

Executive Summary

Project Summary

- This project was commissioned by the Victorian Department of Justice on behalf of Gambling Research Australia (GRA) and completed by the University of Adelaide, South Australia.
- The aim of this project was to provide: (a) a critical review of recent Australian gambling research and the extent to which this can be used to inform inter-jurisdictional and national public health policy, and (b) inform the currently identified national research priorities identified by Gambling Research Australia.
- Material for the review was drawn from the most recent edition of the Australasian Gambling Review (AGR) produced annually by Delfabbro and LeCouteur (2007) for the Independent Gambling Authority of South Australia.
- The material reviewed in this report is derived from the period 1992 to June 2007 with an emphasis, wherever possible, on material produced in the period 2003–2007.

Analytical Framework

- In analysing the utility of research in terms of its ability to inform national and inter-jurisdictional policies, several criteria or factors were examined. These included: (1) the scientific quality of research, (2) its methodological comparability, (3) the role of contextual factors, and (4) the needs of final users.
- The term scientific quality referred to the reliability and validity of research findings: to what extent did the research satisfy the principal qualities of sound scientific research?
- Methodological comparability related to the extent to which findings could be compared as based on variations in research methodologies, measures, and sampling strategies.
- Important contextual factors taken into account included the nature and range of products available in a particular State or Territory, its regulatory environment, as well as the prevailing social and geographical landscape.

- The utility of research was analysed in terms of the extent to which the findings meet the needs of different stakeholders, e.g. policy-makers, regulators, treatment service providers, and researchers.

Analysis of Prevalence Research (Chapter 2)

- A full chapter is devoted to a review of gambling prevalence studies and patterns of gambling within particular population groups, including younger and older people, as well as Indigenous and culturally diverse (CALD) populations.
- Current community prevalence studies appear capable of providing useful comparative data concerning gambling patterns in different jurisdictions. Most estimates of overall participation rates and rates for specific activities appear both valid and reliable.
- Consistent adoption of the Canadian Problem Gambling Index (CPGI) by different jurisdictions has led to greater comparability in estimates of the prevalence of problem gambling. However, there remain, within these surveys, some variations in the sub-sampling of regular gamblers to whom this instrument is administered. Some surveys administer the CPGI only to weekly gamblers, some use fortnightly gamblers, whereas other jurisdictions have developed their own idiosyncratic sampling strategies.
- Problem gambling prevalence estimates have varied considerably and inconsistently across time within some jurisdictions, so that it is difficult to use these rates as an effective means of assessing the impact of policies to reduce problem gambling.
- The probable under-sampling of the more severe cases of problem gambling remains an ongoing threat to the validity of telephone survey methodologies. However, in terms of measuring prevalence in random samples of adult populations, random digit dialling via a call-assisted telephone interview and applying the population screen (CPGI) is the best method currently available.
- Current research appears to provide valid and reliable descriptions of demographic differences in gambling in Australia.
- Overall participation rates for males and females remain very similar, although males are more likely to gamble on a wider range of activities, including on

sports, racing, casino tables games, and keno. Males are also more likely to experience gambling-related problems.

- A number of explanations for gender differences are reviewed, including the view that women remain reluctant to gamble on activities that attract predominantly male patrons, which require knowledge not previously obtained during adolescence (e.g. rules of card games, race betting). Several studies have shown that women also appear more likely to gamble to escape problems and for relaxation (a coping strategy), whereas men are more focused on finding strategies to win money.
- Gambling participation rates are negatively associated with age. Older people (55+ years) are less likely to gamble and to experience gambling-related problems as compared with younger age groups. The 18–24 year old age group is most likely to experience problems with gambling.
- A review of current adolescent gambling research showed that more than 50% of Australian teenagers gamble at least once per year, and that around 3–4% experience problems with gambling. Problem gambling appears to coincide with other high risk behaviours and poorer psychosocial functioning. Concerns were, however, raised about the exact interpretation of the adolescent problem gambling measures.
- It was found that research into Indigenous and CALD populations remains very undeveloped. It is known that both of these communities are negatively affected by gambling, and that many gamblers are reluctant to seek help because of shame, social stigma and the lack of appropriate services, but there are currently no national comparative data concerning these populations.

Analysis of Research into the Impacts of Problem Gambling (Chapter 3)

- Research findings relevant to the principal impacts of problem gambling were reviewed using the impact domains identified by the Productivity Commission (1999): personal, interpersonal, financial, vocational, and legal.
- It was emphasised that the prevalence of all gambling-related impacts tends to be considerably higher in help-seeking populations than in prevalence surveys. This was attributed to the fact that the most severe cases of problem gambling

are often omitted from telephone surveys, whereas only the most desperate or problematic cases tend to seek formal assistance.

- The prevalence of negative psychological symptoms – including clinical depression, anxiety, and suicidal thoughts – is around 15–20% within problem gamblers identified in community surveys, but can be higher than 50% in help-seeking populations. The need to determine the direction of causality, or the direction of the relationship between these symptoms and problem gambling, was identified as an important research objective.
- Substance abuse and smoking rates are significantly higher in problem gambler populations. Some recent studies have suggested that 20% of problem gamblers experience substance abuse problems, and that up to 60% smoke regularly. However, there is a clear need for greater consistency in how substance intake is measured. Few studies have employed internationally recognised and validated measures.
- There is no question, however, that smoking rates are particularly high in electronic gaming machine (EGM) gamblers, as reflected by recent declines in gaming revenue in States where venue smoking bans were introduced.
- The important social impacts to arise from problem gambling include the breakdown and loss of relationships, and neglect of family duties. The review points to the importance of including additional validated measures of family functioning in future studies of social impact as well as a greater emphasis on the effects of problem gambling on children.
- The principal vocational impacts include a loss of productivity, job changes, and a loss of employment. Further analysis of the links between gambling and job performance needs to be undertaken using validated measure of job stress and work satisfaction.
- The Productivity Commission's (1999) findings as well as the current national definition of problem gambling suggest, all things being equal, that problem gambling is usually (although not in every instance) associated with a higher expenditure on gambling.
- The review identifies the significant problems associated with using survey data to obtain accurate estimates of gambling expenditure. Particular concerns are expressed about research that has relied upon data drawn from household

expenditure surveys of gambling information collected by the Australian Bureau of Statistics.

- Studies of the legal impacts of problem gambling have included studies of court records, interviews with problem gamblers within treatment programs, and studies of correctional populations.
- The estimated rates of gambling-related crime tend to be very low if based on prevalence surveys (1%), but much higher (at least a third) in treatment samples. The prevalence of such behaviour is difficult to estimate because of concealment and because the cause of many crimes is not consistently listed in court records.
- Current data suggest that problem gambling rates are considerably higher in correctional populations (around 10+ times higher) as compared with the general population. However, there is a need for this research to be extended to all Australian jurisdictions and to be undertaken using consistent sampling methodologies and measures.

EGMs and Their Role in Gambling and Problem Gambling (Chapter 4)

- Most studies have identified very high levels of participation in EGM gambling in samples of problem gamblers (70%+) and that EGMs are almost the exclusive cause of problems for women. However, few studies have included specific questions about the forms of gambling that are causing difficulties so that the relationship between specific forms of gambling and problem gambling often has to be inferred.
- Information concerning people's principal motivation for gambling on EGMs is inconsistent. People gamble with the intention to win money, but do not usually expect to win. For this reason, general questions relating to motivations are often not useful because the responses are heavily influenced by how the questions are interpreted.
- Several recent studies have examined the features of EGMs that people find most attractive. The results show that the number of play-lines, bonus features, and low cost (1, 2 or 5 cent machines) are the most influential features in people's choice of machines. Unfortunately, these studies have often not

included a comparison sample of non-problematic players to determine what preferences are unique to problem gamblers.

- There is some reliable and valid evidence to suggest that problem gamblers spend more per spin than other gamblers as a result of betting more credits per line, and that problem gamblers also play for longer each session.
- Useful observational work undertaken in New South Wales has also shown that gamblers prefer a maximum line and minimum bet per line strategy of play because of a desire to obtain bonus features. Such work could usefully be extended to allow longer sampling periods, a comparison of gamblers with varying degrees of risk on the CPGI, and the inclusion of other jurisdictions.
- The findings from machine modification studies have shown that limits on note-acceptors and maximum bet size may play a useful role in reducing excessive expenditure, but limits on play-speed may not be as effective.
- The review highlights the limitations and strengths of the existing machine modification research and how it might be extended to include more detailed observations of individual player behaviour, full control over all in-venue gambling, and comparisons of popular machines with and without bonus features.
- A review of psychological studies of EGM gambling has shown some evidence of a link between gambling behaviour and the pattern of machine events and also irrational or erroneous beliefs about chance, randomness and how machines operate. The implications of this work for interventions are discussed later in the report.
- There is consistent evidence that many problem gamblers use EGMs as a form of avoidance or emotion-based coping, which suggests some element of psychological addiction. This trend suggests that EGMs appear to be particularly problematic for psychologically vulnerable people with histories of anxiety, trauma and depression.
- The review also highlighted the potential value of further analyses involving the concept of 'impaired control', with a particular focus on the development of mechanisms and theories to explain why people develop an inability to avoid gambling, or to stop gambling once they have commenced a session.

Harm Minimisation Strategies, Interventions, and Services (Chapter 5)

- Interventions and strategies are classified according to the well-established categories developed in public health research: primary, secondary, and tertiary.
- Primary strategies are those that attempt to address problems before they develop. The review examines the nature and effectiveness of school education campaigns, community education, and in-venue information. All of these strategies were considered useful, but there is insufficient research evidence currently available to support their long-term effectiveness.
- Secondary interventions relate to strategies that try to minimise risks once they have started to develop. An analysis of many venue modifications was provided, including a discussion of schemes to change venue lighting, to add clocks, to remove ATMs, and to shut down machines at certain intervals, as well as the potential use of smart-card technology.
- The existing research evidence provides little empirical support for changes to lighting or the addition of clocks, machine shutdowns and other similar features, but suggests that further research involving active trials needs to be conducted to investigate the more promising initiatives such as the removal of ATMs and the use of smart-card technology.
- The review of tertiary interventions was largely concerned with the nature and effectiveness of current treatment services. It was pointed out that, although there have been many descriptive analyses of clients seeking help from services, very few systematic evaluations of services have currently been undertaken. Only a few small-sample clinical evaluations of specific psychological interventions have been completed.
- Few, if any, studies published in Australia during the past decade meet the standards required for formal clinical evaluations, including the appropriate use of randomisation, control groups, longer-term follow-ups and a consistent treatment of drop-out rates. The review therefore sets out some of the requirements for effective future evaluations and suggests the need for the development of consistent national evaluation requirements and the use of multi-site trials to increase sample sizes.

Economic and Geographical Impact Studies (Chapter 6)

- At present, there is no consistently agreed-upon conceptual framework for undertaking economic impact research in Australia. Instead, researchers have tended to employ different economic approaches and sources for data for their analyses.
- There is also a significant dearth of information relating to many aspects of the gambling industry, including the exact cost of gambling to consumers, the elasticity of demand, and the nature and extent of linkages between the gambling industry and other sectors of the economy.
- The review includes a summary of a number of retrospective economic analyses of regions, with a focus on the effects on EGMs on regional communities.
- The most effective evaluations have involved the use of input-output analysis in specific cities or regions and have examined the economic contribution of EGMs to local economics by considering the magnitude of multiplier effects, as well as forward and backward linkages.
- Existing studies suggest that EGMs make a negative contribution to local economies because the multiplier effects for the industry are generally smaller than for other potential industries, and few backward and forward linkages are established because of the highly specialised nature of the technology. Revenue is also lost to local economies because of the high tax-rates applied to EGM revenue. It is also unclear how much is reinvested via community benefit funds developed to assist problem gamblers.
- The review suggests the need for further studies of this nature, based on a stronger body of primary data collected from the regions concerned.
- Geographical studies have predominantly focused on the links between the accessibility of EGMs, revenue, and problem gambling.
- Most studies, based on data collected in Local Government and Statistical Local Areas, have revealed higher expenditures (and in some cases, higher problem gambling rates) in areas with a higher concentration of EGMs.
- EGMs also tend to be located in areas with greater social disadvantage.
- At least half of the population that gambles on EGMs travels only a short distance from their homes to gamble.

- The review suggests the need for more refined studies that collect primary data from the community (gambling habits, problem gambling, venues frequented) and then examine these data in relation to the concentration of gambling opportunities as based on number and size of venues within specific areas.