprisingly, a few years later, the first Russian publications presented the same symptomatology of gambling disorder as in most Western cultures. However, it would be interesting to elucidate some original thoughts of Russian scholars about pathological gambling.

In Russia, the research of gambling began in the 1990s. The studies (mostly conducted by psychiatrists) covered various aspects of addictive gambling, psychological predispositions, and the psychiatric consequences of gambling. Although some of the studies are based on Western theories, many of them seem to be quite interesting and practically significant. One of the leading researchers in the area of addictions in Russia is Cesar Korolenko (1991). He presented a classification of non-chemical dependencies, where gambling seems to be one of the most popular, along with sexual addictions, addictive components in the behaviour of workaholics, compulsive shopping, internet dependency, exercise addiction, and numerous fantasies that may also have an addictive nature.

As in many other cultures, psychiatrists in Russia tend to explain gambling in terms of manifestations of something else—the underlying major psychiatric disorders, such as affective disorders, depression, obsessive–compulsive disorder, personality disorders, anxiety, and chemical dependencies such as alcoholism and drug abuse (Mendelevich 2003). Another Russian researcher, Nazmutdinov (2000), presented some data on a high degree of comorbidity between pathological gambling and neuroses. Although in Western psychiatry, the concept of neurosis is considered to be outdated and no longer is a legitimate diagnosis, it is well understood by the community of mental health professionals that neurosis refers to a wide spectrum of anxiety-related psychological and psychophysiological disorders (e.g., conversion disorder, formerly called a hysteria), obsessive–compulsive disorder, as well as some personality disorders. Comorbidity manifests in three forms: neurosis is based on an addictive behaviour such as gambling and is usually triggered by a psychological trauma; neurosis contributes to the development of the addiction, and the latter could be viewed as a pathological defence mechanism (today we would probably say a coping

strategy); and addictive behaviour and neuroses develop separately but simultaneously since they might have the same underlying causes. Korolenko and Donskikh (1990) defined pathological gambling as a cluster of the following symptoms:

1. Constant involvement, increase of time spent in gambling.
2. Change of interests, motivational shift: suppression of other motivations by the craving for gambling.
3. Loss of control that manifests in the lack of ability to stop gambling after both a big win and a series of losses.
4. Psychological discomfort, irritability, and anxiety that occur during the short periods of time when they do not gamble. Such conditions resemble the withdrawal symptoms in substance abusers.
5. Steady increase in frequency of gambling, tendency to experience a higher degree of risk.
6. Periodically occurring states of tension accompanied by the drive for gambling and the desire to find a way to participate in it.
7. Lack of ability to resist a temptation to gamble: any provocation leads to a relapse regardless of the verbal expressions of a decision to “quit forever”.

In terms of gender difference, Russian psychiatrists found that two thirds of gamblers are men (Korolenko & Dmitrieva 2000). Women usually get into gambling in later periods of their lives. The most common comorbidity factor in men is drinking (and alcoholism), whereas in women it is depression and trauma (Mendelevich 2007). These data are consistent with other studies focused on gender differences in addictive behaviour (Tsytsarev 1983).

Among the factors that predispose people to gambling in Russia, the authors—psychiatrists who usually ignore environmental factors—admitted that the following factors have most potent effects on problem gambling: upbringing in a dysfunctional family, parents who participate in gambling (even in moderation), very early signs of zest in childhood, overestimation of the material factors in life, fixation on financial opportunities, jealousy toward relatives and acquaintances who are rich, and a strong believe that all problems could be resolved with money (Korolenko &

Dmitrieva 2000). This listing of factors could be supplemented with data obtained by Pasternak (1997), who also considers an ethnic minority status, loss of family status, depression, and chemical dependencies to be predisposing.

Many researchers have contributed to various classifications of stages of gambling. Custer (1984) described the stage of winning, the stage of losses, and the stage of despair. Russian researchers Zaitsev and Saidulina (2003) developed a concept of the gambling cycle that could be useful in conducting therapy with pathological gamblers:

1. Phase of abstention from gambling. This phase is characterized by non-participation in gambling behaviour due to lack of money, social pressure, and depression caused by another gambling misfortune.
2. Phase of automatic fantasies about gambling. The gambler experiences a foretaste of winning, has fantasies in which he wins a lot, and suppresses thoughts of losses. Some fantasies occur spontaneously, but might be provoked by some cues.
3. Phase of the progressively increasing tension. Depending on personal characteristics, the gambler experiences either melancholic depression or irritability and anger or anxiety. Sometimes the fantasies about gambling increase during this phase. The tension or anxiety is often perceived by the individual as having nothing to do with gambling and is compensated by the increased libido and intellectual productivity.
4. The phase of making a decision to play. This phase could manifest either in acting out on fantasies and self-reinforcing cognitive statements to justify a belief that "I am very likely to win now" or in an irrational decision to win back lost money.
5. The phase of suppression of a decision. The intensity of the conscious craving to gamble decreases and the illusion of control emerges. Usually, the patient is not completely aware when approaching the situation provoking gambling. Substantial amounts of cash in his hands, in addition to alcohol consumption, make him feel that he is able to gamble recreationally.
6. The phase of realization of the decision made. This phase is characterized by intense emotional arousal, and many fantasies about the upcoming

game. The irrational thoughts about the ability and likelihood to win prevail. The gambling does not end until all the money is lost. Then the phase of abstention begins and the new cycle starts.

The authors delineate both strategic and tactical cognitive distortions that contribute to the irrational behaviour of gamblers. The following beliefs could be considered as strategic aberrations:

- Money can solve all problems, including emotional and relationship problems
- Successful gambling may quickly solve all kinds of problems and eliminate misfortune
- Replacement of fantasies about control of their own life with fantasies about a big win

The tactical cognitive distortions are as follows:

- There is a winning day when I must win.
- If I keep losing, a point of dramatic changes must come.
- The debts could be returned only via a big win.
- A promise to quit gambling is associated with only the very last episode.
- A belief that one can play using only a part of their money.
- A perception of money as digits on the display or as tokens.
- A perceptions of bets as deals.

Despite some interesting ideas on the psychopathology of gambling, Russian mental health professionals have very little to offer in terms of the treatment for pathological gamblers. Some data were published on both pharmacological and psychotherapeutic treatments, which usually follow the models previously developed for substance abusers. However, it seems that we all know very little regarding how to treat pathological gamblers.

### 2.3 A Motivational Perspective

An approach previously developed as a methodology for the motivational analysis of addictive behaviours such as alcoholism and substance abuse (Nemchin & Tsytsarev 1989) appears applicable to the analysis of pathological gambling as well. It has been progressively more popular in Russia during the last decade. The central concept in this model is craving. In our earlier research (Boky & Tsytsarev 1987; Nemchin & Tsytsarev 1989;

Tsytsarev & Callahan 1995; Tsytsarev & Gilinsky 2004; Tsytsarev & Grodnitsky 1995; Tsytsarev & Shiraev 2005), we found that all cravings usually develop along the way as the motivational process unfolds: from the individual's basic need, to the goal object capable of satisfying it, and then to need satisfaction and finally to motivational tension reduction. To be defined as craving, the motivation should meet the following requirements:

1. A significantly higher level of motivational tension that the individual typically experiences as arousal, emotional tension, frustration, discomfort, and the like, such that the basic need produces considerable strain.
2. A perceived great attractiveness of the goal object deemed capable of satisfying the need and a wealth of opportunities.
3. There are two groups of obstacles impeding access to the original goal object:
  - (a) Objective barriers arising from the overt situation or environment
  - (b) Subjective barriers resulting from personality traits or problems, the most common are poor self-esteem, lack of social skills, and feelings of incompetence and helplessness.

If the object corresponds to the basic need modality (i.e., is natural, adequate, and consistent to the need), and the individual is capable of coping with both objective and subjective obstacles and finally reaches the object of his need, then a normal craving can be formed. These normal cravings result in the real need of satisfaction and motivational tension reduction, and play a very important role in personality growth because the individual involved is compelled to change either the social environment (coping with objective obstacles) or their own personality flaws (coping with subjective obstacles). If the object is not consistent with the basic need (i.e., the normal object is supplanted by another one, which is unable to provide real need satisfaction), then only a certain discharge of motivational tension associated with the strained need takes place. However, the individual achieves no real satisfaction, becomes frustrated, and the basic frustrated need is repeatedly recycled into a state of tension. In time, the individual is unable to follow a normal course of need satisfaction and gradually becomes dependent upon the substitute object.

The motivation underlying such behaviour can be defined as an abnormal craving.

Within the present model, the ultimate goal of the psychological study of addictive behaviour is the investigation of the various psychological mechanisms involved in its development as well as the basic frustrated needs underlying cravings and related motivations. One must therefore evaluate the subjective and objective meanings of addictive behaviour and how they derive from the needs being satisfied with addictive conduct. From this perspective, semantically, gambling as a form of addictive behaviour with gambling behaviour as a substitute object could be considered in the following ways:

1. As a means of tension reduction. For example, in gamblers, tension associated with the frustration of the basic need could be reduced only via gambling behaviour—the substitute object.
2. As a means of the temporary self-esteem growth. Gambling may provide a strong feeling of self-confidence, and even omnipotence and grandiosity; fantasies at the card table provide the pseudo-satisfaction of the frustrated needs, and the gambler may see himself being loved, rich, important, and very successful.
3. As a means of emotional state transformation and sensation seeking, obtaining unusual affective experience, escaping from emotional emptiness, and boredom. Sensation seeking is one of the basic traits of gamblers who otherwise feel understimulated and are incapable of experiencing positive emotions.
4. As a means of compensation or substitution: a profound frustration of any need (e.g., the need for love, affiliation, power, control, or social achievement) results in excessive motivational tension and anger that can be compensated for through the feeling of power and control that gamblers often experience before and during the anticipation of a big win as well as during the rare episodes of winning.
5. As a means of communication. Gambling and other forms of addictive behaviour are an integral part of certain specific subcultures (for example, young and wealthy “new Russians”, criminals, and the like), wherein gambling serves as a sign of affiliation with the group, and the amount of cash used in gambling could be

seen as a means of establishing a high status in a hierarchy of social relations.

Moreover, addictive behaviour substantially simplifies the complex emotional relationships within these groups. Some forms of gambling are commonly used as a means of manipulation of others, and are aimed at achieving goals that are otherwise unattainable (to achieve certain status, to get attention of others). In other words, gamblers are involved in “games people play” as they are described in transactional analysis.

When analyzing different types of addictive behaviour, it is important to bear in mind that, initially, some kind of motivation (i.e., one of the frustrated needs), playing the role of a psychological predisposition to addictive or other abnormal behaviour, facilitates addictive manifestations. Reaching no satisfaction, it may become progressively more powerful and result in more intense craving and its respective expressions on the various levels of our mental and physical functioning. The individual who becomes accustomed to using substitute objects such as various patterns of gambling to satisfy one of these needs, thereby reducing the associated tension and frustration, may subsequently use the same mode of gratification for the remainder of their frustrated needs. In other words, after having established a strong association between the initially frustrated need and the gambling behaviour, the gambler continues to learn how to use gambling behaviour to help pseudo-satisfy other needs. Eventually, a number of important needs become associated with the substitute goal object, which is the gambling behaviour.

Thus, gambling may become a behavioural or “process addiction” as characterized by Schaeff and Fassel (1988). Compulsive craving, with massive denial as a prevalent defense mechanism, and confusion, self-centredness, dishonesty, perfectionism, “frozen feelings”, and ethical deterioration (up to spiritual bankruptcy) and criminal behaviour (larceny, theft, embezzlement) may predominate. Other significant features may be present as well, including crisis orientation, depression, stress, abnormal thinking processes, forgetfulness, dependency, negativism, defensiveness, projection, tunnel vision, and fear (Schaeff 1987). Based on this model, therapeutic strategies may include:

1. Developing a therapeutic alliance and initial decrease of denial.
2. Many people are psychologically prone and behaviourally conditioned to positively respond to intermittent reinforcement during gambling, and this pattern of obtaining positive emotions indicates a readiness for treatment and a subjective meaning (significance) for change (i.e., abstention from gambling behaviour).
3. Assessing the originally frustrated needs; development of the motivational path model for the client.
4. Teaching the client to develop a hierarchy of goals and then to attain positive goals, which are subjectively important and socially appropriate.
5. Developing an aversion to the substitute (gambling behaviour).
6. Teaching the client how to experience need satisfaction and release of motivational tension without gambling.
7. Positive therapy: teaching the client to experience positive feelings, joy and happiness, without gambling.
8. Behaviour therapy: reinforcing behaviours that lead to happiness and real need satisfaction on a systematic basis. Consistent self-monitoring, group therapy, and participation in Gamblers Anonymous could be recommended.
9. Cognitive therapy: development of cognitive schemas in which only normal objects are seen attractive.

### 3 Action

#### 3.1 The Current Governmental Policy

It is fair to say that Russian legislators have done a very good job in limiting the gambling epidemic and taking control over gambling establishments. In 1998, a Federal Law on Taxation in the gambling industry was adopted that allowed registration of almost all gambling enterprises and to begin taxing them. In 2002, state licensing was made mandatory for all kinds of gambling businesses. In 2005, a special governmental committee was established to develop a federal policy and legal regulation in the sphere of the gambling industry. In 2003, St. Petersburg was given a taxation law on gambling enterprises. In 2005, St. Petersburg Legislature issued two important laws. The first

law was supposed to regulate the placement of gambling business objects on the territory of St. Petersburg. The second law strictly prohibited the participation of minors in gambling activities.

A most recent and quite radical decision of the State Duma was made in 2007. The new law prohibits any gambling activities within any settlements (cities, towns, villages) and states that gambling activities should be moved to several gambling zones mainly located in distant areas such as Siberia, the Far East, and two zones in the European part of Russia. According to the law, the zones must be developed by July 2007, and all gambling establishments have to be relocated by July 1, 2009. Only bookmakers will be allowed to function outside of the zones. This law also sets the minimal capital invested in each enterprise, and the minimal number of slot machines and card tables per establishment. In addition, all gambling activities via the Internet will be prohibited. Experts believe that the Law exemplifies a compromise between the government and the gambling industry in Russia.

However, criminologists are extremely skeptical and believe that most gambling establishments will become a part of underground shadow economy, and that the outcomes of these measures will be eventually negative. The measures will give a way to the previously discussed “*lokhotrons*” to substitute legal gambling establishments. Furthermore, during the post-Soviet era, millions of people became involved in gambling: the affluent people in the expensive casinos, and the poor in the small one-handed bandit’s halls by subway stations. It would be logical to suppose that “gambling deprivation” is very likely to give birth to numerous forms of illegal gambling, including and not limited to gambling on the internet, “*lokhotrons*”, etc. Public opinion polls recently appeared on the Internet and support a negative perception of such measures as well. One of the publications is filled with the data on hundreds of already functioning illegal casinos in some regions of Russia (O’Flynn & Delany 2007).

### 3.2 The Evaluation of the Measures Taken: A Socio-criminological Perspective

From the sociological point of view, there are some objective factors that influence the development of the gambling businesses and inclusion of masses of

people in gambling activities and pathological forms of gambling. First, an extremely rapid development of the market economy and private entrepreneurship led to the emergence of a significant number of rich people who accumulated enough money to play and lose substantial cash amounts. Most of them are “new Russians” who have never succeeded financially before. Perhaps this is one of the causes that is fairly strange for the Western capitalism phenomenon—the new Russians spend millions in risky behaviours, including gambling. Second, the majority of the “excluded” population of Russia remains poor and has almost no chances for upward social mobility or improvement of their financial circumstances. Most of these people are young, unskilled (in terms of the new demands of the capitalist economy), and unemployed. For some of them, an opportunity to win in a slot machine casino is perceived as the only way to “become rich”. The illusion of power and control often blocks the ability to think rationally and is used by such individuals as a way of coping with depression and hopelessness. Third, the organized criminal groups are strongly supporting gambling establishments since it is an incredibly lucrative business. Casinos are used for money laundering, swindles, and fraud.

Our colleague Dr. Kostyukovsky, a researcher of the Center of Deviantology of the Institute of Sociology of the Russian Academy of Sciences, interviewed one of the leaders of the Russian criminality. The respondent explained his perspective on gambling. The respondent said that he can invite any person who he is interested in to a casino and his guest will win. He can let his guest win as much as the owner wants. Thus, through the casino, one can convert enormous amounts of money into cash and remain largely out of [governmental] control. Another interview was conducted by one of the authors of this chapter (YG). The respondent was a high-ranking officer at the Department of Organized Crime Control in St. Petersburg. Our respondent stated that Russia does not have organized crime. It has been replaced by police who are “roofing” (providing protection from other groups, which is a form of extortion). He claims that all small and medium-size businesses are under the roof of the police, and that all sex businesses are also under the police. However, the gambling business is above the police because it deals with enormous amounts of money.



The social and economic premises of gambling are also worth considering. Most deviant behaviours in contemporary Russia can be viewed as an inevitable consequence of the very large gap between the level of affluence and the life style of the extremely wealthy minority (“included”) and poor or semi-poor majority of the population (“excluded”). In fact, these two groups represent two distinct and distant subcultures that have very dissimilar values, opportunities, categorizations, norms, and beliefs. This gap has been increasing constantly over the past decade, and the gap is positively correlated with the prevalence of homicide, suicide, substance abuse, and other addictions. The measure of this gap is the ratio in total income of the 10% of the poorest and the 10% of the most affluent. In 1990, this ratio was 1:4.5; in 1994–1999 it ranged from 1:15 to 1:25, and in Moscow it was 1:60. This magnitude of the gap in income is always a prerequisite for social instability and social conflicts. Some would state that society is incapable of making any progress with this kind of discrepancy in income. For those who fall into the category of the “excluded” there is no chance to become “included” in normal economic, political, and cultural life. According to Borodkin (2000), more than 50% of the population of Russia comprise those who are “excluded”.

The data of the World Bank supports this statement: 30.9% of people live below the national poverty level, and 23.8% live below the international poverty rate (their income is less than \$2 [US] a day). Most of these people are teenagers and young adults who have little or no education, no professional skills, no job, and no income, although they are constantly exposed to the lifestyle of those who have expensive homes and cars, who visit private clubs and outrageously expensive restaurants, etc. The feelings of resentment and hopelessness are a natural part of their worldview. Along with drinking, drug abuse, and other addictions, gambling provides these individuals with the illusion of hope.

With regard to regulation issues, one of the supervisors at the St. Petersburg Department of Taxation openly admitted during an interview with one of the authors that the gambling business is difficult to control. In his point of view, this type of enterprise is almost out of control. There has been a long history of attempts to determine the income

of gambling establishments. Now, the Taxation Department charges them a so-called imputed tax when an estimated and usually large sum of money must be paid by them regardless of their calculated income. Allegedly, the casinos’ activity is deeply criminalized. For example, in St. Petersburg, there are two groups of casinos, and the boss of one of them is doing a term in jail (although his criminal case was not directly connected with the casino business). And indeed, casinos are the perfect places for money laundering. In addition, cases of cheating by casino workers are well known.

In October 2006, we also interviewed Mr. N, a top manager of the group of casinos in St. Petersburg. The following part of the interview illustrates his perspective on the processes taking place in the gambling industry in St. Petersburg now. He stated that in St. Petersburg, the first casino (*Tri semerki*) was established in 1992, and the slot machines became available in the early 1990s as well. It was the time of both illegal and semi-legal businesses, large amounts of money were circulating, and criminals could easily make implausible amounts of cash. “*Bratva*” (“brothers”—members of the organized criminal groups) and corrupt governmental officials crazily lost excessive amounts of money. In 1998, after the infamous default of the Russian economy, the situation had quickly changed. Many people stopped wasting their money. Although “*bratva*” do not show up in our casinos anymore, it is still very fashionable for the middle level managers to gamble at the casinos and to bet from \$200–300 per visit.

Overall, the relocation of all casinos to the four zones seems to be impractical and not pragmatic. Nobody has the funds to support and develop such a gigantic infrastructure, including the roads, hotels, restaurants, airports, and so on. Most likely, gambling will go underground again. Even today, there are a few “*katran*” (underground, illegal gambling apartments). In addition, gambling businesses can barely survive in St. Petersburg due to various reasons: taxes are high, the competition is high, and casinos have to fight for each customer. In Moscow, the situation is different; the amounts of cash in circulation are unbelievably high, and casinos are blossoming. As to criminality, theoretically, money laundering through casinos is possible. It happened a lot in 1990s and it may still be happening in Moscow. However, the present level of

transparency of financial flows and consistent control are likely to prevent it. Sometimes we find out about cheating of our workers, who then develop a conspiracy with the clients. Unfortunately, some of them are ready to do whatever they can to get “big money” right away.

This first-hand information illustrates the possibility of a gambling-related crisis in Russia. “Prohibition” of any kind as a solution usually has detrimental ramifications. During alcohol prohibition in Russia in 1920s and in the USA in 1930s, alcoholic people swiftly became accustomed to illegally home made “*samogon*” and “moonshine”, respectively. Russian problem gamblers will find illegal places to gamble and the organized criminal groups will be more than happy to provide them with such opportunities. According to some Internet sources, hundreds of places housing illegal casinos and slot machines can already found across the country (O’Flynn & Delany 2007).

## 4 Conclusion

In summary, the American (“Las Vegas and Atlantic City” model) is unlikely to be a good alternative to the gambling industry in the big cities of Russia. Both sociologists and members of the business community are very pessimistic and predict a “replacement” of the legal gambling with the illegal forms of gambling. The epidemic of gambling is on the rise. Although the national gambling regulations seem to be strict and radical, there is only a slight probability that they will be properly enforced. Corruption of the governmental officials, resistance of the industry, a great number of individuals who are already dependent on gambling, and those likely to vote against measures at the local levels are the impediments for the new policies.

Large-scale research on gambling in Russia has not taken place yet. The following areas need to be covered, and the government is expected to support the research programmes:

1. Epidemiology of gambling behaviour in general, and pathological gambling in particular, to obtain reliable statistical data on the prevalence and incidence of gambling, high-risk groups, and protective factors.

2. Clinical phenomenology, etiology, pathogenesis, neurochemistry, and pharmacology, as well as cultural variations of gambling (Russia is a multicultural society). The clinicians’ understanding of clinical aspects gambling in Russia is very similar to our understanding of alcoholism in the beginning of the 20th century: only extremely severe forms of the addiction with numerous social, psychological, and physical consequences (including suicidal behaviour) are taken into serious consideration, whereas the focus in research and clinical interventions should be on the early identification and mechanisms of gambling behaviour, including early intervention.
3. Developing empirically based interventions including telephone hotlines for gamblers, cognitive and behavioural therapies for both inpatient and outpatient settings, therapeutic communities, some analogues of 12-step programmes, and psychopharmacological treatment for comorbid disorders.

In addition to the research, on the societal level, the following measures need to be taken:

1. To develop health care facilities for pathological gamblers, and to improve training in the area of behavioural addictions for mental health professionals (psychiatrists, clinical psychologists, social workers, etc.) in the empirically based treatment. It would seem logical for the government to make the gambling enterprises financially responsible to support treatment programmes for pathological gamblers throughout the country.
2. To implement gambling prevention measures, addressed but not limited to adolescents and young adults in public and private schools, colleges, and universities.
3. To conduct mandatory anti-gambling propaganda in the media, public places, and all gambling establishments (these messages should be included in any commercials advertising gambling).

Alternative modes of gambling could be imported from Japan. As a social policy measure, a different type of gambling establishment could be suggested. One of the authors (ST) has made several trips to Japan, and learned a lot about gambling in that country. Small gambling establishments

("Pachinko") with slot machines can be found nearly everywhere in Japan. However, one cannot make any substantial bets, it is impossible to win a lot, and money is not directly involved. The winner is often given popular consumer goods, such as a DVD player or a television set, not money. Psychologically, it is still gambling with all motivational and behavioural elements of gambling. However, the harm that is caused by this type of small gambling is substantially less.

It is quite evident that many people are psychologically prone and behaviourally conditioned to positively respond to intermittent reinforcement during gambling and this pattern of obtaining positive emotions is hard to eliminate completely. The Japanese experience would provide a form of a "harm minimization" alternative to the existing practices, and it would be great to carry out an experiment based on this model in one of the small Russian cities, and, if the outcome is positive, to expand this practice to other regions.

Russia has been deeply suffering from many forms of addictive behaviour. The high prevalence of alcoholism and substance abuse has led the country to the verge of economic collapse, and extremely high rates of homicide, family violence, and suicide. Gambling, if not properly addressed by the society, government, and mental health community, could grow into another societal catastrophe.

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# 17

## Slovak Republic

Hroznata Živný and Lubomír Okruhlica

### 1 Background

The Slovak Republic is situated in Central Europe, and borders the Czech Republic and Austria to the west, Poland to the north, Hungary to the south, and Ukraine to the east. The central and the northern parts of the country are mountainous (the Carpathian Mountains), and low altitudes are typical for the south and the east. Slovakia is a rather small country with an area of 49,035 square kilometres and 5.4 million inhabitants. Its average density is 109 people per square kilometre. The lowlands of southwestern Slovakia are more densely populated, while the mountains in central Slovakia are scarcely populated. Its capital and largest city is Bratislava, which has 450,000 residents.

In terms of ethnic groups, Slovaks form a little over 85% of inhabitants, and the largest minority is Hungarian, making up nearly 10% of the population. The third most common ethnic group are Roma, who account for approximately 2% (*Lexikon zemí* 1999). The average life expectancy of Slovaks is increasing, thanks to better medical treatment, and is now 69.7 years for men and 77.6 years for women. The Gross domestic product has grown significantly during the last few years, and in 2006 reached 8,145 Euros<sup>1</sup> per capita.

The territory of modern-day Slovakia was firstly inhabited by Celts, Dacians, and Germans, and later

by Slavs, Hungarians, and other representatives of European nations. The southern border of the country, essentially the river Danube, constituted the northern border of the Roman Empire (*Limes Romanes*). In the 9th century, this territory became part of the Great Bohemian Empire, then a part of the Austro-Hungarian Empire. After the dissolution of Austro-Hungarian Empire, the Republic of Czechoslovakia was created on October 28th, 1918, but its continuity was suspended by World War II, when Bohemia became a part of the German Empire (the Protectorate of Bohemia and Moravia), and Slovakia became a vassal state of the German Empire. In 1945, after World War II, Czechoslovakia was reestablished, and during 1948–1989 it constituted a part of the Soviet Eastern Block.

After a revolution in 1989, Czechoslovakia became a democratic country. During a complex period of democratic changes and economic transformation, political representations decided on a peaceful separation of Czechoslovakia into two separate republics. The creation of these two parliamentary republics, the Czech Republic and the Slovak Republic, took place on January 1, 1993. The Slovak Republic has been a member of the European Union since May 1, 2004.

#### 1.1 History and Current Situation of Gambling

The Republic of Czechoslovakia, re-established after World War II, entered into the sphere of power influence of the Soviet Union and became

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<sup>1</sup> 1 Euro = 34 Slovakia Koruny (this exchange rate was taken for the entire manuscript).

its satellite. Following the communist putsch in February 1948, a quick and absolute dismantlement of democratic institutions began, forced socialization took place, civil rights became a fiction, and the Communist Party—the local “executive branch office” of the Moscow leaders—took over crucial decision powers in all social areas. As a consequence, the life of citizens became limited, regulated, directed, and controlled. The totalitarian, paternalistic state provided its citizens with so-called social and security assurances, but was restrictive in the field of civil rights and free entrepreneurship. It ensured basic social securities, all citizens had to be employed, and all citizens were poor, but the system finally collapsed economically. Citizens were isolated from the possibilities of self-expression, from access to information, and from the possibility to travel freely. On the other hand, the state “protected” them against “self-harm”.

There was only one state lottery company (*Sazka-Športka*) in Czechoslovakia. Other gambling games were prohibited, and if they were operated, they were illegal. The actors of the shadow economy (people working as petrol station attendants, fruit and vegetables retailers, butchers, etc.) legalized their income by purchasing tickets. Additionally, in the underground shadow economy, there were illegally operated card gambling games. After the implosion of the Soviet power block and democratic revolutions, the democratic institutions were created gradually in the post-totalitarian states, including Czechoslovakia. This process was often accompanied by the phenomenon of social and individual anomie.

The absence of legislation and the non-observation of the legislation already in force led, in the first half of the 1990s, to an uncontrolled spread of gambling activities. Betting offices, bingo halls, casinos, and gambling machines started to appear on the scene. The playing of gambling games became fashionable, such “new systems” of fun and game attracted gamblers, and numerous potential gambling addicts enjoyed their “winning phases”. While betting offices represented a domain of men of all ages (pupils, students, adults), middle-aged women primarily played bingo. In addition, television and radio shows with games, allowing cash as well as non-cash wins, constituted a national passion. However, due to the lack of regulation efforts, it appears that the field of gambling games in that

period was fully under the influence of organized crime and may remain so in various parts.

The attitude of society towards addiction is another crucial issue, which significantly determines the spread of gambling in Slovakia. Society has gradually accepted that the addiction to psychoactive substances is a medical and curable disease. The manifestation of asocial, criminal behaviour is, in this context, considered as a symptom of addiction. However, the attitudes of society towards addiction to gambling games vary in the context of the moral model of addiction, not the medical model. People do not distinguish between inadequate behaviour and behaviour conditioned by an addiction that has already developed. Participation in gambling is generally deemed a “not good” behaviour, as is the behaviour of a person already addicted. The general public does not see a difference between the assessment of the behaviour with or without addiction. Although the addict has no self-control, moral judgments such as “If you really wanted, you would stop gambling” or “If you really loved us, you would stop gambling” are quite frequent, but have no effect and can be mutually wounding. In general, it is assumed by the authors that a considerable proportion of people addicted to gambling are missing a critical notion of their own disease, and therefore do not turn to help from the addiction service providers.

## 1.2 Legislation Concerning the Issue of Gambling

The issue of gambling games in Slovakia is covered by the Act No. 171/ 2005. This Act covers:

1. The conditions of the operation of gambling games
2. The rights and duties of the operators of gambling games and gamblers
3. The conditions concerning the use of technical equipment intended for the operation of gambling games
4. Certain conditions of the establishment and activity of the *National Lottery Company*
5. The engagement of the public administration and municipality bodies in the field of gambling games
6. Supervision over the operation of gambling games

The Act defines gambling games as games in which gamblers may obtain a prize in cash, a material prize, or a prize in rights, if they fulfill the conditions provided by the game plan beforehand. A result of a gambling game depends solely or largely on luck, or a previously unknown result of a certain circumstance or incident. The Act declares that the participation of persons under the age of 18 years in gambling games is prohibited. Furthermore, the operator of gambling games is obliged to take measures to prevent such persons from the participation in gambling games. According to the Act, gambling games are: (a) lottery games; (b) casino gambling games; (c) betting games; (d) gambling games operated by means of gambling machines; (e) gambling games operated by means of technical equipment operated directly by gamblers or operated by means of telecommunication equipment, and videogames; and (f) gambling games operated by means of the internet. Gambling games may be operated only on the basis of a licence granted or issued according to the Act, and under conditions stipulated by the Act. The operation of foreign gambling games on the territory of Slovakia is prohibited.

### 1.2.1 Lottery Games

Lottery games are gambling games during which the winnings are announced and allotted according to the rules stipulated by the game plan beforehand, whereas winning is a consequence. Lottery games usually comprise draw lotteries, raffles, numerical lotteries, bingo, and instant lotteries. Draw lotteries include lottery games in which the operator of a gambling game issues the number of lots with serial numbers stipulated by the game plan and that enables a multi-level game. A multi-level game is understood as a game in which gamblers—after one possible win—have the possibility of further wins. Draw lotteries are divided according to subject of winning and comprise draw pecuniary lotteries, draw pecuniary-in-kind lotteries, and draw in-kind lotteries. Raffles are lottery games in which only sold lots are included in the draw. Winnings from raffles are drawn publicly according to the previously determined and declared rules, whereas a winner is a gambler that holds a lot with a number or another designation identical with a drawn number or another designation of a lot. Numerical lotteries are

lottery games in which the operator of a gambling game is obliged to provide gamblers with a winning stipulated according to the rules stated in the game plan, if they submit a certificate of stake on a bet made. These rules determine a winner according to whether the bet corresponds with drawn numbers from a limited number of publicly drawn numbers. Numerical lotteries usually comprise lotto, beano, and complementary games.<sup>2</sup> Bingo is a lottery game operated in gambling houses, in which a previously non-determined number of lots are drawn from a closed numerical sequence. The gamblers and the principal gambling amounts are not determined beforehand. Special bingo is a bingo game in which the stakes are taken and winnings are paid out in the collection points. The drawing of lots and the entire course of a special bingo are performed centrally in one place, whereas its course and results are generally released by the mass media. Finally, instant lotteries are lottery games in which a gambler finds out if they have won after the purchase of a lot by rubbing down its marked, covered part. The lots must be marked with a serial number and the number of a series.

### 1.2.2 Casino Gambling Games

Casino gambling games are table games, during which the gamblers play against the casino representative or against each other on gambling tables. Among the games that can be found are roulette and card/dice games. Roulette is a casino gambling game during which, by determination of numerical combinations, symbols, or other signs, a position in which a ball thrown into a mechanically rotating device stops. The winnings are calculated from the amount of stakes and winning proportion according to the rules determined in the game plan beforehand. Card games and dice games are casino gambling games, during which the winner or the amount of the winnings is determined on the basis

<sup>2</sup>Lotto is a numerical lottery in which the prize is calculated according to number of winners and aggregate amount of stakes by a proportion previously determined by the game plan; beano is a numerical lottery in which winning is determined by a stake multiple according to the rules stated in the game plan; and complementary games are numerical lotteries that may be operated only together with another numerical lottery.

of the dealt cards symbols or achieved number of points on dice, or a combination of values on dice.

### 1.2.3 *Betting Games*

In general, betting games are gambling games in which the winning depends on guessing the result of a sports betting event or non-sports betting event, or related circumstance. Betting events can have at least two different results, which are not impacted in any way by the operator of a betting game. Betting games usually comprise totalizator, exchange bets, and horse racing bets. The totalizator is a bet game in which the winning amount depends on the number of winners to the total amount of stakes ratio and previously determined proportion of winnings. Exchange bets are betting games in which the winning amount depends on a winning ratio and stake amount. The winning ratio is understood as an exchange rate on which a bet was taken. Horse racing bets are betting games in which the winning amount depends on guessing a sequence in performance tests of race horses. The winning amount depends on the number of winners to the total amount of stakes ratio in a previously determined proportion of winnings and on the winning-to-stake amount ratio.

### 1.2.4 *Gambling Games Operated by Means of Gambling Machines*

This category includes gambling games, during the operation of which gambling machines are used. A gambling machine is an electronically, an electronic-mechanically, or a mechanically controlled device and makes a compact, functionally indivisible, and programme-controlled technical equipment with the control meant for one gambler only. This enables gamblers to obtain winnings according to the conditions stipulated by this Act.

### 1.2.5 *Gambling Games Operated by Means of Technical Equipment Operated Directly by Gamblers or Operated by Means of Telecommunication Equipment and the Operation of Videogames*

During gambling games of this kind, the number of gamblers is not determined beforehand and neither is the amount of stakes known beforehand. Technical equipment operated directly by a gambler

is equipment that has at least three gambling points and enables a particular number of gamblers to play a game, which is equal to the number of gambling points interconnected with a scoring unit. Gambling points are found in the same place as the scoring unit, and they are connected with it continuously. It is not possible to use it separately. Gambling games operated by means of telecommunication equipment are gambling games in which the use of telecommunication equipment, determined in the game plan, is the condition for participation. The stake is charged through a payment remitted by a gambler to the operator of the telecommunication equipment. A videogame is a gambling game in which gamblers are connected by terminal by means of electronic communication networks to a central computer system of a gambling game operator. Each gambler plays a specific gambling game and gamblers cannot play gambling games against each other.

### 1.2.6 *Gambling Games Operated by Means of the Internet*

Gambling on the internet means that a gambler participates through a connection to the internet to the game server of the gambling operator or to a subject authorized by the operator, on which game systems are placed (software), through which a gambling game is operated, whereas a gambler always plays against this game system. The transmission and collection of data and information connected with the operation of gambling games by means of the internet is not considered to be a gambling game by means of the internet.

## 1.3 Regulation

According to the Act, the Ministry of Finance of the Slovak Republic exercises control and supervision over observance of the Act, issues a general licence, and decides on granting an individual licence. The Tax Directorate of the Slovak Republic creates, maintains, and operates a tax information system in the field of the operation of gambling games and keeps a central register of the operators of gambling games. The municipality exercises supervision over observance of this Act, other generally binding legal regulations, and conditions determined in an individual licence granted according to this Act by



the municipality, executes administration of levies to the municipality budget, and decides on granting an individual licence.

## 1.4 Operation Conditions of Gambling

Operators of gambling games must fulfill the conditions for operating gambling games set out by this law and by conditions of the licence, throughout the period of the licence. Only gambling games for which a licence has been issued can be promoted in the territory of the Slovak Republic. It is forbidden to operate gambling machines, technical devices operated directly by gamblers, and videogames in or near schools, school campuses, buildings of social welfare services for children and youth, youth dormitories, and healthcare facilities. In addition, a financial guarantee must be kept by the operator of a gambling game during the whole period of the licence at the minimal amount set by this law.

## 2 Evidence

### 2.1 Expenditures and Revenues

The total state budget income from individual licences (administration fees) granted by the Ministry of Finance of the Slovak Republic in 2005 (05/2005–12/2005) added up to over 243,300 Euros. In 2006, administration fees constituted a state budget income of over 219,424 Euros. Until December 31, 2006, 92 individual licences were granted by the Ministry of Finance of the Slovak Republic. On December 31, 2006, casino gambling games were operated by two operators and the total number of casinos was seven.

Overall, according to data from the Ministry of Finance of the Slovak Republic (*Štatistika Ministerstva Finančii Slovenskej Republiky* 2007), the expenditure on gambling in 2006 was 218 Euros per capita. The average monthly wage in Slovakia was 552 Euros, therefore as much as 3.3% of a person's annual income was spent on gambling. Several indicators reflect the ongoing growth of the Slovakian gambling market. Table 17.1 summarizes data on the number of bets received, winnings paid out, and state and municipal budget contributions. For example, in 2001, a total of approximately 636,600 bets were received, whereas in 2006

(during the first 11 months), almost 1,142,600 bets had been placed (*Štatistika Ministerstva Finančii Slovenskej Republiky* 2007).

In terms of money spent during the year 2006, gambling machines appeared to be the most popular gambling form in Slovakia (see Table 17.2). Not surprisingly, this figure is accompanied by a substantial growth in the number of gambling machines in Slovakia over the last few years. For example, between 1997 and 2006, the number of gambling machines nearly doubled from 8,846 in 1997 to 16,129 in 2006 (*Štatistika Ministerstva Finančii Slovenskej Republiky* 2007).

### 2.2 Problem Gambling: Preliminary Evidence

In Slovakia, there is generally good statistical data in the area of drug addictions, such as drug use among people and drug use trends. From these statistics, the number of drug addicts treated can also be determined. The methodology used is common for all of Europe, and can be viewed at the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). However, a similar system of relevant statistics concerning gambling in Slovakia is non-existent. Some economic and technical data, such as the result of enforcement of legal measures concerning gambling (e.g., the number of licences, premises, and the amount of money in this sector) are available, but the number of (problem) gamblers and their structure remains unknown.

In the scientific literature, only few articles can be found that deal with the issue of problem gambling in detail. Živný (1998) described a group of respondents that consisted of members of a therapy group at the Centre for Treatment of Drug Dependencies (CPLDZ) in Bratislava. The majority of pathological gamblers were middle-aged men, mostly married and employed. A minority included several high school and university students and one child from a primary school. Only about 10% of the group were female patients. Furthermore, Nábielek, Gromová, and Vongrej (2000) referred to the demographics of gamblers being treated as in-patients. The results described a group of 149 gamblers treated at a psychiatric department at the F. D. Roosevelt Hospital in Banská Bystrica between the years 1993 and 1996. There were only two women in this study. The therapy

TABLE 17.1. Data concerning bets received, winnings paid out, and state/municipal budget contributions (Euros in thousands).

Year	Bets received	Winnings paid out	Difference (bets - winnings)	Contributions to the state budget	Contributions to the municipal budget
1–11/2006	1,142,597.11	861,902.59	280,694.48	56,415.59	2,392.06
2005	1,009,706.06	753,989.03	256,978.22	51,602.09	2,132.91
2004	898,442.36	674,098.83	224,343.49	43,182.79	1,809.53
2003	842,690.43	634,652.79	208,046.67	39,926.20	1,950.99
2002	714,691.51	527,751.80	186,939.70	35,901.39	1,734.02
2001	636,559.79	460,885.30	175,590.26	34,628.74	1,498.01

TABLE 17.2. Amount of money spent in specific gambling games during the year 2006 (Euros in thousands).

Gambling form	Sum
Gambling machines	521,323
Betting	258,382
Electronic roulette	257,647
Casinos	51,412
Internet gambling	38,647
Video games	31,529
Bingo	17,765

group primarily consisted of young men with secondary education, the majority of whom were from complete families, and who were above average in intelligence. The respondents preferred playing gambling machines. In another study concerning the use of psychoactive substances and gambling in primary and secondary schools in the district of Kysucké Nové Mesto (Kotrč 2005), the author presented results of a questionnaire survey in which there were 1,142 respondents. Among primary school pupils, 11.7% stated that they had gambled once, while 1.5% admitted gambling regularly. As much as 15.5% of secondary school respondents reported that they played at least once, while 1.6% played regularly.

Overall, although no valid and reliable data on the prevalence of problem gambling in Slovakia exists, it is assumed that there are roughly tens of thousands of people with gambling-related problems. Moreover, thousands of people are addicted to gambling. Taking into account the fact that there is a very low awareness of pathological gambling as an illness requiring therapy, the number of people being treated as gamblers in Slovakia is very small (see Table 17.3 for the number of pathological gamblers treated at CPLDZ Bratislava).

### 3 Action

#### 3.1 Initiatives at National Level

The Slovak Republic has a National Programme for Health Support (*Národný Program Podpory Zdravia* 2000) and a National Programme for Mental Health (*Národný Program Duševného Zdravia* 2002). However, a national policy addressing the issue of problem gambling is missing in both documents. According to the most recent information, there are no national programmes concerning preventive interventions in Slovakia. Gambling is mentioned in the mass media (electronic and print media) only occasionally, mainly on problems caused by gambling and the possibilities of gambling treatment. These reports are often of a “tabloid” nature.

Despite these shortcomings, the situation concerning provision of treatment for gamblers seems to be much better. There is a reliable network of healthcare services that are accessible, both geographically and through the system of health insurance, as all costs concerning treatment are covered. Furthermore, informative texts about gambling problems in Slovak Republic written by professionals dealing with problems of therapy also exist (Nábielek & Vongrej, without year; Živný 1998; 2001; 2003). Individuals diagnosed as addicts have the possibility to present themselves for treatment in the network of psychiatric outpatient departments, psychiatric departments of hospitals, and/or in one of the seven specialized centres for treatment of drug addicts in Slovakia. Special intramural and extramural programmes for gamblers are run by the Centre for Treatment of Drug Dependencies in Bratislava and the F. D. Roosevelt Hospital in Banská Bystrica.

TABLE 17.3. Pathological gamblers treated at CPLDZ Bratislava (1996–2006).

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
n	36	30	37	25	22	19	29	35	35	30	29

### 3.2 Characteristics of Therapeutic Programme for Pathological Gamblers: The Example of CPLDZ Bratislava

The therapeutic programme for pathological gamblers is one of 20 programmes run by CPLDZ Bratislava. Even though the programme is relatively small, it is an integral part of the Centre's therapeutic activities and services. The programme started in June 1994 and, since then, over 400 pathological gamblers have been treated. The majority of the patients are male, middle-aged, mostly married, and employed. Most of the gamblers are dependent on playing slot machines and several on playing roulette. Almost all women play bingo (with only three playing slot machines). Interestingly, most of the women have chronic emotional deficits in their personal relationships.

The first part of the programme is arrival at the reception department, followed by the diagnostic process, which is conducted during the psychiatric and psychological examination, with a complex assessment of the patient's condition. The next stage is the determination of therapeutic plans. Complex treatment in case of double diagnosis is provided. Comorbid affective disorders are frequently treated with antidepressants. Individual psychotherapy is a main targeted approach at the beginning of treatment of pathological gambling. In addition, the majority of gamblers are integrated into the psychotherapeutic group called "Group G".

The "Group G" treatment programme is open, and partners as well as other relatives are welcomed and accepted by the group. The activities are planned and structured with the goal of inducing changes in the thinking, lifestyle, and behaviour of the patients. The therapist's style—who leads the group—is accepting, empathic, and authentic. Group sessions provide space for gaining rational information about the area of pathological gambling, mechanisms of dependence creation, and development as well as possibilities, ways, and processes of treatment. Group sessions further provide space to (a) recognize the disease, the influence of motivational and decision-making processes; (b)

introspect through group dynamics; (c) compare their attitudes with the attitudes of others; (d) change behaviour; (e) operate one's own adaptation strategies and self-control; and (f) develop personality aspects. The encouragement of social competencies, the organization of meaningful spare-time activities, improvements in interpersonal communication, the reconstruction of self-esteem, the search for a sense of life, the formation of new positive lifestyle, and the process of sustaining the patient in abstinence and prevention of relapse, are also realized within the group. Thus, "Group G" can be characterized as a mixture of classic psychotherapeutic community and a self-supporting after-treatment community, led by professional therapists in the role of moderator. "Group G" meets once a week and the usual attendance is around 10 to 15 people. The participation of patients in "Group G" is voluntary.

Around a third of gamblers of "Group G" were diagnosed as hazardous drinkers or already dependent on alcohol. In these cases, combined treatment of dependence on gambling and alcohol is offered. Dependence on other psychoactive drugs is present in a few isolated cases. In the programmes for gamblers, psychotherapeutic approaches far outweigh psychopharmacological treatment. Extended depressive reactions during the first phases of therapy are signs of dependence, but they quickly decrease to a normal level. Of the 400 gamblers who have passed through the therapeutic programme between 1994 and 2006, approximately 50% of gamblers remain abstinent.

## 4 Conclusion

This chapter concerning gambling in Slovakia is the first of its kind, in both depth and width. It was written to provide information regarding this issue in Slovakia from a European perspective. In the future, it may help to improve the situation in Slovakia. Summarizing the available evidence, the following negative and positive aspects should be mentioned:

1. Negative aspects:
  - (a) Absence of preventive community programmes on national and local levels
  - (b) Moralizing approaches of society towards people with problems linked to gambling
  - (c) Insufficient public awareness of pathological gambling as a formal diagnosis, which is medical and curable
  - (d) Patient's insufficient awareness of and interest in health care programmes
2. Positive aspects:
  - (a) Reliable network of facilities providing health care services for gamblers
  - (b) Treatment for pathological gambling is fully covered by the health insurance
  - (c) Existence of specialized therapeutic and after-treatment programmes for gamblers (i.e., CPLDZ in Bratislava; F. D. Roosevelt Hospital in Banská Bystrica; see Nábělek 2007)

In order to improve the current situation concerning problem gambling in Slovakia, the following measures are recommended: (1) planning, preparation, support, and implementation of research projects aimed at analyzing and describing the issue of (problem) gambling in Slovakia; (2) creation of a national policy including the topic of gambling addiction; (3) introduction of standardized and evaluated treatment methods for pathological gamblers; and (4) research initiatives that systematically collect data on the exact numbers of patients diagnosed as gamblers on an annual basis.

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# 18

## Slovenia

Mirna Macur, Matej Makarovič, and Borut Rončević

### 1 Background

Slovenia is a country of about 2 million inhabitants, and belongs to the group of the new European Union members that gained membership in 2004. It has a developing market economy and a developing democracy (following the pre-1990s experience of communism). It gained state independence in 1991. These shifts—from Yugoslavia to an independent statehood; from authoritarianism to a parliamentary democracy; from “self-managerial socialist” to market economy—have been relatively smooth in the Slovenian case. In the political field, Slovenia is a comparatively stable democracy. The government was by the autumn 2008 ruled by the coalition described as centre-right and led by the Slovenian Democratic Party (SDS), which took power after the 2004 parliamentary elections after the 12-year rule by the Liberal Democratic Party (LDS)-led coalitions, mostly described as centre-left.

Slovenia is relatively successful from the economic point of view compared with the rest of the new market economies. In 2006, per capita gross domestic product (GDP) was €15,167 and the GDP growth in 2006 was 5.7%. The recent unemployment rate, according to the Labour Force Survey methodology, was 4.6% and has decreased slightly during recent years. In January 2007, Slovenia became the first country among the EU newcomers to adopt the Euro over its former national currency.

#### 1.1 Gambling History and Current Gambling Market

Although Slovenia is young as a state and as a market economy, legalised gambling has a somewhat longer history. According to Luin (2004), the first casino in what is now Slovenia was opened in the southwestern resort town of Portorož on the Slovenian coast in 1913. It did not last long, however, as it was closed at the beginning of the World War I. The Monarchy of Yugoslavia prohibited casino gambling and it became punishable under the Penal Code. Lottery games were allowed but each of them required explicit permission by the authorities.

The communist Yugoslavia was similarly restrictive in this regard. In 1946, the Ministry of Finance of the Federal People’s Republic of Yugoslavia only allowed lottery gambling for humanitarian and cultural-educational purposes—but only with explicit approval by the authorities. The first basic legislation on gambling in communist Yugoslavia was adopted in 1962. The law dealt with the games of “random outcome” such as lottery gambling and sports betting, and they were allowed under specific state-awarded licence for welfare-humanitarian, cultural-educational, and sport-educational purposes, as well as for certain kinds of advertising. In 1965, the federal legislation allowed the Yugoslav republics to regulate gambling independently to a limited extent. The first Slovenian “republic” (i.e., a “socialist republic” within the Yugoslav federation) legislation followed swiftly—with the Gambling

Act of 1965. This law introduced the concept of “special games” that also included casino gambling. It allowed casino gambling for foreign tourists only and the games were played exclusively for foreign currency. Gambling on casino games by Yugoslav citizens was defined as an offence, punishable by up to 30 days of imprisonment and the requisition of the property gains. Following this legislation, the first two casinos were opened in “socialist” Slovenia, both in the tourist places of Portorož (1964) and in Bled (1965) (Luin 2004).

Although casino gambling was far from compatible with the communist ideology, it was clearly allowed because of pragmatic reasons—especially as an answer to the state’s lack of the “hard” western currency. However, the “communist” beginning of legalised casino gambling organised for the Western tourists was quite significant for the future development of this economic activity, since it began to establish it as an “export-oriented” industry strongly connected to tourism. Until the 1980s, casino gambling was understood to be a supplement to the already existing tourist capacities. It was offered to the “elite” foreign clients (Luin 2004). During the 1980s, this changed to some extent and casino gambling was not only a supplement for elite tourists, but became—while shifting more towards an “American” concept of casino gambling—a central tourist attraction in some places, such as in the case of Nova Gorica, a westernmost Slovenian town at the border with Italy.

After 1990, the field became more liberalised, and the prohibition for Slovenian citizens to play in the casinos was abolished. A new system of concession contracts between the state and the providers of gambling services was established (Luin 2004). Smaller casinos equipped with slot machines only (so called “gambling halls”) came into existence and started to become more and more common and significantly more accessible to the local Slovenian population. The systemic legislation (still valid today) was adopted in 1995, and later amended in 2001 and 2003. In 2007, new legislative proposals were introduced to allow further liberalisation of the field while still maintaining “efficient control” (Law Proposal Documentation EVA 2007-1611-0009). The regulatory state agency is the Office for Gambling Supervision within the Ministry of Finance.

Slovenian legislation distinguishes between “classic” gambling and casino gambling. Classic gambling includes lotteries, lotteries with instant prizes, quiz lotteries, bingo, lotto, sports betting, sports pools, raffles, and other similar games. The administration of classic games is only allowed by two operators. These are *Loterija Slovenije* (The Lottery of Slovenia), who run eight different series of games and *Športna loterija* (The Sports Lottery) who run six games. Lotteries, bingo, and raffles may also be organised occasionally, i.e., no more than once a year, by humanitarian and non-profit associations in association with sports competitions. The licence for these activities is issued by the Minister of Finance. In 2006, for instance, four such “occasional” licences have been granted—including a local tourist association, a local firemen’s association, a skiing club, and a sports-humanitarian association.

Moreover, the Slovenian legislation distinguishes between two types of places where special gambling can be organised. These are casinos and gambling halls. While the former may include an entire variety of casino games and an unlimited number of slot machines, the latter may only have between 100 and 200 slot machines and no other games. The legislation allows the government to award concessions for to up to 15 casinos and up to 45 gambling halls. To date, 13 and 36, respectively, have been awarded (Law Proposal Documentation EVA 2007-16611-0009). The casino concessions have been awarded to *HIT* (the major corporation of the Slovenian gambling industry, with its headquarters and the main gambling facilities stationed in Nova Gorica), Casino Portorož, Casino Bled, Casino Ljubljana, and Casino Maribor.

Slovenian legislation also imposes certain age restrictions in relation to gambling. Namely, Article 83 of the Gambling Act specifically mentions that those younger than 18 years are not allowed to engage in casino-style gambling. In fact, they are prohibited from entering the casino. However, there are no age restrictions for other types of gambling. The number of visitors to the casinos and gambling halls has been increasing significantly following both the liberalised legislation and the introduction of new market initiatives. The numbers of visitors to casinos has increased more than 12 times from 1985 to 2005 (see Table 18.1).

TABLE 18.1. Numbers of visitors to Slovenian casinos during the last 20 years (gambling halls not included).

Year	Casino Portorož	Casino Bled	HIT Nova Gorica	Casino Maribor	Casino Ljubljana	Casino Kobarid	Total
1985	159,942	16,094	24,225				200,261
1990	426,549	23,319	518,498	23,441			991,807
1991	320,328	15,072	560,896	31,311			927,607
1992	470,969	19,409	829,253	39,341	28,351		1,387,323
1995	569,134	57,854	1,739,854	23,000	66,216		2,456,658
1996	583,400	60,250	1,834,500	19,000	55,000		2,552,150
1999	546,000	67,000	1,557,000	21,677	34,072		2,225,749
2000	526,124	69,200	1,528,000	27,697	45,173		2,196,194
2001	526,801	65,980	1,526,000	27,400	50,560		2,195,712
2002	537,429	71,000	1,478,300	38,000	50,600		2,166,200
2003	519,904	66,000	1,469,000	35,151	53,081		2,133,022
2004	507,608	65,054	1,489,000	37,931	53,637	31,900 (from July)	2,185,130
2005	584,918	64,500	1,566,000	41,173	78,927	86,223	2,421,741

Luin 2006

In 2006, there were 4.2 million visitors to Slovenian casinos and gambling halls. The typical guest is a foreign tourist, as 86% of casino visitors and 54% of gambling hall visitors are foreigners. This tourist orientation of gambling and the relevance of gambling for tourism still remains to this day. Considering gambling income as a proportion of the entire income from its tourism, Slovenia resembles countries such as Monaco in Europe, or the state of Nevada in the USA (Luin 2006). For example, in 2002, the GDP from gambling contributed 22.4% of all the GDP created by tourism.

In 2006, the income from gambling before taxation totalled €489 million, which is a significant increase compared with 2001, when it totalled €264 million. Almost half of this income came from the casinos (49%), 22.5% from the gambling halls, 18% from the *Lottery of Slovenia*, and 10.5% from the *Sports Lottery*. During the last 5 years, all game types have recorded rises in absolute numbers. However, in relative terms, compared with the rest of the games, the market share of the casinos and the *Lottery of Slovenia* has decreased while the share of the gambling halls (slot machine casinos) and the *Sports Lottery* has increased. By far the greatest annual growth during the last 5 years has been recorded by the gambling halls (47% increase). Most of this can be attributed to the establishment of the new gambling halls enabled by the legislative changes,

especially the liberalisation concerning the gambling halls in 2001 and 2003 (Zagoršek, Jaklič & Zorič 2007). Significant parts of the income are transferred to the society via taxes and concession contributions. The concession contribution for casino gambling amounts to 20% and the tax rate is 18%. In 2006, the tax and concession contributions from all gambling (including the classic games) totalled €142 million. More than half of it, 54%, came from the casinos, 28% from gambling halls, and 18% from the classic games (e.g., the lottery). This represented 1.22% of all income of the budget of the Republic of Slovenia, and 1.68% of the incomes of the municipal budgets (EVA 2007-16611-0009).

Zagoršek et al. (2007) have recently calculated that in 2006 the average annual expenditure for all types of legal gambling by a Slovenian inhabitant was €104 per capita. This is a sharp increase from €48 per inhabitant in 2001. The average annual growth rate is around 17%. However, the calculation does not include internet gambling as almost no relevant data on this phenomenon are available for Slovenia. While a typical casino visitor is a foreigner, a typical lottery player in Slovenia is a Slovenian. In 2006, €69 per inhabitant annually was spent for the classic gambling organised by the *Lottery of Slovenia* and the *Sports Lottery*. A total of €35 per inhabitant was spent on casino-style gambling (Zagoršek et al. 2007).

## 2 Evidence

### 2.1 Preliminary Results

Most of the research attention in Slovenia has been paid to the casino gambling, where a few studies have been done. However, apart from some minor surveys where research results are not fully available, the most significant research has been concentrated in western Slovenia, especially the Goriška region. This is far from coincidental since the concentration and the income from the casino business are the highest in this part of the country. Although research on gambling is a relatively recent phenomenon in Slovenia, one can already observe some interesting trends requiring comment and attention. The first gambling studies at the macro level typically focused on purely economic issues. Perhaps the most typical among them has been "The Slot Machines Gambling Market" from 2004 by Bole and Jere (2004) for the Ministry of Finance. The authors admitted that they ignored the social impacts of gambling and only considered the profitability of the slot machines gambling halls. One of their conclusions was that the optimal distance between the slot machines providers was 11 to 22 minutes of driving by car. The study highlighted the relatively dense distribution of the slot machines casinos.

During subsequent research, the economic aspects retained a key role and the economists remained the leading authors (Jaklič, Zagoršek, Pahor & Knežević-Cvelbar 2006; 2007; Prašnikar, Pahor & Knežević 2005; Zagoršek et al. 2007). However, they also began to include some analysis of the social impacts of gambling in their studies. Prašnikar et al. (2005) briefly studied, amongst other things, the impact of gambling on deviance and family breakdown, and included some evidence from social surveys and qualitative research. Jaklič et al. (2006), on the other hand, were the first to apply the methodology of the National Opinion Research Centre (NORC) from 1999 to evaluate the social costs of gambling.

Completely separate and isolated from these economic surveys, there were a few attempts to deal with the issue of gambling from the psychological and/or medical (and especially psychiatric) perspective. The research tried to identify and understand the major personal impacts of "patho-

logical hazard" (as they called it) through a survey among Slovenian psychiatrists (Dernovšek & Čebašek-Travnik 2004; Jeriček & Čebašek-Travnik 2005). The primarily medical "micro" research trying to reach for pathological gamblers and the primarily economic "macro" research of gambling co-existed, but they failed to communicate with each other. While the "micro" perspective of Čebašek-Travnik and colleagues was characterised by a clear "anti-gambling" orientation, the "macro" perspective of the economists tends to be significantly more optimistic, claiming that there cannot be more than 1% of problem and pathological gamblers within the Slovenian population (Zagoršek et al. 2007).

### 2.2 Problem and Pathological Gambling: Tentative Estimates

Most recently, the research has also included other (especially) social aspects. There has been a systematic overview of public opinion concerning gambling issues (Makarovič & Zorec 2007). Moreover, the macro level research of the social impacts of gambling began to focus more significantly on problem and pathological gambling. A study by Rončević, Macur, Makarovič, Vehovar, and Zorec (2007) attempted to provide the first estimate of problem and pathological gambling in the Goriška region and in Slovenia as a whole. The authors applied three different methodologies to estimate the social cost of gambling. These were those by NORC from the USA (National Gambling Impact Study Commission 1999), by the Australian Productivity Commission (APC; Productivity Commission 1999), and by Walker and Barnett (1999). There are several theoretical and operational definitions of problem and pathological gambling and there may be a problem with their consistent use in the Slovenian research. Because of the lack of available data, the studies that have tried to estimate the proportion of problem and pathological gamblers in the population have used certain approximations of the operational definitions. Up to now, there has been no research based on the representative sample for the population using established measuring instruments such as the South Oaks Gambling Screen (SOGS) or the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV).



The first attempt to provide an estimate of the proportion of problem and pathological gambling within the population of Nova Gorica and in Slovenia as a whole, were based on the frequency of visits to the casinos. This research by Jaklič et al. (2006) considered those who visited the casino at least once a week problem gamblers and those who visited it twice a week pathological gamblers. Clearly, there are significant limits to this approach. Although every problem and every pathological gambler tends to play frequently, this does not imply that everybody who visits a casino or another place where electronic gambling machines (slot machines) are available is a problem or a pathological gambler. The reasons for visiting a casino may vary. Moreover, even if the gambler decides to play and spend significant amounts of money on the games, it is not particularly relevant how much the gambler spends on gambling in absolute terms—as long as the gambler can afford it. Reith (2006) argues that problem gambling “can be defined in more straightforward economic terms as playing that they can no longer afford” (p. 21). Thus, there may be a general problem with even the most “objective” measures such as those used by Williams, Connolly, Wood, and Nowatzki (2006) that mention the average amount of money spent and the length of a visit in the casino as the major indicators. However, even these data are not available for Slovenia.

There are also practical problems with the visit frequency data. Perhaps the most objective data on the frequency of the visits in Slovenia may be obtained from the casinos, where the visits are recorded on the regular basis. However, not all of the gaming operators are consistent in this practice and there may be problems with the availability and the validity of these types of data. Moreover, the data available from the casinos’ own statistics only include a person’s frequency of visits in a single casino, and not in the others. The casinos’ statistics do not record visits of a single person within the different casinos operated by different companies because there is no central database on casino visits (and no central database on [self-] exclusion, which means that even this measure can only apply to a single casino not to the system as a whole). Consequently, the study by Jaklič et al. (2006) attempting to measure the social costs of problem and pathological gambling was limited in its scope regarding the social costs of the two

casinos owned by the region’s most significant provider of gambling *HIT*, namely Park and Perla.

Following the criteria that a problem gambler visits a casino at least once a week and a pathological gambler visits a casino at least twice a week, they concluded that there were 172 problem gamblers and 74 pathological gamblers in Nova Gorica and an additional 77 problem and 17 pathological gamblers in the rest of Slovenia. This equates to 0.18% of problem gamblers and 0.08% of pathological gamblers in the Goriška population. For the rest of Slovenia, the percentages are even lower: there are 0.005% of problem gamblers and 0.001% of pathological gamblers in the rest of the Slovenian population. Although the data were the most reliable measure of the frequency of the visits by an individual in these two casinos, the validity of any general conclusions based on these data solely is highly questionable as the authors themselves noted.

In addition to the general methodological problems mentioned above, there were other methodological weaknesses: (a) despite the significance of *HIT*, its two casinos in Nova Gorica represent only a very small part of the gambling supply used by the local population; (b) the typical guests of the *HIT* casinos in Nova Gorica are foreigners (mostly Italians); (c) more locals (from Nova Gorica and from the rest of Slovenia) prefer to visit gambling halls (that have slot machines only) than the two *HIT* casinos in Nova Gorica (as is clear from Table 18.2)—in 2004, the local population visited the gambling halls 1.42 times more often than the casinos (Prasnikar et al. 2005); and (d) there are many other casinos and gambling halls in the other parts of Slovenia that are far more available to the population not living within the vicinity of Nova Gorica. Clearly, using the data from two casinos only, which are not even the most typical destination for Slovenian guests, does not allow any direct generalisations on the prevalence in the entire Slovenian population. The limitation to these two casinos may seriously underestimate the prevalence of problem and pathological gambling. On the other hand, the concepts of problem and pathological gambling based only on the frequency of visits may overestimate the prevalence since frequent visits do not necessarily imply gambling problems or even gambling addiction.

TABLE 18.2. Number of foreign and Slovenian visitors to casinos and gambling halls in Nova Gorica.

Year	Visitors					
	Casinos Park and Perla			Gambling halls (slot machines only)		
	Foreign	Domestic	Total	Foreign	Domestic	Total
1999	n.a.	n.a.	1,340,357	n.a.	n.a.	
2000	n.a.	n.a.	1,217,883	n.a.	n.a.	
2001	1,170,811	50,361	1,221,172	n.a.	n.a.	211,749
2002	1,106,042	58,031	1,164,073	127,240	70,741	197,981
2003	1,089,405	57,962	1,147,367	149,809	70,170	219,979
2004	1,092,109	59,455	1,151,564	195,143	83,677	278,820

*n.a.* not applicable

Prasnikar et al. 2005

An alternative option is to use surveys. As mentioned, no survey using SOGS (or a similar questionnaire) has been used with the sample representative of the entire population. There are, however, some other survey data available that indicate frequencies of visits, socio-demographic characteristics of gamblers, their motives for the visits, and so on. Unfortunately, this evidence is only available for Nova Gorica, not for Slovenia more generally. However, since Goriška is the region where gambling is highly available, it may provide some idea of how the Slovenian population behaves in relation to these games. These survey data have been presented by Prašnikar et al. (2005) who concluded that there may be between 3% and 4% of people within the Nova Gorica local population who have gambling problems. They considered this a probable estimate, since it is close to some other societal environments characterised by a comparable availability of gambling.

The most recent study by Rončević et al. (2007) was based on the assumption that problem gambling prevalence cannot be precisely estimated until a national gambling survey using some of the standardised measuring tools was done. Before this was done, the authors decided to set the highest and the lowest possible estimate of the amount of the problem and pathological gambling in the population. They referred to a combination of the already available survey data and some comparisons with the evidence from other countries with a roughly comparable gambling supply. In the survey used by Prasnikar et al. (2005), 3% of the locals claimed that they visited a casino at least once a

week and another 1% claimed that they visited a slot machine casino. It is worth noting that none of those who visited gambling halls visited casinos. The most frequent visitors of the casinos were different people than the most frequent visitors of the slot machine gambling halls. While casino players tended to be older than the average, a typical slot machine player was a young male (Prašnikar et al. 2005).

Moreover, Rončević et al. (2007) claimed that the amount of problem and pathological gambling in Goriška would be overestimated if all of these 4% were considered to be problem or pathological gamblers. Therefore, they analysed the motives of the casino players in the same survey. Among those who visited a casino at least once a week, 40% claimed that the major motive for their regular visits was the additional entertainment (e.g., concerts, dancing, artistic programmes, other forms of entertainment). It is highly unlikely that any of those who said this was their major motive would be a pathological or problem gambler. The other reasons among those who visited a casino once a week included the fun of playing table games; the fun of playing slot machines (both together accounted for more than 40%); and "other reasons" (less than 20%). On the other hand, among the people who reported visiting a slot machine casino at least once a week, none claimed to be motivated by any additional entertainment. Almost two thirds of them reported that they were attracted by the fun of playing slot machines while the remainder reported "other reasons". This does not mean that the most frequent visitors of the gambling halls

were problem gamblers but does give a rough estimate of the maximum number of problem and pathological gamblers. From these results and some further comparisons in the study by Rončević et al. (2007), it can be concluded that there were up to 3% of problem and pathological gamblers in Goriška. This was considered to be the maximum value. The equivalent maximum estimate for the entire Slovenia was 2.5%.

Since casino gambling in Slovenia is mostly associated with the Goriška region and especially the company *HIT*, the maximum estimate for the entire Slovenia seems to be relatively high since it is not much lower than for Goriška. However, casino gambling, especially when considered as a service for the local Slovenian population, is dispersed across the country. A study from the USA found that problem gambling rates doubled if people lived within 50 miles of a casino (Gerstein et al. 1999). Even using a 40-km distance as a “range” of a casino, Slovenia is well covered with these services (see Fig. 18.1).

The study by Rončević et al. (2007) also calculated the financial estimate of the social costs of gambling. This was mostly motivated by heated public debates in Slovenia in Spring 2007 and relating to the expansion of gambling in a large

gambling resort in Goriška (by *HIT* and *Harrah's Entertainment* from the USA). As a consequence, the non-governmental organisations, the local community, and other major stakeholders demanded concrete data on the social costs of gambling. Applying (and adapting) the American methodology used by National Gambling Impact Study Commission (1999), the average social annual cost was estimated to be €633 per problem gambler and €1,185 per pathological gambler. The Slovenian study has applied logistic regression coefficients from the American study and calculated the costs for particular items in relation to the Slovenian situation. The calculations for Slovenia (following the NORC methodology) are listed in Table 18.3.

Having no data available on the ratio between the problem and pathological gamblers, the study compared the ratios between problem and pathological gamblers in most of the countries where national gambling surveys using the SOGS test had been carried out. It was found that the ratio between both of them is relatively stable regardless of the proportion of both together within the population. The proportion of pathological gamblers within the population of problem and pathological gamblers taken together was mostly between 30% and 40%. The average propor-



FIG. 18.1. Impact of Slovenian casinos. Slovenian casinos (red) and slot machine casinos (blue) presented as the centres of circles with the 40-km radius

TABLE 18.3. The average annual social costs per problem and per pathological gambler in Slovenia using the NORC methodology (in Euro).

Cost specification	Problem gambler	Pathological gambler
Losing employment	98.97	149.84
The Court for Labour issues	2.00	3.00
Unemployment benefits	354.08	536.08
Welfare benefits	67.84	102.70
Unpaid debts	28.56	58.54
Imprisonment	4.89	9.96
Arrest	7.01	7.32
Divorce	0.48	1.62
Health	33.40	229.78
Mental health	36.21	36.21
Therapy	0	50.25
Total annual social costs	633	1,185

tion was 35% of pathological gamblers and this ratio was also applied as an approximation by the Slovenian study in order to estimate the total social cost of gambling. The maximal annual social cost for Slovenia based on the presumption that 2.5% of the population are problem or pathological gamblers according to the calculations following the NORC methodology was €3.3 million. Furthermore, the methodology of the APC was also applied and recalculated following the Slovenian data. The estimated maximum annual social cost of gambling according to the APC was €29.4 million. The final calculations for Slovenia have turned to be surprisingly close to the ones of the NORC methodology (see Table 18.4).

It should also be noted that estimating the emotional and family costs according to this methodology was the most interesting and needed aspect of the calculations, because it is often argued by opponents of gambling that studies systematically ignore them. Indeed, there was only one real financial cost in this category (i.e., the financial cost of divorce), which included easily calculable costs of the court and legal counsel. The rest of the costs are calculated by the estimated number of people suffering various emotional adverse consequences, as outlined in Table 18.4, and multiplied by the costs of legally guaranteed compensation for emotional

suffering, which can be granted by the court. The calculation not only included gamblers, but also included their family members. A causality factor was also applied.

The application of the Walker and Barnett methodology (1999) produced significantly lower figures—up to 10 times lower than when the APC methodology was applied. Since the Walker and Barnett methodology has been criticised for allegedly underestimating the social costs of problem and pathological gambling, it has been used with great caution. Thus, any (over)generalisations based on this methodology should be avoided. Considering the major investment by *HIT* and *Harrah's Entertainment*, the study concluded that the increase of social costs does not depend so much on the gambling activity but more on the development (or underdevelopment) of socially responsible gambling policies implemented by all of the relevant stakeholders.

Taken together, the research on gambling in Slovenia to date clearly demonstrates the growing interest in the social impact of gambling, especially through the issue of problem gambling. It also demonstrates the need for a national gambling survey that would provide reliable data compared with the estimates that have been constructed on the basis of the available empirical data.

### 3 Action

This section examines how Slovenia takes care of and helps pathological and problem gamblers, and whether this help is effective. In examining this issue, there are some other factors to take into account: (a) regardless of how significant the gambling problem is, it seems very difficult to find a person who is able and willing to talk about their gambling-related problems; (b) the help for pathological and problem gamblers is usually not used by the target population—according to some estimates, only 3% of pathological gamblers seek professional help (Dickerson 1997; Volberg 1997). One of the Slovenian doctors involved with the treatment of pathological gamblers was quoted as saying that the bigger the gambling problem is, the less likely it is for an individual to seek treatment.

TABLE 18.4. Social costs of problem and pathological gamblers according to the APC methodology (in Euro).

	Minimum estimate (1% of problem and pathological gamblers in the population)	Maximum estimate (2.5% of problem and pathological gamblers in the population)
Financial costs		
Bad debts	628,650.20	1,571,625.50
Productivity and employment		
Decreased productivity	514,198.77	1,285,496.92
Changing the workplace—costs of the state	254,720.33	636,800.83
Changing the workplace—costs of the employer	65,088.45	162,721.13
Crime		
Police intervention	9,239.88	23,099.71
Courts	40,713.58	101,783.95
Prisons	178,896.00	447,240.00
Personal and family costs		
Emotional pain of the family members	9,146,504.04	22,866,260.10
Financial costs of divorce	22,340.97	55,852.41
Emotional costs of separation	49,196.43	122,991.07
Emotional costs of divorce	114,309.34	285,773.36
Emotional costs of violence	20,573.87	51,434.68
Depression	300,484.05	751,210.13
Thinking about suicide	42,926.29	107,315.73
Suicide attempts	31,497.17	78,742.92
The impact of suicide to the family members	51,970.33	129,925.82
Treatment costs		
Treatment costs for pathological gamblers	283,112.32	707,780.80
Total	11,754,422.03	29,386,055.07

### 3.1 A Preliminary Evaluation Approach

Evaluation research can be quantitative or qualitative, or both. The nature of the subject that is to be evaluated suggests that qualitative methods should be adopted, because large samples could not be analysed. It seemed unlikely that many organisations that provided such treatment would be found. Individuals with gambling problems were also very hard to find for this study.

The sampling method for this exploration was a snowball technique. We expected experts and practitioners to give us names of people to interview. Therefore, semi-structured interviews with representatives of organisations that provided help for problem and pathological gamblers were conducted (Easterby-Smith, Thorpe & Lowe 2005). Overall, two distinct areas were evaluated: organisations or persons that aimed to cure problem and pathological gamblers, and mechanisms that aimed to prevent these problems as much as possible. For

instance, one of the most common mechanisms are entry restrictions and, in some cases, entry prohibition. The aim was to visit organisations that provide help for problem and pathological gamblers, such as health institutions that treat patients who suffer from different types of addiction (gambling, illegal drugs, alcohol); psychiatric hospitals; other relevant experts/healers/health institutions; centres for social care; support groups; and youth centres (in case they provided such help). In order to find preventing mechanisms, the State Office for Gambling Supervision was contacted, which is responsible for gambling regulation and supervision. The Gambling Act in Slovenia enables casinos and gambling houses to restrict or forbid the entry to some visitors. We tried to gather information on the implementation of this Article of the Gambling Act, using interviews as well.

One major concern was related to possible evaluation criteria. All mechanisms or institutions that either help prevent pathological gambling or cure pathological and problem gamblers should then be

evaluated according to various criteria (Phillips, Palfrey & Thomas 1994), including:

- Effectiveness—Do these mechanisms prevent pathological gambling or cure this problem effectively?
- Efficiency—How much input is needed for recommended results?
- Accessibility—Is care available to all the people that need such care?
- Equity—Are all the patients equally treated?
- Appropriateness—Is available care relevant according to the needs?
- Acceptability—Is appropriate care acceptable for the patients (i.e., is it in accordance with tradition and or religion etc.)?

It was first intended to establish whether there is care available for people with gambling problems. If there was, we tried to find out: (a) What do these programmes look like? What kind of pathology definition is in the root of the programme? (b) How are these programmes conducted? Is there a separate programme for pathological gamblers? Are individual patients treated together with other patients with addiction problems? (c) What is the scope of the gambling problem compared with the number of individuals treated for gambling problem? Are there any dropouts from the programme? (d) What is the effectiveness of care provided? Does it cure the problem or are the results short-lived? (e) What is the efficiency of the treatment? What is the average time needed for treatment? How much is needed to treat one patient? (f) Is treatment available to all the people in need of such treatment? (g) Is treatment relevant for the needs of such people? (h) Is the care acceptable for the patients? Is it in accordance with tradition and/or religion? (i) Are all the patients with the same problem equally treated? Is this kind of help and care financed from health insurance?

In general, many questionnaires that measure quality of services are available. For example, Parasuraman and colleagues developed universal dimensions of quality of services: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding, and access (cited in Bergman & Klefsjö 1994). However, the services were too infrequent to enable us to use standardised questionnaires, and the sample was not big enough to enable us to analyse all the proposed dimensions.

### 3.2 Evaluation of Preventive Mechanisms

Before presenting some findings in detail, it should be acknowledged that problem gambling cannot be eliminated in a global society. Even if we decide to close all the casinos and gambling houses in Slovenia, there are many casinos at the border with Slovenia. It should also be kept in mind that addiction to gambling not only occurs in the casinos. Populations can also be addicted to lotto and other type of games. Internet gambling is also widely spread and dangerous, especially for youngsters. Furthermore, the possibility of preventing the entry to the casinos and gambling halls should be mentioned. In Slovenia, there is an age limit that prevents entry to persons younger than 18 years. However, this does not prevent minors from using slot machines, which can be found in many public places and represent a big threat to the potential pathological gamblers.

In Slovenia, self-imposed restriction is also possible. If a person wishes to cope with their gambling problem, they can make such a request to a casino or a gambling hall to prevent them from entering the casino. We do not have the exact number of such exclusions but, according to interviews, it seems that they work quite well. However, we do see a problem when the request is made by a relative (e.g., partner or family member), because the Gambling Act does not address this issue. Casinos have different policies about those exclusions. If such claims are posted to the State Office for gambling supervision, they recommend to a casino or gambling house to forbid entrance to a person mentioned in a claim for a limited period of time (usually 6 months). It seems plausible that there are a lot of such claims because relatives are usually the first who address gambling problems and they start looking for help.

Article 84 of the Gambling Act gives casinos and gambling halls the opportunity to forbid the entrance to a person or group of visitors without explanation. What is the scope of these incidents in Slovenia? The State Office for Gambling Supervision analysed the implementation of this article in Slovenian casinos and gambling halls. They found that some casinos and gambling houses in Slovenia have not used this article since 2005, whereas others have used this Article regularly. In addition, entry is also forbidden in the case of

recommendation by the court or by health institutions. However, we could not find such cases or data about their frequency. Through interviews, we detected a serious problem with Article 84. The criteria for restrictions are not defined and the decision rests upon the casinos themselves. However, responsible gambling requires a clearer definition of those criteria and should provide orientation based on the best practices.

Interviews showed another serious problem with the entry restrictions. In Slovenia, there is no central register of visitors and guests to whom entry has been forbidden. Single registers are kept by the casinos, which means that a person whose access to a certain casino is denied may visit another one. National policy in this field is not possible without a central database regarding entry restrictions to the various casinos and halls.

There are of course also other restriction mechanisms, such as limited access. However, such measures are usually not implemented in Slovenia. An exception refers to an instrument available in *HIT* casinos. Since their policy tends to be one of responsible gambling, they decided to restrict entry for the local population. Studies show that restrictions influence problem gambling (Reith 2006), therefore, they allow visitors from their region to visit *HIT* casinos for a maximum of four times a month. In order to visit *HIT* casinos a fifth time per month, residents need to write an application.

Do the casinos and gambling houses enhance responsible gambling? We did not have the time and resources to make an in-depth study of this issue, but according to our interviews, responsible gambling is not yet a priority in Slovenia. For example, entry restrictions (allowed by current law) have not been implemented by many casinos and gambling halls. In one casino we found tickets with a message about the dangers of pathological gambling. The casino congratulated the guests about their choice of entertainment and wished them a nice time in the resort but the casino also warned them about gambling addiction. The same casino included a similar notice in a contract with the frequent guests of the casino.

In our interviews we traced some additional ideas on responsible gambling in Slovenia, such as entrance fee for a second and third visit in 1 month, higher fees for a higher frequency of visits per month; and an entrance restriction for local visitors

(similar to *HIT*'s policy for the local population). Furthermore, public awareness about this type of addiction is needed because pathological gambling is still a "hidden" phenomenon (e.g., brochures and lectures about addiction problems are needed in secondary schools).

Unfortunately, we could not access information about the number of patients who were treated for pathological gambling in Slovenia. It is hard to describe the profile of a typical pathological gambler other than from foreign studies. These studies (see Reith 2006) and our interviews showed that there were at least two risk groups: (a) under-aged, because their personality and value system are less stable compared with adults (minors are especially vulnerable and are heavily exposed to internet games); (b) the employees of casinos and gambling houses. This latter group of people is seriously under threat because they are exposed to gambling several hours per day (usually in the evening hours). The statistics of pathological gamblers treated in Nova Gorica show a high number of employees among the patients. Casino employees have to pass serious tests to get their licence. Usually only one third of the candidates get this type of job. Nevertheless, the evidence demonstrates that addiction with gambling cannot often be prevented in advance. The lifestyle of casino employees—late working hours—prevents them from a "normal" social life with friends from other branches. Work behind gambling tables and their social life enhances an addiction with gambling, as we found casino employees were often guests of other casinos. Although empirical data about the frequency of this phenomenon is missing, we strongly recommend changes regarding the licences for casino employees and believe the licence should include entry restrictions to other casinos.

### 3.3 Evaluation of the Care System

It can be assumed that gamblers with such a problem (or their relatives) will first come to the social care centres. Interviews showed that employees were aware of pathological gambling but did not have sufficient experience in dealing with the problem. In 2004, the State Office for Gambling Supervision conducted an analysis of the social care centres, asking them whether they came across

any negative consequences of gambling. This analysis showed that the centres do not keep the record of such cases, and are more focused on other issues such as violence, drug abuse, and alcoholism. Gambling problems are most often detected together with other problems of an individual or family (e.g., material, depressions, alcoholism, etc.). It should also be noted that 53 social care centres replied to these questions (out of 62 centres in total). They recognised 45 cases of pathological or problem gamblers during the period of the last 4 years (see Table 18.5).

From the research reports on gambling and from some interviews we learned that gambling is a particular threat for young people, who develop addictive behaviour quicker than adults. Therefore, members of some youth centres, which are part of centres for social help, were interviewed. Surprisingly, we did not find any case of heavy gambling problems with the younger population or inside of a family of the underaged. Young people have problems mostly with self-identity, conflicts with the environment, alcoholism in the family, physical and emotional violence in the family, as well as drug abuse. There was one therapist in Youth Aid Centre Association in Ljubljana who detected three cases of internet gambling addiction.

We recognised the lack of evidence about such cases in all the support organisations mentioned above. Pathological gambling is not as widespread phenomenon as alcoholism and violence, but is becoming a greater part of everyday life. Thus, more data is needed on this type of addiction and more information on help provided. Furthermore, we analysed the health care institutions to find out how care for individuals with gambling problems is organised. Gamblers with an addiction problem can visit psychiatrists in a health centre. According to the diagnosis, the patient is then directed to a psychiatric hospital or a centre for treating drug addictions or a centre for treating alcoholics. It

could be discovered that, in Slovenia, a special centre for individuals with gambling problems or pathological gamblers does not exist. There is a health care centre in Nova Gorica that provides treatment to individuals with various addiction problems, including pathological gambling, although this treatment cannot be financed through basic health insurance.

In Slovenia, care for pathological gamblers is organised mostly inside psychiatric help centres. The division of labour inside psychiatry gives priority to traditional mental diseases and more frequent addictions. Pathological gamblers were also treated inside these psychiatric facilities. However, we could not get the exact number of such patients and treatment programmes, but again it could be recognised that there were not many cases of pathological gamblers seeking treatment. Unfortunately, some psychiatrists who specialised in treating pathological gamblers passed away this year. The centre for treating alcoholic patients lost a few psychiatrists due to the concession delivered by the Ministry of Health in 2006. Their capacities are now smaller so they are not proactive in finding and treating pathological gamblers. Nevertheless, there are several psychiatrists in Slovenia who treated individuals with gambling problems. Analysis among 52 Slovenian psychiatrists showed that they treated 41 pathological gamblers. They also treated 45 patients with other diagnoses, but who also suffered from pathological gambling. Fifteen patients developed a gambling addiction while being treated for other disorders (Dernovšek & Čebašek-Travnik 2004).

## 4 Conclusion

Overall, we believe that preventing gambling addiction is a difficult task. Even if all casinos in Slovenia were closed, pathological gamblers would

TABLE 18.5. Pathological gamblers (2000–2004) recognised by centres for social care (State Office for Gambling Supervision).

Problematic gambling form	Status	Gender	Visitors of Slovenian casinos and gambling houses	Visitors abroad
29 Casino gambling 16 Gambling halls	28 Employed 13 Unemployed 2 High school 2 Retired	39 Men 6 Women	43 Cases	2 Cases



use lotteries, internet games, and/or illegal forms of gambling. Thus, there is a need to develop responsible gambling programmes and enhance public awareness of this problem through educational programmes in primary and secondary schools, stressing dangers of various addiction problems, especially for young people; public brochures in health care facilities, centres for social care, various youth centres, addiction centres, etc.; and summer school programmes. There are several mechanisms that casinos and gambling houses can adopt, such as giving information to their guests about their rights and their options when problems occur (entry restrictions, counselling, etc.); informing their guests about the dangers of gambling addiction; monitoring the situation in a casino and talking to potential problem gamblers about their problem and possible solutions; exchanging views and ideas about responsible gambling and management practices among themselves; and exchanging data about entry restrictions to various guests and consulting on a common strategy for those individuals. At the national level, the State Office for Gambling Supervision could promote responsible gambling on various levels and encourage (also with resources) diverse actions and practices—like the ones already mentioned; they could promote prevention mechanisms; publish brochures about the different addiction forms; organise (together with various experts in this field) conferences on responsible gambling and discuss different strategies and actions; prohibit casino employees entry to the casinos (and gambling halls) in their non-working time; define criteria for entry restrictions used by casinos and gambling halls; and build a single information system for all the casinos and gambling halls that includes entry restrictions and other measures taken by different casinos and gambling halls.

At the moment, it seems almost impossible to evaluate the effectiveness of Slovenian treatment facilities. Efficiency of treatment cannot be assessed either. For example, we could not compare different treatment practices. Experts could not give us information about preferred length of treatment and preferred method of treatment because treatment specifics were individually based. The psychiatrist first talks to the patient and suggests the length and the type of treatment. Some patients prefer individual counselling; some patients find

it stimulating to work within a group of patients. Homogeneous groups are sometimes helpful (e.g., group of pathological gamblers, group of alcoholics) but sometimes heterogeneous groups (people with different addiction problems) are preferable.

From the literature and from our interviews, we realised that the type of treatment can also depend on the definition of a problem. Medicine defines pathological gambling as a behaviour disorder—as a compulsive behaviour, whereas other sources define pathological gambling as an addiction problem. Medicine does not find pathological gambling to be an addiction because it defines addiction only in connection with psychoactive substances, such as illegal drugs and alcohol. Some therapists, on the other hand, tend to define addiction as an excessive behaviour pattern that harms a person but a person cannot control it. According to such a definition, addiction—including pathological gambling—is a disease and should be treated as such. As a consequence, we believe round table discussions among experts are needed to exchange information on the best practices. Another important question concerns accessibility of treatment. A responsible society should make it possible for all individuals with this kind of problem to access treatment, bearing in mind that pathological gamblers are individuals with big personal (financial) losses and they usually cannot afford to pay for their own treatment.

Accessibility of treatment leads to two types of problems: (a) should treatment be financed from basic health insurance or other types of health insurance?; and (b) do all the individuals who decide to get treated receive such a treatment? We learned that different addictions, including pathological gambling, can be treated inside the public health system. However, basic insurance does not cover treatment of gambling addiction. Interviews with practitioners revealed that individuals who came to public health care facilities were accepted and treated in any case, but this is sometimes concealed from insurance companies under other types of addictive behaviour. In a very few cases, institutions or individual practitioners did specialise in treatment of pathological gambling, where they were financed through contributions from the local community. Notwithstanding, they did mention the shortage of staff and the lack of experience in the field of pathological gambling. In Slovenia,

psychiatrists have a lot of experience in treating alcoholic and drug-addicted patients, much more than in treating pathological gamblers. How does this fact influence equity of treatment for the same diagnosis? We believe the exchange of experience in treatment is needed as well as strengthening of capacities for treating pathological gamblers.

In the field of health and social care, the following actions should be put into practice:

- We need more information on people who looked for this kind of help within centres for social care and health care institutions.
- We find it necessary to organise round table discussions among experts about treating pathological gamblers and for exchange of best practices.
- We need more experts in the field of pathological gambling to enable equity in treatment and accessibility of such treatment. We should encourage some psychiatrists who deal with various addiction problems to specialise in pathological gambling.
- We will probably need a national centre for treating pathological gamblers as well as network of psychiatrists who will regularly exchange ideas and best practices.
- The Ministry of Health should follow responsible gambling strategy while delivering concessions to psychiatrists and encourage development of a network of experts in the field.
- Treatment of pathological gamblers should be free of charge as a part of basic health care package.
- We need telephone helplines because of the low percentage of pathological gamblers who decide to get treated. Depending on the resources available, the telephone helpline could be established for pathological gamblers only, or for all addiction problems that individuals might have.

The evaluation approach presented in this chapter gave us a lot of answers and many more questions that need to be answered. We believe significant further research is needed in Slovenia, particularly (a) an extensive national gambling prevalence survey to indicate the extent of current gambling problems within the population, and the categories within the population that may be particularly vulnerable to gambling problems; (b) longitudinal research in this regard; (c) national research on pathological gambling in the context of various addiction problems and their treatment; (d) a sys-

tem of indicators designed to monitor the social, cultural, and economic effects of gambling at the societal level; and (e) research on the individual characteristics of pathological gamblers. Despite some research already carried out, it is clear that Slovenia is still at an early stage of research on gambling problems and other gambling-related issues.

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# 19

## Spain

Elisardo Becoña

### 1 Background

Spain is situated in the southwest of Europe. Its shores are washed by the Atlantic Ocean and the Mediterranean Sea, and it shares borders with Portugal and France. In the southeast, it is separated from North Africa only by the Straits of Gibraltar. Its population is currently 44.1 million (Instituto Nacional de Estadística 2006a). The country is organised administratively in 17 autonomous regions, examples being Catalonia, the Basque Country, Galicia, Valencia, Andalusia, and Madrid, as well as two Autonomous Cities (Ceuta and Melilla). Many of these regions have extensive responsibilities in education, health, agriculture, ports, and so on. With regard to gambling, they also have a range of powers, including the collection of money in the majority of cases. The central government is reluctant to transfer to the regions the power to collect the money for the state-run lotteries (ONLAE), given the losses it would involve.

Of the 36 million inhabitants aged 16 years or over, 20 million are in employment and 2 million are registered as unemployed. Per capita annual income in 2005 was 20,838 Euros (Instituto Nacional de Estadística 2006b). Among the most notable characteristics of Spain today are its extremely high rate of immigration, which led to a rise in population of almost 3.6 million between 2000 (40.5 million) and 2006 (44.1 million). This is a very high level of economic development, which makes Spain one of the most dynamic economies in Europe, with an annual growth rate in excess of 3%, based partly

on public works and house construction. There has also been a technological consumer boom among young people and other social groups (e.g., mobile telephones, electronic goods, computers). All of this is a reflection not only of great dynamism, as is the case in many other European countries, but also of profound changes in a wide range of aspects of Spanish society.

Tourism and the leisure industry are prominent in the Spanish economy. Tourism is one of the most important sectors. Data from 2003 indicate that within the service sector, tourism accounts for 15% of jobs, 6% of business volume, and 14% of the total number of companies. Tourism represents 11% of the gross domestic product. It accounts for 7% of world tourism and 13% of the European market. In fact, Spain recently became the world's second most important tourist destination, behind the USA and ahead of France (Instituto Nacional de Estadística 2006b). In 2005, the total number of overnight stays in hotels and other tourist establishments was 354 million. The most frequent visitors were the British and the Germans, accounting for 50% of all foreigners coming to Spain. For some regions (e.g., Canary Islands, Balearic Islands, Andalusia), tourism is one of the principal sources of income. Spain is favoured by a large number of sunny days, high temperatures, and thousands of kilometres of coast and beaches.

It was precisely this importance of tourism for the Spanish economy that justified the legalisation of gambling in 1977. Some forms of gambling pre-date 1977, such as the lotteries (e.g., the National

Lottery) and the Spanish National Organization for the Blind (*Organización Nacional de Ciegos Españoles* [ONCE]; 1930s), the football pools (1946), and horserace betting (1957). However, their significance was tiny compared with the implications of the more recent legalisation of other types of gambling.

### 1.1 Legalisation and Expansion of Gambling in Spain

A number of factors led to the legalisation of gambling in Spain in 1977. One of these is clearly specified in the preamble to the corresponding legislation, where it was stated that the “government considers the legalisation of gambling to be an appropriate measure for contributing in a significant way to boosting the tourist sector, whose role is so substantial in the country’s economy as a whole, and whose reactivation is a matter of urgency” (Boletín Oficial del Estado, March 7, 1977, p. 5302; translated by the author). This is always the reason given for the legalisation of gambling in Spain, together with two other, related reasons. Firstly, was the need for more tax income, gambling being an ideal form of increasing it. Secondly, there was pressure from various business sectors for legalisation, as had been occurring at the time in other European countries, given the enormous quantities of money generated by all types of gambling. From today’s perspective, the legalisation of gambling, and especially certain types—such as slot machines—was introduced hastily, without proper control and in the almost total absence of research on the social impact it would have within a few years for many citizens.

Since 1977, several forms of gambling were successively legalised, such as casino gambling, bingo, slot machines, and more lotteries. It was the legalisation of slot machines, and their entry onto the market in 1981, that sparked the most significant increase in gambling in Spain, given the enormous quantity of money spent on them, the huge numbers of them in bars, restaurants, pubs, and so on throughout the country, and the easy access to them (without control of access by minors). Table 19.1 summarises all legal forms of gambling in Spain and the year of the introduction of each gambling form.

TABLE 19.1. Year of creation of different legal forms of gambling in Spain.

Gambling product	Year of creation
National Lottery	1812
Betting on greyhounds	1935
ONCE lottery	1939
Football pools	1946
Betting on horses	1957
Casinos	1977
Bingo	1977
Slot machines	1981
Primitiva lottery	1986
Bonoloto	1988
Horoscope lottery <sup>a</sup>	1991
ONCE combo	2004
Euromillones	2004

<sup>a</sup>Lottery no longer exists

Currently, the following types of gambling are legal in Spain:

1. Casino games (roulette, blackjack, baccarat, etc.) and slot machines in casinos (type C machines)
2. Bingo
3. Sports betting (football pools, betting on horse racing, betting on greyhound racing)
4. Lotteries (National Lottery, *primitiva* lottery, *bonoloto*, *Euromillones*, rapid and instant lotteries, and other lotteries (*ONCE* lottery, *ONCE combo*)
5. Recreational machines with the chance of winning money (slot machines, type B machines), located in bars, pubs, restaurants, etc.
6. Traditional and historic lotteries throughout the year or at certain times (e.g., the Melilla Charity Lottery)

There are also illegal forms of gambling, especially betting on animal fights, which involve large sums of money but are constantly pursued by the authorities in an attempt to eradicate them. Other type of machines are type A amusement machines. On these machines, the only prize available, depending on skill, is a free game, which is not exchangeable for money.

In Spain today, gambling is an important economic driving force, and is responsible for many thousands of jobs. For example, the Spanish National Organization for the Blind gives employment, directly or indirectly, to 106,000 people. There are

hundreds of bingo halls throughout the country, thousands of football pools offices, and kiosks and offices for the sale of different lottery tickets. Likewise, some autonomous regions (e.g., Catalonia) have their own lotteries (instant lottery), and the regions are responsible for the regulation of slot machines, from which they also make money. To illustrate the quantities of money involved, spending in 2006 on the Christmas lottery, the most important of the year, was 2,142 million Euros; the installation tax for each slot machine is around 3,400 Euros per year, and, as of 31 December 2005, there were 245,966 slot machines in Spain. This tax alone equated to 840 million Euros.

## 1.2 Spending on Gambling in Spain

The amount spent annually on gambling in Spain is substantial. Data from 2005 indicate a figure for spending on gambling of 28,335 million Euros (Ministerio del Interior 2006). The order of amount of spending is: slot machines, bingo, lotteries (National Lottery), charity lotteries (*ONCE*), *primitiva* and *bonoloto* lotteries, and casinos. Of these large amounts of money, slot machines accounted for 10,729 million Euros (37.9%), lotteries and pools for 9,303 million Euros (32.8%), bingo for 3,833 million Euros (13.5%), casinos for 2,444 million Euros (8.6%), and the *ONCE* lottery for 2,023 million Euros (7.1%) (see Figs. 19.1 and 19.2, and Table 19.2). Spending on gambling in Spain has continuously increased since the legalisation of gambling (13,194 million Euros in 1985; 18,673 million Euros in 1995; and 28,335 million Euros in 2005).

As can be seen, slot machines account for most of the money spent on gambling, with the current figure of 10,729 million Euros representing nearly 40% of all expenditure. Slot machines are one of the forms of gambling with the most addictive potential, as reflected in the fact that 75% of those seeking treatment for pathological gambling in Spain are dependent upon them (Becoña 1993a; 2004; Bombín 1992; Echeburúa, Báez & Fernández-Montalvo 1996; González 1989).

The enormous quantities of money involved in gambling explain its importance as a business, as a form of generating income, and as an industry. Gambling currently accounts for a significant part of the Spanish national economy. Thousands of

people work in this “business”, and the income is large for both for the companies involved in the sector and the Spanish tax authorities (*Hacienda Pública*). Tax income from gambling is highly significant, although there are no precise figures on it. However, according to the 2005 report on gambling (Ministerio del Interior 2006), the actual quantity gambled is 31.51% of the total amount spent in gambling (spending minus prize = real investment; exactly 30% in the case of slot machines), giving a gross figure of 8,928 million Euros of income, which breaks down into employees’ salaries, maintenance, company profits, and taxes. From this amount, the government obtains a great deal of income through value added tax (VAT; 16%), and company and other taxes. In all, government income is at least 25% of this total income (around 2,232 million Euros), apart from the VAT and other taxes (between 3,000 and 4,000 million Euros).

Spending on gambling per head in Spain currently stands at 642.37 Euros per inhabitant per year for its 44.1 million inhabitants (in 2005; Ministerio del Interior 2006). Calculating this for those aged 16 years or over (active population 36,416 million) takes the annual spending figure per person to 778.22 Euros. This figure would be even greater if we consider only those who gamble a few times a year. Another aspect to take into account are the marked differences in the amounts spent on gambling in the different regions, ranging from 473.58 per person/year in Galicia to 817.38 Euros per person/year in the Balearic Islands. Factors influencing this include per capita income in the region, active population, number of tourists, size of cities, etc.

Overall, Spain is undoubtedly one of the countries with the highest rate of gambling per capita in the European Union. Spaniards spend an enormous amount every year on the lottery alone, and there are more slot machines in Spain than in nearly all other countries. The economic interests revolving around gambling are extremely significant, and gambling has clearly become one of the most important activities in the country by giving employment to many thousands of people. Spain has one of the highest numbers of slot machines per million inhabitants in the world (see Table 19.3). For instance, in the USA there are 740,475 slot machines for 300 million inhabitants, whereas in

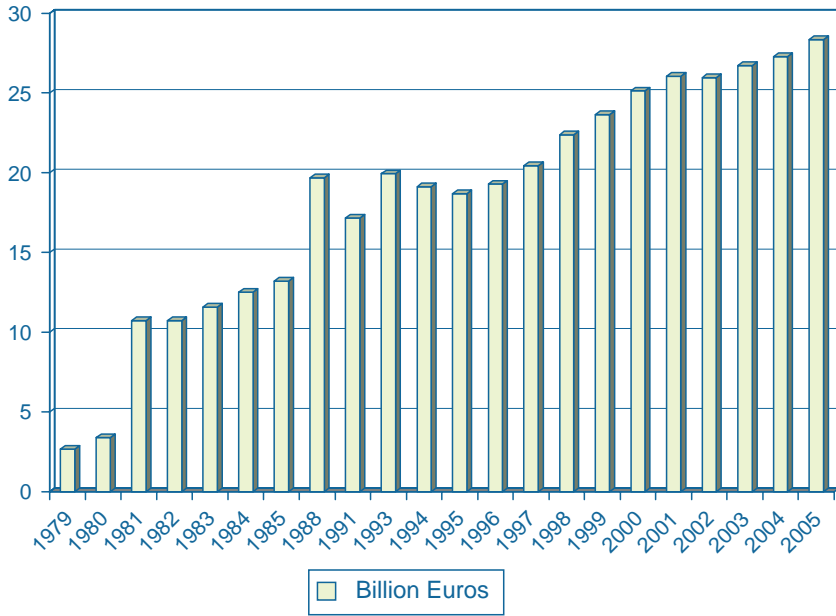


FIG. 19.1. Spending on gambling in Spain

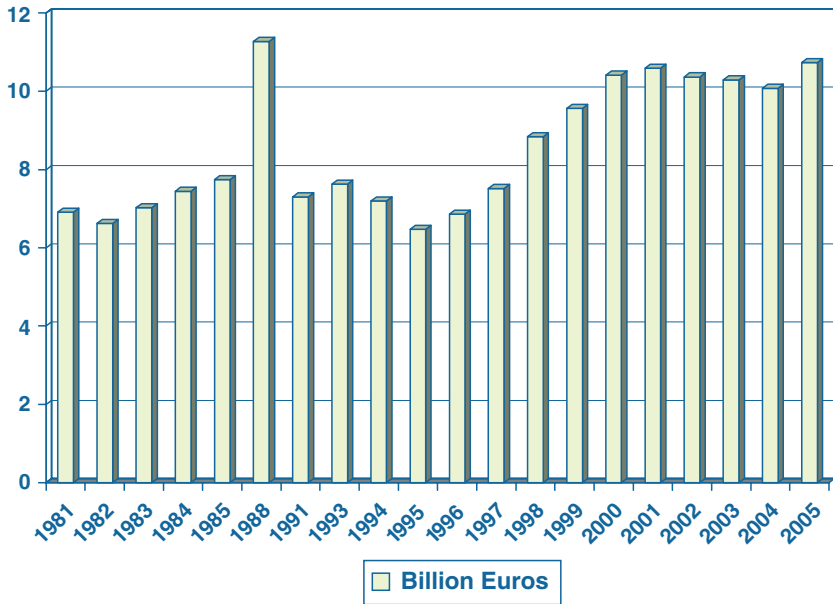


FIG. 19.2. Spending on slot machines in Spain

TABLE 19.2. Percentages of spending 2001 to 2005 in Spain by type of gambling.

Type of gambling	Amount spent, 2005 (millions of Euros)	Variation 2001–2005	Variation adjusted for inflation <sup>a</sup>
Casinos	2,444.83	+44.92%	+29.22
Bingo	3,833.48	+2.09%	-13.61
Slot machines	10,729.23	+1.30%	-14.40
National Lottery	5,233.48	+21.26%	+5.50
<i>Primitiva</i> lottery	2,240.52	+3.06%	+12.64
<i>Bonoloto</i>	602.15	+14.70%	-1.00
Football pools	493.63	-6.86%	-22.56
<i>ONCE</i> lottery	2,023.72	-17.63%	-33.33
Others	733.93		
Total	28,334.97	+8.83%	-6.87

<sup>a</sup>Inflation between 2001 and 2005 was 15.7%. Ministry of the Interior Reports ([www.mir.es](http://www.mir.es))

TABLE 19.3. Number of slot machines per million inhabitants.

Country	Population (millions)	Slot machines in 2006	Slot machine per million inhabitants
USA	300	740,475	405
Canada	32	85,516	374
Germany	82	202,600	405
United Kingdom	60	269,616	223
Italy	59	410,000	144
Spain	44	253,734	173
Australia	20	186,486	107

AGMMA 2006

Spain there are 253,734 for 45 million inhabitants (AGMMA 2006). In world terms, Spain occupies one of the highest per capita spends on gambling.

## 2 Evidence

### 2.1 Participation in Gambling

Participation in gambling in Spain was negligible before the early 1980s. If we consider Fig. 19.1, showing gambling figures in Spain, immediately after legalisation and before 1980, spending was under 3,000 million Euros. During the early part of the 1980s, spending increased, accompanied by the emergence of bingo halls and casinos. By 1988, spending on gambling had reached 20,000 million Euros per year. Spending on gambling in Spain currently stands at 28,253 million Euros per year, taking place in 37 casinos, 447 bingo halls, 245,966 slot machines, and 2,254 casino slot machines.

There are no up-to-date figures on national participation in gambling, but it seems to be rather high. In the autonomous region of Galicia the majority of adults participate, currently 77.4%. This percentage has increased in recent years, especially because of an increased participation in lotteries (National Lottery, *bonoloto*, etc.). There has also been a marked increase in the last few years on spending in areas such as casinos and the National Lottery, and a decrease in expenditure on the *ONCE* lottery (Table 19.2).

### 2.2 Prevalence of Pathological Gambling in Adults

#### 2.2.1 Studies with the *DSM-III*, *DSM-III-R*, and *SOGS*

In Spain, many studies have been carried out on the prevalence of pathological gambling based on the Diagnostic and Statistical Manual of Mental



Disorders, 3rd Edition (DSM-III) criteria, the DSM-III revised (DSM-III-R) criteria, and/or the South Oaks Gambling Screen (SOGS) (see Table 19.4 for an overview). For being classified as a pathological gambler, at least four DSM diagnostic criteria have to be fulfilled. Correspondingly, a SOGS score of 5 or more refers to pathological gambling. Problem gambling is indicated by 2–3 DSM criteria or a SOGS score of 3–4, respectively. Of these studies, several are representative of the autonomous regions of Catalonia, Andalusia, and Galicia. The study by Cayuela (1990), for Catalonia, used Lesieur and Blume's SOGS (Lesieur & Blume 1987), and found 2.5% of pathological/problem gamblers in the adult population of that region.

A study by Becoña (1993a; 1993b) for the seven most important cities in Galicia, using a representative sample of 1,615 people aged 18 years or over, found a prevalence of 1.7% of pathological gamblers and 1.6% of problem gamblers. The highest percentages were found in the largest cities; for instance, 3.5% and 3.3% of pathological and problem gamblers in Vigo, and 1.9% and 1.2% in A Coruña. For the remainder, the figures were 0.6% and 0.9%. It is important to note that it is at the time of this study that spending on gambling reaches its maximum level. In this study, as in others, the predominant form of gambling in pathological gamblers is slot machines (50%), followed by the *primitiva* lottery, the *ONCE* lottery, bingo, and *bonoloto*. A total of 43% of those identified as pathological gamblers in the study had no income, which is partly explained by the fact that a portion of the pathological gamblers were students, housewives, and unemployed people. Of the pathological gamblers in this study, 7% spent around 3,000 Euros per month on gambling. The prevalence of

gambling was higher in men than in women (2:1) and was dependent upon age (the majority of pathological gamblers, 39.3%, were aged between 18 and 30 years). Those most affected tended to have a lower educational level and a lower income.

Another study carried out in Galicia used the SOGS in a representative sample of 1,028 people aged 16 years or older (Becoña & Fuentes 1995). The results indicated a prevalence of 1.4% of pathological gamblers and 2.0% of problem gamblers. Demographically, the ratio of men to women was 3:1 in pathological gamblers and 2:1 in problem gamblers. By age, it was confirmed that this problem is more likely to affect younger people (42.9% were aged 16 to 24 years, and 35.7% were aged 25 to 45 years) and those with elementary levels of education. Ramírez and colleagues (1999) carried out a study in Andalusia with the SOGS (Lesieur & Blume 1993), again using a representative sample. Their results indicated prevalences of 1.6% of pathological gamblers and 1.4% of problem gamblers. Other studies have taken place in cities such as Seville (Legarda, Babio & Abreu 1992) and Algeciras (Tejeiro 1998), while Echeburúa, Báez, Fernández, and Páez (1994) did research with a normative sample from the Basque Country, and reported results similar to those already outlined.

The review of studies carried out up to 1995 (see Becoña, Labrador, Echeburúa, Ochoa & Vallejo 1995) led these authors to estimate the prevalence of pathological gamblers aged 18 years or over in Spain, in the mid-1990s, at 1.5% for pathological gamblers and 2.5% for problem gamblers (450,000 pathological gamblers and 750,000 problem gamblers). The prevalence of pathological gamblers on slot machines alone would have been between 1.2% and 1.3%.

Table 19.4. Prevalence of pathological gambling in the Spanish adult population.

Study	Sample size	Assessment instrument <sup>a</sup>	Pathological gambler (%)	Problem gambler (%)	Representative of
Cayuela (1990)	1,230	SOGS (lifetime)		2.5 <sup>b</sup>	Catalonia
Becoña (1993b)	1,615	DSM-III-R (last year)	1.7	1.6	7 main cities in Galicia
Becoña & Fuentes (1995)	1,028	SOGS (lifetime)	1.4	2.0	Galicia
Irurita (1996)	4,977	DSM-IV (lifetime)	1.7	3.3	Andalusia
Ramírez et al. (1999)	3,000	SOGS (lifetime)	1.6	1.4	Andalusia
Becoña (2004)	1,624	NODS (lifetime)	0.9	0.2	Galicia
		NODS (last year)	0.3	0.3	

<sup>a</sup>All studies were based on face-to-face interviews

<sup>b</sup>Refers to the combined category "pathological and problem gamblers"

### 2.2.2 Studies with the DSM-IV and NODS

After 1994, studies on the prevalence of pathological gambling changed substantially following the publication of the new diagnostic criteria of the DSM-IV. These criteria were more restrictive, required discarding a manic episode, and increased the number of criteria from the 9 required with the DSM-III-R to 10, while the cut-off point rose from 4 to 5 criteria. The instruments used up until then did not fit the DSM-IV criteria. In recent years, various authors (e.g., Abbott & Volberg 1996; Ferris & Wynne 2001; Lesieur 2002; National Research Council 1999; Stinchfield 2002; Volberg 1999; 2004) have referred to the problem of false positives with the SOGS. More specifically, Stinchfield (2002) concluded that, in the general population, the SOGS overestimates the prevalence of pathological gambling, doubling it. He cited 50% of cases to be false positives. This has led to the emergence of new instruments, such as the NORC DSM-IV Screen for Gambling Problems (NODS), based on the criteria of the DSM-IV (Gernstein et al. 1999).

In Spain, two epidemiological studies have been carried out with the DSM-IV (see Table 19.4). One took place in Andalusia in 1994 (Irurita 1996), with a representative sample of 4,977 people. This study used a questionnaire derived from the DSM-IV, which at that time was about to be published, but did not employ any external validation criterion between this questionnaire and the pathological gambling diagnosis. The percentage of patho-

logical gamblers was 1.8%, and the percentage of problem gamblers was 4.4% for the whole of Andalusia. In contrast to other studies, the men-to-women ratio was found to be 9:1 in pathological gamblers, and 8:2 in problem gamblers. In Galicia, Becoña (2004) used the NODS in a representative sample of 1,624 people aged 18 years and older. Of the total participants, the percentage of pathological gamblers (5+ in the NODS) was 0.9% for lifetime prevalence, and 0.3% for the previous 12 months. All pathological gamblers were men. The percentage of problem gamblers (scoring 3–4 on the NODS) was 0.2% for lifetime prevalence, and 0.3% for the previous 12 months. The percentage of gamblers at risk (1–2 in the NODS) was 0.3% for lifetime prevalence and 0.3% for the previous 12 months. By age, 20% of pathological gamblers were between 18 and 30 years, 33.3% were aged 31 to 45 years, 6.7% were aged between 46 and 64 years, and 40% were 65 years or older. In problem gamblers and gamblers at risk, 37.5% were between 18 and 30 years, and 50% were aged 46 to 64 years. By marital status, a predominance of married people were pathological gamblers (60%). Among pathological gamblers, 20% were from urban areas, 40% from rural areas, and the remaining 40% from intermediate areas. In the case of problem gamblers and gamblers at risk, 25% were from urban areas, 25% from rural areas, and the other 50% from intermediate areas. A review of the international literature indicates that the percentage of pathological gamblers in Spain is currently similar to those of other countries (see Table 19.5).

TABLE 19.5. Examples of recent studies (1999–2005) on the prevalence of pathological gambling in various countries, with representative samples of their population.

Study	Country	Instrument <sup>a</sup>	Prevalence (previous year; %)
Gernstein et al. (1999)	USA	NODS	0.1
Rönnerberg (2000)	Sweden	SOGS	0.6
Sproston et al. (2000)	United Kingdom	SOGS	0.8
		DSM-IV	0.6
Ferris & Wynne (2001)	Canada	CPGI	0.7
Abbott & Volberg (2000)	New Zealand	SOGS-R	0.5
Welte et al. (2002)	USA	DSM-IV-DIS	1.4
Wong & So (2003)	Hong Kong	GBI	1.8
Petry et al. (2005)	USA	AUDADIS-IV	0.4

*NODS* NORC DSM-IV Screen for Gambling Problems; *SOGS* South Oaks Gambling Screen; *DSM-IV* diagnostic criteria for pathological gambling of the DSM-IV; *CPGI* Canadian Problem Gambling Index; *SOGS-R* South Oaks Gambling Screen, revised; *DSM-IV-DIS* DSM-IV Diagnostic Interview Schedule; *GBI* DSM-IV Gambling Behavior Index; *AUDADIS-IV* Diagnostic interview of the NIAAA—Version DSM-IV

### 2.3 Prevalence of Pathological Gambling in Children, Adolescents, and University Students

Research indicates that the percentages of problem or pathological gamblers in adolescents is double or treble that normally found in adults (Jacobs 1989; Shaffer & Hall 1996). In Spain, only a few studies have been carried out on pathological or problem gambling in children and adolescents (e.g., Arbinaga 1996; Becoña 1997a; Becoña & Gestal 1996; Becoña, Míguez & Vázquez 2001a; 2001b; Villa, Becoña & Vázquez 1997). Some of these have been with very small samples, which makes them somewhat unreliable. In addition, there has been at least one study in the university context (Viloria 2003).

Using Fisher's (1993) DSM-IV Revised for Juveniles (DSM-IV-J) in two Spanish cities (A Coruña and Gijón), with children aged 11 to 16 years, the prevalence of pathological gambling was found to be 2.2% and 1.6%, respectively. The study by Becoña (1997a), carried out in A Coruña, found a prevalence of 2.4% for problem gamblers with the SOGS Revised for Adolescents (SOGS-RA; Winters, Stinchfield & Fulkerson 1993). The two most extensive studies are those by Becoña et al. (2001a; 2001b), which assessed pathological and problem gambling in primary and secondary school children in representative samples from Galicia. In children aged 11–16 years, they found prevalences of 0.8% of pathological gamblers and 1.3% of problem gamblers with Fisher's (1993) DSM-IV-J. In this same sample, but with the SOGS-RA, they found prevalences of 4.6% of problem gamblers and 10.1% of gamblers at risk. This shows the discrepancy in the results from using different assessment questionnaires. In children and young people aged 14–21 years, the SOGS-RA indicated prevalences of 5.6% of problem gamblers and 8.2% of gamblers at risk. Finally, in a study with a large sample of university students from Madrid (aged 17–35 years), Viloria (2003) found prevalences of 4.5% of pathological gamblers and 6.6% of problem gamblers with the SOGS. In line with studies from other countries, the above data indicate a high prevalence of gambling problems using the SOGS-RA, but similar to that of Spanish juveniles using the DSM-IV-J.

### 2.4 Vulnerable Groups

Young people constitute the group most vulnerable to gambling, as a whole series of studies carried out in Spain has confirmed. Until a few years ago, the profile of the pathological gambler, which had emerged both from epidemiological studies and from experience with people seeking treatment, was male (more likely than female), young (young people being the predominant group), having a low educational level, single or married (the proportions being equal), of low income, with all types of employment (the distribution being the same as that for the rest of the population), a player of slot machines (the predominant form of gambling in 75% of cases), more likely to come from cities, and more likely to be male if seeking treatment (ratio of 9:1) (Becoña 1995). What has changed now is that, of the pathological gamblers of 10–15 years ago, a portion of them continue to be pathological gamblers. Therefore, the distribution of pathological gamblers in the population is similar across all ages. In addition, more young people are seeking treatment than was previously the case. Ten years ago, people trying to get help for their problem were aged 30 years or over, whereas today many are adolescents. In summary, the groups most susceptible to becoming addicted are young people, men, the unemployed, and retired people, as well as people with psychopathological or impulsive disorders, and especially those with alcohol dependence.

Young people have constituted the most important target group for the industry, and continue to do so today (Griffiths 1995). Until a few years ago, young people were the predominant group among pathological gamblers. This was due to factors such as the novelty of its legalisation, their spending more time in leisure activities, their having more free time, their relationship with alcohol, etc. However, this situation is now changing. A new phenomenon is emerging among young people in Spain with regard to gambling: displacement of the gambling addiction to other addictions. In a recent study carried out in the city of Vigo (Pontevedra province; 300,000 inhabitants), with a representative sample of young people aged 14 to 21 years interviewed in their homes, other addictions were found to have taken precedence over that of gambling (Becoña 2006a). Thus, problem gambling, assessed through

the SOGS-RA, was found to be 0.6%, and that of gamblers at risk, 0.4%. However, other types of addictions were more prominent than that of gambling, such as addiction to shopping (8.7%), to the internet (12.7%), to video games (6.6%), and to mobile telephones (12.1%). The new technologies (Becoña 2006a) are transforming the addictions of young people, but the gambling industry is also using the new technologies to maintain its business. This is reflected, for example, in the boom in games via internet or via mobile phones.

Although more men can be classified as problem or pathological gamblers, women should not be neglected in gambling research (Becoña 1997b; 1999; Corral, Echeburúa & Irureta 2005). Women tend to become involved in different types of gambling from men, including slot machines, bingo and lotteries. Their gambling is ostensibly more social, but they also have problems of pathological gambling, even if the condition of being a woman is a protective factor, by comparison with men. Currently, women are more likely to seek treatment than men, and suffer the stigma of being a pathological gambler more than their male counterparts. A section of women have other problems associated with that of pathological gambling, such as depression (Becoña, Lorenzo & Fuentes 1996) or psychosomatic alterations (Corral et al. 2005). Their partners, and especially their children, suffer the consequences of their gambling addiction. The course of the disorder is more rapid when the women affected lack the capacity for self-control, lack communication and problem-solving skills, when their social support is scarce, when their use of leisure time is basically unsatisfying, and when they have few psychological resources to cope with situations of stress (Corral et al. 2005; Ibáñez, Blanco, Moreyra & Sáiz-Ruiz 2003).

Besides being young and male, there are two other vulnerable groups: the unemployed and retired people. In each case, they see gambling as an easy way of obtaining money. Persistent advertising campaigns encourage them to play, motivated by the possibility of these easy gains. Their losses from gambling have more serious consequences, since they cannot recoup them without continuing to play. Finally, another potentially vulnerable group is that of people with psychopathological or impulsive disorders, and especially those with alcohol dependence (Rodríguez-Martos

1989) and certain other psychopathological disorders (Echeburúa 1992). These aspects are indeed of great relevance to their treatment for gambling problems.

## 2.5 Risk and Protective Factors Related to Gambling

Several risk factors are associated with gambling in Spain (Becoña 1993a; 1996a; 1999; Echeburúa 1992; González 1989; Labrador & Becoña 1994):

1. The enormous accessibility of forms of gambling since their relatively recent legalisation. For gambling, as for any type of drug (Becoña 2002a), accessibility is a basic factor affecting use and consumption. Spain has moved, in the space of a few years, from a situation in which almost all types of gambling were prohibited to a situation in which the opportunity to gamble is everywhere, promoted, and is accepted as an easy way of making money. This goes a long way to explaining the huge increase in the amount of gambling and gamblers in Spain.
2. The interaction between gambling and other types of addictive behaviour, especially the consumption and abuse of and dependence on alcohol. Spain, together with France and Italy, is not only one of the world's chief producers of wine, but also has one of the highest rates of alcohol dependence. The percentage of people consuming more than 75 mL/cc of alcohol per day in Spain is 6% (Sánchez 2002). Given that drinking frequently takes place in public places, such as bars, cafes, pubs, and restaurants, and that there also slot machines in these places, the synergic effect is evident. The high accessibility of these machines in this type of establishment, together with the consumption of alcohol, multiply the effect for the potential consumer. Indeed, in Spain, around 25% of pathological gamblers have problems of alcohol abuse or dependence (Becoña 1993b; 2004; Rodríguez-Martos 1989).
3. Vulnerability factors. Gender, age, personality characteristics (e.g., sensation-seeking, impulsiveness), cognitive distortions about chance, luck, skill, etc.
4. Social tolerance towards gambling. In a few short years Spanish society has undergone

enormous changes. One of these is related to gambling. In spite of its negative consequences, governments have tended “to turn a blind eye”, given the huge income from taxes. Social tolerance in other areas has helped to ease the legalisation of many forms of gambling and led to the general social acceptance of gambling as a good thing, those with gambling problems being labelled as morally reprehensible, “dissolute”, and so on (Marlatt & Gordon 1985).

On the other hand, protective factors include (Becoña 1996a; 2006b):

1. The social support of the family as a protective element in situations of risk or excessive gambling. It is frequently the family unit—nuclear or extended—that detects the gambling problem and deals with it. The traditional family continues to be of great importance in Spain.
2. Better social knowledge of the characteristics of pathological gambling. In this regard, associations of rehabilitated pathological gamblers have clearly publicised the serious potential consequences of gambling. This has permitted people to learn more about what a pathological gambler is, how they can be identified, and where to go for help if one has gambling problems.
3. Certain tentative measures taken by governments to try to deal with the problem that emerged in Spain in the early 1990s (see below).
4. Better capacity for the detection of pathological gamblers in the mental health and general healthcare contexts. This has helped to identify people with gambling problems at an early stage, before their addiction develops further. Some regions have included treatment for gambling problems within their addictions services (e.g., Andalusia, Valencia).
5. An increase in the perception of risk in relation to the negative consequences of gambling.

### 3 Action

#### 3.1 Legislation and Policies on Gambling in Spain from 1977 to the Present Day

The period between 1977 and 1990 was one of great expansion in the area of gambling in Spain,

as indicated by the continuous increase in spending on gambling. By the late 1980s and early 1990s, the problems brought on in Spanish citizens by gambling were becoming evident. Attention was drawn to these problems by associations of those affected and by many professionals, and social concern began to grow. Moreover, the publication of the first epidemiological studies on pathological gambling indicated that Spain was facing a serious situation of substantial proportions.

In 1990, given the increasing seriousness of the problems caused by gambling, a parliamentary commission was set up to examine the phenomenon. In December 1992, the commission presented its report “*Informe sobre la situación actual del juego en Spain*” (Report on the current situation of gambling in Spain; Congreso de los Diputados 1992). This highly detailed report, drawn up over 2 years and based on the testimonies of people from all sectors involved, included a series of conclusions and some specific policy recommendations for the government.

With regard to regulation, the report concluded that there was inadequate regulation of gambling in Spain. As regards the effectiveness of administrative control, the report indicates, in section 3, that “insofar as forms of gambling with instant results can cause addiction, the public authorities are recommended to restrict their commercialisation”, and in section 5 “given that type B machines are potentially highly addictive, their presence in bars, hotels, and catering establishments should be restricted, and encouraged in establishments specifically devoted to gambling and where it is possible to set up admission systems for avoiding the entry of minors and persons officially prohibited from entering such places” (translated by the author).

With regard to the negative social effects of gambling, the report considers “that the playing of games of chance, when accompanied by the possibility of obtaining economic gain, can become, in certain cases and especially in the case of gambling with immediate results, an addictive activity, socially highly dangerous, given the consequences, of all types but especially social, family, and labour-related, for the addicted gambler. If in addition to these potentially harmful aspects of gambling we take into account that certain sections of the population, due to their age, lack of employment

or other characteristics, are more susceptible to the onset of addiction, it clearly becomes necessary for the various public authorities to take responsibility with regard to the negative social consequences of gambling and adopt the necessary measures to protect those most vulnerable” (translated by the author).

On the basis of the above, the report considered it necessary to design prevention programmes, introduce or increase treatment services for pathological gamblers, encourage research on the social effects of gambling addictions, maintain the policy of reducing prize money, promote policies for the protection of minors and young people, and examine the relationship between pathological gambling and crime.

In view of these suggestions, the government introduced various measures, aimed especially at slot machines, the most notable being those brought in between 1990 and 1993. These included the mean duration of the gambling unit extended from 3 to 5 seconds; the maximum accumulation of units set at 20, needing to return to 0 in order to play again; elimination of lights and sounds (music) that drew attention to the machine even when it was not in use; and reduction of the number of slot machines per catering establishment (including bars and hotels) to a maximum of one. These measures, which may seem simple, had the immediate effect of reducing income from slot machines by 3,600 million Euros (see Fig. 19.2). Thus, these measures meant that less money was spent on gambling, especially on slot machines, and that the number of pathological gamblers began to decrease. Also, from the 1990s, there was increased interest in the treatment of pathological gamblers, and treatment for them began to be introduced in the public healthcare system (e.g., mental health centres, addictive behaviours units, alcoholism units, etc.), or to be financed by associations of rehabilitated gamblers.

The above picture changed in 1998 with the introduction of the “*Reglamento de Máquinas Recreativas y de Azar*” (Regulations on Recreational and Gaming Machines). The most important aspects of this legislation were the mean duration of gambling unit to be not less than 5 seconds; machines were to give out in prizes of not less than 75% of the value of the games played; machines were not allowed to include any type of sound

effect that served to advertise it or draw the attention of potential players; and establishments could have up to one slot machine and one videogame machine without a money prize (previously they could install several slot machines in each establishment). The most substantial change in these regulations is that establishments wishing to do so could install one slot machine. While the initial measures led to a significant decrease in the amount of money played in slot machines, falling from 11,273.9 million Euros in 1988 to 7,625.8 million Euros in 1990, this new liberalisation of the law led to an increase in spending on machines from 7,512.4 million Euros in 1997 to 8,836.4 in 1998, 9,565.7 in 1999, and 10,416.2 in 2000 (see Fig. 19.2).

The situation has not improved since then, and gambling continues to increase. Especially noteworthy is that governments themselves exploit the lotteries, whose growth year by year is evident. Moreover, Spanish recreational machine manufacturers have bought several casinos in Spain, and have clear vested interests in them. This has been reflected in a greater volume of business in them, which has risen by 45% in the last 5 years. Even though the bingo trade has remained constant and spending on the *ONCE* lottery has declined, the keenness of central and regional governments to keep up their tax income has been an important factor in maintaining the volume of the gambling business. Table 19.6 summarises the most important legislations on gambling in Spain.

TABLE 19.6. Most important legislations on gambling in Spain from 1977 to the present day.

Year	Legislation
1977	Royal Decree–Act for the regulation of gambling in Spain
1977	Ministerial Decree on the provisional regulation of casinos
1977	Ministerial Decree on the regulation of bingo
1981	Ministerial Decree on the regulation of recreational and gaming machines
1990	Royal Decree on the regulation of recreational and gaming machines
1993	Royal Decree on the modification of the regulation of recreational and gaming machines
1998	Royal Decree on the regulation of recreational and gaming machines

These legislations can be viewed at [www.boe.es](http://www.boe.es) and [www.mir.es](http://www.mir.es)

### 3.2 Treatment Options Available to Pathological Gamblers

In contrast to the more traditional addictive behaviours (i.e., those related to drugs), the treatment of pathological gambling is a recent phenomenon. Until the 1970s and 1980s, there were hardly any people with gambling problems in the developed countries. It was during these decades, with the legalisation of many forms of gambling, that pathological gamblers began to appear in nearly all countries, and, with them, the forms of treatment for the disorder (e.g., USA, Australia, Canada, the United Kingdom, and also Spain). The majority of such treatments are of a behavioural, cognitive-behavioural, and/or eclectic nature.

In Spain, there are currently several treatment options, along the same lines as those that have developed in the majority of countries. These include: (a) self-help groups, especially those affiliated with the “*Federación Española de Jugadores de Azar Rehabilitados*” (Spanish Federation of Rehabilitated Gamblers), the Andalusian federation being the most dynamic ([www.fajer.es](http://www.fajer.es)); (b) hospital units and university departments with programmes for pathological gamblers; (c) addictive behaviours units, alcoholism units, and mental health units within the national public healthcare system; and (d) private centres, especially those where treatment is provided by clinical psychologists or psychiatrists. It is important to note that in Spain pathological gamblers are not treated in inpatient settings.

As the problem started to emerge more extensively, those affected soon began forming associations to demand treatment and help for their problem from governments. Given the slow (and in some cases non-existent) responses from the authorities, associations of rehabilitated gamblers began to spring up throughout the country from the 1980s, arranging meetings to look at ways of solving the problem. Most of these continue to exist today. All of them quickly recruited professionals qualified in the treatment of pathological gambling, mainly psychologists, and sometimes doctors or psychiatrists. Currently, there are over 50 associations of rehabilitated gamblers throughout the country, with thousands of members. Every year they treat thousands of pathological gamblers. There are also chapters of Gamblers Anonymous

in different parts of the country, although these are less significant than the associations.

The associations of rehabilitated gamblers depend mainly on the contributions of their members, although they are occasionally financed totally or partially by public authorities. They usually employ professionals (mainly psychologists, sometimes psychiatrists and social workers), and apply cognitive-behavioural treatments at the individual, group, and family levels. Induction is usually carried out by rehabilitated gamblers, who may instead or also participate in some part of the treatment, giving encouragement and support to the pathological gamblers throughout their treatment.

Another approach introduced in the late 1980s and early 1990s was based on units for the treatment of pathological gambling, specifically in public hospitals, such as the pathological gambling units at the psychiatry departments of the Hospital de Bellvitge in Barcelona and the Hospital Gregorio Marañón in Madrid. These two large cities (4–5 million inhabitants in each conurbation) both had high percentages of gamblers and of problems related to gambling. Today, there are more such units. Also around that same period, clinical psychology departments in different Spanish universities (e.g., Basque Country, Santiago de Compostela, Complutense de Madrid) started up specific treatment programmes for pathological gamblers, trying out a range of treatment alternatives. Demand for treatment at that time was very high, given the lack of social and health service resources available. Demand indeed continues to be high in the units currently active, although there is also a wider spectrum of treatment options. Given the seriousness of the problem, the health system began to react, gradually responding to the demands of many thousands of pathological gamblers, and programmes were introduced in addictive behaviours units (e.g., Valencia), alcoholism units (e.g., Galicia), and mental health centres (throughout the country). At the same time, given the lack of public resources, many people sought and continue to seek help privately from psychologists and psychiatrists for their pathological gambling problems.

In summary, there are a wide range of treatment possibilities in Spain, although neither the geographical distribution nor accessibility to treatment are ideal. There is a need to improve the accessibility

and for the public health system to fully accept responsibility for the treatment of people with gambling problems.

Treatments for pathological gambling have been adequately evaluated over the years, given the large numbers of pathological gamblers, which have made it possible to carry out studies with sufficiently large samples. Thus, after the assessment of many different treatments, it can be asserted that we currently have access to treatments with high levels of effectiveness. In Spain, cognitive-behavioural treatments have been developed and applied since the problem first emerged. This is reflected in an extensive literature starting from the late 1980s (e.g., González 1989) and continuing through the 1990s and beyond with publications on the treatment of clinical cases (e.g., Amor & Echeburúa 2002; Arribas & Martínez 1991; Báez & Echeburúa 1995; Becoña 1996b; Sáiz, Moreno & López-Ibor 1992) and on research into the effectiveness of the most significant treatments currently available for pathological gambling (e.g., Aranda, Díaz, García & González 1991; Echeburúa et al. 1996; González-Ibáñez, Mora, Gutiérrez-Maldonado, Ariza & Lourido-Ferreira 2005; Labrador & Mañoso 2005), as well as different self-help manuals (Becoña 1996a; Bombín 1992; Fernández-Montalvo & Echeburúa 1997) and handbooks for professionals (e.g., Fernández Alba & Labrador 2002; Ibáñez & Sáiz 2001; Ochoa, Labrador, Echeburúa, Becoña & Vallejo 1994).

Evaluations have been made of treatments based on exposure with response prevention and stimulus control (Echeburúa et al. 1996), with the addition of relapse prevention (Echeburúa, Fernández-Montalvo & Báez 2000), or based on the Ladouceur treatment model (e.g., Ladouceur, Sylvain, Letarte, Giroux & Jacques 1998), which places great emphasis on techniques of cognitive restructuring and training in problem solving (Labrador & Mañoso 2005). In the clinical context, the cognitive-behavioural programmes used tend to include the above components in combination with the treatment of other disorders commonly present in pathological gamblers, such as alcohol dependence, depression, or personality disorders (González, Jiménez & Aymamí 1999; González, Rosel & Moreno 2005). Overall, the results obtained in experimental studies are promising. Thus, in Echeburúa et al. (1996) the authors

compared the effectiveness of different intervention programmes: (1) individual treatment of stimulus control and exposure with response prevention; (2) cognitive-behavioural group therapy treatment; (3) a combination treatment of (1) and (2); and (4) a waiting-list control group. The results indicate that at the 12-month follow-up there was 68.8% abstinence for the first group and 37.5% for the others. In the study by Echeburúa et al. (2000), on an exposure group with response prevention and stimulus control, efficacy at 12 months was 52%, which rose to 82% on adding relapse prevention applied individually and to 78% when relapse prevention was applied to the group. Likewise, Labrador and Fernández-Alba (2002) as well as Fernández-Alba and Labrador (2002) obtained 55% effectiveness at the 1-year follow-up with a cognitive-behavioural programme combining exposure, response prevention, and cognitive techniques.

Clinical experience suggests that gamblers who seek treatment tend to have more problems than those assessed in experimental programmes (e.g., González et al. 1999). However, in the clinical context, treatment is tailored to each individual case. The presence of substantial social pressure to stop from the families of problem gamblers partly facilitates the treatment and the application of the techniques referred to above. Overall, the estimates of the number of pathological gamblers who assist at treatment and counselling programs in Spain each year was about 5,000 (many in the associations of rehabilitated gamblers). However, Spain does not have any hotline telephone for problem gamblers.

### 3.3 Educational and Preventive Strategies

Despite the existence of different preventive programs for pathological gambling (e.g., Ferland, Ladouceur & Vitaro 2002), preventive programs have hardly been put into practice in Spain, with the exception of some pilot programmes carried out in Andalusia, whose results are unpublished. Some informational activities in relation to gambling have actually taken place, such as the annual “Day Without Gambling” in Andalusia, but these are few and far between, and none have been organised at a national level by governments. Greater involvement of the health authorities in the prevention of



pathological gambling is lacking, but this can be attributed to the fact that central and local administrations obtain large quantities of tax income from gambling, and fear that preventive campaigns may have a negative effect on this income.

Moreover, the gambling industry is highly focused on its business, and pays little attention to the adverse social consequences of gambling. Indeed, it prefers to ignore them. The longer it puts off facing up to the problem of pathological gamblers, the more its business will thrive. Thus, the industry dissociates itself from the problems affecting gamblers. The Spanish situation is similar to that of the alcohol industry, and—until quite recently—of the tobacco industry, which denied as long as it could that tobacco causes addiction. In this regard, the Spanish gambling industry still finds it hard to admit that gambling causes problems of a pathological nature in a proportion of its customers. In contrast to the cases of other countries, in Spain there is still no public discussion about responsible gambling strategies (Błaszczynski, Ladouceur & Shaffer 2004)—and this is a matter that needs to be put right in the near future.

### 3.4 Strong and Weak Points on the Regulatory Structures of Gambling at a National Level

In the Spanish situation, there are strong points in the regulation of gambling related to the control of the business, fulfilment of legal norms (which are clear and exhaustive), and the sound and effective system of tax generation from gambling. The authority responsible for the area of gambling in Spain is the Interior Ministry, and this ensures good control and adherence to legal standards. With regard to the weaker points, the main one concerns the fact that the regulation of gambling focuses only on the collection of tax income, with the government appearing to be indifferent to the consequences of pathological gambling. In turn, the Health Ministry, responsible for treating such people, or in some cases the health or social affairs departments of regional governments, face a relatively new problem that has grown in the last few years, and for which there is a lack of sufficient resources, given the huge demand for treatment from pathological gamblers and their families. When added to this, a concept deeply rooted in

Spanish culture—that of the dream of winning money through gambling—the result is that gambling continues to be widespread and indeed to grow, despite the serious consequences it can have for many people.

Another weak point refers to the government's system of "self-prohibition", through which a person can bar themselves from entering bingo halls or casinos. Thus, as of 31 December 2005, there were 24,445 self-prohibited people for bingo halls and 33,826 for casinos at a national level. There are also self-prohibited people registered with the regions, counted separately. The numbers of such people show a clear increase year by year. In 1995, there were 21,809 for casinos, rising to 27,657 in 2000 (the figures for bingo being 14,053 in 1995 and 18,253 in 2000). These self-prohibitors exist, but receive no treatment or specific help, and this is one of the aspects the government should address in the near future.

## 4 Conclusion

Gambling has seen an enormous expansion in Spain since its legalisation in 1977, and especially since 1981, with the legalisation of slot machines. The legalisation of various types of gambling led to the emergence of pathological gamblers. Current spending on gambling (2005) is 28,335 million Euros. In approximately 1990, the problem of pathological gambling had become quite serious in Spain, and gave cause for social concern. This led the government to take a series of measures in relation to slot machines and to reduce their numbers. The magnitude of the pathological gambling problem is revealed by the results of different epidemiological studies that, although partial, consistently indicate a lifetime prevalence for the adult population of between 0.9% and 1.7%. In more recent studies, with the NODS, which falls in line with the DSM-IV diagnostic criteria, prevalence falls to 0.3% for the previous 12 months and 0.9% lifetime in one of the autonomous regions, Galicia (Becoña 2004). In young people, different studies have shown a prevalence of problem gambling double or treble that of adults.

Recent years have seen a containment of gambling, and even a decrease, since it had reached extremely high levels, with several hundred

thousand people directly or indirectly affected. Fortunately, the perception of risk in relation to gambling has increased over the last decade in Spain (Becoña 2002b), there is more information on pathological gambling in the media, and there are units for treating the problem, although these are still insufficient. For its part, the Spanish gambling industry continues to be concerned only with extending its supply of gambling opportunities, being largely indifferent to the fact that gambling can become pathological and lead to serious problems. Governments, meanwhile, continue to collect vast sums from gambling in the form of tax.

In Spain there are, as yet, no preventive programmes for pathological gambling, nor is there any government information scheme about the potential negative consequences of gambling. There are various resources for the treatment of pathological gamblers, notably through the associations of rehabilitated gamblers and the public healthcare system, which boasts addictive behaviours units, mental health units, alcoholism units, and other services specifically for the treatment of people with gambling problems. As Shaffer and Kidman (2004) point out, pathological gambling should be seen from a public health perspective.

Today, gambling is a complex phenomenon that will be present in our society for a long time. It has become an important part of the economy, creating many jobs, a source of tax income for government and other public authorities, and is an activity that is marketed as entertainment and fun. Moreover, a large sector of the population wants the opportunity to gamble. This can be better understood if for “gambling” we read “alcohol”, “tobacco”, “cannabis”, and so on. The gambling industry has used its power and influence to favour its market penetration. We should learn as much as we can about this problem and the most appropriate measures for avoiding people developing conditions of pathological gambling. Governments should allow the voices of those affected to be heard, and cease to focus almost exclusively on collecting the tax income generated by gambling behaviour.

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# 20

## Sweden

Jakob Jonsson and Sten Rönnerberg

### 1 Background

Sweden has 9 million inhabitants, of whom approximately one in ten was born abroad. While the economy was predominantly agricultural until the end of the 19th century, industry dominated from the Second World War after a gradual shift. Today most of those gainfully employed are to be found in the service industry. The Swedish welfare state was planned in the 1930s and launched about 1960, when a strong increase in production made it economically viable. The welfare policy resulted in secure living conditions during the 1980s and was internationally regarded as a good welfare model. The society was characterised by broad equality with small differences in formal education between men and women, in quality of schooling across the country, and the income gaps became relatively small. Welfare during the 1990s was negatively influenced by economic crisis and unemployment. However, as much as 40% of those gainfully employed take part in the management of the welfare services.

From 1917 the principles of parliamentarianism have been strictly followed in Sweden and there has been universal and equal suffrage since 1921. For many years, there has been a comparable number of women in most fields of society, in the labour market and in political assemblies, even in the parliament and in the government. Sweden has not been at war for 200 years and has adhered to a strict political and military neutrality and is therefore not a member of the North Atlantic

Treaty Organization (NATO). Sweden joined the European Union in 1995. However, in a referendum some years later, the majority voted against the introduction of the Euro.

Since the 14th century, there has been a tradition of strong state authority in Sweden. Gambling has been more or less regulated from about the same time. Even about a hundred years earlier, king Magnus Eriksson instituted a municipal law that limited gambling stakes and banned gambling on credit. It is the oldest known law in the world regulating gambling. The oldest Swedish lottery was held in Stockholm 1699 to raise money for the care of immigrants. The first state lottery was held in 1758 in order to finance a canal, and from the year 1772 there was a state-owned lottery company. In 1841 it was closed down for moral reasons. Casinos were found in some health resorts during the first half of the 19th century, but were banned in 1846 (a ban lasting for over 150 years). However, over the centuries, the government's stance towards gambling has shifted between periods of a liberal, permitting attitude and periods of a negative, controlling attitude (G. Wessberg, personal communication, January 30, 2007).

An important event in Sweden's recent gambling history was the creation of the private gambling company *Tipstjänst* in 1934. This company was granted the sole right to arrange results pools on football matches. The state wished to canalise illegal pools and bookmaking that were popular at that time. *Tipstjänst* became nationalised in 1943. The lottery company, *Penninglotteriet*, became nationalised even

earlier, in 1938. Non-governmental organisations started in the 1960s to finance part of their activities by bingo, lotteries, and scratchcards. *Tipstjänst* and *Penninglotteriet* merged in 1997 to become *Svenska Spel* (Swedish Game/Gambling). After a 25-year ban, gambling on horses was allowed in 1923. In 1974 the horse racing company *ATG* was founded, and has since then owned the exclusive right to arrange gambling on horses in Sweden. *ATG* is owned by the public organisations of Swedish Trotting and Swedish Gallop, but half of the board of directors are appointed by the state. *Folkspel*, established in 1989, is owned by 76 voluntary organisations and offers various lotteries. In 1986, online sports betting, *Oddset*, was introduced by *Tipstjänst*. In 1998 it became possible to gamble on the internet at Swedish sites offered by *Svenska Spel* and *ATG*. International casinos were introduced in 2001 by *Svenska Spel's* subsidiary company *Casino Cosmopol*, and are now to be found in four cities. Internet poker was introduced in 2006 by *Svenska Spel*, the first state-owned internet poker in the world (Binde 2007). Over the years, state revenues of gambling have increased as gambling has become more prevalent, especially over the past three decades.

### 1.1 The Swedish Gambling Market Today

The Swedish regulated gambling market is today dominated by three companies: *Svenska Spel*, *ATG*, and *Folkspel*. The financial surplus of these companies goes to public organisations and to the state. The position of the regulated market is somewhat unfavourable due to the lower payback percentage dictated by Swedish law. *Svenska Spel* has a broad product portfolio. There are different types of lotteries, sports betting, and pools—available through retailers (online) and on the internet. The company also runs internet poker and internet bingo, gaming machines in restaurants, and bingo halls. The subsidiary company, *Casino Cosmopol*, runs four international casinos (*Svenska Spel* 2006). *ATG* (the Swedish equivalent to Paris Mutuel Urbain [PMU]) offers many kinds of betting, mainly on harness racing on race tracks, through a big retailing network and on the internet (*ATG* 2006). *Folkspel* mainly offers various kinds of lotteries. The largest

product is a televised form of a traditional lottery draw game with interactive bingo (Bingo–Lotto). The various lottery tickets are available from retailers, various associations, and via the internet (*Folkspel* 2006). A number of non-governmental organisations also offer other forms of bingo and local lotteries.

Regarding net expenditure (turnover minus paid out winnings), *Svenska Spel* in 2005 had 60.5%, *ATG* 23.5%, and *Folkspel* 13.5% of the market. Private restaurant casinos had approximately 2.5%. The total net expenditure of the Swedish regulated gambling market was approximately 1.52 thousand million Euros (14.07 thousand million SEK; *Lotteriinspektionen* 2006a). In addition, Swedes play on non-regulated internet gambling sites for which there are no reliable figures are available. A rough approximation for the year 2005 is that the non-regulated turnover (not net expenditure) was 1.1 thousand million Euros.

In 2005, the most popular type of game was a particular scratchcard (Triss) according to the number of customers. The gambling form in Sweden with largest gross sale in 2005 was gaming machines, followed by a weekly horse game (V75), Triss, and Lotto (*Lotteriinspektionen* 2006a). For more detailed information see Table 20.1

More recently, internet gambling has become another medium in which to gamble in Sweden. The Swedish Gaming Board initiated four studies on internet gambling in the Swedish population during 2005 and 2006 (SIFO Research International 2005a; 2005b; 2006a; 2006b). All four studies were based on telephone interviews with random representative samples of the Swedish population 18 years and older. The sample sizes were between 2,920 and 3,399, although only a little more than 200 in every study had gambled on the internet during the past 3 months (according to a grid/gate question).

In the latest study (SIFO Research International 2006b), 7% of the population had gambled on the internet during the past 3 months (12% men and 3% women). The most popular site was offered by *Svenska Spel*, where 64% of the internet gamblers placed their bets. *ATG* was ranked second, with 20% of the gamblers, while 16% had gambled on the most popular international gambling site. Poker was the most common game (41%), followed by sports betting (35%) and lotteries (28%). Due to

TABLE 20.1. Turnover for the 20 most popular Swedish games in the year 2005 (www.lotteriinspektionen.se).

Product	Gambling form	Turnover (million Euros) <sup>a</sup>
Jack och Miss Vegas	Gaming machines	738
V75	Horse game	445
Triss	Lottery—scratchcard	334
Lotto	Lottery	244
Dagens dubbel	Horse game	215
Oddset	Sports betting	208
Vinnare, Plats	Horse game	181
Bingo	Bingo	180
V65	Horse game	142
Bingolotto	Televised bingo	136
Keno	Lottery	132
Casino Cosmopol <sup>b</sup>	International casino	100
Stryktipset	Sports pool	93
V5	Horse game	91
Restaurangkasinospel <sup>b</sup>	Casino games at restaurants	82
Joker	Lottery	4
Trio	Lottery—scratchcard	48
Miljonlotteriet	Lottery	41
Tia	Lottery—scratchcard	40
Kombilotteriet	Lottery	36

<sup>a</sup>The turnover is in million Euro (1 Euro = 9.25 SEK)

<sup>b</sup>Net expenditure

the small sample sizes, comparisons between the studies are not very reliable. However, if the latest study (SIFO Research International 2006b) is compared with the first one (SIFO Research International 2005a), a relatively stable participation (6% in 2005, 7% in 2006) is suggested. Furthermore, *Svenska Spel's* introduction of internet poker strengthened their market position (56% in 2005; 64% in 2006) and made poker the most popular type of game on the internet (29% in 2005; 41% in 2006).

## 1.2 Gambling, Regulation, and Authorities

The Swedish gambling market is currently regulated by the government. The main rationale for a regulated state-controlled gambling market in Sweden, in accordance with EU law, is to minimise the potential harmful effects of gambling, such as social and economic problems (*Lotteriinspektionen* 2006b). The aim is to achieve this while at the same time accommodating the population's desire for gambling. Thus, the utopian goal is a regulated gambling market with a rich array of opportunities

to gamble without negative consequences, such as gambling addictions, crime, and corruption.

The Swedish gambling market is regulated by two laws, the Lottery Act (*Lotterilag* 1994:1000) and the Casino Act (*Kasinolag* 1999:355). The Lottery Act covers the general regulations for all gambling activity in Sweden, and the Casino Act regulates the Swedish international casinos. The Lottery Act is prohibitionist; all lotteries and other gambling activities need licenses or concessions. Licenses are granted by the Swedish Gaming Board and, in the case of *Svenska Spel*, concessions by the Swedish government. Major changes in Swedish gambling legislation are preceded by consultations with the parties concerned, such as the Swedish Gaming Board, the Swedish National Institute of Public Health (SNIPH), the Association of Problem Gamblers, and the Swedish gambling companies.

The Swedish gaming market—as is the case in almost every other country—has always been regulated and remains so even today, but there is an animated ongoing debate on the future regulation of lotteries and betting. The present right-wing government has indicated that it might



liberalise the gaming market. A license system has been discussed as a possible solution where the international companies would be invited. To obtain a license, the companies would have to fulfil certain conditions, including, among other things, conditions regarding responsible gambling.

The gambling market is controlled by the Swedish Gaming Board (*Lotteriinspektionen*). The Gaming Board's overall responsibility is to ensure that all forms of gambling in Sweden are secure, reliable, and conducted in accordance with current legislation and regulations. The Board is also to act as a safeguard for the consumers' interests and contribute to reducing the potential risks of harmful social effects associated with gambling (*Lotteriinspektionen* 2006b). The main responsibility for preventing gambling problems in the population lies with the SNIPH (*Statens folkhälsoinstitut*). They received 3.1 million Euros in funding from the government in 2006 for their activities. The main responsibility for treatment lies with the ordinary health care system and the Social Services.

### 1.3 Age Limits

From February 2007, all online products will have the age limit of 18 years. Before that, there were already age limits of 18 years for sports betting and many of the horse racing games. The age limit for the international casinos is 20 years of age. The Lottery Act and the Casino Act regulate the age limits on gaming machines, bingo, betting at horse racing tracks, and casinos. The other age limits are self-imposed by the gambling operators, sometimes after instructions from the government.

### 1.4 Gambling Policies and Gambling Research

The decisions on gambling policies in parliament have seldom been based on research on gambling but mostly on political and popular lobbied ideas about the functions of gambling in Swedish society. For example, anecdotal knowledge about the negative consequences of gaming machines was of great importance when such machines were banned in 1979. When the gaming machines once

again became legal in 1996, the official report (SOU 1992) explained that research considered that gaming machines have low addiction potential compared with other types of gambling. The scientific support for this view was weak. However, interest in research-based decisions regarding gambling policy has increased in the past decade. Thus, Sweden is currently one of the few countries in Europe that strives to establish a responsible gambling policy based on gambling research.

## 2 Evidence

### 2.1 Knowledge of Swedish Gambling Problems

The first attempt to estimate the extent of gambling problems in Sweden was made in 1990 by Köhlhorn et al. (1995). They used a representative postal enquiry with a response rate of approximately 80%. Köhlhorn et al. (1995) reached 13,861 people to enquire about the size of stakes played in the most common games available at that time. Inspired by alcohol research, in order to estimate the number of pathological and problem gamblers, they used economic criteria (size of stakes) based on interviews with people who identified themselves as pathological gamblers. The authors found that stakes of 50,000 SEK (approximately €5,400) per year and higher were characteristic for pathological gamblers, while lower stakes down to 30,000 SEK (€3,250) per year characterised problem gamblers. Using these criteria when analysing a representative sub-sample of 5,042 people, 0.4% were identified as problem gamblers and 0.2% as probable pathological gamblers after correction for estimated bias in the reports of gambling stakes. When estimating the number of pathological and problem gamblers, Köhlhorn and his colleagues could only use a sub-sample as they had changed the answering format regarding stakes during the study.

As Sweden has very favourable conditions to conduct nationwide representative prevalence studies, a more traditional gambling prevalence study was performed by a research team led by Sten Rönnerberg, Rachel Volberg, and Max Abbott in 1997–1998 (Rönnerberg et al. 1999; Volberg, Abbott, Rönnerberg & Munck 2001). The total sample in this

study comprised 9,917 randomly selected people, aged 15 to 74 years, in which youth and non-Swedish-born people were over-sampled aiming at an in-depth analysis of these subgroups. Three separate random samples were drawn from the register of the total population [RTB] at Statistics Sweden. The first consisted of 8,500 people aged 15 to 74 years, stratified by age, gender, and education. The second was a sample of 1,000 people aged 15 to 17 years, and the third sample consisted of 500 foreign-born people. Due to death or emigration, 83 people of the original samples were not included. Telephone interviews, or postal enquiries if the person was not reachable by phone, were used. A total of 7,139 out of 9,917 participated in the study, rendering a response rate of 71.9%. Of the sample, 89% were contacted by telephone and 11% by postal questionnaire. The response rates for the methods were 77% and 31%, respectively.

The authors found that 1.4% ( $\pm 0.3\%$ ) were problem gamblers and 0.6% ( $\pm 0.2\%$ ) were probable pathological gamblers with reference to the past year according to the South Oaks Gambling Screen, revised (SOGS-R). In the lifetime perspective, the corresponding figures were 2.7% ( $\pm 0.4\%$ ) and 1.2% ( $\pm 0.25\%$ ). According to the Fisher Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) screen (Fisher 1996), 0.6% ( $\pm 0.2\%$ ) were problem gamblers and 0.3% ( $\pm 0.1\%$ ) severe problem gamblers in the past year. Disordered gambling (pathological and problem gamblers) was four times more numerous among men than among women. Of special interest was the fact that the current (and lifetime) prevalence was highest in the two youngest age groups (see Table 20.2).

The highest proportion of problem gamblers was found in the age group 15–17 years, and the highest proportion of pathological gamblers in the age group 18–24 years. Disordered gamblers had started gambling at an earlier age than non-disordered gamblers, at 16 years of age on average compared with 20 years of age. The disordered gamblers were more often born abroad than those with no gambling problems. They also received social welfare payments more often and most commonly gambled at casinos, and through gaming machines, card games, bingo, sports events, horse racing, and scratchcard lotteries, in descending order.

The SNIPH has initiated and conducted a national questionnaire study on public health issues every year during 2004–2006 (*Folkhälsoinstitutet* 2004; 2005; 2006a). The questionnaire covered psychological health and habits of life, among them risky gambling habits. In 2004, a total sample of 20,000 randomly selected people, aged 16 to 84 years, was drawn. In the following 2 years, the samples were 10,000 randomly selected people, aged 16 to 84 years. The response rate was 60–61%. Three questions to identify risky gambling behaviours were used. If the respondent during the past 12 months had (1) tried to reduce his/her gambling; (2) had experienced withdrawal symptoms; or (3) had lied about his/her gambling. A positive answer to any of these questions was assumed to indicate risky gambling habits. Results from the 2006 study estimated that 5% of the men and 2% of the women had risky gambling habits. For the men, it was more common to have risky gambling habits if they were in the youngest age group, 16–29 years (8%). On the contrary, it was less common for the women to have risky gambling habits if they were in the youngest

TABLE 20.2. The prevalence rates in percent of lifetime and past year problem and pathological gambling according to SOGS-R in different age groups.

Age (years)	Lifetime prevalence (%) (N=7,139)		Current prevalence (%) (N=7,139)	
	Problem gamblers	Pathological gamblers	Problem gamblers	Pathological gamblers
15–17	6.8	2.4	4.2	0.9
18–24	4.3	2.5	2.0	1.3
25–44	3.7	1.5	1.8	0.6
45–64	1.4	0.6	0.7	0.4
65–74	0.2	0.4	0.4	0.0

age group (1%) than in the other age groups (2%). There was an over-representation of lower education, economic problems, and being born outside Europe in the group with risky gambling habits. The pattern was the same for 2004 and 2005.

## 2.2 Has There Been a Change in the Prevalence of Gambling Problems over the Years?

There were no significant changes in the prevalence of gambling problems from the year 2004 to the years 2005 and 2006. However, even if we have some knowledge of the occurrence of gambling problems in the Swedish population, the time period studied is short and when we examine all Swedish studies for comparisons we encounter other problems. The data collection in the research presented above took place in 1990, 1997–1998, and 2004–2006, respectively, and covers a 17-year period. Unfortunately, different methods were used in the studies thus rendering comparisons highly problematic. The National Institute of Public Health is planning a new prevalence study in 2007–2008, and the Swedish Longitudinal Gambling Study (SWELOGS), will hopefully provide more knowledge. The study is planned to be partly longitudinal, following up the sample Jonsson et al. (2003) used in their study presented below. The planned study will also further validate the instrument used in the national questionnaires studies on public health issues (*Folkhälsoinstitutet* 2004; 2005; 2006a).

## 2.3 What Characterises Swedish Problem Gamblers?

If the first question is, “How many Swedes have a gambling problem?”, the second question should be, “What characterises Swedish problem gamblers?”. Answers to this question can give us ideas how to work with prevention and treatment. What motivates problem gamblers? Have they problems other than gambling? What about their childhood circumstances? Are there any gender differences? In a follow-up in 1999–2001 of the Rönnerberg et al. (1999) material, Jonsson et al. (2003) focused on what characterises gamblers who have a problem and distinguishes them from gamblers who have no obvious problem with their habit. The authors

used highly structured in-depth personal interviews combined with questionnaires.

The sample consisted of 578 individuals from the Rönnerberg et al. (1999) material, half of them with “a gambling problem at some time during their lives”,<sup>1</sup> half “without a gambling problem”.<sup>2</sup> For every person with a gambling problem, a person of the same age and sex without gambling problems was selected. The latter participants constituted a control group. This study was a so-called double-blind twin study, an optimal use of research resources with the potential to generalise the results to the original target population defined in 1997. Neither the interviewer nor the interviewee knew to which group the interviewee belonged. Out of the total sample of 578 people, 324 (56%) took part in the study. Data from 302 people (52.2%), 151 pairs of the same age and gender, were used to process the material in the first report. Foreign-born people and people from metropolitan areas were somewhat under-represented in the interview material compared with the non-response group. Regarding the socio-demographic characteristics of the interviewees such as country of origin, civil status, education, and whether they lived in the city or in the countryside, the replies indicated no conclusive differences between the gambling problem group and the control group.

### 2.3.1 Childhood Circumstances

A number of questions reflected how the interviewees experienced their childhood and adolescence with regard to circumstances that shed light on how far their early years had been characterised by socially burdensome factors. A comparison of the gambling problem group and the control group indicated that fewer people in the gambling problem group had grown up with their biological parents. More people in the gambling problem group thought that their childhood had been socially unstable and had not been emotionally safe and secure. Several of those with gambling problems reported that their childhood was dominated by

<sup>1</sup>At least 3 points on the SOGS-R lifetime at some point in their lives in Phase 1.

<sup>2</sup>Between 0 and 2 points on the SOGS-R lifetime at some point in their lives in Phase 1.

feelings of loneliness and exclusion, and that as children they had felt misunderstood and unacknowledged. On the whole, a greater proportion of interviewees from the gambling problem group gave answers indicating that they had been exposed to one or more of these socially burdensome factors. However, only a minority—between a sixth and a quarter of those in the gambling problem group—said that they had experienced the socially burdensome factors referred to above. The majority said that such problems had not existed.

Several people in the gambling problem group described that gambling had, to some extent, been an important aspect of family life during their childhood. However, only a small proportion—just under 10%—felt that gambling had been fairly or very important. On the other hand, there were no significant differences between the gambling problem group and the control group when it came to the importance of gambling among friends and at school during their childhood.

### 2.3.2 *Motivating Factors*

Various factors were examined as incentives for people to gamble: positive and negative emotional states that precede gambling, whether events on the gambling market affect gambling behaviour, and whether they had erroneous beliefs when gambling. Furthermore, there were questions about dissociative experiences<sup>3</sup> in connection with gambling, how a major win influences gambling behaviour, and about the effect of major life experiences<sup>4</sup> on gambling behaviour. The gambling problem group displayed a greater tendency than the control group to gamble and to increase their gambling whilst in a positive emotional state. The gambling problem group also showed a higher extent of erroneous beliefs and dissociative experiences when gambling.

More people in the gambling problem group than in the control group had also increased their gambling at major life experiences. However, there were no differences between the gambling problem

group and the control group in reported gambling behaviour in a negative emotional state, or in how they changed their gambling habits in the event of a major win. When the motives connected with current gambling problems were examined, several of them had a high explanatory capacity. Dissociative experiences, mistaken beliefs, and negative life experiences were most closely correlated with current gambling problems. These results indicate an element of escapism in the gambling behaviour of those in the gambling problem group. Gambling offers the suspension of time and the gambler may intensify his gambling as a means to deal with difficult events. People with a current gambling problem are also much more mistaken about their chances of winning and how skill can affect their chances, compared with the control group. Consequently, gambling addicts have a greater belief in gambling as a possible way of changing their financial state and, in the long run, the solution to financial problems. In comparison with the control group, there is a tendency for people with gambling problems to be more influenced by external events on the gambling market (i.e., when accessibility and exposure increase).

### 2.3.3 *Comorbidity*

A greater number of people in the gambling problem group reported depressive reactions compared with those in the control group, measured by the Beck Depression Inventory (BDI). The gambling problem group also reported a higher degree of risky or problematic drinking habits according to Alcohol Use Disorders Identification Test (AUDIT) than the control group. However, there was no difference between the groups concerning general health measured by the General Health Questionnaire (GHQ-12). The gambling problem group showed a lower degree of life satisfaction than the control group.

A larger proportion of the gambling problem group showed signs of personality disorders as indicated by the Trait and Character Inventory (TCI). This difference was reinforced when those with current gambling problems were compared with the others in clinical interviews. A larger number of those in the gambling problem group than those in the control group had used drugs at some time or another, but there was no difference

<sup>3</sup>An example of a dissociative experience is when a person loses his perception of time and space or feels he is in a trance when gambling.

<sup>4</sup>Major life experiences are major events in a person's life. Life experiences can be positive (e.g., having a baby) or negative (e.g., divorce).

concerning current drug abuse. Furthermore, there was no difference between the groups regarding current or previous use of nicotine.

### 2.3.4 *Comparisons Between Men and Women with Gambling Problems*

More women than men with gambling problems experienced their childhood as insecure and socially unstable. The same negative pattern was also seen in other questions relating to social background. Furthermore, greater significance was attached to gambling in women's families during their childhood compared with men's families. More women than men had been introduced to gambling within the family. Concerning reasons for gambling, the only differences between the groups were that men increased their gambling more than women when in a positive emotional state, and that men had a greater degree of mistaken beliefs regarding how skill influenced their chances of winning. Regarding comorbidity, women reported more depressive reactions than the men. Furthermore, men tended to have more alcohol problems than the women. However, this difference was not statistically significant. There was no difference between the groups regarding personality disorders.

### 2.3.5 *Young People*

The Jonsson et al. (2003) study also focused on young people's gambling habits and gambling problems. The young people were 15–17 years old when they participated in the Rönnerberg et al. (1999) study, and 2 years older when they were followed-up in the 2003 report (Jonsson et al. 2003). Young people's regular gambling habits included football pools, instant lotteries, and Bingo-Lotto (a televised bingo game), as well as playing cards for money.

Approximately 10–15% of the young people said they had played the football pools, played an instant lottery, the Bingo-Lotto game, or played cards for money in the past month. Young people's more irregular gambling habits included mostly forms of betting such as Video Lottery Terminals (VLTs; both legal and illegal gaming machines) and instant lotteries. Nearly one third of the young people said that they had bought a scratchcard or played on VLTs in the past year. Gender-specific patterns, such as men betting on the football pools

and other sporting events and women opting for Bingo-Lotto and instant lotteries, were very apparent among young people. This was also observable in women's more restrictive and cautious gambling habit of betting smaller amounts of money each time they gamble. Among school children in the 9th grade of compulsory school (aged 15 years), more than twice the number of boys (44%) than girls (18%) said they had gambled in the past month, according to a CAN (The Swedish Council for Information on Alcohol and Other Drugs) survey (CAN 2001). Instant lotteries and Bingo-Lotto were common among girls, whereas football pools, playing cards for money, instant lotteries, Bingo-Lotto, betting on horses, and VLTs were the common gambling habits among boys.

Gambling addicts are mostly recruited among high consumers. This also applies to young people even if their gambling habits are restricted by age limits. Young people under the age of 18 years are not allowed to gamble on roulette, dice, or card games for money, and are not allowed to play on VLTs. Furthermore, they are not allowed to bet on horses, or play casino games in restaurants and other such places. The Jonsson et al. (2003) report shows that these laws are frequently broken. This concerns almost all forms of gambling. Casual infringements are common among young people, especially young men. Casual gambling on VLTs occurs among a third of young people. Regular infringements on the other hand do not occur quite so often. Concerning regular gambling, at most 10% of young people under the age of 18 years say they have participated in some form of gambling carrying an age limit of 18 years. The most common forms of gambling are playing cards for money, or playing amusement arcade-type slot machines. Nine percent stated that they had played cards for money in the past month. Young women under the age of 18 years seem to have a greater respect for age-limit regulations.

### 2.3.6 *Change over Time in Young People's Gambling Problems*

How stable are young people's gambling problems? Because the interviews in the Jonsson et al. study (Phase 2) were conducted 2 years after the Rönnerberg et al. study (Phase 1), it was possible to obtain some information about this question. It is

evident from the follow-up of the first phase of the survey that less serious gambling problems diminish for nearly two thirds of all the young people (15–17 years of age) who had been categorised as having a gambling problem. Concerning serious gambling problems that were categorised as probable pathological gambling in Phase 1, gambling problems are still common 2 years later. A closer examination reveals, however, that nearly half of those categorised as probable pathological gamblers are included in the “problem gambler” category 2 years later. Simultaneously, the same number of people has moved from the latter category to the probable pathological gambler category. There is evidently an interchange of people between the two categories.

A possible interpretation of this may be that young people’s gambling habits are not stable before they reach adulthood, in the same way as has been proven concerning their drinking habits. Extensive gambling habits that only cause minor problems during adolescence would therefore not be as stable over time as those of adults. Having a gambling problem during adolescence may imply a risk of future gambling problems, with the development of compulsive gambling habits, but this does not seem to be the crucial factor for the occurrence of gambling problems later on in life. The most common phenomenon seems to be that less serious problems during adolescence subside. These results generate crucial hypotheses for the future longitudinal studies of these data that include only two time points for the sub-sample of Phase 2, whereas three time points are the minimum requirement in statistical modelling of growth or individual development.

## 2.4 Gambling Types and Gambling Problems

What do we know about the addiction potential of certain gambling forms in Sweden? Are some forms of gambling more connected with gambling problems than others? Is it possible to say that some types of gambling are creating more problems among their players? To answer these questions, we now present data from representative studies and from the National Helpline for problem gamblers.

### 2.4.1 *Representative Studies*

To obtain a picture of the relation between gambling types and gambling problems, Westfelt (2006a) pooled data from three different studies (Westfelt 2002; 2003; 2004). These were representative studies for people older than 17 years and living in the cities of Karlstad, Malmö, or Sundsvall. The pooled data set contained over 11,000 interviews and the response rate was reported to be “approximately 60%”. Five different groups (types of gambling) were created by choosing the individuals who played at VLTs, bingo, international casinos, restaurant casinos, or dog and horse-racing (combined). With this method there is an overlap of individuals who are in more than one group. Westfelt used the Short-SOGS, DSM-IV (Fisher) and Life Area Problems to measure gambling problems.

The highest degree of gambling problems were found among the VLT players and bingo players, the risk for gambling problems were five or six times more common among these groups compared with the other groups. The risk was twice as high for restaurant casino players. Being male, young, and having another ethnic background than Swedish also increased the risk of having a gambling problem. The author concluded that background factors are important in explaining gambling problems but that they cannot explain the higher degree of gambling problems for different types of gambling. The results in this study concerning gambling types were confirmed in a prospective longitudinal study by the same author thus supporting the hypothesis that certain types of gambling generate more problems among gamblers (Westfelt 2006a).

### 2.4.2 *The Importance of the Type Of Game—Experiences from the National Helpline*

In 2005 the National Helpline for gambling problems answered 1,016 calls from problem gamblers and 665 calls from relatives and friends. Of the problem gamblers, 87.8% were men, and 12.2% women. Of the callers, 32.6% were in the age group 15–24 years and 31.1% in the age group 25–24 years. Of the problem gamblers who had reported their main problem type of gambling (n=758), the most common form was gaming machines

(34.7%). This was followed by internet poker (22.4%), various casino games (including internet) except gaming machines (8.7%), and horse racing (6.5%). Compared with 2004, the major change concerned internet poker, from 3.4% in 2004 up to the high of 22.4% in 2005 (Spelinstitutet 2006).

## 2.5 The Community Impacts of Casinos

In June 2000, the Swedish parliament took the decision to establish six international casinos in Sweden.<sup>5</sup> It was decided that possible negative impacts should be evaluated by researchers. There are now four reports (Westfelt 2002; 2003; 2004; 2006b) with focus on gambling problems and attitudes among the citizens in Sundsvall and Malmö, and an evaluation with the aim of mapping the possible negative consequences of the introduction of international casinos on health, social issues, and criminality (Kasinoutvärderingen 2006). The establishment of international casinos started in 2001. The first one opened in Sundsvall, a town of some 80,000 inhabitants in the middle of Sweden. The following year another casino was established in Malmö, the third largest city in Sweden, located in the south of the country.

### 2.5.1 *Westfelt's Studies*

Three months before the casinos opened in Sundsvall and Malmö, respectively, a sample of some 6,000 individuals were interviewed about gambling problems and attitudes and expectancies towards casinos. A control town, Karlstad, with no casino but otherwise similar to Sundsvall, was investigated with the same methods for comparison purposes. The results of these studies showed that, in the small town of Sundsvall, the casino only had a small impact on gambling problems, while gambling problems in the larger town of Malmö, with its more urban surroundings, increased by around 100% in the area surrounding the casino. A tentative conclusion was that gambling problems would increase more in large towns than in small ones as an effect of casino establishment.

<sup>5</sup>There is a permission for six casinos, four have been established so far.

### 2.5.2 *The Casino Evaluation*

Another study of the casino problem was performed by Gustafsson (Kasinoutvärderingen 2006). In order to map the possible negative consequences of the introduction of international casinos on health, social issues, and criminality, he interviewed concerned authorities, institutions, and organisations such as the social services, the police, and the central organisation for rehabilitating problem gamblers. He also obtained preliminary results from the Westfelt study (Westfelt 2006b) concerning the casinos' impact on gambling problems. A criminal-register check on all the 213,000 Swedish visitors during July 2004–June 2005 was also performed. The overall conclusion of this evaluation was that there were no changes in gambling problems and social problems as a result of the introduction of the international casinos. However, the effect on illegal gambling was unclear. The criminal-register study showed that the casino visitors were more criminally burdened than other Swedes. A higher percentage had been sentenced for some kind of crime (8.0% compared with 5.5%), and suspected of crime (10.4% compared with 6.3%) during the past 5 years. Gustafsson regarded this difference as expected and caused by an over-representation of young, urban, and male visitors rather than as an effect of the casinos.

Gustafsson's conclusion that there were no changes in gambling problems and social problems is surprising considering the results of Westfelt's studies (Westfelt 2006b). His methods are fairly blunt. The strategy of asking the social services if they had seen any change in gambling-related problems is questionable. Problem and pathological gamblers are not frequently help seeking, especially when there is no specialised treatment to seek. This was the case in all cities when the casinos opened. A specialised treatment programme for problem gamblers did not start in Malmö until 3 years after the opening of the casino. Another weakness is that Gustafsson's studies were planned and conducted more than 4 years after the introduction of the casinos, with only the Westfelt data available for comparison purposes.

## 2.6 Gambling and Advertising

There is only one Swedish study dealing with the impact of advertising on (problem) gambling. Binde

(2005) analysed Swedish gambling advertising and discussed the attitudes to gambling. His view is that the general attitude towards gambling became more liberal during the 1970s, when advertising for games started to appear. During the 1980s, advertising increased greatly after what Binde calls “a new era in Swedish gambling policy, characterised by commercial thinking in promoting and running games”. He sees the introduction of Lotto in 1980 as the starting point of this era. Private TV channels were introduced in Sweden around 1990, and TV commercials for gambling consequently became a regular experience for viewers. As an example of the importance of advertising for the gambling industry, Binde (2005) mentions that *Svenska Spel* was the sixth largest advertiser in the Swedish mass media in 2003.

### 3 Action

In this section, we describe what is being done in Sweden to tackle problem gambling. Much of the preventive work revolves round the SNIPH, and projects initiated and/or financed by the Institute are described. The National Helpline for gamblers and the Sector Council are among these projects, as well as treatment studies, youth programmes, and education to key groups presented below. Efforts in addressing illegal gambling are mentioned briefly. Some of the measures taken by the gambling industry, what the industry calls “responsible gaming”, are also presented.

#### 3.1 The Swedish National Institute of Public Health

From 1999 and onwards, the Swedish National Institute of Public Health (SNIPH) has been allocated funding by the Swedish Government to take measures to combat the harmful effects of gambling. The overall objective of SNIPH’s activities in this field is to develop efficient evidence-based methods to prevent problem gambling. Of great importance was the plan of action SNIPH developed and published in 2003 (*Folkhälsoinstitutet* 2003). The main goal of this plan was that the number of problem and pathological gamblers should decrease in Sweden, both through treatment

and by preventing new recruitment. In line with the plan of action to prevent the harmful effects of excessive gambling, the Institute is taking different measures. Research on gambling and problem gambling is stimulated. SNIPH has financed several qualitative studies (e.g., Lalander 2004) as well as quantitative studies (e.g., Westfelt 2006a). The Institute also tries to develop methods for monitoring problem gambling and the determinants of excessive gambling behaviour. SNIPH stimulates the development and evaluation of prevention and treatment methods. Results of this are, for example, a manual for outpatient treatment of problem gamblers (Ortiz 2006), and another manual for a course for relatives of problem gamblers (Nordell 2005), both with a cognitive behavioural perspective. Another aim is to disseminate knowledge about gambling problems and experiences of preventive measures and treatment to strategic groups in society. The Institute also supports self-help groups and non-government organisations and provides the government, the parliament, and other authorities with expertise on problem gambling (*Folkhälsoinstitutet* 2006b).

One of the intermediate goals of the plan of action was that the availability of gambling opportunities and advertisement should be designed to minimise problem gambling. In several official comments on proposals put forward by the Swedish government, SNIPH has suggested that permission should not be given for new types of gambling (e.g., poker on the internet in 2006). These suggestions have not stopped any new type of game as yet, but they might have led to certain conditions being made with regard to responsible gambling and evaluation.

##### 3.1.1 National Helpline

SNIPH has financed the National Helpline for people with gambling problems and their relatives since 1999. The objectives for the helpline are to support gamblers and their relatives and to motivate gamblers to reflect over their gambling habits and to seek help. The National Helpline is continually updated regarding treatment services and self-help groups. Since July 2004, after a government directive, the two state-owned gambling companies started to display the number to the helpline on all products, such as lottery tickets, programmes, and



receipts. This measure substantially increased the number of calls to the helpline. For the year 2005, the total number of calls was 12,089, where 7,122 were made during the helpline's opening hours. Of these 3,285 were mischief calls or people calling a wrong number. The remaining 2,309 were serious calls, 51.2% of these came from problem gamblers, 33.5% from relatives/friends, 5.6% from organisations and self-help groups, 5.3% from media/students, and 4.4% from others. Of the calls, 48% had a mainly supportive function, 34% gave information, 12% were follow-up calls, and 4% concerned "computer addiction with no gambling". The problem gamblers calling are mainly men, 87.8%, and 12.2% women (Spelinstitutet 2006).

### 3.1.2 Sector Council

The Director of SNIPH chairs a Sector Council with representatives from the major gambling companies, the Swedish Gaming Board, the Association of Problem Gamblers, and the Association of Hotel and Restaurant Owners. The objective of the Council is to "promote responsible gambling and otherwise encourage efforts to prevent problem gambling". Among the topics discussed are responsible advertising and age limits.

### 3.1.3 Treatment Studies

SNIPH has supported two outpatient treatment studies for adult problem gamblers. A controlled study comparing the effectiveness of eight group sessions of cognitive behaviour therapy (CBT) and four individual sessions of motivational interviewing (MI) has been in progress since 2003. During treatment all clients are given the opportunity to receive financial advice, and their relatives can participate in a group module for relatives. Approximately 200 clients were randomly selected to CBT, MI, or a waiting list (2 months). Clients in the waiting list group received MI or CBT after 2 months. Data are collected at intake, at treatment start (waiting list only), after treatment, and at follow-ups at 6 and 12 months. The outcome measures are gambling behaviour (Time Line Follow Back), gambling problems (National Opinion Research Center DSM Screen for Gambling Problems [NODS]), anxiety (Beck Anxiety Index), depression (Beck Depression Index), addiction (Addiction Severity Index), and motivation (the Readiness to Change

Questionnaire). The study will be completed by 2008, and there are no preliminary results to date (Forsberg 2005).

Since 2004 an internet-based self-help programme has been developed and tested. A randomised controlled trial was conducted in which 66 participants were randomised to either a waiting list or an 8-week internet-based treatment programme with minimal therapist contact via e-mail. Each participant also had a weekly 10-minute telephone conversation with a therapist. The treatment programme was based on CBT and MI. From pre-treatment to post-treatment, the treated participants improved significantly on all measured dimensions (gambling, general anxiety and depression levels, and quality of life). Treatment gains on self-report measures were maintained at the 6-month follow-up, and the proportion no longer meeting DSM-criteria for pathological gambling had increased from 76% to 91%. The 18-month follow-up data are not available yet, but will include blind clinical follow-up interviews. The results of this study are limited by the fact that clients who were too depressed were excluded. That is one of the reasons for an ongoing replication of the original study with 250 participants without these exclusion criteria. No results are as yet available from this study (Carlbring 2005).

### 3.1.4 Youth Programmes

SNIPH has, together with the Maria Ungdom treatment centre (a clinic for adolescents with substance abuse), started the development of a programme for identifying and treating young problem gamblers. The outpatient treatment, based on CBT, is planned to start in 2007. It will be the first Swedish treatment programme for adolescents. The treatment programme will focus on gambling problems and other disorders that might be found. The programme will also include a parental module to give knowledge and tools to better help the children. The project will be continuously monitored and scientifically documented.

### 3.1.5 Education of Key Groups in Health and Social Welfare Sectors

SNIPH initiated and financed an education programme on gambling, gambling problems, and treatment. The objective was to educate professionals

in the substance abuse treatment field about how to treat problem gamblers. The education programme is mainly web-based and interactive and runs for about 120 hours. More than 750 professionals have taken part during 2005 and 2006. A new and much shorter web-based education/information programme (2–4 hours) was developed during 2006. The aim is to have at least 6,000 participants who will receive basic information on gambling problems and where to seek help. Both of these education programmes are free of charge.

### 3.1.6 Support to Self-Help Groups

There are currently 28 self-help groups in 23 different cities in Sweden, covering most regions (*Spelberoendes Riksförbund* 2006; *Förbundet Spelberoende i samverkan* 2006; GA-Sverige 2006). Of these, nine are Gamblers Anonymous (GA) groups, but these are not yet particularly well established in Sweden. The Association of Problem Gamblers and some independent self-help groups are supported financially by SNIPH.

### 3.1.7 Efforts to Battle Illegal Gambling

In simplistic terms, it could be argued that there are two forms of illegal gambling in Sweden: international websites targeting the Swedish market and domestic arranged gambling, predominantly illegal gambling machines. In addition to the efforts of the Swedish government to defend the regulated Swedish gambling market in the EU and in the EU court against international infringement, the Swedish judicial system and the Swedish Gaming Board counteract illegal gambling. The Swedish judicial system has so far established that the Swedish Lottery Act is consistent with EU legislation (*Lotteriinspektionen* 2006c), but it has great problems with protecting the regulated market from international infringement. Concerning domestic illegal gambling, the Swedish Gaming Board and the police often find the Lottery Act to be toothless. The penalties are, in most cases, relatively low fines, which makes it profitable to continue arranging illegal gambling. Among others, the Association of Problem Gamblers has noticed that illegal gambling is not a high priority for the police.

## 3.2 Responsible Gaming

During the past 10 years, the Swedish gambling companies have started to pay attention to problem gambling and they have taken some measures to reduce the harmful effects of their products. The gambling industry calls these efforts “responsible gaming”. This includes self-imposed restrictions regarding advertising, age-limit control, and education of gaming staff personnel. It also includes giving the customers tools to keep their gambling under control. Unfortunately, none of these possibly promising efforts has yet been scientifically evaluated or followed up.

The introduction of international casinos in Sweden was preceded by an animated discussion. Even if a majority in the parliament was pro-casino, the apprehension that gambling problems and criminality would increase was well aired both in the parliament and in the media (*Kasinoutvärderingen* 2006). This debate might have contributed to the licenses for the international casinos containing conditions pertaining to responsible gaming measures and evaluation. It was the first time in Sweden this was clearly stated in the license. In the more recent internet poker license for *Svenska Spel*, as in the case of international casinos preceded by an animated discussion, one can find similar conditions. For example, the SNIPH was against Swedish poker on the internet. The government motivated their decision by arguing that they wanted the Swedes who played poker on international websites to play at *Svenska Spel's* more controlled and responsible internet poker sites. The government also stated that the license should be evaluated, but no evaluation plan has been presented more than 6 months after the introduction.

Some of the gambling industry's efforts regarding responsible gaming are presented below: education of gaming staff personnel at the international casinos, the design of the newly launched poker on the net, and education of retailers. Information to customers and their possibilities to test their gambling habits are also presented.

### 3.2.1 Responsible Gambling at the International Casinos

All gaming staff personnel should be educated about problem gambling and the company's responsible gaming policy. One of the aims is that every single

employee should know what to do if a customer wants help for their gambling problems. A part of the staff is educated in being more active to detect and approach gamblers that might have a gambling problem. Information about the risks of gambling and where to seek help is available at all casinos. There is a self-exclusion programme that gives customers the possibility to bar themselves from the casino or to reduce the number of visits. From the start of 2001 until December 2006, the casinos had over 4.2 million visits. For the same time-period, 5,820 contracts were signed for self-exclusion or visit restriction. Of these, around 1,400 were still active contracts (N. Enhage, personal communication, December 11, 2006).

### 3.2.2 *Poker on the Internet and Responsible Gaming*

All customers on the *Svenska Spel* internet poker site must, before they are accepted as customers, set their own limits regarding money and time consumption, per gambling session, day, week, and month. If the customer wants to increase the limits, there is a time delay of a minimum of 24 hours. Decreasing the limits can be done directly. The system also keeps the customers informed of how near they are to their limits. There are also self-exclusion possibilities.

### 3.2.3 *Information for Customers*

Information about responsible gaming and where to seek help is available at the Swedish gambling companies' websites, even if the standard of the material presented varies in quality. On the *Svenska Spel* website ([www.svenskaspel.se](http://www.svenskaspel.se)), there is a self-diagnostic test where gamblers can test their gambling habits and be advised if there might be a need for changing habits and/or to seek help. There are also possibilities to set a gambling budget. Information brochures on responsible gambling should be available at all retailers of *Svenska Spel* and *ATG*.

### 3.2.4 *Educating Retailers*

In a joint effort, *Svenska Spel* and *ATG* are educating all of their retailers in responsible gaming. The programme is web-based, with cases illustrating age control, how to refuse gambling on credit, and

how to give information about where to seek help for a gambling problem.

## 4 Conclusion

Sweden has a long tradition of state-controlled gambling. State revenues from gambling have increased as gambling has become more prevalent, especially over the past three decades. The regulated Swedish gambling market is characterised by high accessibility and a broad spectrum of games. Like elsewhere in Europe, the regulated gambling market competes with the international (in Sweden) non-regulated gambling market. The position of the regulated market is somewhat unfavourable due to the lower payback percentage dictated by Swedish law. Swedish laws and the judicial system have great difficulties in protecting the regulated gambling market from international infringement. One reason is that the internet has no borders and that it is complicated to control and regulate gambling on the internet. Within the regulated Swedish gambling market, efforts to prevent underage gambling should be intensified.

In Sweden we are aware that a small proportion of the population has gambling problems. Furthermore, we have some knowledge about the general characteristics of problem gamblers—in terms of social background, personality, and comorbidity—thus laying some foundations of preventing measures, but reliable and deeper knowledge about the problems is lacking. There is a need to examine the impacts of changes in the Swedish gambling market and prevention efforts by continuous prevalence studies as well as longitudinal studies. Fortunately, a new major prevalence study with data collection starting early in 2008 is under way, the Swedish Longitudinal Gambling Study (SWELOGS), designed to optimally build on earlier data collections and register data. However, 10 years have passed since the previous study.

During the past decade in Sweden, there has been a clear shift regarding public knowledge about gambling problems and in the authorities' and the gambling companies' attitude and will to work actively to prevent gambling problems. Problem gambling is today well acknowledged, as well as the need to prevent it. How can this change be explained? The prevalence study of 1997–1998

(Rönnerberg et al. 1999) made it evident that problem and pathological gambling was a problem in Sweden, and these findings received wide coverage in the media. Even if the prevalence of gambling problems was questioned, the problem as such was accepted. The work of the SNIPH and its efforts to implement the plan of action have been of great importance in preventing gambling problems. Many of the plan of action's aims have been implemented today.

A strategy during recent years has been to meet the international competition by giving permission for corresponding types of games in Sweden. The Swedish games are said to be more characterised by "responsible gaming". An example is the granting of permission to *Svenska Spel* to arrange online poker. The rationale was to attract Swedes away from the international poker sites to Swedish online poker, thereby promoting the social responsibility intention of the Swedish Lottery Act. A weakness is that the possible effectiveness of different responsible gaming measures, such as self-exclusion, gambling budget, and self-diagnostic testing, have not been evaluated. There is an obvious need to take a "good look at the cards" and to see if these measures are effective in helping gamblers to stay in control of their gambling.

Regarding treatment for problem gamblers in Sweden, there are two major ongoing treatment studies. In a large project initiated by the SNIPH, key groups have recently been educated in how to treat problem gamblers. These initiatives are the focus of research and evaluation. An obvious weakness is that treatment for gambling problems is not clearly encompassed by the Swedish Social Services Act. There is need for change and the Association of Problem Gamblers has been fighting for this for years.

Which other areas are in need of improvement? We would like to see a better-reasoned governmental gambling policy, with a more research-based approach when introducing new types of gambling. Evaluation should be planned for in the developmental phase and be up and running at the latest from the introduction of the game. This would also be a challenge for the traditional academic world (at least in Sweden) to be prepared to move fast. The gambling industry is characterised by a high developmental pace and tough competition that probably is not the best test bed

for research. Another factor is that international gambling companies are active in Sweden but are outside Swedish control and regulation. A license system has been discussed over the past 2 years in Sweden and could be a way to handle the situation by inviting the international companies to be a part of the regulated Swedish gambling market. To obtain a license, the companies would have to fulfil certain conditions regarding responsible gambling. The possible alternative is to continue to defend the regulated market as we know it today and to try to reach international agreements regarding how to regulate internet gambling.

To summarise, it may be said that Sweden is now well on the way to finding methods to reduce the problems that go hand in hand with gambling. It is possible to see the beginnings of a gambling policy based on research and responsibility. To develop the responsible gambling policy further, there is an obvious need to let a larger proportion of the net expenditure on gambling in Sweden than today go to research, prevention, and treatment.

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# 21

## Switzerland

Jörg Häfeli

### 1 Background

Switzerland today is a federal state composed of 26 cantons, and is one of the few countries in Europe not to belong to the European Union. Switzerland has a resident population of 7.5 million (as of 2005), with at least 20% foreign nationals. With an annual gross domestic product averaging €35,000 per head of population, Switzerland is one of the world's strongest economies. Three quarters of the working population are employed in the service sector. Switzerland has four official languages: German (64%) in the north and centre; French (20.4%) to the west; Italian (6.5%) in the south; and Romansh (a Romance language), which is spoken locally by a small minority (less than 1%) in the southeastern canton of Graubünden.

Until 1874, statutory authority for casino approvals lay with the cantons. Only one canton actually entered into a casino concession agreement. The casino of the municipality of Saxon in the canton of Valais, the first and only establishment of its kind, opened in 1854. The aim of the municipality was to use the tax revenues to help kick-start tourism in the area. As a result, Saxon managed to expand its thermal baths, prompting many famous personalities of the day, including the Russian writer Dostoyevsky, to take the waters—and also visit the casino. The casino was forced to close in 1877 following transfer of statutory authority to the Confederation, and this signaled the start of a nationwide period of prohibition that was to last over a hundred years—with one small excep-

tion. Under certain constraints, the government allowed the playing of the *jeu de boule*. This was a nine-number variation of roulette, and the highest amount that could be wagered per game was 5 Swiss francs. In practice, establishments offered other popular games, including *baccarat*, *le jeu du petit chevalier*, etc. These early shoots were stamped on in 1927, *jeu de boule* henceforth being permitted only in traditional *kursaal* (spa)-type casinos under the following conditions:

1. The per-game stake was to be no more than 2 francs.
2. The operator had to form a company and was not allowed to trade as an individual.
3. The company had to operate the *kursaal* with the intention of boosting local and regional tourism.
4. The federal authorities had to approve the cantonal license.
5. A gaming tax of 25% on gross gaming revenue (GGR) was payable into the Confederation's coffers (Cabot, Thompson, Tottenham & Braunlich 1999).

Between 1927 and 2000 (the year the whole legislative landscape changed—see below), there was only one major change to the law when slot machines could be deployed (subject to cantonal legislation). At least half the cantons took advantage of this change in the law to approve these machines for use in bars and restaurants with the proviso that they had to incorporate an element of skill; machines based purely on chance remaining prohibited. In practice, these machines were only

endowed with pseudo-skill elements—thus, they were, to all intents and purposes, entirely chance based. The neighboring countries of Germany, France, Italy, and Austria profited from the Swiss prohibition by allowing casinos to operate on their borders with Switzerland. All of this changed in 2000 with the adoption of Switzerland's new Casino Act (*Spielbankengesetz*).

## 1.1 The Current State of the Games of Chance Market

Switzerland's games of chance market has been marked by dynamic change in recent years. The process was set in motion by the Swiss federal referendum of 1993, in which voters agreed to the lifting of the 1928 prohibition on casinos. Gambling now has a constitutional basis in Article 106 of the Swiss Federal Constitution (see Table 21.1).

Switzerland's games of chance market is composed of the lottery and betting sector on the one hand and the casino sector on the other. The former is governed by the Federal Lotteries and Commercial Betting Act of 1923 (Lottery Act) (*Bundesgesetz über die Lotterien und die gewerbsmässigen Wetten*), and the latter by the Federal Games of Chance and Casinos Act of 1998 (Casino Act) (*Bundesgesetz über die Glücksspiele und Spielbanken*). Chance-based slot machines are allocated to the casino sector. They were permitted to remain in public places during a 5-year transitional phase, which ended in March 2005. Slot machines that pay out winnings and feature an element of skill come under neither the Casino Act nor the Lottery Act, but fall under cantonal jurisdiction. Included here are machines where the gambler's manual or mental skills decide the outcome, as well as amusement machines (driving simulators, video consoles, pinball machines, and the like).

### 1.1.1 Lotteries and Betting

Current legislation as it stands upholds the general prohibition on lotteries and betting. The only lotteries permitted are those supporting good causes or charitable ends (see later in this chapter). Betting is allowed at a cantonal level within certain constraints. In contrast to the Casino Act, the cantons are responsible for enforcing the Lottery Act. Primary executive authority in respect of lotteries and betting is vested in the Lotteries and Betting Section (*Sektion Lotterien und Wetten*) of the Federal Office of Justice. The outdated Lottery Act was to have been revised in 2001, but the proposed changes met with cantonal skepticism. The Swiss Federal Council decided in 2004 to suspend the revision process, although the cantons ratified an agreement in 2005 that came into force in 2006, which sought to correct anomalies in the Lottery Act.

### 1.1.2 Casinos

Ratification of the new Casino Act in 2000 marked an end to the decades-long embargo on casinos in Switzerland. Casinos in Switzerland are overseen by the independent Federal Casino Commission (*Eidgenössische Spielbankenkommission* [ESBK]), which is also responsible for enforcing the Casino Act and its executive ordinances. Implementation of the Casino Act is specified by the Executive Ordinance to the Federal Games of Chance and Casinos Act (Casino Ordinance) (*Verordnung über Glücksspiele und Spielbanken*).

#### Type A and Type B Casinos

In 2001, the Swiss parliament granted a total of 22 concessions for the operation of casinos, distinguishing between two different types of concession—Type A and Type B—which differ through the amount of tax levied, the products they can offer, and the levels of stakes and winnings. Type A

TABLE 21.1. Federal Constitution Article 106: Games of Chance.

1. Legislation on gambling and lotteries is a federal matter.
2. A federal license is required to establish and run a gaming casino. When issuing a federal license, the Confederation shall take into account regional circumstances and the dangers of gambling.
3. The Confederation shall levy from casinos a tax on their revenues; this tax shall not exceed 80% of the gross revenues from gambling. It shall be used to cover the federal subsidy to old age, survivors', and disability insurance.
4. The licensing of gambling machines involving an element of skill and where money can be won is a cantonal matter.



casinos offer an extensive range of table games and chance-based slot machines. Slot machines licensed for Type A premises are seen as particularly attractive on account of the high risks involved, both in terms of winning and losing. Type B casinos are limited to offering three types of table games (up to a maximum of six gaming tables altogether) and a maximum of 150 chance-based slot machines. They are also subject to limited stake and winning opportunities and may not link their slot machines to networks outside the casino.

Moreover, a concession is only granted if the operator offers an “appropriate” ratio of gaming tables to slot machines, by which is meant a ratio in the order of 1 gaming table to 25 slot machines. Type B casinos generally offer 6 gaming tables and 150 slot machines, and Type A casinos some 16 gaming tables and in the region of 250 slot machines, depending on the location. As of 1 January 2005, 7 Type A casinos and 12 Type B casinos had received licenses to operate a total of 243 gaming tables and 3,245 slot machines.

#### Casino Density

These figures suggest that Switzerland has a high density of casinos per head of population compared with other countries (see Swiss Federal Gaming Board 2002). However, Swiss casinos tend to be smaller than those of other countries and, as touched on earlier, chance-based slot machines are not permitted anywhere other than in casinos.

#### Casino Tax Levy

The Federal Constitution specifies a revenue-related casino levy as a ring-fenced contribution to the state’s retirement pension provisions. The tax is levied from a casino’s GGR, and is based on a progressive model. Type B casinos pay 40% tax on their GGR of up to €6 million. Type A casinos pay 40% tax on their GGR of up to €12 million. The tax rises by 0.5% for each additional million in GGR, up to a top rate of 80%. The average tax levied in 2005 was in the region of 50%.

### 1.1.3 Revenues from Games of Chance

#### Lottery Sector

Lottery products in Switzerland’s 19 German-speaking cantons and its single Italian-speaking

canton are sold through *SwissLos*, and in the 6 French-speaking cantons through *Loterie Romande*. Some 80% of the revenues are generated by at least 40 different lottery products (mainly number games, scratch cards, and lottery tickets). The remaining 20% or so are accounted for by betting activities. The product yielding the greatest revenue is the major number lottery, drawn twice a week. Since 2004, it has been joined by the Euromillions lottery run by a partnership of several European countries. Table 21.2 summarizes the revenues of lotteries and betting products from 2003 until 2005.

#### Casino Sector

Switzerland’s new casinos opened between summer 2002 and late autumn 2003, the year 2004 being the first full year of trading in which every casino took part. In 2005 there were 4.7 million visits paid to casinos, but because Swiss casinos do not require a patron to register their personal details, the electronic access system simply checks that the individual is authorized to enter the casino. Therefore, the actual number of casino patrons remains unknown. That said, it is possible to calculate the average gross spending per visit: 2005 witnessed gross gaming revenues of €31 million, which equates to a figure of €13 per visit. Table 21.3 sets out the key figures.

TABLE 21.2. Lottery and betting revenues (in €millions).

	2003	2004	2005
Gross gaming revenues	425	477	558
Proceeds generated for good causes and charities	241	262	298

TABLE 21.3. Casino figures 2003–2005.

	2003	2004	2005
Gross gaming revenues (in €millions)	341	467	531
Slot machines	72%	75%	77%
Table games	28%	25%	23%
Casino levies (in €millions)	158	225	314
Number of visits (in millions)	3.1	4.3	4.7
Average spending per visit (€)	109	109	113

### 1.1.4 Games of Chance Via the Internet

Online gambling operations are unlawful in Switzerland, although private individuals are allowed to participate in the activity as consumers. In consequence, the online gambling market is entirely offshore. Consumers are making extensive use of other European providers, some of whom are unlicensed. The Goldmedia study (2006) assessed the main earners as being online sports betting sites and internet casinos/poker rooms. Earnings for 2003 were estimated to be in the order of €150–250 million, with annual growth forecast at between 20% and 30%. The study was of the opinion that Switzerland's all-out embargo on on-line gambling is unsustainable in the medium-term.

## 2 Evidence

### 2.1 Gambling Participation

Until now, only two studies exist on the take-up by consumers of gambling offers that provide systematically analysed and evaluated data. The first study, published by Künzi, Fritschi, and Egger (2004), looked at statistics taken from Switzerland's periodic health survey (*Schweizerische Gesundheitsbefragung*) conducted in 2002 and at a poll of the population taken by the Swiss Federal Office of Justice, also conducted in 2002. The second study, published by Brodbeck, Dürrenberger, and Znoj (2007), was based on telephone interviews and postal questionnaires involving 6,385 people aged 14 and older. A primary object of interest was to determine the participation frequency in various games of chance.

According to Künzi et al. (2004), 56% of the Swiss population aged 18 years and over regularly participate in domestic lotteries, of whom 15% play at least once a week, 12% once a month, and 29% less than once a month. A total of 7% of the population participate in offshore lotteries. The poll also revealed that 43% of the population had visited a casino at least once in their lives.

The results of the Swiss health survey relate to what are termed "frequent" gamblers—those who participate in games of chance on a regular basis, i.e., roughly once a week. By that definition, 21.2% of the Swiss population aged 18 years and over (1.21 million) are frequent gamblers.

By far the greatest number of these regular gamblers—20.6% of the population (1.18 million, or 95.9% of frequent gamblers)—take part in lotteries. Between 32,000 and 47,000 people (0.56% to 0.82% of the population aged 18 years or older) play slot machines every week. Around 70% of these (21,000 to 33,500 people) do so outside casinos. However, it must be noted that, at the time the survey was conducted, there were still 5,882 slot machines outside of casinos. Between 15,500 and 26,000 people (0.27% to 0.46% of the population aged 18 years and over) gamble more or less weekly in a casino. Between 26,000 and 39,500 people (0.46% to 0.69% of the population aged 18 years and older) bet on the horses on a weekly basis. This is chiefly a feature of French-speaking Switzerland. Therefore, lotteries and betting are clearly the preferred activity of frequent consumers of games of chance.

Brodbeck et al. (2007) established that 34.4% of Swiss participated in at least one game of chance during the month prior to the survey, which equates to 2,056,600 individuals. Almost all of them participated in Lotto or Toto games or bought lottery tickets (87.8% of the gamblers, or 30.3% of the total sample, respectively). The second most popular gambling form was participating in short message service (SMS) or TV competitions (18% of the gamblers, or 6.5% of the total sample, respectively). About 1.3% of the respondents visited a casino in the month preceding the survey (3.8% of the gamblers). Other games of chance (e.g., internet-based or privately organized) were also only infrequently used. Moreover, the participation in slot machine gambling outside of casinos was seldom mentioned. Most of the gamblers spent less than €30 a month on their gambling activities (56%), whereas 14.8% of the gamblers reported spending about €30–120 a month.

### 2.2 Characteristics of Gamblers

Following Künzi et al. (2004) it is possible to define consumers of games of chance and frequent gamblers as having the following characteristics:

- There are more male frequent gamblers (57%) than female (43%) and, on the whole, all age ranges are represented. When it comes to lotteries and betting, most frequent gamblers are aged 50

years or over, whereas slot machines and casinos tend to be patronized by a younger age group (40% are younger than 35 years). That said, a strikingly high proportion (approximately 22%) of gamblers are of pensionable age.

- At least three quarters of the weekly lottery and betting gamblers are Swiss nationals, the rest are foreign nationals. In the slot machine/casino sector, the ratio is around two thirds to one third. Compared with the general population aged 18 years and older, foreigners (18%) are more likely to take part in games of chance on a weekly basis than Swiss nationals.
- Frequent gamblers are to be found across all strata of education. However, there is a higher statistical representation of gamblers of a lower education level and a correspondingly lower representation of better-educated gamblers. Frequent gamblers are also to be found across all income groups. While there is barely any difference between gamblers from middle-income groups relative to the general population aged 18 years and over, people from lower-income groups are slightly over-represented, and those in the top income bracket markedly under-represented.
- Data relating to the additional consumption of alcohol and tobacco indicate that frequent gamblers tend to consume more alcohol and to smoke more than the general population aged 18 years and over. This is not the case for the consumption of illegal substances.
- In terms of psychological well-being and contentment with leisure time, there is no difference between frequent lottery and betting gamblers and the general population aged 18 years and over. Frequent slot machine/casino gamblers, on the other hand, score rather lower in this respect than the population as a whole (Künzi et al. 2004).

### 2.3 Incidence of Problem and Pathological Gambling

The first Swiss prevalence data stem from a study by Osiek, Bondolfi, and Ferrero (1999) and the study relates to data collected in 1998. The authors based their study on a telephone poll of 2,536 people aged 18 years and older using random quotas with respect to region, gender, age, and occupation. They used the South Oaks Gambling Screen (SOGS) as a tool for measuring pathological

gambling (last 12 months prevalence). They also deployed the CAGE tool to measure the abuse of alcohol in order to be able to assess the comorbidity of pathological gambling and excessive drinking. The weighted data of the 2,526 respondents yielded the following results:

- 2,451 respondents (97%) could be described as occasional or non-gamblers (SOGS score 1 or 2)
- 55 respondents (2.2%) were revealed as problem gamblers or potential pathological gamblers (SOGS score 3 or 4)
- 20 respondents (0.8%) were probable pathological gamblers (SOGS score 5 and over)

On the basis of the population aged 18 years and over in 1997, and a confidence interval of 95%, Osiek et al. (1999) extrapolated their findings to arrive at a value of between 32,700 and 77,800 pathological gamblers in Switzerland and between 107,100 and 179,800 problem gamblers. All told, this equates to roughly 145,000 to 230,000 people displaying gambling-related problems. The study also reported high comorbidity between alcohol and pathological gambling, and demonstrated a link between the availability of games of chance (especially chance-based slot machines outside casinos) from region to region and the proportion of pathological and potentially pathological gamblers.

In contrast, the prevalence data determined by Brodbeck et al. (2007) were based on the National Opinion Research Center Diagnostic and Statistical Manual of Mental Disorders (DSM) Screen for Gambling Problems (NODS). The lifetime prevalence of problem gambling (NODS score 3–4) in individuals aged 14 years and older was 0.6% and lifetime prevalence of pathological gambling (NODS score  $\geq 5$ ) was 0.3% (weighted sample). At-risk gamblers (NODS score 1–2) make up 2% of the weighted sample. In comparison with Osiek et al. (1999), these prevalence rates appear to be considerably lower. Brodbeck et al. (2007) explain the differences with their survey methodology and the use of the NODS that contains comparatively strict diagnostic criteria.

### 2.4 Demand for Treatment Offered by Drop-in Counselling Services

Switzerland's socio-medical care is a cantonal matter. Every canton offers specialist dependency facilities (drugs and alcohol). These services also

counsel clients with gambling dependency issues, even if what is being offered is not specifically tailored to this group. Alongside such help, it is open to clients to hire the services of private psychotherapists and psychiatrists, of which there are a large number. Switzerland possesses just two specialist gambling-dependency counselling centres (Basel and Lausanne) and no specialist inpatient facilities, although some specialist dependency clinics offer gambling addiction therapy. There is virtually no demand for this level of therapy. It is a similar picture for self-help groups. The number of active self-help groups across the whole of Switzerland has fluctuated between three and six over the last 3 years. There is no national internet or telephone helpline. The reason for this unsatisfactory state of affairs lies in a lack of awareness on the part of Swiss health policy makers. Improvements are likely to be brought in over the next few years. As a consequence, there are no annual statistics relating specifically to counselling or treatment.

Künzi et al. (2004) examined the demand for treatment offered by drop-in counselling services. This revealed that there was a sharp increase in the number of people seeking help, from 146 people in 1998 to 751 people in 2003. Relative to the total number of clients seen by the counselling agencies, this equates to a fourfold proportional increase to 1.6% in 2003. These figures were sourced from the specialist addiction counselling services, and do not include people seeking help directly from private psychiatrists and psychotherapists and drop-in psychiatric clinics. Künzi et al. (2004) estimated the total demand for help in 2003 as being between 1,000 and 1,500 people.

## 2.5 Professional Help for Pathological Gamblers

The situation regarding the help available must be seen as closely linked to the number of people seeking help for their problem gambling. French-speaking Switzerland possesses only one specialist problem gambling facility. Where none is available, traditional addiction facilities help fill the gap.

Experts feared a rise in the numbers of problem gamblers in Switzerland following the ending of the casino prohibition. A study conducted by the Lucerne School of Social Work (Häfeli & Schneider

2003) came to the conclusion that there was a lack of integrated policy making at the national level to provide a systematic and coordinated programme of help. Professionals, it revealed, were critical of the country's present incoherent addiction policies, such as the discrimination between legal and illegal drugs or the failure to take other forms of addiction—especially gambling—into account (Spinatsch 2004). The study identified gaps in the help available to problem gamblers, owing to which most people are directed to generic addiction services that are not particularly geared to dealing with the problems associated with gambling. This group of clients receives, in worst-case scenarios, sub-optimum care (i.e., care that does not take into account the latest research findings on problem gambling).

## 3 Action

The last 5 years have seen a huge transformation in the way Switzerland regulates its games of chance, the principal trigger for which was the introduction of the new Federal Games of Chance and Casinos Act of 1998 (Casino Act), the prohibition of chance-based slot machines outside casinos, and the self-regulation of the state lottery providers. This section looks at the statutory social protection interventions, especially those provided for by the Casino Act.

### 3.1 Responsible Gaming Interventions in the Lottery Sector

For the first time, the framework of cantonal regulation in the lottery sector (outlined earlier) incorporates provisions for responsible gaming interventions. Under an inter-cantonal agreement that came into force on July 1, 2006, transparency and the division of powers are to be improved and addiction prevention and treatment bolstered. The lottery providers are levied 0.5% of their gross revenues. This tax goes into a gambling addiction fund to be used for the prevention and treatment of problem gambling. Other measures include informing gamblers about the risks inherent in lottery participation. The programme also provides for responsible gaming interventions for young

people and limits on advertising. Regulation is in the hands of an independent state commission. No study into the effect of this new agreement has yet been conducted. Remarkably, there is no legally enforceable age limit for participation in a lottery.

### 3.2 Responsible Gaming Interventions in the Casino Sector

The Casino Act provides major safeguards for gamblers in the form of responsible gaming interventions. Each of Switzerland's casinos is obliged to prepare and implement what is known as a social concept. It must make provisions for the following (Dombrowski, Gschwend, Steffen, Rehm & Uchtenhagen 2000):

- Measures for the prevention of problem gambling and the early recognition of gamblers at risk
- Training schemes for employees
- Logging of data related to problem gambling

#### 3.2.1 Preventive Interventions and Early Recognition

A casino's social concept must provide low-threshold access to information on the risks of gambling and, where necessary, to help in the form of bans, counselling, self-help groups, and so forth. Casinos must also make available a self-assessment questionnaire that helps patrons find out the degree to which they are at risk of problem gambling. Casino staff must be in possession of guidelines and a checklist to help them spot gamblers at risk and enter into a dialogue with them. The criteria are designed to help the casino make the appropriate interventions. All observations and interventions made must be logged.

To ensure the effectiveness of these measures, the casino sector is able to count on the support of external responsible gaming professionals. October 2004 saw the launch of an integrated programme of support for casino patrons exhibiting problem gambling behaviors. This arranges for the casino and patron to agree monthly visiting limits, which the patron must abide by. Patrons will be turned away from the casino or any of the other Swiss casinos if they attempt to go over the limit. This scheme does not apply to a patron who is already banned from gambling. In compliance with the social concept,

casino staff are issued with a standardised reporting card in the form of a checklist that helps them spot patrons at risk of problem gambling.

#### 3.2.2 Staff Training

Those casino employees entrusted with implementing the social concept must follow a one-off basic course of instruction provided by a qualified body, followed by an annual refresher course.

#### 3.2.3 Gambling Prohibitions and Bans

The Casino Act provides for the prohibiting of specific groups of people from gambling. There is a blanket prohibition, *inter alia*, on persons under the age of 18 years, on people banned from gambling, and on casino employees. Bans are issued if it can be established or it is strongly suspected that a gambler is overly in debt, that the stakes being wagered bear little relation to their financial circumstances, or that they have a disrupting influence on the game. A patron can also initiate a self-imposed ban. In the event of a ban, self-imposed or otherwise, the casino must forward the identity of the patron to all the other Swiss casinos, as the ban applies throughout the country. Swiss casinos' electronic access systems and ID checks help to enforce the ban. A ban is, in principle, of unlimited duration. A patron can apply for a ban to be lifted 1 year after its imposition at the earliest, although by requiring evidence of a patron's financial affairs and proof that the patron is financially solvent, the procedure involved in lifting a ban is far from easy.

#### 3.2.4 Logging of Data on Pathological Gambling

Each casino is required by the Casino Act to keep a register of gambling bans. It must submit an annual report to the independent Federal Casino Commission detailing, *inter alia*, the following:

1. The training undertaken by the staff
2. The implementation of preventive interventions
3. The implementation of early-recognition interventions
4. The number of patrons referred to addiction prevention services, counselling services, or for therapy
5. The gambling bans issued and the number of bans issued and lifted per month

### 3.3 Effectiveness of Casinos' Preventive Interventions

In 2002, at the time the first Swiss casinos opened their doors for business, 4,559 people were already registered as banned for a variety of reasons. By the end of 2005, this figure had risen to 13,700. The years 2003 to 2005 saw 9,393 persons banned from casinos (see Fig. 21.1). Over the same period, 1,002 had their bans lifted. Bans rose by 8.8% (300 people) between 2004 and 2005.

The ability to compare the number of visits with the number of bans is important in terms of charting trends over the years or differences between casinos. Figure 21.2 shows that, in 2003, one ban was issued per 1,351 visits. In 2005, this had dropped to one ban per 1,038 visits.

Details relating to the characteristics of the banned gamblers could be sourced from three large casinos only. Table 21.4 shows the demographic data of patrons banned, taken from the 2003 to 2005 financial reports of the Grand Casinos Baden, Bern, and Lucerne (Häfeli 2004; 2005; 2006). The data were gathered and electronically stored by casino staff by means of standard interviews conducted at the time the ban was pronounced. The number of people interviewed varied widely, participation being voluntary. Over that period, 2,443 individuals were surveyed at the three casinos for which figures were available.

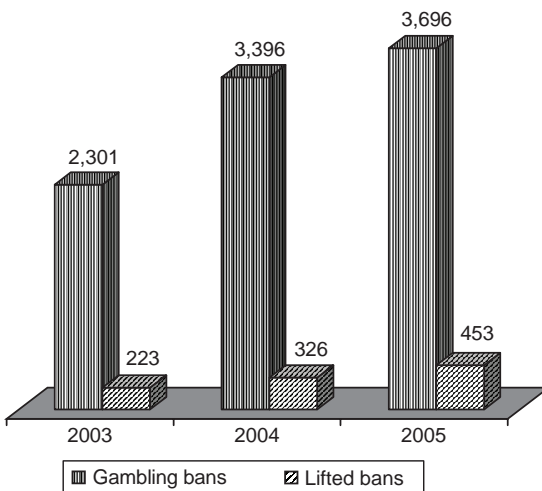


FIG. 21.1. Number of bans pronounced and lifted

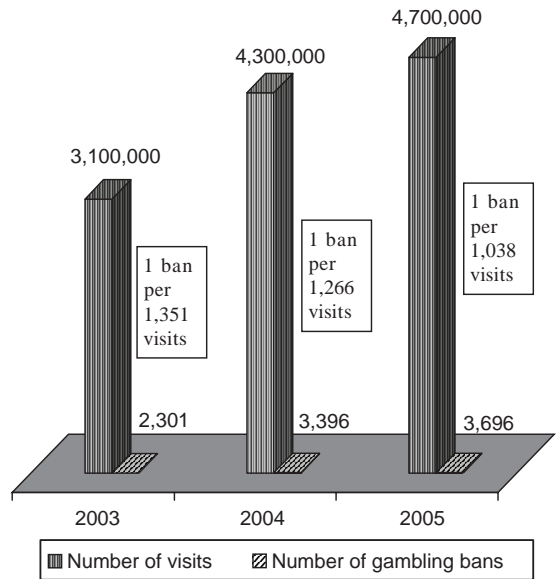


FIG. 21.2. Number of gambling bans as a proportion of total visits

TABLE 21.4. Demographic data on gambling bans 2003–2005.

Bans by gender (n=2,443)		
Male	1,957	80%
Female	486	20%
Bans by age group (n=2,408)		
18–30	682	28%
31–40	770	32%
41–50	554	23%
51–64	339	14%
65 and over	63	3%
Bans by nationality (n=2,294)		
Swiss	974	42%
Foreign, resident in Switzerland	1,236	54%
Foreign, resident abroad	84	4%
Bans by activity (n=1,786)		
Slot machines	1,026	58%
Table games	395	22%
Slot machines and table games	365	20%
Frequency of visits of banned patrons (n=1,715)		
4–7 per week	209	12%
2–3 per week	594	35%
2–4 per month	602	35%
1 per month	143	8%
Other/occasional	167	10%
DSM-IV scores of the patrons banned (n=1,234)		
0–2 points	310	25%
3–4 points	477	39%
5+ points	447	36%

Male patrons constitute by far the largest proportion (80%) of banned people. At 32%, the 31- to 40-year-old age group represents almost one third of all bans, followed by the 18- to 30-year-old group at 28%, and the 41- to 50-year-old group at 23%. The balance is held by the 51- to 64-year-old age group (14%) and the over 65-year-old age group (3%). With regard to nationalities, the largest group banned is that of foreigners resident in Switzerland (54%), followed by Swiss nationals (42%), and foreigners resident abroad (4%). In relation to type of game played, 58% of patrons banned play only slot machines, 22% only table games, and 20% play both. In terms of frequency of visits, 12% of those banned visited the casino four to seven times per week, 35% two to three times per week, 35% two to four times per month, while of the remaining 8% visited once a month, and 10% described themselves as irregular in their playing habits. When a ban is pronounced, the patrons affected are invited to fill out the DSM, 4th Edition (DSM-IV) questionnaire. This revealed that 25% of those doing so did not appear to display any pathological gambling tendencies (0–2 points), 39% displayed indications of problem gambling behavior (3–4 points), while 36% showed signs of significant problems in their gambling behavior (5+ points).

Overall, the above data suggest, at the very least, that the number of bans pronounced (which is large by international standards) is an indication that the proactive preventive interventions of Swiss casinos seem to be working. All Swiss casinos' preventive activities since 2006 have been conducted using standardised software solutions. This will henceforth enable scientific and academic soundings to be taken of the effectiveness of casinos' social concepts. The aim of the Casino Act is to facilitate the early recognition of problem gambling behavior and to foster early intervention by casino staff. The Casino Act provides for intensive training programmes with yearly refresher courses and annual quality audits by outside agencies—two accompanying measures aimed at securing the achievement of these ambitious goals.

### 3.4 State Health Policy

In Switzerland, the onus of preventing the onset of problem gambling is entirely on the providers of the gaming products, since the prevention and

treatment of gambling addiction plays a secondary role in the nation's health policy. Tobacco, alcohol, and illegal substances take pride of place in Switzerland's policy on addiction and they are correspondingly endowed with a plethora of measures and financial means. There is a widespread lack of awareness of the problems associated with gambling in the country's strategy on health. There are no public gambling addiction prevention programmes, and treatment facilities do not have the necessary funds. The lack of specialist treatment facilities is presumed to be having a direct impact on the demand that is undoubtedly there.

## 4 Conclusion

Switzerland has no established tradition of involvement in games of chance. The country's embargo on casinos—in force for much of the 20th century—has only recently been lifted. Lottery products have been in existence for decades, but they were never seen as gambling in the public consciousness. The introduction of the new Casino Act (2000) served to revive the debate on games of chance in Switzerland.

This quite particular circumstance has allowed Switzerland to pass an innovative Casino Act that addresses the modern requirements of casinos' socially acceptable offerings. Experience of the country's 4 years of casino operations so far suggests that it is possible to strike a balance between commercial profitability—needed to raise tax revenues to satisfy the state's fiscal interests—and the state's social and health policy interests. Nevertheless, more time is required before a proper assessment of the effects of the Casino Act can be undertaken.

However, what can be established is that the division of powers between the state, which oversees the casinos, and the cantons, which oversee lotteries and betting, is leading to a regrettable competitive environment—a situation that is fundamentally at odds with the country's stated socio-political aims. The lack of a national, and therefore coherent, policy on games of chance is seriously hampering the development of a transparent strategy on future challenges, such as online gambling. The growing trend of cross-border online gambling is being viewed with concern in some quarters.

Switzerland will be forced to rethink its veto on internet-based games of chance.

The appeal of online gambling grows as technology progresses. The consequence is, on the one hand, that increasing amounts of gaming revenue are flowing abroad and, on the other hand, that gambling more and more often takes place in a socio-politically unprotected environment—a state of affairs incompatible with the aims of the Casino Act. Were the veto on the use of telecommunications to conduct games of chance to be relaxed, the virtual market would come under regulation—concomitantly benefiting from social protection interventions not unlike those that apply to the physical casino sector—and some, at least, of the gaming revenues flowing abroad, would henceforth remain in the country and be taxed accordingly.

Switzerland's coming generations are, for the first time in the Confederation's history, having to contend with the reality of the universal availability of gambling, ranging from conventional lottery vouchers all the way to telecommunication-based gambling opportunities—a situation that presents the country's health policy with a whole new set of challenges. Preventive programmes providing factual information on all aspects of games of chance and promoting the skills needed to gamble responsibly need to be launched sooner, not later.

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# Index

## A

Abbott, M.W., 106, 118, 212, 302, 304, 306  
Achour-Gaillard, A., 76  
Adolescent gambling  
    age risk factor and cut-off points, 61–62  
    slot machine gambling, 62  
    vs. betting and internet poker, 62–63  
Adult gambling, 106–109  
Ahrens, U.-B., 302  
Andr n, A., 304, 306  
Attention deficit hyperactivity disorder (ADHD), 141,  
    145–147  
Azzimondi, F., 158

## B

B ez, C., 286, 293  
B rbunescu, R., 232  
Barnett, A.H., 268  
Barudotti, S.K., 140, 141  
Beco na, E., 286–288  
Belgium  
    gambling participation and problems, 5–6  
    gambling prevention strategies  
        primary, 11–12  
        secondary, 12–13  
        tertiary, 13–14  
    gambling sectors  
        betting legislation, 4–5  
        games of chance law, 4  
        mobile telephones and television phone-in  
        quizzes, 5  
        national lottery, 3–4  
    internet gambling  
        disadvantages, 9  
        influencing factors, 10  
        vs. non-internet gambling, 9–10

Bellio, G., 162  
Benci, S., 162  
Berg, C., 302  
Berntsen, W., 215  
Betting legislation, 4–5  
Biganzoli, A., 158, 159  
Binde, P., 308, 309  
Bj r, J., 302  
Blaszczynski, A., 162  
Blume, S.B., 42  
Bole, V., 268  
Bondolfi, G., 321  
Bonicolini, C., 162  
Bonke, J., 23, 30  
Bonnaire, C., 78  
Borodkin, F., 253  
Boro, M.S., 235, 237  
Borregaard, K., 23, 30  
British gambling prevalence survey (BGPS),  
    105–107  
Brodbeck, J., 320, 321  
B hringer, G., 90  
Buth, S., 88, 90, 91

## C

Cabanes, M., 286  
Capitanucci, D., 158, 159  
Caplan, G., 93  
Carbonero, M., 286  
Casinos  
    density, 319  
    levy, 319  
    type A and type B, 318–319  
Castilla, R., 286  
Chantal, Y., 114  
Cice, R., 158

Cocci, V., 162  
 Cognitive distortion questionnaire (CDQ), 141, 146  
 Connolly, D., 269  
 Coroamă, B., 232  
 Croce, M., 158  
 Csorba, C., 132, 134  
 Custer, R.L., 249

## D

Davidescu, L., 232  
 Davidson, I., 246  
 Denmark  
   gambling activity legislation  
     casinos, 18  
     internet and media gambling, 19  
     lotteries, scratchcards, and bingo games, 18  
     slot machines, 18–19  
   gambling addiction  
     anthropological and sociological studies, 20–22  
     cognitive bias, 26  
     Danish prevalence study, 22–23  
     dopaminergic reward mechanisms, 26–27  
     game providers, 31–32  
     policy makers and administrators, 31  
     structural characteristics, 27–28  
     treatment, 28–30  
   lottery grants  
     fund distribution, 19–20  
     gambling turnover and distribution, 19  
   pathological gambling, treatment  
     Center for Ludomani, 23–24  
     Frederiksbergcentret, 24  
     treatment evaluation, 24–25  
 Dimauro, P.E., 162  
 Donskikh, T.A., 248  
 Dowling, N., 7  
 Duarte, J., 286  
 Dürrenberger, S., 320, 321

## E

Echeburúa, E., 286, 293  
 Eerola, T., 66  
 Egger, T., 320, 322  
 Eisenstein, N., 215  
 Engelhart, C., 215  
 Erbas, B., 95  
 Erkkilä, J., 66  
 Estonia

  gambling market  
     casino games, 39–40  
     lotteries, 39  
     lottery and casino turnovers, 38–39  
     regulation, 40–41  
   gambling problem  
     national policy, 48

    responsible gambling, 49–50  
     treatment options, 48–49  
 surveys  
   gambling participation and problems, 42–44  
   high-risk group identification, 44–46  
   instruments, 42  
   risk factors, 46–48  
   samples, 41–42

Estonian gambling operator association  
 (EGOA), 49–50

## F

Fassel, D., 251  
 Fernández-Alba, A., 295  
 Fernández, J., 286  
 Fernández-Montalvo, J., 293  
 Ferrero, F., 321  
 Finland  
   adolescent gambling, 61–63  
   gambling  
     age restrictions, 55–56  
     Ålands Penningautomatförening (PAF), 56  
     Fintoto Oy, 55  
     gambling market, 53–54  
     national policy, problem tackling, 63–65  
     opportunities, 56–57  
     Raha-automaattiyhdistys (RAY), 54  
     sales volumes and total public revenue, 57–58  
     strengths and weaknesses, 67–68  
     treatment options, 65–67  
     Veikkaus Oy, national lottery, 55  
   gambling participation and problems, 59–61

Fiorin, A., 162

Fisher, S., 90, 288

## France

  gambling  
     casinos, 73  
     casino self-exclusion, 81–82  
     clubs and internet, 73–74  
     Française des Jeux, 72  
     gamblers types, 77–79  
     gambling market evolution, 74–75  
     history and legislation, 71–72  
     informative and preventive measures, 80–81  
     Pari Mutuel Urbain, 72–73  
     prohibition and monopoly, 79–80  
     treatment, 82–83  
     types and risk factors, 76–77  
   pathological gambling, 75–76

Fritschi, T., 320, 322

## G

### Gambling

  Belgium  
     gambling participation and problems, 5–6

- gambling prevention strategies, 11–14
- gambling sectors, 3–5
- internet gambling, 9–10
- Denmark
  - gambling legislation, 18–19
  - gambling addiction, 20–30
  - lottery grants, 19–20
  - pathological gambling, treatment, 23–25
- Estonia
  - casino games, 39–40
  - gambling problems, 48–50
  - lotteries, 39
  - lottery and casino turnovers, 38–39
  - regulation, 40–41
  - surveys, 42–48
- Finland
  - adolescent gambling, 61–63
  - age restrictions, 55–56
  - Ålands Penningautomatförening ( PAF ), 56
  - Fintoto Oy, 55
  - gambling market, 53–54
  - gambling participation and problems, 59–61
  - national policy, problem tackling, 63–65
  - opportunities, 56–57
  - Raha-automaattiyhdistys (RAY), 54
  - sales volumes and total public revenue, 57–58
  - strengths and weaknesses, 67–68
  - treatment options, 65–67
  - Veikkaus Oy, national lottery, 55
- France
  - casinos, 73
  - casino self-exclusion, 81–82
  - clubs and internet, 73–74
  - Française des Jeux, 72
  - gamblers types, 77–79
  - gambling market evolution, 74–75
  - history and legislation, 71–72
  - informative and preventive measures, 80–81
  - Pari Mutuel Urbain, 72–73
  - prohibition and monopoly, 79–80
  - risk factors, 76–77
  - treatment, 82–83
- Germany
  - gambling market, 85
  - gaming arcades, 87
  - lottery agencies, 86–87
  - pathological gambling, 88–92
  - private gaming, 88
  - problem gambling prevention, 93–99
  - telephone gaming, 87–88
- Great Britain
  - addiction treatment, 114–117
  - adolescent gambling, 111–112
  - adult gambling, 106–109
  - gaming machines, 105
  - internet and remote gambling, 112–113
  - legal framework, 103
  - national lottery, 104
  - problem gamblers, 116–119
- Hungary
  - epidemiological research, 130
  - gambling prevalence, 131–132
  - national gambling market, 123–125
  - problem gambling, prevention, 132–133
  - problem gambling, treatment, 133–134
- Iceland
  - adolescents and adult problems, 140–147
  - gambling machines distribution, 148
  - gambling market, 137–138
  - gambling problems, 142–148
  - gambling research, 139–140
- Italy
  - community interventions, 168–169
  - epidemiological research and social policies, 165
  - market, 153–155
  - motivations, 159–160
  - national policy and treatment, 161–162
  - private associations, 163–164
  - psychoactive substances, 162–163
  - research, 156–158
  - self-help groups, 164
- Lithuania
  - action, 185–187
  - evidence, 180–185
  - law on games and lotteries, 174–176
  - market overview, 176–180
  - pathological gambling, 174
  - Poland–Lithuania Union, 173
- Netherlands, The
  - area-specific prevention measures, 201
  - existing treatment options, 202–204
  - gambling and popularity, 191–192
  - legal framework, 189–191
  - national policy, 199–200
  - participation, 192
  - pathological gambling, 197–199
  - problem gambling prevention policy, 201–202
  - problems and prevalence, 192–194
  - protective factors identification, 194–197
- Norway
  - gambling market, 209–211
  - gambling problems, 215–216
  - governmental action, 216–217
  - lie/bet screen (LBS), 215
  - pathological gambling, 211–214
  - problematic gambling, 216
- Poland
  - commercial gaming operators, 222

- drug addiction, 219
- evidence, 222
- gross revenues, 220
- policies and casinos, 224–225
- public debate, 223–224
- state monopoly, 225–226
- treatment, 222–223
- video lottery terminals (VLTs), 221
- wagering law, 220–221
- Romania
  - laws, 229–231
  - national politics, 237–239
  - opportunities, 231–233
  - pathological gambling, 234–237
- Russia
  - attitudes, 246–247
  - contemporary gambling industry, 245–246
  - current government policy, 251–252
  - historic background, 244–245
  - motivational perspective, 249–251
  - pathological gambling, 247–249
  - socio-criminological perspective, 252–254
  - Soviet Union, 245
  - technological backwardness, 244
- Slovak Republic
  - CPLDZ Bratislava, 263
  - expenditures and revenues, 261, 262
  - gambling situation, 257–258
  - legislation, 258–260
  - national level initiatives, 262
  - negative and positive aspects, 264
  - operation conditions, 261
  - preliminary issues, 261–262
  - recommendation, 264
  - regulation, 260–261
  - therapeutic programme, 263
- Slovenia
  - average annual social costs, 272, 273
  - care system evaluation, 275–276
  - economy, 265
  - foreign and Slovenian visitors, 270
  - history and current market, 265–267
  - impact of Slovenian casinos, 271
  - pathological gamblers, 276
  - preliminary problem evaluation approach, 273–274
  - preventive mechanisms evaluation, 274–275
  - Slovenian casino visitors, 267
  - treatment facilities, 277–278
- Spain
  - educational and preventive strategies, 293–294
  - expenses, 283–285
  - gambling products *vs.* year of creation, 282
  - legalisation and expansion, 282–283
  - legislation and policies, 290–291
  - pathological gambling, 285–293
  - regulatory structures, strong and weak points, 294
  - risk and protective factors, 289–290
  - vulnerable groups, 288–289
- structural and situational characteristics, 113–114
- Sweden
  - advertising, 308–309
  - gambling problems, 302–304
  - problem gamblers, 304–307
  - regulation and authorities, 301–302
  - responsible gaming, 311–312
  - Swedish National Institute of Public Health (SNIPH), 309–311
- Switzerland
  - casinos' preventive interventions, 324–325
  - drop-in counselling services, 321–322
  - gamblers' characteristics, 320–321
  - gambling participation, 320
  - pathological gambling and gamblers, 321–322
  - responsible gaming interventions, 322–323
  - state health policy, 325
- Gambling Act 2005, 117–118
- Gambling addiction treatment
  - intervention options, 114–115
  - referral paths, 114–117
- German Democratic Republic (GDR), 86, 87, 91
- Germany
  - gambling market, 85
  - gaming arcades, 87
  - lottery agencies, 86–87
  - pathological gambling
    - criminal behavior, 92
    - representative survey, 88–90
    - risk factors, 91–92
  - private gaming, 88
  - problem gambling prevention
    - ban on gambling, 94–95
    - goals and regulations, 98–99
    - national policy, 97–98
    - preventative strategies, 93–94
    - treatment options, 95–97
  - telephone gaming, 87–88
- Geru, A., 235, 237
- Götestam, K.G., 211, 213
- Grant, J.E., 211
- Great Britain
  - adolescent gambling, 111–112
  - adult gambling, 106–109
  - gambling addiction treatment
    - intervention options, 114–115
    - referral paths, 114–117
  - gambling legalisation, 103
  - gaming machines, 105

internet and remote gambling, 112–113  
 national lottery, 104  
 problem gambling  
   Gambling Act 2005, 117–118  
   health services, 116–117  
   service providers, 118–119  
 Gretarsson, S.J., 140, 141  
 Griffiths, M.D., 6, 10, 113  
 Gromová, S., 261  
 Gutiérrez, B., 286

## H

Hame, R.M., 215  
 Hansen, M., 28  
 Healthcare professionals, 118  
 Helenius, K., 302  
 Hodgins, D.C., 47  
 Horse betting, 5  
 Hungary  
   epidemiological research, 130–131  
   gambling prevalence, 131–132  
   history, 123  
   national gambling market  
     current regulatory framework, 125  
     gambling opportunities, 125–128  
     political changes, 124–125  
     total public revenue, 128–130  
   problem gambling prevention, 132–133  
   problem gambling treatment, 133–134  
 Huotari, K., 67  
 Hurrelmann, K., 90, 91

## I

Iceland  
   adolescents and adults  
     gambling participation, 141–142  
     problem gambling prevalence, 142–144  
     problem gambling risk factors, 144–147  
   gambling machines distribution, 148  
   gambling market, 137–138  
   gambling research, 139–140  
   problem gambling  
     prevalence in adolescents, 144  
     prevalence in adults, 142–143  
     risk factors, 144–147  
     treatment and prevention, 147–148  
 Iftene, F., 235, 237  
 Internet gambling, 112–113  
   Belgium  
     disadvantages, 9  
     influencing factors, 10  
     vs. non-internet gambling, 9–10  
   Denmark, 19  
   France, 73–74

## Italy

gambling  
   community interventions, 168–169  
   epidemiological research and social policies, 165  
   market, 153–155  
   motivations, 159–160  
   national policy and treatment, 161–162  
   policy, 155–156  
   private associations, 163–164  
   psychoactive substances, 162–163  
   research, 156–158  
   self-help groups, 164  
   population research, 158–159

## J

Jakli, M., 267–269  
 Jere, Ž., 268  
 Johansson, A., 211, 213  
 Johnson, E.E., 215  
 Jonsdottir, J.E., 140, 141  
 Jonsson, J., 304, 306

## K

Kähnert, H., 90, 91  
 Kassinove, J.I., 246  
 Kavli, H., 215  
 Kidman, R., 295  
 Kim, S.W., 211  
 Kindstedt, A., 304, 306  
 Kneževi-Cvelbar, L., 268, 269  
 Kneževi, L., 268, 270  
 Korolenko, C.P., 248  
 Kraus, L., 90  
 Kühlhorn, E., 302  
 Künzi, K., 320, 322  
 Kurkela, R., 66

## L

Labrador, F.J., 295  
 Lavanco, G., 158, 159  
 Leifman, H., 302  
 Lesieur, H.R., 42  
 Linnet, J., 30  
 Lithuania  
   evidence  
     adolescent pathological gambling, 180–185  
     adulthood gambling, 185  
     gambling market overview  
       business, 178–179  
       casino, bingo and machine, 176  
       companies, 179  
       financial indexes, 179–180  
 Lithuania (*cont.*)  
   internet, 177

- lotteries, 176–177
  - totalisator and betting, 176
  - law on games and law on lotteries
    - gambling lotteries types, 174–175
    - state gaming control commission, 175–176
  - pathological gambling, 174
  - Poland–Lithuania Union, 173
  - preventive actions
    - demographic characteristics, 186
  - Lo Re, T., 158
  - Lottery, 125–126
  - Loughnan, T., 114
  - Luin, D., 265
  - Lupu, V., 235, 237
- M**
- Macur, M., 268, 270, 271
  - Mafia and crime, 165–166
  - Makarovič, M., 268, 270, 271
  - Media gambling, 19
  - Meyer, G., 92
  - Mikaelsson, M., 140, 141
  - Minet, S., 9, 13
  - Miu, A., 235, 237
  - Møller, A., 30
  - Moore, L., 304, 306
  - Munch, I.M.K., 212
  - Munck, I., 304, 306
  - Murto, L., 63
- N**
- Nábielek, L., 261
  - National anti-drug association (NAA), 237
  - National gambling market, Hungary
    - current regulatory framework, 125
    - gambling opportunities
      - casino market, 128
      - lottery, 125–126
      - slot machine market, 126–128
    - political changes, 124–125
    - total public revenue, 128–130
  - Nazmutdinov, A.B., 248
  - Németh, A., 132, 134
  - Netherlands, The
    - area-specific prevention measures, 201
    - existing treatment options
      - addiction treatment, 202–203
      - future development, 204
    - Gamblers Anonymous, 203–204
    - gambling and popularity
      - addiction, 191–192
      - monopolies, 191
      - participation, 192
    - gambling problems and prevalence
      - Dutch population, 192–193
      - Holland Casino*, 194
      - pathological gambling, 193–194
      - SOGS score, 193
    - legal framework
      - Dutch gambling act, 189
      - gambling activities, 190
      - gaming monopolies, 190–191
      - objectives, 189–190
    - national policy
      - gambling strategies, 199
      - Holland Casino*, 199–200
    - pathological gambling
      - internet, 198–199
      - scratchcard, 197–198
    - integral problem gambling prevention policy, 201–202
    - protective factors identification
      - casino gamblers, 196
      - ethnic minorities, 195
      - pathological gambling, 194–195
      - problematic gambling, 196–197
  - Nielsen, P., 23, 25, 29
  - Niemelä, J., 63
  - Nilsson, T., 304, 306
  - Nora, R., 215
  - Norway
    - gambling market
      - lotteries, 209
      - Norsk Tipping*, 210–211
      - pathological gambling, 210
    - gambling problems, 215–216
    - governmental action, 216–217
    - lie/bet screen (LBS), 215
    - pathological gambling
      - adolescence, 213
      - technological addictions, 213–214
    - problematic gambling, 216
  - Norwegian University of Science and Technology (NTNU), 211
  - Nowatzki, N., 269
  - Nower, L., 162
- O**
- Odlaug, B.L., 211
  - Olason, D.T., 140, 141
  - Örnberg, J.C., 17
  - Osiek, C., 321
- P**
- Páez, D., 286
  - Pahor, M., 268–270
  - Pasternak, A.V., 249

## Pathological gambling

- Denmark
  - Center for Ludomani, 23–24
  - Frederiksbergcentret, 24
  - treatment evaluation, 24–25
- France, 75–76
- Germany
  - criminal behaviour, 92
  - epidemiological survey, 90–91
  - representative survey, 88–90
  - risk factors, 91–92
- Netherlands, The
  - gambling problems and prevalence, 193–194
  - internet, 198–199
  - protective factors identification, 194–195
  - scratchcard, 197–198
- Romania
  - adolescents, 234–237
  - anonymous, 234–235
  - ICD classification, 237
  - psychosocial problems, 239
  - risk factors, 236–237
  - treatment methods, 237–238
- sensation seeking and alexithymia, 78
- Slovak Republic
  - CPLDZ Bratislava, 263
  - therapeutic programme, 263
- Slovenia
  - annual social costs, 272, 276
- Spain
  - DSM-III, DSM-III-R, and SOGS, 285–286
  - DSM-IV and NODS, 287
  - treatment options, 292–293
- Switzerland, 321
- Peden, N., 47
- Petry, J., 96, 97
- Pierce, M., 114
- Poland
  - drug addiction, 219
  - evidence, 222
  - gambling
    - commercial gaming operators, 222
    - gross revenues, 220
    - video lottery terminals (VLTs), 221
    - wagering law, 220–221
  - gambling policies and casinos, 224–225
  - public debate, 223–224
  - state monopoly, 225–226
  - treatment, 222–223
- Poteri, R., 66
- Prašnikar, J., 268, 270

## Q

- Queri, S., 95

## R

- Rahapelifoorumi, 64
- Ramírez, J. N., 286
- Reith, G., 269
- Remote gambling, 112–113
- Responsibility in Gambling Trust (RIGT), 117
- Responsible gambling
  - Estonian Gambling Operator Association (EGOA), 49–50
  - new draft Act, 40–41
- Røjkjær, S., 23, 25, 29
- Romania
  - gambling opportunities
    - advantages, 231–232
    - Caritas*, 233
    - Insomar*, 231
    - sports betting, 232–233
  - laws
    - gambling, 230–231
    - Parilotto* and *Pideolottery*, 229–230
  - national politics
    - pathological gambling, 237–239
    - treatment methods, 237–238
  - pathological gambling
    - adolescents, 234–237
    - adults, 234
- Rončević, B., 268, 270, 271
- Rönnerberg, S., 212, 302, 304, 306
- Russia
  - current government policy
    - laws, 252
  - gambling
    - attitudes, 246–247
    - contemporary gambling industry, 245–246
    - historic background, 244–245
    - Soviet Union, 245
  - motivational perspective
    - analysis, 249
    - psychological mechanisms, 250–251
    - therapeutic strategies, 251
  - pathological gambling
    - classification stages, 249
    - environmental factors, 248–249
    - psychiatrists, 248
    - socio-economic classes, 247
  - socio-criminological perspective, 252–254
  - technological backwardness, 244

## S

- Sagris, A., 114
- Saidulina, A.F., 249

- Schaef, A., 251
- Schmidt, L., 90, 91
- Shaffer, H.J., 295
- Skarphedinsson, G.A., 140, 141
- Slot machine legislation
- Danish prevalence study, 29
  - game providers, 31–32
  - policy makers and administrators, 31
  - research projects, 21
  - treatment and research funds, 22
  - treatment centers
    - Center for Ludomani, 23–24
    - Frederiksbergcentret, 24–25
- Slot machine market, 126–128
- Slovak Republic
- CPLDZ Bratislava, 263
  - evidence
    - expenditures and revenues, 261, 262
  - initiatives at national level, 262
  - legislation
    - Act defining gambling games, 258–259
    - betting games, 260
    - casino gambling games, 259–260
    - internet-operated games, 260
    - lottery games, 259
    - machine-operated games, 260
    - technical equipment operated games, 260
  - operation conditions, 261
  - recommendation, 264
  - regulation, 260–261
  - therapeutic programme, pathological gamblers, 263
- Slovenia
- average annual social costs, 272, 273
  - care system evaluation, 275–276
  - economy, 265
  - evidence
    - preliminary results, 268
    - problem and pathological gambling estimates, 268–272
  - foreign and Slovenian visitors, 270
  - gambling history and current market, 265–267
  - pathological gamblers, 276
  - preliminary problem evaluation approach, 273–274
  - preventive mechanisms evaluation, 274–275
  - Slovenian casinos, impact, 271
  - Slovenian casinos, visitors, 267
  - treatment facilities
    - health and social care, 278
    - problems, 277–278
- Smaniotto, R., 159
- Smith, D., 7
- Sonntag, D., 90, 91
- South Oaks Gambling Screen (SOGS), 158–159, 193
- Soyka, M., 95
- Spain
- educational and preventive strategies, 293–294
  - expenses, 283–285
  - gambling products *vs.* year of creation, 282
  - legalisation and expansion, 282–283
  - legislation and policies from 1977, 290–291
  - participation, 285
  - pathological gambling
    - in children, adolescents, and university students, 288
    - DSM-III, DSM-III-R, and SOGS, 285–286
    - DSM-IV and NODS, 287
    - in Spanish adult population, 286
    - treatment options, 292–293
    - in various countries, 287
  - risk and protective factors, 289–290
  - strong and weak points on regulatory structures, 294
  - tourism and the leisure industry, 281
  - vulnerable groups, 288–289
- Stadler, M., 92
- Stinchfield, R., 88, 90, 287
- Stöver, H., 88, 90, 91
- Svensson, O., 304, 306
- Sweden
- advertising, 308–309
  - community impacts of casinos
    - casino evaluation, 308
    - Westfelt's Studies, 308
  - economy, 299
  - gambling market, 300–301
  - gambling problems, 302–304
  - gambling types, 307–308
  - Penninglotteriet*, 299–300
  - policies and research, 302
  - problem gamblers
    - childhood circumstances, 304–305
    - comorbidity, 305–306
    - young people, 306–307
  - regulation and authorities, 301–302
  - responsible gaming
    - educating retailers, 312
    - information for customers, 312
    - at international casinos, 311–312
    - poker on internet, 312
  - Swedish National Institute of Public Health (SNIPH), 309–311
  - Tipstjänst*, 299–300
  - turnover for popular games, 301
- Switzerland
- casinos' preventive interventions, 324–325
  - chance market, 318–320
  - drop-in counselling services, 321–322
  - gamblers' characteristics, 320–321
  - gambling participation, 320
  - pathological gambling and gamblers, 321–322



responsible gaming interventions  
  casino sector, 323  
  lottery sector, 322–323  
  state health policy, 325

**T**

Tan, B.H., 215  
Thomas, T., 7  
Tóth, A., 132, 134  
Tourunen, J., 66  
Tsytarev, S.V., 246

**V**

Vallerand, R.J., 114  
Vehovar, U., 268, 270, 271  
Video poker machine, 160  
Viloria, C., 288  
Volberg, R.  
Volberg, R.A., 212, 302, 304, 306  
Vongrej, J., 261

**W**

Walker, D.M., 268  
Westfelt, L., 307  
Williams, J.R., 269  
Wood, R.T., 269

**Y**

Yeoman, T., 111

**Z**

Zagoršek, H., 267–269  
Zaitsev, V.V., 249  
Živný, H., 261  
Znoj, H., 320, 321  
Zorec, K., 268, 270, 271  
Zori, J., 267