

# GAMBLING COMMISSION

## **Literature review of children and young people's gambling**

Commissioned by the  
**Gambling Commission**

by

**Professor Gill Valentine**

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## Executive summary

### Research findings

This review was commissioned to summarise international evidence about: children and young people's participation in different types of gambling activities; their motivations to gamble; the prevalence of problem gambling among children; and the harms caused to children by gambling (including in later life). It also briefly summarises the regulatory frameworks in place to protect children across a range of international jurisdictions and makes recommendations for further research

### Prevalence rates of young people's gambling and problem gambling

- Reviews of prevalence rate studies of young people's gambling in UK and North America suggest that between 76-91 percent of young people report that they have gambled within their lifetime; with the percentage who report gambling within the last year ranging from 65-75 percent.
- It is estimated that approximately 10-14 percent of young people are at risk of developing serious gambling problems and that between approximately 5-7 percent of young people are problem gamblers. These findings have been broadly correlated between studies in North America, UK, Australia, New Zealand and the Nordic countries. As such, they are widely regarded internationally as the accepted prevalence rate for young people's problem gambling.
- The prevalence rate of problem and pathological gambling amongst young people is higher than amongst adults and represents an emerging public health issue.
- Early exposure to gambling increases the risk of developing gambling problems later in life. The age of onset for problematic gambling in young people is estimated to occur around 10-11 suggesting that access to gambling at this age is of crucial importance.

### Patterns of young people's gambling behaviours

- Young people may have trouble differentiating between the concepts of: luck, fate, chance and probability. They often use these terms interchangeably, whereas adults are more aware of the differences between these terms.
- Young people are motivated to gamble for a number of different reasons including: for entertainment, to win money, the sensation of winning, the thrill of the game, or to escape stress/problems. Much less is known about why some individuals become problem gamblers while for others gambling remains a casual activity without harmful consequences.
- Key risk factors which may increase the likelihood of a young person developing a gambling problem include: impulsive behaviour in childhood/youth (for boys); having parents who introduce them to gambling at an early age; having parents who are heavy gamblers themselves; having friends who are problem gamblers.
- Young men are more likely to be involved in gambling, and are more likely to experience gambling problems, than young women (although this might change as social, moral and economic constraints on women's gambling disappear).
- Young people who have developed problem gambling also experience a range of mental health issues including depression and anxiety disorders, and suicidal thoughts/attempts. They are also more likely to: truant and perform poorly at school; engage in alcohol and drug abuse; exhibit anti-social behaviours (eg stealing); and experience disruption to family and peer relationships. Though from the research evidence it is not always clear which of, and to what extent, these factors were present prior to problem gambling; or whether problem gambling caused these outcomes. In other words, problem gambling is often one element in a general pattern of high risk or anti-social behaviour
- The impact of young people's problem gambling is commonly transferred onto other family members – particularly parents/carers, and siblings. For every individual with a gambling problem it is estimated that five to 17 other people are adversely affected.

## **Young people's access to gambling opportunities**

- Children's high levels of gambling have been related to the accessibility/availability of gaming machines. The evidence is not very clear however, as to whether the opportunity to gamble attracts young people to gambling settings; or whether gambling venues merely provide a convenient and congenial place for young people to hang out because of the lack of alternative spaces available to them.
- While the gambling industry is not supposed to target advertisements specifically at young people, nonetheless the type of advertisements used are often attractive to those under 18.
- The potential omnipresent opportunity provided by the internet to gamble in privacy, with anonymity and without the stigma attached to entering off-line gambling venues may exacerbate young people's ability to access gambling opportunities both legally and illegally.

## **Transmission of patterns of gambling**

- There is an extensive body of international evidence which demonstrates the role of parents in introducing children to gambling and normalising this activity as part of banal family activities/histories. There is some indication that traditional hierarchical or authoritarian models of parenting are being replaced by a more liberal approach in which parents are seeking closer, more intimate relationships with their children. This wider parenting culture may be contributing to adults' willingness to introduce children to, and support their participation in, illegal under-age gambling activities.
- The impact of problem gambling can extend well beyond the time/place in which it occurs because of the intergenerational transmission of patterns of problem gambling. Some studies, for example, have suggested there is a link between adult problem gamblers and later problem gambling amongst their own children.
- Problematic or anti-social behaviour amongst young people is 'contagious' because 'influential friends' legitimise these activities and enrol others into them through processes including goading, coercion and competitiveness.
- Young people's problem gambling is not necessarily visible because they often do not seek help from formal agencies for their problems because of shame, fear they will be denied help, or because their problem gambling can be hidden within, or by, the family.

## **Implications**

- Some commentators have suggested that young people may grow out of gambling problems and as such levels of young people's gambling should not be considered a cause of undue concern. Others have argued that exposure to gambling opportunities may vary with age such that contemporary young people are being exposed to new gambling opportunities compared to previous generations and as such this has yet to manifest itself in higher adult prevalence rates; or that the early onset of gambling problems may be leading to treatment that might account for the decline in the number of problem gamblers by age.
- There is relatively little public information about, or awareness of, the potential risks associated with underage gambling in relation to other risk taking behaviours such as alcohol and drugs.

- Young people find it easier to gamble underage in un- or semi-regulated spaces such as the home or entertainment and leisure venues (eg amusement arcades) than in closed, highly regulated spaces like casinos. This implies that greater surveillance and control of gambling spaces should limit children's ability to gamble underage. However, there is a consistent pattern of relatively high rates of problem gambling among young people across a range of national contexts with variable legislative frameworks. This casts doubts on the significance of regulatory frameworks in influencing rates of problem gambling amongst young people. The evidence from countries where young people's access to gambling is more tightly regulated than in the UK is that these regulations are difficult to enforce and that young people subvert them and gamble regardless of the law.
- In the light of the prevalence rate for young people's problem gambling and the limited success of regulatory and enforcement regimes, problem gambling should be recognised as a potential public health issue – with young people the group at most risk.
- A public health model of gambling would involve (i) denormalising gambling (ii) preventative policies (eg public education) which might better equip young people with the skills to understand the potential negative impacts of gambling; and (iii) a harm reduction strategy (including specific treatment programs aimed at young people).

## Research gaps

In the light of the above evidence further research is needed to explore:

- the attitudes of parents towards underage gambling; the context in which parents support underage gambling; and the relationship between parental approval and the development of responsible play (including to assess the impact of increasing gambling opportunities in the adult population on children's current and future behaviour).
- young women's problem gambling; different gendered meanings of, and motivations for gambling; and the extent of problem gambling within minority ethnic communities.
- to what extent (if any) the advertising/promotion of gambling – including free demonstration games available on websites - has a direct effect on gambling participation. This is particularly pertinent in the UK in the light of the recent *Gambling Act 2005* which legalised the promotion of gambling on television.
- evidence that gambling behaviour decreases with age and to use longitudinal research to explain this pattern given that very few studies have followed young people over time, so we know little about pathways in, and out of gambling, and long term outcomes.
- the potential impact of technological advances in gambling (eg internet, electronic gaming machines (EGMs), televised and mobile device gaming) on the prevalence and patterns of young people's gambling.
- the effects of regulatory policy on young people: to address the question of if, and how, young people are able to subvert current regulations; how age regulations might be more effectively enforced (both in off-line spaces and on-line). This includes a need to understand the extent to which children participate in illegal gambling activities directly (ie by passing as older than they are) and indirectly (eg by getting an adult, who is legally entitled to gamble, to place a bet for them) and the range of means through which they do so.
- the effectiveness of preventative strategies (developed in the UK and international contexts) aimed at young people's gambling behaviours; to develop more understanding of young problem gamblers help-seeking strategies; and the barriers which prevent some young people from seeking help in order to improve age-appropriate support for this 'vulnerable' group.

# 1 Introduction

- 1.1** Over the past 15 years the availability of legal gambling activities has increased significantly in the UK. The introduction of the National Lottery and the development of new forms of legalised gambling have seen the rapid spread of new venues throughout UK communities; as well as the emergence of new gambling opportunities on the internet. The public broadcast of the National Lottery draw, and the introduction of *The Gambling Act 2005* -- which has allowed television advertising by the gambling industry for the first time -- are two factors which are contributing to a marked increase in the coverage of gambling in the UK media (cf. Lavoie and Ladouceur 2004). As such, in the UK, and most other contemporary western societies (eg Australia, New Zealand, Nordic countries) gambling has become a widely accepted, popular, entertainment and leisure activity and a common feature of charity and fund raising events (Problem Gambling Foundation of New Zealand and Centre for Gambling Studies 2003, May-Chahal et al 2004, Derevensky & Gillespie 2005).
- 1.2** Contemporary children are therefore the first generation to have been exposed to such a range of gambling opportunities. To-date there is a significant body of international research which suggests that children and young people have increasing awareness of, and access to, opportunities to gamble in a range of forms (both regulated and unregulated). This review summarises international evidence about children and young people's participation in different types of gambling activities, their motivations to gamble, and the effects this gambling may have on them. In doing so, it considers the prevalence of problem gambling among children and the harms caused to children by gambling (including in later life). This summary of evidence from the field of gambling studies is further informed by understandings from contextual bodies of work, including the social studies of childhood literature which provides insights into children's behaviour, agency and intergenerational patterns of transmission, as well as the field of alcohol studies. The review concludes by summarising the regulatory frameworks in place to protect children across a range of comparable international jurisdictions and makes recommendations for further research necessary to inform the development of UK policy in order to protect children.
- 1.3** In adopting an international perspective this review focuses on specific comparable international jurisdictions, namely: North America, Australia, New Zealand and the Nordic countries. This is because there is less available evidence about approaches to problem gambling from other cultural contexts, and because these identified international contexts are those most culturally similar to the UK (Abbot et al, 2004). When reporting research commissioned by bodies such as the National Lottery Commission or government departments this review follows the academic convention of citing these reports under the authors' names (eg Fisher and Balding 1996, Ashworth et al 2000) rather than by the commissioning bodies' affiliations, except where there is no clearly identified author.

## 2 Definitions

- 2.1 'Young people' is used in this review as an umbrella term to embrace the full gamut of phrases, including: children, adolescents, teens, teenagers, juveniles, youth and young adults, which are variously, employed by different studies in the literature reviewed. There is no standard or accepted definition of where childhood ends and adulthood begins. Indeed, historians have observed that the concept childhood is a relatively modern phenomenon that was fostered through the development of the formal education system (Aries 1962). It was not until the late 19<sup>th</sup> and early 20<sup>th</sup> centuries that the concept of childhood as temporally set apart from the adult world and as a time of 'innocence' and freedom from the responsibilities of adulthood became widely accepted; and that social development (in terms of rationality, competence etc) came to be dovetailed with physical development (Prout and James 1990). Likewise, the notion of adolescence or the teenage years were only 'invented' in the 1950s to describe the transitional stage of dependence to independence (Hebdige 1988). The boundary between childhood and adulthood is ambiguous. James (1986) points to diverse legal classifications, for example the age at which young people can drink alcohol, earn money, join the armed forces or consent to sexual intercourse to demonstrate how variable, context specific and gendered are the definitions of childhood, youth and adulthood. Moreover, the social studies of childhood literature points out that these definitions are further muddled by increasing recognition that social competence is not necessarily wedded to biological development (Valentine 1999a). As such, some young people are very competent at making sophisticated decisions about their own lives at a young age and can 'pass' as much older than they actually are both socially and physically; whereas some biological adults never achieve appropriate levels of social competence in managing their own lives. In the light of this conceptual complexity this review uses the terms children and young people to refer to all those aged under 18. However, because of the lack of agreed definition about the relationships between childhood and adulthood many of the studies reported in this review draw on very different age spans. Indeed, the term youth is commonly employed to refer to those up to the age of 24 (Valentine and Skelton 1998). As such, where the research cited in this review is based on empirical work with particular age groups the age parameters of the studies referred to are clearly highlighted.
- 2.2 Gambling can be broadly defined as betting money on games of chance (National Research Council 1999). The UK *Gambling Act 2005* describes it more specifically in terms of gaming (ie playing a game of chance for a prize); betting and participating in a lottery. It usually involves risk taking and in some cases requires particular knowledge or skills. The majority of gambling is social or recreational, although some people do make a living as professional gamblers. A minority of people who gamble do so in ways which disrupts their personal or family lives. This 'problem gambling' can include a complex range of behaviours of varying severity. 'Pathological gambling' has been defined as gambling which is 'characterised by a continuous or periodic loss of control, over gambling, a pre-occupation with gambling and with obtaining money with which to gamble, irrational thinking and a continuation of behaviour despite adverse consequences' (Hardoon and Derevensky 2002: 264, see also Lesieur and Rosenthal 1991).
- 2.3 In order to identify people who might be defined as problem or pathological gamblers various indices of behaviours and psychological states known as 'screens' have been developed (Fisher 1998). The two most common screening instruments are the South Oaks Gambling Screen (SOGS) (Lesieur & Blume 1987) and the American Psychological Association's Diagnostic Statistical Manual IV (DSM-IV). In the case of SOGS an individual is defined as a problem gambler if they score five or above in relation to a list of defined questions. With the DSM-IV screening instrument an individual is defined as a problem gambler if they score three or above in relation to its particular list of criteria. Originally, developed for use with adults it is generally accepted that these scales are not necessarily appropriate to use with children and as such both of these screening tools have been adapted for young people (Fisher 1992, 2000).

**2.4** The South Oaks Gambling Screen – Revised for Adolescents (SOGS-RA) is widely used in North America (Winters et al 1993a). This measure has 16 criteria and places particular ‘emphasis upon the frequency and behavioural indices of gambling behaviour’ (Rossen 2001:4). The Diagnostic Statistical Manual IV- Adapted for Juveniles (DSM-IV-J) consists of a questionnaire with 12 criteria, designed to measure the gambling behaviour of 11-16 year olds over the past year (Fisher 1992). Fisher (1998, 2000) revised this screen further to create a form of scoring (DSM-IV-MR-J) based on nine criteria with four response choices (never; once or twice; sometimes and often). These standardised measurements of problematic and pathological gambling behaviour are useful because they enable direct comparisons to be made between different social groups and international contexts (Orford et al 2003a/b). However, they must also be treated with a degree of caution because research suggests that these different measurement tools produce different prevalence rates. For example, it is argued that studies which use SOGS-RA tend to estimate the proportion of problem gamblers as higher than those studies employing DSM-IV-J (Derevensky and Gupta 2000, Fröberg 2006) and the significance of gender differences in gambling behaviour also appears to vary depending on which screen is used (Derevensky and Gupta 2000). There are also limitations to using such screening instruments to compare patterns of adult and child gambling because it is hard to assess the extent to which different outcomes may be a product of the differences in the screening instruments used or contexts in which the tests were undertaken (eg young people commonly complete the survey tools in class or group situations, whereas adults are usually surveyed in individual contexts) rather than actual gambling behaviours (National Research Council 1999). As such, it is widely recognised by leading scholars in the field of gambling studies that there is a need to further develop and refine current screening instruments for young people to establish an agreed ‘gold standard’ criteria to define young people’s problem gambling (eg Derevensky et al 2003, Derevensky & Gupta 2006).

**2.5** Indeed, work within the field of the social studies of childhood suggests that there are broader limitations to using any survey tools with children given that these are often ‘adultist’ in their design and are considered ‘boring’ by young people who may be reluctant to fill them in properly or reliably (Valentine 1999a). In particular, survey tools are not very sensitive to capturing the complexities of peer group relations which play such a powerful role in young people’s everyday lives, nor are they very reliable at capturing behaviours which young people know to be illegal and may be reluctant to commit to paper. Children with low levels of educational attainment, or whose first language is not English, may also self-exclude from research involving surveys that require a significant degree of literacy. As such, there is growing recognition of the need to draw on a wider range of evidence that embraces more ethnographic and child-centred methods in order to capture children’s own experiences and views of their lifeworlds (Valentine 1999a). Indeed, there is a rich vein of in-depth qualitative work with young people within the field of gambling studies (eg Griffiths 1995, 2002). As such, rather than relying exclusively on evidence from large-scale studies employing standard screening instruments this review also includes evidence from qualitative research, notwithstanding the fact that it is based on small sample sizes recruited through subjective sampling techniques. This qualitative evidence is used, in the social science tradition, to gain in-depth understandings about young people’s behaviours, and is not statistically representative of a wider population.

### 3 Types of, and motivations for, young people's gambling behaviours

- 3.1** A review of prevalence rate studies of young people's gambling in the UK and North America shows that the number of young people who had reported gambling within their lifetime ranged from 76 to 91 percent (McGowan et al 2000). This is further supported by a similar review of international evidence (also across a range of national jurisdictions including studies conducted within the UK eg Fisher 1999) conducted by Rossen (2001) which suggests that between 60 to 90 per cent of young people have ever participated in one form of gambling or another. The percentage of young people who report gambling within the last year ranges in the studies reviewed by Rossen from 65 percent (eg Poulin 2000) to 75 percent (eg Fisher 1999); while the percentage who gamble regularly is more diverse, ranging from 4.6 (Winters et al. 1993b) to 32 percent (Lesieur & Klein 1987). These findings have been broadly replicated in subsequent UK research. For example a National Lottery Commission survey of 8017 12-15 year olds in England and Wales conducted in 2005/06 found that 73% of the respondents had ever gambled (National Lottery Commission 2006). However, international reviews of prevalence rates do need to be treated with some degree of caution because of the overall lack of consensus among researchers about methods, particularly measurement tools, and the different types of gambling and age ranges that are surveyed in individual studies (see above), as well as the different national jurisdictions and time frames in which research is conducted, which make it difficult to identify meaningful international patterns from the literature.
- 3.2** The most popular forms of gambling by young people in North America are cards, dice and board games played with family and friends (often in the private space of the home) as well as the lottery (and associated products), sports betting and related wagering on horses/dogs, and bingo (Jacobs 2000). In addition, young people bet on games of skill (such as pool), gamble in arcades and on slot machines and table games in casinos and on the internet. In a paper bringing together 20 independent prevalence studies of young people in middle and high school in North America (14 from US between 1984 and 1999 and six from Canada between 1988-1998) Jacobs (2000) suggested that two out of three young people have gambled for money underage in a very wide range of activities.
- 3.3** In Australia the preference is also for card games as well as scratch cards, and sports betting. In the UK fruit machines (category D) – which are legal for children to play -- are very popular – particularly in pubs and amusement arcades (Moran 1987, Bentall et al 1989, Griffiths 1990a/b/c, 1991, 1995) and playing the lottery, and associated products, are also a common, taken for granted form of gambling (National Lottery Commission 2006).
- 3.4** Likewise, fruit machines are the most popular game for young people in Norway where they are readily accessible in public places (such shopping centres as well as restaurants and amusement arcades) despite an age limit of 18. In Sweden, scratch cards are the favoured form of gambling for young people, although as in Norway fruit machines are also frequently played despite the same age ban also applying (Fröberg 2006). Although, Fröberg (2006) suggests that Norwegian young people appear to gamble slightly more frequently, regularly and for larger sums of money young people in Sweden.
- 3.5** In all international contexts considered boys tend to play skill/knowledge based games (such as cards, betting on their personal skills at particular sports) girls are more likely to play games of pure chance like raffles, bingo, and the lottery (eg Jacobs 2000).

- 3.6** Sociality – with family and/or friends -- is one of the most common motivations for young people's gambling. In the case of the lottery and associated products, research suggests that these forms of gambling have become embedded in UK family life with lottery tickets and scratchcards often being bought for young people by parents (Wood and Griffiths 1998, Wood 2004). For example, in research conducted for the National Lottery Commission 40% of young people (aged 12-15) in England and Wales surveyed in 2000 stated that their parent/guardian had bought Lotto ticket(s) in a shop on their behalf in the past seven days, although when this research was repeated in 2005-06 this figure had fallen to 31% (National Lottery Commission 2006). Indeed, a large-scale survey by Wood and Griffiths (1998) suggested that many young people do not even perceive such activities to be a form of gambling, although in subsequent qualitative research (six focus groups) by the same team, young people (aged 11-15) did show more recognition of the nature of these activities which the researchers speculate may reflect raised media coverage about the lottery in the period between the two elements of the research (Wood and Griffiths 2002). Indeed, Wood and Griffiths' (2002) subsequent qualitative research suggested that young people were motivated to play the lottery by the prospect of winning money and by the buzz or excitement associated with it. Sociality and lifestyle factors have also been associated with participation in other forms of gambling (Gerdner & Svensson 2003). Prus (2004) argues that the more embedded in a lifestyle or peer group that individuals become the more the practices of that group can become a reference points for individuals' own behaviours, motivating them to engage in particular activities – such as gambling - in order to achieve status amongst their peers (these issues are discussed in more detail in a following section).
- 3.7** In terms of slot machines -- one of the most popular and widely available forms of gambling for young people in the UK – Griffiths (1995) argues that the machines themselves are one of the attractive features of play for young people. He points out that these machines motivate young people to play not only because they are rewarding as they require a low stake and produce frequent wins, but also because they are aurally, and visually stimulating, with flashing lights and sound effects contributing to the generation of a sense of fun and activity. Indeed, several commentators have suggested that manufacturers use both art-work and the structural characteristics of slot machines to attract players and to induce them to continue to play (Dickerson et al 1996, Fabian 1995, Griffiths and Wood 2000, Parke and Griffiths 2006). Likewise, Griffiths (2000) has also shown how scratchcards, as products, motivate young people to gamble: dubbing them 'paper fruit machines'. He argues that these instant win products are potentially addictive because they involve rapid event frequency, short payout intervals, psychological rewards and no skills are needed. A National Lottery Commission (2006) survey of 8017 young people (aged 12-15) in England and Wales found that over half (56%) of the respondents who were defined as problem gamblers (DSM-IV-MR-J screen) had played both fruit machines and scratchcards within the last year. Indeed, this survey found that fruit machines were the most popular form of gambling amongst this age group and that the mean amount spent on fruit machines by respondents in the last seven days (£4.98) had increased slightly since 2000 (when the figure was £4.76). However, this research also provided evidence that spending on National Lottery games and scratchcards had increased between 2000 and 2005/06, so closing the gap in terms of the amount spent on fruit machines
- 3.8** There is some limited evidence of links between slot machine gambling and both video lottery terminal (VLT) gambling and video game playing because these activities share many of the same features. For example, a survey of 996 young people aged 10-17 in Montreal, Canada, found a clear relationship between video game playing and gambling. Problem gamblers (defined by the DSM-IV-J screen) were significantly more likely than non-problem gamblers or non-gamblers to: spend excessive amounts of time playing video games; to rate themselves as excellent video game players; and to regard video games as a relaxing form of escape (Wood et al 2004).

- 3.9** Indeed, there is some evidence that young people overestimate the role of skill and ability in gambling and their chance of winning, believing that practice will make them a better gambler in the same way that repetition can bring improvements in performance in relation to other types of games (Derevensky et al 1996). Other studies have also found evidence that young people may have trouble differentiating between the concepts of: luck, fate, chance and probability and that they often use these terms interchangeably, whereas adults are more aware of the difference between these terms (Wood and Griffiths 2002). Younger children also appear to believe that the higher the winnings the more the chance of winning and to engage in superstitious behaviour (eg using lucky numbers) that they believe will influence their chance of winning (in other words, they have an illusion of control) and which motivate them to continue to play particular games, such as the lottery (Derevensky et al 1996; Wood and Griffiths 2002).
- 3.10** Whereas research to understand why young people gamble has tended to focus on their motivations for pursuing these activities, findings from drug and alcohol studies highlight the importance of understanding outcome expectancies in young people's decisions to engage in high risk behaviour. This evidence base suggests that those who perceive less risk of addiction in drugs are more likely to experiment and have drug problems; whereas positive outcome expectancies have been found to be significantly more effective at predicting young people's alcohol use than negative outcome expectancies (Gillespie et al. 2007a). Gillespie et al (2007a) have developed a Gambling Expectancy Questionnaire (GEQ) (this includes 48 risk/benefit items addressing the multifaceted consequences of gambling and using a seven-point Likert scale to capture a range of expectancy strength) to measure the positive or negative outcome expectancies that influence young people's participation in gambling. The GEQ was administered in groups to 1,013 young people aged 11-18 in schools from the greater Montreal area of Canada.
- 3.11** The study found that positive outcomes were most likely to be anticipated from gambling by young people with gambling-related problems, despite the fact that this group were actual experiencing negative consequences from their gambling activities (eg chasing losses, lying to family members, truancy, conflict etc). Gillespie et al (2007b) explain this pattern by drawing on immediacy assumption theory. This understands positive outcomes (eg excitement, enjoyment, socialising with friends, impressing others, feeling in control, financial gains etc.) to be 'more immediate and therefore more powerful in influencing behaviour than are long-term negative outcomes' which are commonly delayed costs (eg debt, guilt etc.) (Gillespie et al 2007b: 78). Thus despite recognising and experiencing the negative consequences of their behaviour the probable pathological young gamblers surveyed perceived the potential benefits of gambling to outweigh the costs because of this temporal factor. Moreover, the young men surveyed were more likely to anticipate that gambling would provide pleasure and financial gains than young women who were more aware than their male counterparts of the risk of the emotional impact of gambling. Gillespie et al (2007b) suggest that these findings may therefore also contribute to explaining gender differences in gambling prevalence rates.
- 3.12** Advertising is another factor which has been identified as potentially motivating young people to gamble. While the gambling industry is not supposed to target advertisements specifically at young people, nonetheless the type of advertisements used, are often attractive to those under 18 (Derevensky & Gupta 2004a/b). May-Chahal et al (2004) draws parallels with the advertisement of alcoholic drinks. Here, following concerns that alcohol was being promoted by the drink industry in ways designed to appeal to the under 18s, a voluntary code of practice was developed by the drinks industry body, The Portman Group (Measham 1996): a practice recently followed by the gambling industry, which has also developed its own industry code in relation to responsible advertising.

- 3.13** To-date there is insufficient empirical evidence to assess whether advertisements are influencing young people's motivation to, or participation in gambling (Wood and Griffiths 2004). Indeed, gambling advertisements are regulated. Specifically, the Gambling Commission, Advertising Standards Association (ASA), and Ofcom are responsible for enforcing regulations in relation to gambling advertising. The Gambling Commission's (2007) Licence Conditions and Codes of Practice (LCCP) require that all operators comply with the broadcast (BCAP) and non-broadcast (CAP) Advertising Standards Codes and the industry code of practice (*Gambling Act 2005*). In particular, these codes require that advertisements do not exploit the 'susceptibilities, aspirations, credulity, inexperience or lack of knowledge of children, young people or other vulnerable people'; and that they should not 'be likely to be of particular appeal to children and young person's, especially by reflecting or being associated with youth culture'. Advertisements that breach the code are amended or withdrawn. If the breach of the code is serious or repetitive the ASA may refer an advertiser to the Gambling Commission, or broadcaster to Ofcom, to take legal or regulatory action (*Gambling Act 2005*). A recent survey by the ASA's compliance team (2007) of a sample of 784 advertisements in the national press, consumer magazines, outdoor posters, direct mailings, circulars, internet, and on television and radio found that only seven (one per cent) appeared to have breached the CAP or BCAP Codes. Six of these advertisements were on television; the seventh was on the internet.
- 3.14** Despite the lack of evidence to assess whether gambling advertising has a direct effect on young people's gambling activities Griffiths (2005a) argues that notwithstanding this, there is a need for more socially responsible advertising – which he suggests might include a government warning on lottery/scratchcard products akin to those on cigarettes and alcohol -- and for potentially 'vulnerable' groups, such as children, to be further protected from exposure to gambling products/premises through advertising (see also Wood and Griffiths 2004).
- 3.15** In summary, the current evidence base suggests therefore that young people are motivated to gamble for a number of different reasons including: for entertainment, to win money, the sensation of winning, the thrill of the game, or to escape stress/problems. Much less is known however, about why some individuals become problem gamblers while for others gambling remains a casual activity without harmful consequences (Derevensky and Gupta 2004a/b). In two qualitative studies – one with eight self-confessed addicted electronic gaming machine (EGM) gamblers and another with 50 young people from an amusement arcade -- Griffiths (1990a/b, 1995) identified a difference between young people's initial motivations to gamble, and their continual motivation to do so. While initial motivations for gambling were couched in terms of having fun, something to do or because parents/friends did so, it was the excitement or arousal from the experience of gambling which motivated the continual gambling of problem gamblers. Those diagnosed as pathological EGM gamblers were also more likely to perceive some skill to be involved in gambling. As such Griffiths (1995) concluded that while sociological factors are important in starting gambling behaviour, the development and maintenance of problematic gambling is largely attributable to psychological and physiological factors. In his later research Griffiths (2000, see also Wood and Griffiths 2007a) has also highlighted the way that pathological gamblers become absorbed in the games they play to escape the stresses of life and as such to understand gambling as a potential coping mechanism.

**3.16** It is important to recognise however, that there is no universally agreed model or understanding of addiction within gambling studies, though Jacobs' (1986) General Theory of Addictions and Blaszczynski and Nower's (2002, see also Nower and Blaszczynski 2004) Pathways Model are two different theories that attempt to explain the development of problem gambling and which are commonly drawn on within the field (see for example Gupta and Derevensky 1998a, Wood and Griffiths 2007a). Traditionally, addiction has been understood through a medical model as a disease in which an activity (such as gambling) or a substance (such as alcohol or drugs) is understood to produce a compulsion beyond an individual's self-control. Within this framework, there is also literature about whether the gambling phenomenon of 'chasing' is associated with one particular personality type or disorder (Moore and Ohtsuka 1997). More recently, this way of thinking has been contested by more 'social' understandings of 'addiction' which have sought to understand compulsive, or problematic behaviour in terms of the complex relationships between the characteristics of individuals, the nature of particular 'addictive' behaviours and the environment in which these activities occurs rather than through a clinical lens. Such conceptualisations of addiction allow for a wider spectrum of addictive behaviour and to recognise that individuals may follow pathways in, and out, of problematic behaviour over periods of time. Indeed, Orford's (2001) developmental theory of addiction provides a complex social-behavioural-cognitive-moral model of behaviour predicated on the notion that individuals develop obsessive behavioural cycles out of which they may mature.

## 4 Young people's access to gambling opportunities

- 4.1** Children's high levels of gambling have been related to the accessibility/availability of gaming machines (eg Fisher 1993a, 1999, Griffiths 1997a/b) -- used here to refer to a wide range of amusement equipment that has different names (such as slots, fruit machines, poker machines and video gaming machines) in different international contexts (Dickerson et al. 1996). In the UK, gaming machines are commonly located in entertainment and leisure spaces frequented by families and children and young people (eg amusement arcades, fast food outlets, cafes, and public houses) (Fisher 1995). Similar provision is also available in other international contexts. In Las Vegas, US, for example, Casino Hotels cater for all ages, and have arcade games where children can gamble with tokens to win toys as prizes.
- 4.2** In the UK gambling venues such as arcades, as well as being places that young people visit as part of family-oriented entertainment, also attract young people individually and in groups. The evidence is not very clear however, as to whether the opportunity to gamble attracts young people to gambling settings; or whether gambling venues merely provide a convenient and congenial place for young people to hang out because of the lack of alternative spaces available to them. The evidence from the social studies of childhood literature suggests that young people have little privacy relative to adults. Both homes and schools are spaces that are constituted through sets of parental/adult rules and regulations which often channel children into organised activities, and are spaces within which young people commonly have limited autonomy (Qvortrup 1994). Beyond the home, there is little public (as opposed to private) provision of facilities for young people in UK towns and cities. Moreover, teenagers in particular, commonly want to participate in adult-like activities rather than be corralled with young children in specialist environments. Public space is therefore an important arena for young people wanting to escape adult surveillance and to define their own identities (Valentine 2004). However, the redevelopment and gentrification of many urban areas is resulting in 'undesirable others', including young people, being priced out or driven out of many commercial, retail and leisure complexes by private security industries (including security personnel and closed circuit television surveillance). As such, amusement arcades provide particularly important spaces (warm, dry, lively décor and music) for young people to hang out with friends and have fun free from adult supervision, where gambling may often result from the coincidence of location rather than representing a specific motivation for being there.
- 4.3** The lack of availability of legal gaming machines for under 18s in other countries does not necessarily mean however, that adolescents are not able to access these forms of gambling. Rather the evidence of prevalence studies in Australia, Canada, Norway, and the US shows that young people still manage to access gaming machines, and even in some rare cases, casinos (considered to be the most regulated gambling space) despite age restrictions (Delfabbro et al 2005a/b). Likewise, despite Government guidelines which define 16 as the minimum age at which young people can legally purchase a scratchcard, research shows that lottery products can still be obtained by young people who are underage (Griffiths 2000). Indeed young people in the UK (Griffiths 2000) and other national contexts (eg Canada – see Felsher et al 2004) report that despite being aware of the legal age limits on the purchase of lottery tickets, nonetheless they go to shops specifically just to buy them, and encounter few, if any problems, when doing so. This is both because young people are often able to 'pass' as older than they actually are, making the law hard to enforce; and because some retailers/entertainment complex managers are lax, or even deliberately turn a blind eye, to breaches of the law by young people. Indeed, many young people flout the law because they believe there should be no age restrictions on the lottery (Griffiths 2000). Here, there are obvious parallels with recent public concerns about the sale of alcohol to young people under-age.

4.4 The potential omni-present opportunity (eg at home, school or work) provided by the internet to gamble in privacy and with anonymity without the stigma attached to entering off-line gambling venues, such as a betting shop may exacerbate young people's ability to access gambling opportunities both legally and illegally (Griffiths 1996a, 2001a, 2003, 2006, Griffiths and Wood 2000, Griffiths and Parke 2002, Griffiths et al 2006, Derevensky and Gupta 2007). Internet gambling currently makes up a small proportion of gambling in UK. For example, a National Lottery Commission (2006) survey of 8017 young people (aged 12-15) conducted in England and Wales in 2005/06 found that approximately one fifth of Lotto (17%) and other National Lottery game players (22%) claimed to have bought tickets via digital or electronic methods (mainly the internet). However, the research found that most online play involved free trial games and/or playing the National Lottery online alongside parents. Only 8% of the children had ever played a National Lottery game on the internet and only 2% had played independently of their parents. However, internet gambling (and gambling on other remote media) is anticipated to become an issue of increasing concern in the future (Griffiths & Parke 2002, Griffiths 2003, Griffiths et al 2006). It is estimated there are over 2000 internet gambling sites available on line (RSe consulting 2006). Young people use the internet more than any other age group. Recent figures suggest that 50 per cent of all UK households are now connected to the internet, with figures for connection being higher amongst households with children (Valentine et al 2005). Research suggests that boys in particular, use information communication technologies (ICT) extensively for playing computer games (Holloway and Valentine 2003) which, like video games as well (Wood et al 2004), share similarities with software and activities on gambling websites (Griffiths and Wood 2000). In many households, children have higher levels of ICT competence than their parents giving them relative freedom to use the internet unsupervised. A recent survey of 1003 parents and 1003 young people aged 11-16 by ICM on behalf of NCH and Tesco Telecoms, found that: 13% of 11 year olds are never supervised by their parents when online; 46% of children claim they can get round their parents' blocs on specific websites, and 65% of young people know how to clear website history (NCH and Tesco Telecoms 2006). While there is some evidence that age verification systems can stop young people playing on line, this is not the case on all gambling websites. As a disembodied technology, in the absence of adequate age verification, young people are more readily able to 'pass' as adults on-line than in off-line gambling venues. Indeed, Smeaton et al (2004) claim that methods of excluding underage players may not necessarily be as successful as some operators claim, of 37 sites investigated only seven were found to have successfully blocked underage play at point of registration. Young people's ability to illegally access on-line gambling activities is further facilitated by the fact that nearly one million young people aged 11-18 are debit card holders – the usual means for setting up an on-line account (Griffiths & Wood 2000).

**4.5** Not surprisingly, the National Lottery Commission (2006) survey, outlined in the paragraph above (and also reported in Griffiths and Wood 2007), found evidence that a minority of young people gamble on-line illegally. Of the respondents to this survey who claimed to have played a National Lottery game on the internet (8% of the total), one in six stated that the system had allowed them to register on-line despite security settings by the operator designed to prevent illegal underage participation. Indeed, there was also evidence of parental consent facilitating young people to access games on-line with one in ten of the 8% of respondents who claimed to have played a National Lottery game on the internet stating that they used their parents' National Lottery account with their permission. The survey also found that problem gamblers (defined by DSM-IV-MR-J screen) were more likely to have played the national lottery game on the internet than social gamblers, although this finding needs to be treated with caution given the small numbers involved (Griffiths and Wood 2007). Likewise, in North America, Australia, and Nordic countries research has also found evidence that young people are able to engage in on-line gambling underage despite legal age restrictions. For example, a study in Nova Scotia, Canada, employing an online survey of 499 young people aged 15-20 (the data was weighted to reflect Statistics Canada population data for age and gender), and a qualitative on-line methodology (password protected message board, to foster discussion, debate and reflection) involving 37 young people aged 13-20 found higher levels of self reported on-line gambling by young people than adults. Of the sample 19% of the 15-17 year olds reported gambling on line compared with only 2% of adults (Meerkamper 2006). In a Swedish study 10% of boys said that they had played poker on the internet in the last year (and 1% of girls); while 4% of boys claimed to have done so in the previous week (Hvitfeldt et al 2005 cited in Fröberg 2006). The risks and challenges provided by the internet (Derevensky and Gupta 2007) have clear potential implications for the issue of regulation (see below), particularly given that one in four of all new members of Gambling Anonymous UK are children and young people (Moody 1990).

## 5 The transmission of patterns of gambling: intergenerational, and peer group factors

- 5.1 There is an extensive and very convincing body of international evidence (eg Ladouceur & Mireault 1988, Gambino et al 1993; Becoña et al. 1995, Winters et al 1995, Gupta & Derevensky 1997, Wood and Griffiths 1998, Jacobs 2000, Felsher et al 2003, Delfabbro et al 2005a) which demonstrates the role of parents in introducing children to gambling (for example, by showing them how to use gaming machines and providing them with money with which to gamble) and normalising this activity as part of banal family activities/histories (which in some cases have been passed down the generations as family traditions: see Moscovitch 2006). For example, in a study of 477 children from Montreal, Canada, aged 9-14 Gupta & Derevensky (1997) found that 86% of those who reported that they gambled regularly described doing so with family members; 40% who had gambled within the last year had gambled with their parents and 46% with other relatives; 75% had gambled in their own homes. Indeed, there is plenty of evidence that parents also condone, and in some cases facilitate, young people's illegal underage participation in multiple forms of gambling. Ladouceur and Mireault's (1988) study of Quebec City high school students found that 90% of those surveyed who reported that they gambled said that their parents knew they did so, and 84% claimed that their parents did not object to their gambling; 61% stated that they actually put bets on in the company of their parents; and 25% had borrowed money from parents or relatives to bet or repay gambling debts.
- 5.2 The pattern of evidence in both the US and the UK is similar to that described in Canada (above). A two wave study of 532 young people aged 15-18 in Minnesota, US, carried out over 18 month interval highlighted the extent to which underage gamblers rely on parents/adults to purchase lottery products on their behalf (Winters et al 1995). In the UK a self-reported questionnaire survey of 1195 young people aged 11-15 found a significant link between parents' and children's gambling in relation to lottery products, with young people stating that most lottery tickets and scratchcards were bought for them by their parents (Wood and Griffiths 1998). Subsequent work by Griffiths (2000) and Wood and Griffiths (2002) in the UK, as well as findings from a National Lottery Commission survey (2006) of young people in England and Wales (reported in paragraph 3.6 above), provides repeated evidence of the role of parents in purchasing scratchcards for young people, and of the way that young people perceive the National Lottery and associated products to be a social activity enjoyed with other family members. This strong link between parents' and young people's gambling is a cause for concern especially as other research evidence suggests that the earlier young people start to gamble the more they are likely to become problem gamblers (Wood and Griffiths 1998: 270, Volberg 2002). Indeed, children of problem gamblers are four times as likely to gamble themselves (Abbott et al 1995, Ladouceur et al 2001). This 'modelling' of gambling behaviour (Tremblay et al 1998) has been termed the 'intergenerational multiplier effect' (Abbott 2001). It commonly follows gender lines: although having a father who is a problem gambler increases the risk that a son will follow suit, more than having a mother who is a problem gambler raises the likelihood that a daughter will do so (Walters 2001). Wood and Griffiths (1998) also suggest that it is not only family members who may model gambling behaviour to young people, but also celebrities such as the television and music stars that commonly feature in televised lottery programmes.

- 5.3** Here, there are obvious parallels with alcohol: particularly in the UK, where young people are growing up in a culture where drinking is accepted as a normal and pleasurable activity; yet where at the same time there is growing anxiety about the patterns of young people's drinking and consequent possible personal and social harms (Newburn and Shiner 2001, Valentine et al 2007). Research within alcohol studies suggests that family drinking styles have an important influence on young people's drinking patterns (Lowe et al 1993). The evidence is that young people are generally introduced to alcohol by their parents (seven out of ten young people aged 11 report drinking with parents) and then progress quickly to drinking in uncontrolled settings with friends (usually around ages 13-14), progressing onto drinking underage in pubs (commonly at about 14-15 years old) (Newburn and Shiner 2001). Young people with alcoholic parents are five times more likely to develop alcohol problems than those with non alcoholic parents.
- 5.4** To-date the majority of research about parents' role in introducing young people to gambling has been based on the child's assessment of their parents' role and attitudes, rather than research with parents themselves. However, in the field of alcohol studies there have been more attempts to understand the intergenerational transmission of attitudes to, and practices, in relation to alcohol through research with both parents and young people. A recent Joseph Rowntree funded study involving both quantitative and qualitative research about drinking cultures in case study urban and rural areas of the UK (including intergenerational research with three generations of particular families, tracing male and female lines) found that parents' decisions to introduce their children to alcohol at home, and even to support their illegal underage drinking in public spaces, reflected wider changes in parenting cultures (Valentine et al 2007).
- 5.5** In a contemporary context, where alcohol consumption is constituted as a normal part of everyday life, and excess consumption is seen as a normal part of growing up, the key question for most contemporary parents is not how should they discourage their children from drinking alcohol, but how they might best introduce them to it in order to encourage sensible drinking as alcohol become more readily available to them in their later teenage years and beyond. It is for this reason that the majority of parents in the study were seeking to gradually introduce young children to alcohol and to offer older teenagers guidance in relation to the need to recognise sensible drinking habits. This supportive approach in relation to alcohol consumption also reflects a broader trend in terms of the changing nature of intergenerational relations. Traditionally, parents have had 'natural' authority over children because of their superior size, strength, age and command of material resources. This authority has been sustained through laws and everyday norms about the appropriate behaviour of adults and children (Jamieson and Toynbee 1989). However, some commentators have suggested that at the end of the 20<sup>th</sup> and beginning of the 21<sup>st</sup> centuries parents are seeking closer, less hierarchical relationships with their children with the consequence that some of their 'natural' authority is being eroded (Wyness 1997). As part of this parents are more ready to recognise and acknowledge their children's own social competencies. Rather than laying down the law with their offspring parents are more willing to invite discussion and to negotiate their relationships. As such several studies have suggested that children have an increasingly powerful voice in terms of patterns of household consumption (Valentine 1999b). Some commentators (Beck and Beck-Gernsheim 2002) have even gone so far as to suggest that the balance of obligations has shifted between the generations. Rather, than children having a responsibility to be dutiful sons and daughters, the onus is on parents to maximise their children's potential by providing them with an idyllic childhood (in mainly material ways) and all opportunities that they themselves were denied. Thus, the liberal consensus that it is parents responsibility to encourage sensible drinking rather than total avoidance of alcohol, reflects both a reluctance to assert a hierarchical --'do as I say but not as I do' – relationship with their children, and a desire to ensure that their offspring maximise enjoyment of their youth (Valentine et al 2007). In the light of this evidence about changing parental cultures and intergenerational relations, there is a need to understand whether there is a similar relationship between parental support for and approval of young people's gambling and their belief that this might lead to the development of responsible play.

- 5.6** Indeed, because contemporary adults grew up during a period when gambling was more tightly regulated their own experiences of gambling as children (eg family betting, and raffles) are likely to differ (ie be less potent) from those of their children and as such they may not fully appreciate the pressures contemporary young people face, particularly in terms of the range and intensity of the commercial promotion of gambling. For example, a repeat telephone survey of parents with children aged five to 17 in the Québec City area of Canada, carried out first in 1995 (n=279) and then in 2000 (n=213), found that the number of parents who failed to recognise the association between young people's gambling problems and: children's use of arcades, friendship with gamblers or parents' own gambling problems had actually risen (Ladouceur et al 2001). Such research highlights the importance of educating parents as well as young people about the risks associated with young people's gambling in the same way that UK public health campaigns have addressed issues of childhood smoking, and obesity. Otherwise, it will be hard to control under age gambling if strong familial cultures of gambling are allowed to persist.
- 5.7** While parents can actually directly model 'gambling' to their offspring so transmitting attitudes towards, and practices of gambling across the generations, they can also have a more indirect influence on their children's development of problem gambling. In particular, family stress, while not having a directly casual relationship with gambling behaviour can nonetheless be a source of vulnerability (cf. Bancroft et al's 2004, research on young people whose parents had drug problems). For example, among the factors which increase the risk of young people becoming problem gamblers Griffiths (2002) cites the following familial contexts as risk factors: coming from a fragmented, or disruptive family; encountering difficult and stressful situations at home; being aware of a heavy emphasis on money within the family; the death of a parent or parental figure in childhood; serious injury or illness in the family; infidelity by a parent; high incidence of verbal, physical or sexual abuse at home; feelings of rejection as a child; and feeling belittled or disempowered as a child. Other North American studies have also identified similar familial risk factors including coming from families that are: strict but inconsistent in terms of discipline (Poltzer et al 1992); perceived as lacking cohesion and as offering low social support (Ciarrocchi and Hohmann 1989); where parents are perceived as emotionally distant or overly critical (Hardoon et al 2004); or where there have been experiences of traumatic life events and poor coping skills are evident (Hardoon et al 2004).
- 5.8** Beyond, the familial context, peer groups also have an important influence on young people's risk-taking behaviours (including not only gambling but also smoking, drinking, and under age sex) which represent an inherent part of the process of making the transition from childhood to adulthood (Plant & Plant 1992, Parker et al 1998). Evidence from the social studies of childhood literature suggests that for children contemporary status within their own peer groups is more important to them than adult concerns about their education or future health and well-being (Valentine et 2002). James' (1993) qualitative research demonstrates that in managing their peer group relationships young people commonly walk a tight-rope between 'conformity' and 'individuality', in other words behaving like others to fit in with the group while at the same time contributing something different that makes them valued. In particular, Jones and Jones (2000) argue that problematic or anti-social behaviour is 'contagious' because 'influential friends' legitimise these activities and enrol others into them through processes including goading, coercion and competitiveness. For example, Griffiths' (1990a, 1995) work demonstrates the significance of young people's social networks in relation to gambling. This has shown that young people who are in peer groups of problem gamblers put pressure on each other to continue gambling; whereas those who participate in gambling with non-problem gamblers actually used peer pressure to look after each other and to try and stop vulnerable individuals gambling too heavily. Likewise, in North America Derevensky & Gupta (1999) have found that the long lasting friendships of young people with severe gambling problems are often replaced by their gambling associates. There is some preliminary evidence emerging from studies of young people's drinking cultures that social networking websites (such as Face Book and Myspace) may be exacerbating peer group pressures to drink to excess (Higgs 2008), as well as anecdotal evidence which suggests that opportunities to gamble on social networking websites, for tokens/symbolic rewards rather than money, may also be introducing young children to gambling (Downs 2008).

**5.9** Within the gambling studies literature specifically there is some evidence that the majority of young people are aware of the potential dangers gambling poses in terms of addiction and debt. However, the evidence from the wider social studies of childhood literature suggests that children and young people often ignore public health messages (eg about alcohol, obesity, sex etc.) despite being aware of the risks they run with their own behaviour (cf. Valentine et al 2007, Rawlins 2008). This is for a number of reasons including: because young people commonly regard themselves as invulnerable or immune from problem behaviour; they believe their risky behaviour is only a temporary phase during their youth that will be curtailed as they move into adulthood and that as a consequence their contemporary risky behaviour will have no long term consequences for them; that their risky behaviour is offset by other positive behaviours which negate any harmful effects; or that they will 'naturally' recover self-control (cf. Plant & Plant 1992, Valentine et al 2007, Rawlins 2008). As such, the lesson from this literature is that there is a need for more research to explore the type and style of public health education messages about the potential harms which gambling can pose to which young people might respond. Here, preliminary evidence from one North American focus group study (Messerlian and Derevensky 2006) suggests that the most effective educational messages are simple, non-judgemental, and based on real-life stories which emotionally engage young audiences and demonstrate the negative consequences of gambling. Critical 'don't do it' style messages – which have often characterised other public health campaigns aimed at young people (eg sex, drugs and alcohol) – are not likely to be successful in changing young people's attitudes towards gambling or gambling behaviour (Messerlian and Derevensky 2006).

## 6 The prevalence of children and young people's problem gambling: evidence from UK and international research

- 6.1 There is an extensive international evidence base in relation to the prevalence of problem and pathological gambling among young people (eg Gupta and Derevensky 1998b, Jacobs 2000, Gillespie et al 2007a/b). A meta-analysis of the North American literature on youth gambling has estimated that between approximately five and seven percent of young people in North America show patterns of compulsive gambling and that approximately ten to 14% of this population are at risk of developing serious gambling problems (Shaffer & Hall 1996). This meta-analysis has been further validated by results from eight additional prevalence studies which reported similar rates (Derevensky et al 2003) and by recent individual North American research (eg Gillespie et al 2007a/b). These findings broadly correlate with the results from a range of smaller scale studies conducted in the UK, Nordic countries, Australia and New Zealand (eg Fröberg 2006, Delfabbro et al 2005a/b). For example, a study of 926 young people aged 11-19 attending State, independent and Catholic schools in the Australian Capital Territory found that 70% of the respondents had gambled within the last 12 months and ten percent gambled at least weekly. Approximately, four percent of the respondents were classified as problem gamblers (using the DSM-IV-J screening tool) (Delfabbro et al 2005a). This followed an earlier survey by Delfabbro and Thrupp (2003) of 500 young people aged 15-17 from six metropolitan high schools in Australia which had found that 62.5% had gambled in past year and 3.5% could be considered problem gamblers (again using DSM-IV-J screen). Of course, some individual studies have produced results which fall outside this broad international trend. For example, the UK on-going tracking survey (with a sample of 11,581 young people aged 12-15, drawn from a representative sample of 131 schools in England and Wales) commissioned by the National Lottery Commission (NLC) to monitor young people's participation in, and prevalence of problem gambling in relation to National Lottery games, appears to have shown a drop in problem gambling (using DSM-IV-J) (Ashworth et al 2000). In 1997 the number of young people who were classified as problem scratchcard gamblers was 2.3%, by 1999 this figure had fallen to only 1.7%. However, these findings need to be treated with some caution given the general decline in lottery sales across the adult population during the same period.
- 6.2 Of particular concern is that in all of the countries considered in this review, problem gambling is inversely related to age with a higher prevalence of gambling amongst young people. Delfabbro et al (2005a) suggest that the modal prevalence rate of young people's gambling is over three times the prevalence rates of problem gambling in the adult population. For example, Gupta & Derevensky's (1998a) study of 817 high school students (aged 12-17) in Montreal region of Canada found that pathological gambling (using the screening instrument DSM-IV-J) was higher in grade 7 (pupils aged 12-13) than grade 11 (pupils aged 16-17). This is consistent with the findings of other studies. While some commentators have suggested that young people may grow out of gambling problems as they get older and as such levels of young people's gambling should not be considered a cause of undue concern (though it is important to note that they may experience long-term consequences of their gambling behaviour, for example as a result of dropping out school); others argue that this pattern can be interpreted in other ways. For example, exposure to gambling opportunities may vary with age such that contemporary young people are being exposed to new gambling opportunities compared to previous generations and as such this has yet to materialise in higher adult prevalence rates (Lepper 2005); or the early onset of gambling problems may be leading to treatment that might account for the decline in the number of problem gamblers by age. Indeed, there is some evidence that motivations for, and perceived benefits of gambling change as people get older: younger adults (those aged 18-24) for example are more likely to see gambling as an excuse to socialise, and escape boredom than older adult age groups (25-34) and are more likely to perceive stress as a more significant factor in gambling than older people (Wiebe et al 2001). And, of course, different measures of problem gambling as a result of the different screening instruments used with children and adults may mean that in effect such comparative studies are not truly comparative because they are measuring different things (Lepper 2005).

- 6.3** The earliest gambling experiences tend to occur where opportunities to wager money are readily accessible; the home or wider social climate is conducive to, or accepting of gambling, and the rules of the games played are within the child's capacity to understand (Jacobs 2000).
- 6.4** Repetitive studies of problem gambling amongst children and young people have found evidence that young people who gamble in childhood are more likely to gamble in adulthood (Ide-Smith & Lea 1988, Winters et al 1993b, Griffiths 1995) and that the younger children start to gamble the more at risk they are of developing gambling problems later in life (Fisher 1993a/b). Indeed, it has been claimed that the age of onset for problematic gambling in young people may occur around 10-11 suggesting that addressing access to gambling at this age is of crucial importance in tackling problem gambling (Wynne, Smith and Jacobs 1996). Such evidence points towards the fact that young people's problem gambling represents a significant emerging public health issue yet young people often fail to recognise that they have a problem (Hardoon et al 2003). Even where young people have some degree of self-recognition, their problem gambling is not necessarily visible however, because they often do not seek help from formal agencies for their problems because of shame, fear they will be denied help, or because their problem gambling can be hidden within, or by, the family (Valentine et al 2008).
- 6.5** Without exception all of the gambling studies reviewed have found that boys start gambling earlier than girls and gamble more often, as such they are more at risk of becoming problem gambler than girls (Fröberg 2006). Jacobs (2004) suggests that the ratio of boys to girls with severe gambling problems is in the range of three to one and five to one. For example, to take one form of gambling; slot machines -- the evidence of Griffiths and Wood's (2000) research is that very few young women have gambling problems in relation to this activity. When young women do become problem gamblers there is some evidence to suggest that this is motivated by a desire to escape personal problems; whereas men are more likely to explain their behaviour in terms of a desire to win, chase losses or in terms of competition (Grant & Kim 2002, Ellenbogen et al 2007). Further evidence of the gendered nature of gambling and problem gambling is provided by studies of adults. For example, a short study of 2,945 adults (aged over 18) in the UK, conducted for the Department of Culture, Media and Sport found that women participate in less forms of gambling and gamble less regularly than men, and also have a more negative attitude towards gambling than men, favouring stricter regulation of most forms of gambling (Creigh-Tyte and Lepper 2004). Likewise, research in the United States (involving a literature review and analysis of data drawn from a theoretically derived sample of states) has also found the persistence of highly gendered patterns in relation to most gambling activities (Volberg 2003). Research with adult problem gamblers suggests that women pathological gamblers are more likely to have emotional problems as a result of relationship difficulties, loneliness, depression or history of physical abuse; whereas men are more likely to have issues around sensation seeking, impulse control, to have a history of alcoholism, and to resort to other criminal/illicit behaviours to fund their gambling (Ladd & Petry 2002). Although, there is limited evidence to support these apparent gendered patterns they do appear to fit wider traditional understandings of gendered behaviour. However, it is worth noting that the gendered nature of alcohol consumption has changed significantly in recent years as opportunities for women to drink, and social attitudes to women's drinking have evolved. As such it is reasonable to speculate that attitudes to women gambling and women's patterns of gambling behaviour may also change, particularly with the development of internet gambling which offers a more conducive space for women to gamble. Indeed, Australia's Productivity Commission (1999) has suggested that a feminisation of gambling is taking place. However, while there is some evidence that gambling service providers in the United States are observing growing numbers of women seeking help for gambling problems (Potenza et al 2001), to-date there is little or no sustained evidence to support claims that a feminisation of gambling and problem gambling is occurring in UK and United States (Volberg 2003, Creigh-Tyte and Lepper 2004).

- 6.6** A number of studies have suggested that minority ethnic groups are more likely to gamble and to become problem gamblers than young people from majority groups (eg Stinchfield 2000, Sullivan 2001, cited in Rossen 2001). However the evidence is unclear and needs further research to understand this relationship and possible patterns between problem gambling and ethnicity.
- 6.7** A number of authors, in a range of international contexts, have sought to summarise the risk factors associated with problem gambling. The characteristics they identify are broadly similar (see for example: Winters et al 1993b, Gupta & Derevensky 1998b, Jacobs 2000). In the UK Griffiths (2002) lists them as:
- being a young man
  - having a big win early in a gambling career
  - starting gambling at an early age
  - having parents who gamble or engage in other addictive behaviours
  - having low self esteem
  - achieving low grades at school
  - chasing losses
  - gambling alone
  - being depressed before a gambling session
  - using gambling to cultivate status among peers
  - having erroneous perceptions about gambling
  - engaging in other addictive behaviours such as smoking, illegal drugs or alcohol
  - having a history of delinquency
  - stealing money to fund gambling
  - truanting from school to go gambling.
- 6.8** Other factors that might be added include: having a positive attitude to gambling (Dickson et al 2002a/b), being a risk taker in general (Derevensky & Gupta 1999), and failing to properly understand the risks involved in gambling (Wood et al 2002).

## 7 The impact of gambling on young people and families

- 7.1** There is a growing body of work examining the risk factors associated with young people's pathological gambling (eg Derevensky & Gupta 2004c). Moody (1989) claims increasing numbers of young people are seeking help from Gamblers Anonymous. Indeed, GamCare ([www.gamcare.org.uk](http://www.gamcare.org.uk)) states that the Blackpool's (a gambling oriented town) Youth Offending Team has identified 20% of its caseload to be suffering negative consequences as a result of gambling dependency (cited in May-Chahal et al. 2004).
- 7.2** Problem gambling can have effects on young people's mental, material, and social well-being (eg Jackson 1999). In particular, young people who have developed problem gambling also commonly experience a range of mental health issues including high rates of depression (eg Gupta and Derevensky 1998a/b) and increased risk of suicide and attempted suicide (eg Gupta & Derevensky 1998a/b). In many cases, the existence of their problem gambling only comes to light when it is materialised through related problems such as debt, bankruptcy, eviction and homelessness. Some research (eg Huxley & Carroll 1992) has also found evidence of young people stealing from other family members to fund their gambling. Indeed, the lack of financial commitments of young people living at home can act as a cushion against the full negative effects of their gambling and many families go to great lengths to support young people, including paying off their debts in what have been termed 'self-correcting' pathways out of gambling (eg Valentine et al 2008). This can mean that the extent of young people's 'problems' can go unrecognised not only by wider community/support agencies but also by young people themselves. In doing so, the impact of young people's problem gambling is commonly transferred onto other family members – particularly parents/carers, and siblings. For every individual with a gambling problem it is estimated that anywhere between a further five to 17 other individuals are adversely affected (Lesieur 1984). These impacts not only include financial stress (including money that is voluntarily given to support the gambler, or money stolen from family members by a gambler, which is often not reported to the police) on the wider family, but can also include emotional impacts (eg parental guilt about or self-blame for their child's problems), including causing domestic arguments (for example, between mothers and fathers about whose fault it is or how they should deal with the problem) and the disruption of family life (Heineman 1989, Jackson 1999, Youth Affairs Council of Victoria and Gambler's Help Youth Action Group 2004). Indeed, young gamblers can sometimes trade on parental guilt about their child-rearing practices or exploit differences between parent's individual responses to their gambling in order to avoid taking self-responsibility for their own behaviour, to be 'rescued' and in some cases to enable them to carry on gambling (Grant Kalischuk et al 2006). There is even some evidence that gambling can contribute to family breakdown (eg Griffiths 2004). Problem gamblers often show signs of withdrawal, mood swings and have difficulties establishing close friendships or maintaining social networks, often replacing friends with gambling associates (Griffiths 1995, 1996b).
- 7.3** Problem gambling has also been correlated with other negative behaviours including truancy from school, poor academic performance, depression and absenteeism from work (Fisher 1993b, Griffiths 1995, Ladouceur et al 1994, Ladouceur 1996, Gupta and Derevensky 1997). Of particular concern is that a loss of time spent studying or poor grades may have longer term consequences for young problem gamblers (eg in terms of under or unemployment) that are not readily apparent until adulthood. There is also a significant body of international evidence that suggests that young people's problem gambling often correlates with other addictive behaviours such as smoking, drug and alcohol abuse (eg Ladouceur 1996, Dickson et al 2002a/b, Ste-Marie et al 2006, Ellenbogen et al 2007). For example, studies by Griffiths (1994a, 1994b) in the UK have produced repetitive evidence of such cross addiction, including one survey (with Sutherland) of 4000 young people which found a relationship between gambling, drug-taking and alcohol abuse (Griffiths & Sutherland 1998). Though from the research evidence it is not always clear which of, and to what extent, these factors were present prior to problem gambling; or whether problem gambling caused these outcomes. In other words, problem gambling is often one element in a general pattern of high risk or anti-social behaviour (Dickson et al 2002/b, Magoon et al 2005, Ellenbogen et al 2007).

- 7.4** The evidence of the relationship between problem gambling and juvenile delinquency and crime is less clear. Some studies have produced evidence of young people stealing (including retrospective evidence – Griffiths 1993) to fund an addiction or of increased levels of aggression among male problem gamblers which can manifest in conflict (Barham 1987, Griffiths 1990a & 1995, Huxley and Carroll 1992, Fisher 1993b, Gupta and Derevensky 1997). However, there is no evidence that such behaviour has a substantive impact on wider communities. For example, a study of 1851 juvenile offenders in Plymouth found that only four percent of juvenile crime in the area was associated with gaming machines (Yeoman and Griffiths 1996).
- 7.5** There is a lack of research on the relationship between gambling and physical health, However, one study looking at the effects of gambling on adults' health suggested that problem gambling can lead to poor posture, extended periods indoors, a lack of exercise and poor patterns of eating/drinking which in turn result in high blood pressure, back problems, heart disease, alcohol abuse, smoking related problems (first hand and passive) and stress related symptoms (Potenza et al 2002).
- 7.6** Much less is known about the impact of problem gambling on young women because of their lower prevalence rates (Derevensky & Gupta 2004a/b). In a small scale study of young people's problem gambling with 32 participants – 16 men and 16 women -- Wiebe et al (2000) found that young women were more likely than the male respondents to attribute their gambling to familial and peer group problems and to have borrowed or stolen money (usually from family members) to cover their gambling debts. The International Center for Youth Gambling Problems and High Risk Behaviours at McGill, Canada scaled-up data from five studies carried out between 2002 and 2005 producing a sample of 7819 (2750 young men and 2563 young women) young people aged 12-18 (in which problem gambling was measured using the DSM-IV-MR-J screen) (Ellengbogen et al 2007). This meta-analysis produced some evidence of gender differences in terms of the effects of problem gambling. Young male problem gamblers were more likely to describe psychological difficulties (such as a pre-occupation with chasing losses) and young women to report behavioural problems (including: truancy, and stealing from family members at home, lying and having family conflicts) as a result of their gambling. However, rates of depression and substance use did not vary significantly by gender: a finding which runs counter to the evidence from some smaller-scale studies (Ellengbogen et al 2007).
- 7.7** The impact of problem gambling can extend well beyond the time/place in which it occurs because of the intergenerational transmission of patterns of problem gambling. Some studies, for example, have suggested there is a link between adult problem gamblers and later problem gambling amongst their own children (eg Griffiths 1995, Fisher 1992). Other small-scale qualitative research with problem internet gamblers has found that many of the informants blame their problems on an interest in gambling established in childhood as a result of family leisure activities or that gambling behaviour had been modelled to them in childhood through the male line by a father or grandfather (Valentine et al 2008).

## 8 Regulatory frameworks to protect young people: evidence from international contexts

- 8.1** Laws and government policies in most nation contexts are very inconsistent in relation to young people (for example, allowing them to consent to sex and get married at 16 but not vote or buy alcohol till 18). Young people's rights and responsibilities are shaped in effect by a complex mixture of legal rights, informal social rules, parental rules and individual circumstances. In relation to the regulation of gambling young people occupy an ambiguous position in many jurisdictions being regarded as having autonomy to participate in some activities yet being constructed as 'dependents' requiring protection in others.
- 8.2** When it comes to the regulation of the gambling industry governments must walk a difficult tightrope between the interests of the industry (from whom they also benefit through the receipt of taxation revenue; and the role of the gambling industry in contributing to urban regeneration, particularly the night-time economy) and the interests of the consumer (in terms of protecting them from social harm) (Blaszczynski 2001).
- 8.3** In some jurisdictions governments impose strict regulations on commercial operators and or allocate gambling revenue to support treatment and education programs through health and education sectors in addition to private operators' own initiatives (Blaszczynski 2001). Harm reduction strategies vary internationally in terms of whether they are mandated by legislation or voluntary codes of conduct. As such it is difficult to separate out industry and government responses to gambling.
- 8.4** Harm reduction strategies commonly include strategies to:
- protect participants from developing gambling problems (eg public education, responsible advertising, and limitations on types/locations of venues, entry restrictions, and limits on prizes)
  - limit the potential for problems to arise (policies to deal with problem gamblers, self-exclusion programs, modifications to player environment to prevent excessive play and impulse decision making; limits on expenditure in specific time periods; restricting access to cash; banning the supply of free/discounted alcohol, displays on gaming machines)
  - reduce the severity of existing problems and prevention of relapses (referral to treatment and counselling services; provision of counselling services and liaison with treatment service providers) (Blaszczynski 2001).

## 9 Different regulatory environments

### United Kingdom

- 9.1 The *Gambling Act (2005)* brought into being the Gambling Commission to replace the Gaming Board for Great Britain. It has responsibility for the regulation of betting and remote gambling. Its remit includes the protection of children, and 'vulnerable' people from being harmed or exploited by gambling as well as responsibility for advising the Government in relation to gambling issues ([www.gamblingcommission.gov.uk](http://www.gamblingcommission.gov.uk)). The Gambling Commission is a non-departmental public body that is sponsored by the Department for Culture, Media and Sport and is largely funded by license fees from the gambling industry. The Gambling Commission does not have responsibility for spread betting which is regulated by the Financial Services Authority, nor does it have responsibility for the National Lottery which is regulated by The National Lottery Commission. The National Lottery Commission's remit includes: protecting players, game licensing, protecting the integrity of lottery draws, ensuring scratchcard security, operating independent verification systems, visiting retailers and vetting operators and suppliers, protecting the National Lottery brand and licence breaches ([www.natlotcomm.gov.uk](http://www.natlotcomm.gov.uk)). The regulatory environment in the UK is unique in that children and young people have legal access to gaming machine gambling (Fisher 1995) (although children are only allowed to access the lowest category D machines as it is high prize money gaming machines that have been particularly linked to problem gambling). However, from August 2006 gaming machines are being phased out from unlicensed premises to protect children because machines in these locations are generally unsupervised. The age at which people can buy lottery tickets is 16. The lottery operator (Camelot) uses: retailer training; test purchasing visits carried out by over 16s who look younger; and provides educational resources for schools as measures to support the enforcement of this age restriction.
- 9.2 The *Gambling Act 2005* eased restrictions on gambling products and advertisements. This measure has been criticised for allowing children to be exposed to pro-gambling messages (Moodie and Hastings 2008). However, the Act also made provision for the promotion of responsible gambling through amended Licence Conditions and Codes of Practices (Gambling Commission 2007) to which licensees must comply; the CAP and BCAP gambling advertising rules provide clear guidance to advertisers about how to comply with the *Gambling Act (2005)*; all gambling advertisements on television must also include the gambleaware website. The *Gambling Act 2005* also created a new criminal offence of inviting, permitting or causing a child to gamble.
- 9.3 Where the UK also differs substantially from the other international contexts reviewed is that the Government does not appear to have clear plans to establish a comprehensive support programme for problem gamblers. Moodie and Hastings (2008) argue that this is particularly significant because treatment for problem gamblers is virtually non-existent in the NHS and the community (see for example, BMA 2007). Educational materials, and support for problem gamblers are provided in the third sector. Examples of appropriate educational materials for young people include: *You Bet! Gambling Education Materials for Young People aged 11-16* and *Just Another Game?: Gambling Education Materials for Young People aged 13-19* (produced by RIGT, Tacade and Nottingham Trent University).

## United States of America

9.4 Gambling is legal under US federal law but the states have the right to regulate it or prohibit it. As a result the regulation of gambling varies by state. Almost every state allows some form of gambling (i.e. state run lotteries) but only 17 states allow privately owned commercial casinos in some form (i.e. some states restrict casinos to riverboats that are not permanently moored). Nevada is the only state where casino gambling is legal across the state (notwithstanding licensing and zoning restrictions) although all forms of gambling are illegal for individuals under 21 in this state; whereas West Virginia currently permits bingo playing at 16. Some jurisdictions have placed limits on wager sizes, the amount of money spent per excursion and where casino gaming can be offered (Blaszczynski 2001) and some states also designate their lottery revenues to specific purposes (e.g. education). Only five states - Louisiana, Montana, Nevada, Oregon and West Virginia - allow EGMs outside gambling venues. The National Coalition Against the Spread of Legalized Gambling established to oppose new, and repeal existing, legislation to permit gambling has had limited success in some states. On 1 July 2000 South Carolina banned the ownership, possession and operation of video poker machines for commercial or personal use. The only type of legal gambling in this state is its lottery. Some Native American tribes operate casinos and gaming establishments on tribal land this form of gambling is overseen by the National Indian Gaming Commission. In 1961 The *Federal Wire Act* outlawed interstate betting on sports. This has been subject to legal challenges. In 2006 the *Unlawful Internet Gambling Enforcement Act* (see also paragraph 10.2 below) prohibited financial transactions involving online gambling service providers which led to some off-shore gambling sites excluding US-based customers. The provision of responsible gambling, self-exclusion, and education programs are also variously implemented across the states. Gambling education programmes in the US include for example, *Wanna Bet?* magazine (in print and on-line) produced in Minnesota and published quarterly which provides tools for educators/youth services to implement community-based youth problem gambling prevention programmes.

## Canada

9.5 The provincial governments have dual responsibility for operating most forms of gambling and for the regulation of gambling. Regulation covers: who can be a gambling operator; what games can be played, by whom, when and the payout rates. Canada differs from the US, in that all casinos are owned by provincial governments whereas in the US they are privately owned rather than under state ownership. Gambling winnings are not taxed in Canada (although there is a problem gambling levy), and sports betting is less restricted than in the US, which attracts 'gambling tourists' across the US/Canadian border (Blaszczynski 2001). Like the situation in the US, because each province sets its own regulations there are regional variations in access to gambling. There is a strong anti-gambling lobby in the province of British Columbia which has thwarted attempts to expand gambling beyond current levels and there is grassroots opposition to VLTs in the province of Alberta and VLT numbers are also being reduced in some locations in Quebec. Indeed Campbell and Smith (1998) suggest that there is evidence of growing resistance to gambling that was not evident in earlier decades. In most provinces age restrictions prevent minors from participating in government regulated gambling. These age bars vary according to the type of activity (ie in most provinces the age at which a young person can buy a lottery ticket is lower than that required for entry into a casino or to play a VLT). However, Derevensky & Gillespie (2005) observe that enforcement of age regulations (with the exception of accessing casinos) is limited with young people getting around restrictions with relative ease. A problem they anticipate is likely to worsen with the development of internet gambling.

- 9.6 A number of provinces have established, or support, agencies to provide fund treatment services as well as research and education programmes to address social harm. For example, *YouthBet* is an Ontario based site designed for 10-19 year olds which contains interactive games and activities aiming at: promoting informed attitudes about the risks of gambling; preventing gambling-related problems and protecting vulnerable and at risk youth. There is also a North American oriented site - *Know the Score* – which provides an interactive problem gambling awareness programme aimed at colleges and universities in the US and Canada (Australian Gaming Council 2007).

## Australia

- 9.7 As in North America, gambling policy and regulation are state, not federal government responsibilities. As such, there is variation between state policies, although state governments generally agree on the broad principles of: maximising revenue from, and minimising the social harms of, gambling; ensuring product integrity; and deterring criminal involvement in the gambling industry (Hing 2002). All Australian state governments have passed legislation to outlaw underage gambling (eg it is illegal for under 18s to use gaming machines) and credit betting and have established monitoring and control systems, although in practice enforcement is often difficult (Hing 2002). In 2001 the Tasmanian Greens proposed a *Gaming Control* ('Stop the Roll out of Pokies) *Amendment Bill* in the state parliament which would have ended the further spread of poker machines, required a statement of odds on all machines, and a limited access to ATM and EFTPOS in gambling areas (Bostock 2005). In 2007 Kevin Rudd, then leader of the Opposition and a state MP in South Australia, declared his support for the No Pokies campaign and claimed that he wanted to address the issue of poker machines. Consequently, since becoming Prime Minister Rudd has come under increasing pressure from senators to address this issue at federal level, although he has yet to do so.
- 9.8 Most state governments place a levy on particular gambling sectors to fund specific community projects, many of which address problem gambling, including by young people. Queensland has a *Responsible Gambling Code of Practice* – the first established in Australia – which is a voluntary, industry commitment to best practice. All gambling providers in Queensland are responsible for its implementation. Provisions specifically in relation to young people include: the prohibiting of minors from gambling and from accessing designated gambling areas; and a ban on advertisements and promotions that are implicitly or explicitly directed at minors or vulnerable or disadvantaged groups ([www.responsiblegambling.qld.gov.au/industry-services/code-of-practice/index](http://www.responsiblegambling.qld.gov.au/industry-services/code-of-practice/index)). The states all have independent Commissions for Children and Young people. These have responsibilities to promote and protect the rights, interests and wellbeing of young people under 18. A number of guides providing practical advice about problem gambling have been produced for schools by different states (eg The State of Victoria 2006, Tasmanian Department of Health & Human Services 2007). Specific services (eg financial and addictions counselling) to deal with problem gamblers have also been established since the 1990s. While several states do have good programs there is no consistent or agreed national approach to program design and implementation (Australian Gaming Council 2007). Australian state governments have also been criticised for: not spending enough on problem gamblers and their families; for a lack of strategic planning in relation to problem gambling; and for the limited number of broad based education programmes on gambling and problem gambling (Hing 2002).
- 9.9 One example of good practice is provided by the State of Victoria's Gambler's Help Youth Action Group. This is a state-wide network of Gambler's Help counsellors, youth access workers and community educators. It aims to 'improve awareness of the youth problem gambling and the affects of parental gambling on young people; develop programs to equip young people with unbiased information about gambling to assist informed decision making; and to improve youth access to help for gambling problems' (Youth Affairs Council of Victoria and Gambler's Help Youth Action Group - YACV/GHYAG - 2004).

**9.10** A Forum organised by YACV/GHYAG (2004) about young people and problem gambling recommended in its final report:

- developing the role of the school as a site of early intervention to raise young people's awareness about and potential consequences of gambling (introduced into the curriculum rather than through ad hoc lessons)
- the provision of youth specific gambling information and services (eg through advice lines, websites, advertising campaigns targeting young people in mainstream and alternative youth media, the introduction into soaps and popular shows of youth problem gambling as a story line; information to be made available through university student unions etc)
- the involvement of young people in the development of any strategies (eg through youth forums)
- increased education of service providers to be more aware about the impact of gambling on young people and families so they feel more comfortable and confident to deal with the issue (eg through professional training, resources about youth gambling, information sharing through youth services and local government networks; updated assessment procedures in agencies to take account of gambling as a potential issue)
- establishing peer support networks (locally or via telephone help-lines) as key source of information and support because young people are often more comfortable talking to people they can relate to than adults who they fear might be judgemental.

## **New Zealand**

**9.11** Gambling in New Zealand is regulated by the *Racing Act* (2003) which deals with racing and sports betting and the *Gambling Act* (2003) which covers casinos, poker machines and other types of gambling. Until the introduction of *The Gambling Act* in 2003 there was inconsistency in relation to laws regulating young people's gambling. There were no age limits for participation in Lotto, Keno, and EGMs (ie entirely chance based devices) and internet gambling. However, there had been age limits of 16 to buy Instant Kiwis, of 18 years to place a bet at the TAB and 20 years to enter the gaming area of a casino. *The Gambling Act* (2003) tightened up previous regulation and established an age limit of 18 for playing EGMs and purchasing Instant Kiwis. This legislation also imposed convictions or fines on both those attempting to participate in gambling underage and those allowing underage gambling to take place. Harm minimisation was also a key element of *The Gambling Act* (2003). It established that gambling industries have a duty of care to provide minimum standards that include ensuring minors cannot access gaming opportunities. Gambling establishments have to actively prove that underage gamblers are denied access or they can have their licences revoked (especially in relation to forms of gambling like EGMs which are regarded as the most addictive). The Department for Internal Affairs oversees gambling. However, under the *Gambling Act* (2003) the Ministry of Health was established as the department responsible for the prevention and treatment of problem gambling, including funding and co-ordinating national and local problem gambling services, raising awareness about the risk of problem gambling and conducting research about problem gambling to understand harms ([www.moh.govt.nz/problem](http://www.moh.govt.nz/problem) gambling).

**9.12** Beyond the activities of the State, the Problem Gambling Foundation (PGFNZ) of New Zealand has produced a written national strategy to address the issues of youth gambling titled *Supporting the Wellbeing of Young People in Relation to Gambling in New Zealand* (Problem Gambling Foundation of NZ in collaboration with Centre for Gambling Studies 2003). It has developed a number of projects including an education resource - *When is it Not a Game?* - for the inclusion of gambling issues in teaching and learning opportunities within the curriculum (Dickinson & Sinkinson 2003); as well as information and counselling responses and a trial service to help young people with gambling problems (Docherty et al 2004). Its Youth Programme includes strategies for cognitive change, behavioural control, emotional regulation, developing alternatives to gambling, addressing underlying stress/distress and anxiety and depression; building self-esteem; money management and relapse prevention (Orme 2005).

**9.13** PGFNZ's youth service is promoting text counselling as a new way to engage young people because texting is a particularly popular medium with young people aged 13-18. In 2007 Youthline introduced a free text service and the *In Ya Face* Youth Gambling Helpline and Problem Gambling Helpline text service was introduced for people experiencing gambling related harm. This was promoted via bill boards across the country ([www.pgfnz.co.nz/youth.htm](http://www.pgfnz.co.nz/youth.htm)).

### **Nordic countries**

**9.14** Sweden has a regulated gambling market which means only certain 'actors' (including the State, horse racing organisations, popular movements and some non profit-making organisations) can organise gambling events. Money made from lotteries and gaming must benefit the public good (with the exception of restaurant casinos, games, lotteries at amusement parks and funfairs whose profits, along with horse racing, are taxed). Young people under 18 are not permitted to participate in the majority of forms of gambling including: all casino games, fruit machines, grey-hound racing, horse racing, most sports betting and bingo played in bingo halls (Fröberg 2006: 8). Likewise, games run by Swedish companies' on the internet also have an age limit of 18 and over (which is checked on registration to play).

**9.15** In 2001 the Swedish National Institute of Public Health drew up a plan of action to reduce the prevalence of pathological gambling in Sweden. This action plan prioritised children and young people, establishing preventative measures aimed at raising the age of children's first gambling experience, and reducing gambling amongst young people (Fröberg 2006: 8).

Specifically the action plan recommended:

- Informing young people, parents and the general public about the risks of children and young people's gambling habits
- Informing school staff and parents about the signs of pathological gambling and what can be done to support those who gamble too much
- Ensuring that various social sectors are better prepared to recognise the symptoms, and support, young people who are or who are becoming addicted to gambling
- Contributing to the development of knowledge-based treatment within the framework of non-institutional care provided for by the psychiatric, addiction care and social services
- Contributing to the development of knowledge centres where young pathological gamblers and their relatives can seek treatment
- Supporting research projects aimed at generating knowledge in the areas above. (Fröberg 2006: 8)

**9.16** In Norway, gaming machines have been the subject of concern resulting in regulatory change. Until recently gaming machines (limited by the number of machines per venue) could be located in public places including shopping centres and petrol stations with proceeds being used for the public good. It was estimated prior to recent regulatory changes that there were 20,000 machines in a country of 4.5 million people ([www.geminiresearch.com/The\\_Norway\\_Papers](http://www.geminiresearch.com/The_Norway_Papers)). A major study by Rossow and Hansen (2003, cited in Fröberg 2006) found that 80% of Norwegian young people aged 12 to 18 had gambled in the previous year. In 2000 the Norwegian Government amended bet limits and prize structures which produced a significant increase in gambling revenue (and implicitly use) but this in turn prompted public concern and a re-appraisal of gaming machines. In 2003 the Norwegian Government introduced a law to take the gambling industry under the control of Norsk Tipping, the Government's lottery and sports betting operator. This legislative change also included a reduction in the number of gaming machines, and the banning of the use of note acceptors. This legal change was challenged by Norsk Lotteridrift (NLD) – a major gambling machine operator in the Norwegian courts. Its case focused on the Government's 'imposition of a monopoly and whether such a measure is necessary and proportionate in achieving the goal of protecting consumers from developing gambling problems ([www.geminiresearch.com/The\\_Norway\\_Papers](http://www.geminiresearch.com/The_Norway_Papers))'. The Norwegian court initially found in favour of NLD but the Government appealed this through the European Free Trade Association Court of Justice which ruled in favour of the Government. As a result private operators of gambling machines in Norway were required to cease operations by end of June 2007 and in July 2007 Norsk Tipping took over responsibility for the ownership and operation of them. It is too early to judge what impact this change in provision is having (if any) on the prevalence of gambling and problem gambling.

## 10 On-line gambling

- 10.1** The legal position of internet gambling is complex and varies from country to country and also within different jurisdictions within some countries (Wood and Williams 2007). Australia was the first nation to legalise internet gambling and 25 other nations have so far followed suit. Given that the internet enables gambling across national borders it presents new challenges for government regulation. 'Some countries have legalised online gambling enabling residents and non residents to gamble in all forms of online gambling within and beyond the country. Other countries have adopted more complex regulation making certain forms of online gambling legal (eg lotteries, sports betting) and other forms illegal (usually casino games). Others have sought to regulate on the basis of residency, prohibiting non-residents from accessing jurisdiction-based on-line gambling sites (eg Canadian provinces, Finland); or prohibiting residents from accessing on-line gambling sites located outside the country (eg Netherlands). Some countries even prevent residents from accessing jurisdiction based on-line sites' (paraphrased from Wood and Williams 2007: 5). For example, in 2001 Australia's *Interactive Gambling Act* came into force. This prohibits Australian residents from accessing certain interactive gambling sites such as on-line casino services but allows access to other sites, such as interactive sports betting (although it is not yet technically possible to stop Australian residents from gambling in overseas on-line casinos, nor for Australian companies to set up on online companies in overseas countries to service Australian online gamblers) (Bostock 2005).
- 10.2** Other countries have taken a more hard-line approach to internet gambling. This is in part because of fears that on-line gambling is a potentially riskier form of gambling because of the anonymity afforded by the internet and because on-line gambling is often done in isolation (see Griffiths and Barnes 2008 for a review of the structural characteristics of internet gambling activities which make them particularly addictive). In the US most on-line gambling is prohibited by federal and state laws, and federal enforcement agencies are also attempting to clamp down on cross-border gambling. In October 2006 the Federal *Internet Gambling Prohibition and Enforcement Act* came into effect this made it illegal for financial transaction providers to make fund transfers to on-line gambling sites and it is illegal for internet gambling providers to accept money transfers from potential American on-line gamblers (Wood and Williams 2007: 6). The law exempts online intra-state sales of lottery tickets, inter-state horse race betting and other intra-state online gambling where the state does not prohibit it (some states prohibit internet gambling). Hong Kong and Singapore are also investigating ways to stop their citizens from gambling with offshore providers (McMillan 2000).

**10.3** In Great Britain remote gambling operators require a licence from the Gambling Commission. It is a criminal offence to allow children or young people to game or bet remotely and licensed operators must have procedures in place to prevent underage gambling. These measures to protect young people include checks to verify age (including using best publicly available data to verify age from whichever country a customer is from) which must be regularly reviewed to ensure the operator is keeping up with technological change; enabling filtering software to allow adults to block access by children; and not making sites intentionally attractive to children ([www.gamblingcommission.gov.uk](http://www.gamblingcommission.gov.uk)). However, given the complexities of on-line regulation, controlling underage gambling is problematic in all national jurisdictions. Age limits obviously vary on foreign websites according to different national legislation. While the prerequisite of a credit card makes it difficult in theory for some young people to participate in on-line gambling, in practice increasing numbers of young people under 18 have access to debit and credit cards. While the evidence base about young people's underage gambling on-line is to-date very limited, some research has also found evidence that young people can still register on gambling sites even though they are under-age. In 2004 one study found that 15 out of 30 sites researched did not specify an age restriction on the web site and 11 out of the 30 websites took no steps to verify the age of gamblers (Smeaton and Griffiths 2004). Indeed, forms of age verification can vary widely. Good practice requires that two forms of identification should be provided, one of which should include a passport. However, there is growing concern about young people's access to internet gambling and recognition of the need for internet gambling sites to have more effective age checks and to prevent underage gamblers from playing freebie demos on on-line web sites (eg Derevensky et al 2006). However, it is also worth noting that the internet can also provide important help and support/guidance services for problem gamblers (see Griffiths & Cooper 2003, Griffiths 2003, 2005b, Wood and Griffiths 2007b, Valentine et al 2008).

## 11 Summary

- 11.1** Some authors (Fisher and Balding 1996, Fisher 1999, Fisher and Griffiths 1995, and Griffiths 1995) have stressed a link between high rates of problem gambling amongst young people in the UK and the legal availability of category D fruit machines to this social group. However, if access to such gambling opportunities was an important contributory factor then the prevalence rates of problem gambling in international contexts where these machines are illegal for under 18s should be lower. However, as the evidence presented in earlier sections of this report demonstrates there is a consistent pattern of relatively high rates of problem gambling across a range of international contexts with variable legislative frameworks. This casts doubt on the significance of regulatory frameworks in influencing rates of problem gambling amongst young people. Indeed, the evidence from countries where young people's access to gambling is more tightly regulated than in Great Britain is that these regulations are difficult to enforce and that young people gamble illegally regardless of the law. For example, a number of studies in North America have produced evidence of young people gambling illegally on gaming machines and the lottery (eg Jacobs 2000, Hardoon and Derevensky 2002), including a recent study from the Ontario based Responsible Gambling Council (White et al 2007) which found that 20% of 15-17 year olds stated that they gambled illegally on arcade and video games. This pattern mirrors research in the field of alcohol studies where there is parallel evidence of young people flouting bans on underage drinking – in many cases, as with gambling, supported in doing so by their parents (cf Valentine et al 2007).
- 11.2** The problem of enforcement occurs because of the limitations of age verification controls: young people can often 'pass' as older than they are (particularly on-line if they have access to credit cards); and some operators/retailers turn a blind eye to breaches of the law. Indeed, 'testing boundaries' is a rite of passage that is part of the process of growing up. Enforcement is easier where gambling occurs in adult-only highly regulated venues (eg casinos, bars) and is harder to control where gambling opportunities are available in public unregulated locations. This is evidenced by the fact that in North America and Australia rates of under age casino and gaming machine play by young people are relatively low because these forms of gambling are only available in adult venues whereas rates of underage lottery and scratch card play are much higher because they are available in public locations. For example, in some states unattended scratch card lottery vending machines are readily available to potential underage gamblers. Likewise, in the Nordic countries gambling machine play is one of the most common gambling activities amongst young people because these machines are in public locations (Williams et al 2007). In the light of the prevalence of problem gambling among young people and the limited success of regulatory and enforcement regimes a number of researchers are beginning to argue that problem gambling should be recognised as a potential public health issue – with young people the group at highest risk (eg Korn and Shaffer 1999, Messerlian et al 2004, Derevensky & Gillespie 2005). Indeed in the UK some researchers have suggested that the relaxation of gambling regulation and increased availability will produce long-term social harm akin to drug addiction (eg Orford 2005).

## 12 The prevention and treatment of young people's problem gambling

- 12.1** Despite the negative impacts of problem gambling which can stretch across the generations, there is little public awareness or concern about the extent or potential risks associated with underage gambling (Jacobs 2000). As such, there is relatively little information highlighting problematic gambling in relation to other risk taking behaviours such as alcohol and drugs. It is only recently that gambling has begun to be conceptualised as a public health issue (Messerlian et al 2005). Korn and Shaffer (1999) first proposed adopting a public health framework to examine gambling from a population health, health promotion and human ecology perspective; including the assessment of the potential social costs and benefits of gambling upon communities. Messerlian et al (2004) argue that a public health model of gambling involves (i) *de-normalising gambling* through strategies to encourage society to question and assess underage gambling (ii) *preventative policies* (eg public education) which might better equip young people with the skills to understand the potential negative impacts of gambling. For example, a Youth Gambling Prevention Model developed by Messerlian et al (2005) recognises a continuum of risk, identifying prevention objectives at each level of risk and the strategies required to achieve these objectives; and (iii) *a harm reduction strategy* (including specific treatment programs aimed at young people - see for example Gupta and Derevensky 2000) to reduce the risk of young people who gamble in an at risk manner from developing a gambling problem, and to diminish the potential negative consequences of gambling without making abstinence a goal (see for example Dickson et al 2003). Here, Gillespie et al (2007b), on the basis of the findings from their study about the influence of positive outcome expectancies on gambling behaviour (reported above), argue that it is important that prevention messages must address positive beliefs about gambling rather than merely focusing on promoting abstinence. In particular, drawing on a harm minimisation paradigm they argue for the need to inform young people about how the long-term costs of gambling can outweigh the short-term benefits. They suggest that interventions to highlight the perceived benefits and costs of gambling in treatment plans might motivate young people to change their behaviour and encourage them to pursue similar benefits from other less harmful activities. They also recommend that gambling expectancy scales might be employed to assess the effectiveness of treatments (Gillespie et al 2007b).
- 12.2** When it comes to the treatment of young people's gambling problems, a report produced by the Youth Affairs Council of Victoria and Gambler's Help Youth Action Group (2004) claims that generalist youth services are often over-stretched and lack the resources/understanding to properly support gambling addiction; while the services of specialist problem gambling agencies are often not targeted at young people. Few underage problem gamblers present themselves for treatment at specialist centres (Gupta and Derevensky 2008). A number of studies (eg Griffiths 2001b, Derevensky et al 2003, Hardoon et al 2003, Chevalier and Griffiths 2004 and Gupta and Derevensky 2008) have suggested various reasons for why so few young people are enrolled on gambling addiction programmes compared to adults. These include young people's: fear of being identified; belief that they can control their own behaviour; belief in their invulnerability; guilt associated with their gambling problem; lack of recognition and acceptance of gambling problems despite self reports of high scores on gambling screens; reluctance to seek treatment in general; and negative perceptions of therapy. Other factors identified also include: the treatment of underlying problems (eg depression) which can reduce/resolve gambling problems; financial support by family members which can conceal gambling problems; and the location of treatment in sites such as hospitals or mental health facilities which may be perceived by young people as stigmatising (Gupta and Derevensky 2008). Research with young people by Citizens Advice to understand the unmet advice needs of vulnerable groups found that young people often perceive advice and support groups as adultist, fearing that these agencies will be judgemental of young people, may not understand their fears or may not respect their privacy/confidentiality (Valentine and Kenten 2007). This reluctance to seek help from formal agencies for the effects of problem gambling can be further compounded for minority groups for whom services may be rendered even more inaccessible because of cultural or linguistic barriers.

- 12.3** In a review of treatment approaches for young people with gambling problems Gupta and Derevensky (2008) observe that there are relatively few empirically based treatment studies of young people and these are commonly based on very small sample sizes. Based on their own research and clinical experience they suggest that effective outreach programmes (employing posters and brochures distributed to schools as well as media campaigns and an internet site) provide an important mechanism through which to access young people needing treatment. This can have a snowball effect because young people who seek help often have social networks which include other problem gamblers whom they will then recommend for treatment. As young people have relatively limited access to independent income Gupta and Derevensky (2008) argue that the provision of free, state treatment for young people is of fundamental importance. Their McGill University treatment paradigm is based on Jacob's (1986) General Theory of Addictions, and Blaszczynski et al's Pathways Model (Blaszczynski and Nower 2002, Nower and Blaszczynski 2004). Jacobs (1986) regards addiction as a dependent state acquired over time. He theorised that gambling enables people to escape from or block out negative feelings in their life and to foster positive or desired mood states. This positive mood state is gratifying or rewarding and so consequently is pursued by the gambler with increasing frequency. On the basis of clinical observation Blaszczynski and Nower (2002, and Nower and Blaszczynski 2004) identify three different types of pathological gamblers (behaviourally conditioned problem gamblers, emotionally vulnerable gamblers, and anti-social impulsivist problem gamblers) that are characterised by different etiologies and consequently require different types and durations of treatment. Gupta and Derevensky (2008: 276) draw on commonalities in these approaches which both accept that young problem gamblers have 'a combination of emotional and/or psychological distress coupled with a physiological predisposition towards impulsively seeking excitement'. Their treatment procedure begins with an intake interview to collect information about the clients': gambling behaviours, familial situation and relationships, academic/work status, alcohol and drug use, presence of other risk taking behaviours, personality traits, expectations and personal goals, as well as an evaluation for clinical depression. A staff psychologist provides weekly individual therapy (commonly for between 20 to 50 sessions) and each client is given a page or mobile phone for emergency support. The goals of the therapy are to: understand motivations for gambling; analyse gambling episodes; identify gambling-free time; establish a baseline of gambling behaviour and encourage a decrease in gambling behaviour, address cognitive distortions; establish the underlying causes of stress and anxiety; evaluate and improve coping abilities; rebuild healthy interpersonal relationships; restructure free time; foster effective money management skills and relapse prevention (Gupta and Derevensky 2008).
- 12.4** Other commentators have highlighted the need for treatment programmes to include family-based therapy and to address family dynamics rather than only focusing on the gambler per se (Abbott et al 1995, Steinberg 1993, Heineman 1994, Orford 1994), although such programmes are currently limited.
- 12.5** Yet to-date, the UK lags behind the other countries reviewed in this report in terms of developing prevention, harm reduction and treatment programmes to support young problem gamblers in systematic ways (notwithstanding, the existence of a national gambling helpline, GamCare and Gordon House Association, a specialist residential facility for problem gamblers: see Griffiths et al 2001, Griffiths 2001b). Here, clear lessons might be learnt from the cross-government initiative to develop an alcohol harm reduction strategy for the UK (the second stage of which, *Safe. Sensible. Social* was published by the Home Office in 2007). There is a need for joined up thinking across government departments because problem gambling crosses policy domains including: public health, criminal justice, education, and culture, media, and sport.

## 13 Recommendations for future research

13.1 The evidence of this review is that prevalence rates of problem gambling among young people and the potential impacts of it mean that gambling is likely to emerge as a future public health issue. As such further research is needed in specific areas to inform the development of policy to address young people's problem gambling:

- a) To-date there is very little research with parents about the issue of young people's gambling; yet the evidence from research with young people themselves is that parents encourage and support their children's illegal underage gambling. Research is therefore needed to explore the attitudes of parents towards underage gambling; the context in which parents support underage gambling; and the relationship between parental approval and the development of responsible play (including to assess the impact of increasing gambling opportunities in the adult population on children's current and future behaviour).
- b) There are very few studies of young women's problem gambling. While prevalence rates for girls are less significant than those for young men the gendered nature of gambling may change (cf alcohol) as moral, social and economic constraints against women's participation disappear.

There is therefore a need to understand more about different gendered meanings of, and motivations for gambling. Likewise, there is very little evidence about the extent of problem gambling within minority ethnic communities. Yet, the evidence from alcohol studies is that there are significant hidden levels of alcohol consumption and smoking in these communities which go unrecognised by service providers (Valentine et al 2007).

- c) To-date there is not enough evidence to assess whether the advertising/promotion of gambling – including free demonstration games available on websites - has a direct effect on gambling participation. There is therefore a need to evaluate this, particularly to examine the role of marketing and promotional materials (including on-line, free demonstration games) in targeting directly or implicitly under age young people to gamble. This is particularly pertinent in Great Britain in the light of the recent Gambling Act 2005 which legalised the promotion of gambling on television.
- d) There is a need for more robust longitudinal research (a) to explore evidence that gambling behaviour decreases with age and to explain this pattern given that very few studies have followed young people over time, so we know little about pathways in and out of gambling and long term outcomes. Here, May-Chahal et al (2007) have recommended adding a module to an existing longitudinal study such as the *Next Steps Longitudinal Study of Young People in England* (commissioned by the former DfES, now DCFS) (b) to explore any changes in youth gambling as a consequence of the implementation of the Gambling Act 2005 and development of new gambling opportunities. Here, May-Chahal et al (2007) recommend an extension of the existing National Lottery Commission youth gambling study. In addition, they recommend a Youth Access and Attitudes study – using interviews with young people and their parents about their gaming and gambling behaviour in two types of setting – a sample of Family Entertainment Centres, and leisure/recreational centres near to casinos.
- e) Technological advances in gambling (in terms of the internet, EGMs, televised and mobile device gaming) suggest the need for more investigation into the potential impact of these developments on the prevalence and patterns of young people's gambling (for an overview of the impact that the internet may have on gambling activities see Griffiths 2006 and Griffiths et al. 2006).

- f) There is a need for more research to understand the effects and enforcement of regulatory policy on young people (eg in terms of the availability of gambling opportunities and actual participation). In particular, to address the question of if and how young people are able to subvert current regulations; how age regulations might be more effectively enforced (both in off-line spaces and on-line). This includes a need to strengthen the evidence base about children's underage gambling in order to understand the extent to which children participate in illegal gambling activities directly (ie by passing as older than they are) and indirectly (eg by getting an adult, who is legally entitled to gamble, to place a bet for them) and the range of means through which they do so.
- g) There is a need to evaluate the effectiveness of preventative strategies (developed in the UK and international contexts) aimed at young people's gambling behaviours (eg proof of age card schemes; on-line age verification systems; school based educational materials; text-based help-lines; health promotion campaigns etc) in order to inform policy development. In doing so, there is a need to develop more understanding of young problem gamblers help-seeking strategies and the barriers which prevent some young people from seeking help in order to improve age-appropriate support for this 'vulnerable' group.

**13.2** Organising a third International Think Tank on the issue of young people's gambling -- to build on two previous such events, the last of which was held in Montreal, Canada in 2001 - might provide an effective means for the Gambling Commission to bring together emerging research on these themes and explore further the issue of youth gambling as a potential international public health policy issue.

## 14 About the Study

This review was based on a thorough search of the following data sources:

- **Electronic bibliographic databases** eg: Applied Social Science Index and Abstracts; International Bibliography of Social Sciences; Sociological Abstracts, Social ScSearch, Social Services Abstracts, Dissertation Abstracts, psyInfo, Social Work Abstracts etc.
- **Reference lists:** taken from primary review articles and also collated through contact with other known scholars/professionals working in this field.
- **The internet:** employing on-line search engines such as Web of knowledge, Ingenta, BIDS, Google scholar.
- **ESDS Archives:** the single joined up services for secondary data linking Economic and Social Research Council's Qualidata archive with other UK data services.
- **Grey literatures:** These are non-academic publications (ie non peer reviewed work) including research/technical reports by government departments (e.g. Department for Culture, Media and Sport) and regulatory bodies (e.g. Gambling Commission, National Lottery Commission), and non-governmental organisations (for example publications by: GamCare, Gamblers' Anonymous, The Gordon House Association, the UK Forum on Young People and Gambling, the Joseph Rowntree Foundation etc).
- **International policy:** of comparable international jurisdictions in terms of both legislation/policy and other official government documentation relating to children and the regulatory frameworks in place to protect children.
- **Case study initiatives:** evidence from the evaluation of specific research projects

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Gambling Commission  
Victoria Square House  
Victoria Square  
Birmingham B2 4BP  
**T** 0121 230 6500  
**F** 0121 230 6720  
**E** [info@gamblingcommission.gov.uk](mailto:info@gamblingcommission.gov.uk)

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