



KNOX
GRAMMAR
SCHOOL

STATE

DA VINCI DECATHLON 2021

CELEBRATING THE ACADEMIC GIFTS OF STUDENTS
IN YEARS 9, 10 & 11



IDEATION

TEAM NUMBER _____

1	2	3	4	Total	Rank
/15	/10	/25	/10	/60	

Complete the above table with question numbers and marks as required.

WANT A BET?

CHANCE – TAILS NEVER FAILS

Chance events occur all the time. In fact, some of the greatest discoveries and inventions occurred through chance. We all know the story of Fleming accidentally discovering penicillin, and we have George de Mestral waking his dog in the foothills of the Swiss Alps to thank for Velcro.

However, chance has also formed the basis of entertainment for humans since ancient China when rudimentary games were discovered on tiles. The oldest known dice were excavated in Egypt and scenes on Greek and Roman pottery indicate that betting on animal fights was common. Animals would be bred for that sole purpose.

Fast forward a couple of millennia and there are now seemingly endless opportunities to attempt to exploit 'chance' through gambling. Betting agencies are prolific and 'odds' are often seamlessly segued into normal television or radio programming. People can bet on first kick, first goal, first wicket, scoring margins at quarter time, half time and full time, and award winners. Next, we will be betting on what shoes your teacher will wear to school tomorrow!

We can conclude that humans are drawn to gambling on chance outcomes. But who, exactly, does this affect and what is the impact of gambling? There are already multiple campaigns to address gambling addiction and to encourage those affected to seek help. But is there an assumption that only a certain 'type' of person is impacted by this social issue? The advertisements often portray older women and men.

However, the widespread ownership of mobile phones amongst teens has facilitated access to mobile gambling apps. This means you can bet on sports or play social casino games anywhere, anytime. While these apps are illegal for young people under 18, in 2015, 60 per cent of teenagers who gambled had done so online. To young people, all of this is normal. Foundation-funded research has determined that increased accessibility and opportunities to bet have 'created a culture of young Australians who have been socialised into betting practices' (Gordon & Chapman, 2014, p 28). Despite the apparently strict barriers around race and sports betting, approximately one in five young people reported gambling on these products. This gambling may be facilitated by family members and other adults. Purdie et al (2011) found that 36.4 per cent of young people aged 15 to 17 had had someone else place a bet for them.

THE PROBLEM

Young people may be particularly vulnerable to gambling addiction as their ability to assess risk is still developing (Defoe et al, 2015; Willoughby et al, 2013). For adolescents, gambling is just one of many risky activities, including drinking alcohol and drug-taking, that may cause harm.

Australian research shows between 2.4 per cent (Delfabbro, Winefield & Anderson, 2009) and 4.5 per cent (Purdie et al, 2011) of adolescents meet the clinical definition of problem gambling. This is about one in every 25 young people, which is an average of one in every high school classroom. Boys (5.7 per cent) are more likely to have gambling problems than girls (3.2 per cent) (Purdie et al, 2011). These rates are much higher than the rate for problem gambling in adults, which is approximately 1 per cent (Hare, 2015). Rates of problem gambling are not directly comparable between adolescents and adults, as different measures are used and behaviour not considered problematic in an adult may be considered problem gambling in a young person. Even so, rates of problem gambling could be as much as five times higher among young people than in adults (Purdie et al, 2011; Hare 2009).

A recent study found low and moderate-risk gamblers also experience harm as a result of gambling (Browne et al, 2016). This means a further 6.4 per cent (Delfabbro, Winefield &

Anderson, 2009) to 16 per cent (Purdie et al, 2011) of young people may be experiencing harm. This could include:

- poor academic performance
- absenteeism from school and early school dropout
- disrupted relationships with family and friends.

As with adult gamblers, these consequences may not be recognised as related to gambling.

THE DESIGN CHALLENGE

Your **challenge** is to design an innovative solution to address the issue of gambling **amongst 12-18 year olds**. You will need to keep in mind the research, what is already in place and consider practical and ethical factors of your solution. Think about the options that a range of technologies could provide. Solutions that only state government legislation or awareness campaigns will not score highly. Be creative in the way you approach this issue.

Your answer may focus on **one group** affected by this issue, or it may encompass a **more holistic** approach to addressing the problem by including all stakeholders.

Answers which are both **original** and **achievable** in the **next five years** will score highly. Solutions need to be practical and innovative. Be wary of using the models and solutions that are common place you and just changing one or two things. Be **radical** and **bold** in your thinking.

You will have **ninety (90) minutes** to complete the four components below.

Stimulus material to assist in your solution is attached at the end of this paper.

Please **carefully read** the marking criteria on the following pages for additional guidance on what to include in the answer templates provided, and where to do so.

The following components provide a structure for your work:

EMPATHISE (Ethical Decision-Making Framework) (15 marks)

This involves evaluating what 'ought to be done', through considering rights, obligations, fairness, the benefits and detriments for societies and other virtues. Reaching a final decision involves a degree of conviction and belief in what is 'the right thing to do'. Consider all perspectives of all stakeholders.

DEFINE (Design Brief) (10 marks)

Here, you must identify the problem, outline the ethical issues, evaluate the challenges and research findings, and identify possible solutions.

IDEATE (Reflection) (25 marks)

You must then reflect on your solutions and whether they will be viable. A preferable solution should be identified, and any unanswered questions should be addressed. Issues of implementation are also crucial to reflect upon.

CREATE (Prototype) (10 marks)

Finally, a design for how your ideas and solution will be disseminated must be produced. This could be a story-board, mind-map, diagram, model, narrative or any other appropriate medium. Critically, **an audience must be able to understand the process of dissemination by examining this prototype without any additional information.**

MARKING GUIDELINES

1. Empathise (15 marks)

Research Area	LIMITED	DEVELOPING	EFFECTIVE	COMPREHENSIVE	TOTAL
Factors contributing to the issue	0-1	2	3	4	
Consequences if issue not addressed	0-1	2	3	4	
People and perspectives	0	1	2	3	
Barriers to addressing the issue	0-1	2	3	4	
TOTAL					/15

2. Define (10 marks)

ASPECT	LIMITED	SOUND	EFFECTIVE	OUTSTANDING	TOTAL
Vision statement: articulate and succinct	0-1	2-3	4	5	
Connecting to research: research used to support vision	0-1	2-3	4	5	
TOTAL					/10

3. Ideation (25 marks)

Circle the mark for each aspect of each solution.

ASPECT	Idea	Positive Consequence	Negative Consequence	TOTAL
Solution 1	0/1/2	0/1	0/1	

Solution 2	0/1/2	0/1	0/1	
Solution 3	0/1/2	0/1	0/1	
TOTAL				/15

Ideate: Reflect & Evaluate cont.,

ASPECT	LIMITED	SOUND	EFFECTIVE	OUTSTANDING	TOTAL
Justification for chosen solution	0-1	2	3	4	
Implementation: identifies details of who, when, where	0	1	2	3	
Dissemination: measure of success and strategies for gaining support for idea	0-1	2	3	4	
TOTAL					/15

4. Prototype (15 marks)




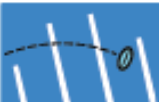






ASPECT	LIMITED	SOUND	EFFECTIVE	OUTSTANDING	TOTAL
Originality and creativity	0-1	2-3	4	5	

Clarity and communication of ideas	0-1	2-3	4	5	
Appeal to an audience	0-1	2-3	4	5	
TOTAL					/15

TOTAL: /60

SUPPLEMENTARY MATERIAL

Participation by young Australians in selected gambling activities

Gambling activity		Purdie et al (2011) (aged 15–17) %	Delfabbro (2009) (aged 13–17) %	Dowling (2010) (aged 12–18 ¹) %
Card games for money at home		42.4	29.1 ²	40.2
Pokies		8.8	7.5	6.6
Racing		28.2	21.7	20.3 ³
Betting on sport ⁴		20.7	18.1	17.0
Lotteries		26.0	11.8	46.6 (Lotteries and scratch tickets)
Scratch tickets		48.7	42.0	
Bingo		19.2	16.7	–
Internet gambling		13.4	6.9	5.9
Card games at the casino		6.3	–	4.2
Other casino games		7.8	–	–

1 This study was conducted with secondary school students, some of whom were 18 years old and legally able to gamble.

2 Includes card games at the casino

3 Includes only betting at TAB outlets

4 Studies do not specify if betting is with a commercial operator or informal

Source: https://responsiblegambling.vic.gov.au/documents/16/gen-bet-has-gambling-gatecrashed-our-teens_SIPh7sd.pdf

THE FACTS



8 in 10 adolescents have a smart phone.



6 in 10 adolescents use their mobile phone to go online.



4 in 10 adolescents have seen promotions of gambling on social media.




5 in 10 adolescents have high levels of exposure to sports betting marketing.

About 1 in 5 children can identify three or more sports betting brands.



Over two-thirds of children aged 8 to 16 can recall the name of at least one sports betting brand.



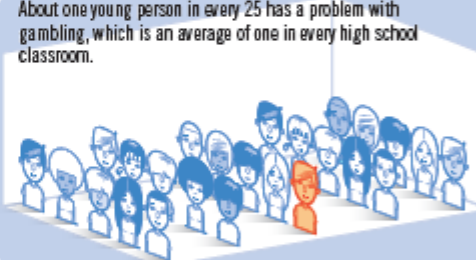
In 12 months:

Up to a quarter of young people bet on sport


Around 1 in 10 young people gamble online

1 in 5 adolescents play social casino games

About one young person in every 25 has a problem with gambling, which is an average of one in every high school classroom.



Teenagers are four times more likely to develop gambling problems than adults.



1 in 5 adults with gambling problems started gambling before they were 18.



The Australian gambling industry spent \$236 million on advertising in 2015.



Source: https://responsiblegambling.vic.gov.au/documents/16/gen-bet-has-gambling-gatecrashed-our-teens_SIPh7sd.pdf

YOUNG PEOPLE AND GAMBLING

Counsellor Sam

13 Jun 17

Youth gambling is a concern for many parents especially with the increasing presence of gambling in sports and online. There may be one person suffering from gambling in every high school class.

Ideally young people won't gamble at all, if they do sometimes it can become a serious issue which may result in depression, missing school or dropping out, undermined friendships, family disruption and criminal behaviour.

Young people can be vulnerable to problem gambling because they:

- can be impulsive
- might not understand the risks
- can be influenced by media and advertising
- are inquisitive and think they can win
- are digitally savvy using smart phones, tablets, apps and the internet 24/7. In doing so they may try and get around legal barriers to online gaming or gambling sites.

What signs should I be looking for?

If you are experiencing some of the following signs from a young person that you are concerned about you may want to speak to one of our counsellors about ways to access some support: short of money all the time and spending less on other things like clothes, movies and music

struggling at school or work, have they had a drop in their grades or are consistently getting in trouble

displaying changes in mood, perhaps they are withdrawing from friends, social activities or events

sleeping differently, have their patterns changed or are they more tired than usual

irritable when they are away from gambling activities

being secretive about gambling, and denying that there's a problem, or

talking about sports and other events only in terms of the odds.

Risk factors for youth gambling

A young person may be more at risk if they:

Have a large gambling win, especially early on

Are experiencing stress – this may relate to things like family pressure, personal problems, relationship issues or school conflict

Have poor support, coping skills or problem-solving skills

Have significant people in their life who gamble

Do not despair!

There is lots of support available and there are some proactive things you can try to minimise the possibility of gambling becoming a problem. This could include encouraging a close social network who do not gamble and getting them to engage in recreational interests such as sports, art, movies or outdoor activities

Also try to build a strong support network for them and make sure they understand that people are there to help them. This can include people such as family, friends, teachers, community or religious leaders, school counsellors or even your local GP.

Remember that kids are always watching and observing. Young people are more likely to gamble if they observe their family members gambling, or they hear their family members talking excitedly about gambling. Think about how you talk about gambling.

Concerned – what can I do?

If you are concerned about a young person's gambling you can seek professional help through NSW Gambling Help services, face to face, by phone or online. These are free services that are available nation-wide phone: 1800 858 858 – 24 hours a day, 7 days a week

Some things that you can consider trying if you are concerned about a young person's gambling:

Limit pocket money. Where possible use vouchers or even pre buy tickets to things so that they attend activities.

Restrict credit card access; keep them somewhere you can keep an eye on.

Talk to other parents or your local GP.

Have a discussion about how gambling works, try to emphasise that it is a form of entertainment and not a good way to make money. Talk about some of the risks of gambling.

Source: <https://www.gamblinghelponline.org.au/blog/young-people-and-gambling>

RESPONDING TO THE CHALLENGE

It is clear gambling is a significant issue for young people. We need to respond with targeted approaches that reduce gambling harm for adolescents, and for the adults they will become. And we need to back this work with robust research. Our responses must also be directed towards parents and young adult peers or siblings, who may model potentially harmful gambling behaviour for young people. Teachers and sporting coaches are another target group, as they can influence young people's attitudes.

The foundation's social marketing campaigns challenge gambling industry messages and promote informed and balanced attitudes towards gambling. Our 2016 'Love the game' campaign highlighted how 'gambling advertising is changing the way kids see sport', and provided information for parents on how to protect young people from the risks.

To reduce young people's exposure to gambling marketing, we must also advocate for appropriate changes to the rules that govern advertising. In a 2015 submission to the Australian Government, we recommended:

1. removing the exemption for sporting programs that allows gambling ads to be broadcast at times when children may be watching TV unsupervised
2. restricting gambling advertising on TV to after 9 pm
3. industry implementing a self-regulatory code regarding advertising on social media that follows guidelines already in place for advertising on broadcast media
4. sporting codes reducing their association with gambling providers, particularly to reduce messages to children that gambling is a part of sport
5. social media providers restricting advertising from illegal offshore operators.

To date, only points three and four have seen positive developments. The Australian Association of National Advertisers has implemented a code that applies the same guidelines for broadcast media to social media, and more elite sporting clubs have joined the foundation's Sporting Club Program. The foundation's Sporting Club Program and School Education Program, developed in 2013, have been key to our work in countering the normalisation of gambling.

Sporting Club Program

Our Sporting Club Program works with elite and local clubs to create healthy club environments and reduce the exposure of young people to gambling, especially through sports betting advertising. We are partnered with 13 elite Victorian sporting clubs, including AFL, cricket and soccer clubs.

We also offer the program to all local Victorian sporting clubs, with particular emphasis on those with high memberships of young men. As at February 2017, over 260 sporting clubs were signed to the program.

For more information, see: lovethethegame.vic.gov.au/sport

School Education Program

Our School Education Program aims to help young people navigate the new gambling environment and develop healthy and informed attitudes towards gambling. It includes professional development sessions and curriculum-based resources for teachers, including

maths, literacy, health and humanities units; workshops for senior students (Years 10–12); and information sessions and materials for parents.

We also provide information and resources for parents and teachers online, including strategies for talking to young people about gambling.

As at February 2017, 144 schools and youth organisations across Victoria had participated in the program with over 12,000 students reached.

For more information, see <https://responsiblegambling.vic.gov.au/reducing-harm/schools/>

Gambler's Help Youthline

The foundation's Gambler's Help Youthline offers specialist telephone support for young people who may be experiencing harm because of their own or someone else's gambling.

For more information, see <https://gamblershelp.com.au/get-help/under-25s/>

GAMBLING, YOUTH AND THE INTERNET: SHOULD WE BE CONCERNED?

Carmen Messerlian, M.Sc.,¹ Andrea M. Byrne, B.A.,¹ and Jeffrey L. Derevensky, Ph.D.¹

Abstract

Introduction

Method

Results

Conclusion

Today's children and teens in North America are the first generation of youth to grow up in a society where a multiplicity of types of gambling exists, and gambling venues are not only widely available but also heavily advertised and promoted. Gambling, once considered to be associated with sin and vice is now generally perceived as a harmless adult entertainment and has become mainstream in our society. Although in Canada government regulated gambling is illegal for youth under the age of 18, a growing number of young people are gambling for recreation and entertainment (Jacobs, 2000). With increased exposure to, and availability of regulated and unregulated forms of gambling, including the recent emergence of Internet gambling, more youth are succumbing to the temptation and pressure to engage in these activities (Jacobs, 2000). There is a growing body of research suggesting that greater accessibility is related to increased gambling, increased money spent on gambling, and increased rates of problem gambling (Griffiths, 1995). Research in Canada, the U.S., and internationally suggests that approximately 80% of adolescents have participated in some form of gambling during their lifetime (see the review by the National Research Council, 1999 and meta-analysis by Shaffer & Hall, 1996).

Most alarming is evidence indicating that between 4–8% of adolescents between the ages of 12 and 17 have a very serious gambling problem, while another 10–15% are at-risk for developing a gambling problem (Derevensky & Gupta, 2000; Jacobs, 2000; National Research Council, 1999). Further, while there are some methodological issues involved in the measurement of pathological gambling for youth, there are consistent reports that the prevalence rates of probable pathological gambling in youth (4–8%) are considerably higher than rates of pathological gambling in the general adult population (1–3%) (Derevensky, Gupta, & Winters, 2003; National Research Council, 1999).

Pathological gambling can be described as a continuous or periodic loss of control over gambling and is highlighted by irrational thinking and erroneous cognitions, a preoccupation with gambling and with obtaining money to gamble, continuation with gambling despite adverse consequences, and an inability to stop gambling despite having the desire to do so (American Psychiatric Association, 1994). Between 1984 and 1999 there was a significant increase in the proportion of youth who reported gambling within the past year as well as those who reported gambling-related problems (Jacobs, 2000). Clearly, adolescents represent a particularly high-risk group and are vulnerable to the development of gambling problems (Derevensky & Gupta, 2000; National Research Council, 1999).

Research has demonstrated that problematic gambling among adolescents has been associated with a number of other mental health outcomes. From a clinical perspective, youth with gambling problems exhibit higher rates of depressive symptomatology, increased risk of suicide ideation and attempts, higher anxiety (Gupta & Derevensky, 1998), as well as an

increased risk of alcohol and substance abuse disorders (Hardoon & Derevensky, 2002; Winters & Anderson, 2000). In addition, there are a multitude of negative behavioural, psychological, interpersonal, and academic problems associated with problem gambling. Among youth, problem gambling has been shown to result in increased delinquency and criminal behaviour, poor academic performance, higher rates of school truancy and dropout, and disrupted familial and peer relationships (Hardoon et al., 2002; Wynne, Smith, & Jacobs, 1996). Such negative outcomes have short- and long-term implications for the individual, for their friends and family, as well as for society at large (Derevensky, Gupta, Hardoon, Dickson, & Deguire, 2003). To date, few public awareness strategies and effective social policies have been initiated to address this growing public health concern.

Aided by technological advances in the gaming industry, new forms of gambling are continually appearing. Recent developments in the gambling world include such additions as on-line gambling, technologically advanced slot machines, electronic gambling machines, Video Lottery Terminals (VLTs), interactive television games, and telephone wagering (Griffiths & Wood, 2000). Internet gambling in particular allows players to participate in a number of casino-type games in the privacy of their own homes. Internet gambling falls under the grey area of person-to-person wagering under the Canadian Criminal Code, thus, owning and operating an on-line gambling company is currently illegal in Canada. As such, most Internet gambling websites are housed in off-shore operations (Kelley, Todosichuk, & Azmier, 2001). Nonetheless, Internet gambling appears to be an incredibly profitable market, with several governmental agencies becoming actively involved in their operation (e.g., Holland, New Zealand, Australia). Estimates are that this has become a multi-billion dollar business, with more than 400 web-based Internet sites currently operating.

The proliferation of on-line gambling sites poses a new problem for youth. While other sources of gambling are, for the most part, strictly regulated and prohibited for underage children, the Internet provides an accessible and largely anonymous route to an otherwise illegal activity for young people. Researchers have highlighted the ease with which gambling websites may be accessed by young people as well as the visually enticing aspects of Internet gambling (Griffiths, 1999; Griffiths & Wood, 2000). The reasons most often cited by youth for engaging in gambling are for entertainment, excitement and the possibility of winning money (Gupta & Derevensky, 1998). These reasons are similarly important for Internet gambling, as the Internet has become a popular form of entertainment among youth.

Many adult Internet websites offer free games and free practice sites available to anyone with access to a computer. As well, some sites now appear to cater specifically to adolescents and young adults who have spent much of their life in an era of electronic video games and computers. Such sites offer a multitude of games including blackjack, roulette, slots, poker, and other casino games virtually identical to real life casinos while others also accept sports wagering. With new sites appearing daily, researchers suspect that the distinction between gambling and gaming may be blurred by the on-line gambling industry in order to maximize future profits. For example, many gaming sites offer rewards in the form of "tokens" where players can trade in a given amount of tokens for a prize. Each player begins with a certain amount of free tokens and each game involves an initial wager and payouts if the player is successful. When combined with these factors, youth who play regularly on these free practice sites are prime targets as future players. Internet casino sites also have reward and loyalty programs which may be enticing to youth. Such programs include the possibility of earning redeemable points through playing. For example, many sites offer high initial deposit bonuses, while others guarantee bonuses of up to \$20 per month for returning players. Often, players who refer a friend are awarded bonuses as high as \$50. Some sites even provide "Bettor's Insurance" programs which returns 10% of net gaming losses (Gambling Online, 2003). Casino games are interspersed with other, more innocuous games, each following the same basic theme. Graphics are often colourful and realistic sounds and images add to the excitement of the game. Many games also include multiple players so individuals can compete

with each other on-line. Even when playing on these practice sites without money, Internet gambling is perceived as being engaging, exciting and exhilarating.

Off-shore gaming sites remain predominantly unregulated. Practically, for underage youth who continuously surf the Internet, this can translate into questionable marketing strategies such as “pop-up” advertisements encouraging players to access adult gambling sites. However, little is known about the number of young people actually accessing these sites. Nevertheless, it is clear that more and more youth are accessing the Internet. In Canada, for example, data collected from 5,682 youth, aged 9 to 17 years, indicates that 99% reported having used the Internet at least to some extent, and 79% reported having Internet access at home (Media Awareness Network, 2001). While 40% of secondary students reported using the Internet for playing/downloading games, 62% of elementary school age students did so similarly. Data from the 2000 Programme for International Student Assessment (PISA) indicates that 90% of 15-year-olds have computers at home, and that 48% reported playing games on the Internet, at least a few times per week (Willms & Corbett, 2003).

While it is difficult to ascertain how many young people are aware of Internet gambling sites and how many are spending time gambling on-line, only a small number of empirical studies have examined Internet gambling behaviour, and nearly all involved adults. The Canada West Foundation (1999) in a survey of 2,202 Canadians reported that less than 0.5% of gamblers had actually gambled on the Internet (Kelley et al., 2001). A more recent survey by Ialomiteanu and Adlaf (2001) examined the prevalence of Internet gambling in Ontario, using data obtained from random telephone surveys conducted by the Centre for Addiction and Mental Health Monitor 2000. Across a sample of 1,294 adults, approximately 5% of adults reported having engaged in Internet gambling during the past year, with slightly more women participating in on-line gambling (6.3%) compared to men (4.3%). Differences in prevalence rates may be attributable in part to increases in public access to the Internet. In the Canada West Foundation survey, the reason most frequently given for choosing not to gamble on the Internet was a lack of Internet access (Azmir, 2000). A more recent survey of adults seeking treatment at the University of Connecticut Health Centre found that 8.1% of participants had gambled on the Internet, with younger people significantly more likely to have experienced gambling on-line (Ladd & Petry, 2002).

With respect to youth gambling, Griffiths (2001) provides data from a small sample of 119 adolescents, aged 15 to 19 years of age, none of whom report having gambled on the Internet. However, 4% of youth reported that they would like to try Internet gambling. In contrast to U.K. youth, recent findings from Canada suggest that at least 25% of young people with serious gambling problems and 20% of those at-risk for a gambling problem (defined by cut off scores on a screening measure) may be playing on-line using so-called “practice sites” where no money is needed to play (Hardoon, Derevensky & Gupta, 2002). Wiebe, Cox, and Falkowski-Ham (2003), using a small sample of adults similarly reported that while only 4.7% of individuals reported gambling on the Internet during the past year, participants with serious gambling problems were much more likely to report engaging in Internet gambling. It may be that amongst individuals at risk for developing a gambling problem, the Internet presents a special danger. While our current knowledge remains in its infancy and the prevalence rates are relatively low, researchers and clinicians are predicting greater abuse among youth as well as other high-risk groups including seniors and pathological gamblers.

Adolescents appear particularly vulnerable to the appeal of Internet gambling as they find gambling enjoyable (Dickson, Derevensky & Gupta, in press), are particularly attracted to the colourful, fast-paced videogame-like qualities, view themselves as highly intelligent, and perceive themselves as invulnerable to a gambling problem. These practice sites expose youth to adult games, encouraging them to practice and perhaps move on to ‘for money’ on-line casinos (Canada West Foundation, 1999). Fortunately, some barriers do exist including requiring a credit card in order to wager on these sites. However, these barriers are not

impossible to overcome. Are these sites training a new breed of gamblers? Only time will tell, as regulation of these sites continues to be highly problematic.

Mental health professionals are only beginning to fully recognize the magnitude and impact of problem gambling amongst teens. Awareness of the risks and harm associated with gambling problems in youth and the public at-large is lacking. There is a growing need to examine and respond to gambling problems in adolescents from a prevention and public health orientation.

Concern over the growing burden of gambling to individuals, families and society has stimulated discussion of gambling as a social and public health policy issue. Korn (2000) makes several recommendations within the Canadian context and proposes that provincial governments carefully assess the impact of gambling expansion on quality of life and balance the promotion of gambling with that of protecting the public from gambling-related harm. In addition, he suggests monitoring gambling advertising, especially with regards to youth, and adopting a harm-minimization approach in order to reduce the adverse health and social consequences of gambling.

Recently, Messerlian, Derevensky, and Gupta (2003) outlined four public health goals – denormalization, protection, prevention, and harm-reduction – that taken together describe action needed to address problem gambling in this young population. Denormalization, within the context of youth gambling, implies social denormalization, where society begins to question and assess underage gambling. Similar to the strategies used in tobacco prevention, denormalization can include drawing attention to the marketing strategies employed by the gambling industry, influencing social norms and attitudes on youth gambling, challenging current myths and misconceptions of Internet gambling among youth and the general public, and promoting realistic and accurate knowledge about gambling. Governments, industry and the public have a responsibility to protect children and adolescents from potentially harmful activities. This goal aims to protect youth from exposure to gambling products and promotion through effective institutional policy, government legislation and through a reduction in the accessibility and availability of all forms of regulated gambling to underage youth.

Prevention can consist of increasing knowledge and awareness of the risk of gambling (including on-line gambling on practice sites) among youth, parents, and professionals. Primary prevention strategies can be used to help promote informed decision-making and be incorporated into curriculum through interactive school-based prevention programs. As well, the implementation of health communication campaigns and community education forums are desirable goals.

Developing harm-reduction programs targeting those youth who are already gambling excessively, but who have not reached the level of pathological gambling, in order to prevent the progression of the problem is just one example of secondary prevention. This is of critical importance as the presence of pathological gambling has been suggested to be a risk factor for suicide (Bourget, Ward, & Gagne, 2003). Primary care providers and psychiatrists have an important role to play in screening for early identification of young problem gamblers in addition to screening for substance abuse problems. Further, their role can include providing brief intervention, referral and treatment services to youth exhibiting signs of problematic gambling behaviour.

There is a need to develop in-service training on youth gambling for health professionals working with youth. However, such strategies alone are insufficient as they do little to address the larger social and environmental determinants of gambling behaviour in our society. Public health action needs to include working on a population level as well as on an individual level, as it is the interplay of intra-personal and inter-personal factors together with institutional, community, and public policy factors that influences one's propensity to develop a gambling problem (Messerlian et al., 2003). Governments, the industry and the public have a responsibility to protect youth from potentially harmful products and activities. Public policy

should reflect the changing social climate and aim to protect youth from access to gambling products and exposure to gambling promotion.

Governments have a responsibility to develop socially responsible regulations and statutes on Internet gambling and to carefully assess their social policies concerning underage gambling in general. Furthermore, through public advocacy governments can be urged to strengthen legislation on advertising and marketing of gambling products to underage youth. Evidently, social policies need to balance public health interests with the gambling revenues accrued by government and industry.

The convenience and easy access to on-line gambling poses distinct enforcement issues. The primary concern with Internet gambling continues to be regulating access to both 'for money' sites (Griffiths & Parke, 2002) as well as to practice sites. Governments struggle with a lack of effective approaches to monitoring and regulating on-line gambling providers. In turn, providers grapple with self-regulation to prevent individuals, such as underage youth, from accessing their sites illegally.

There are predictions that Internet gambling will continue to soar with governments becoming more actively involved in the operation of these sites. Gambling has become not only a huge source of revenue for governments throughout the world but also an important public health issue. Health professionals and others working with adolescents will require more knowledge and resources in order to better respond to new and emerging needs. While further research is needed in the area of Internet gambling, raising the issue to the public fore will only serve to better prepare for, and prevent future problems.

Articles from The Canadian Child and Adolescent Psychiatry Review are provided here courtesy of **Canadian Academy of Child and Adolescent Psychiatry**

Source: Messerlian, C., Byrne, A. M., & Derevensky, J. L. (2004). Gambling, youth and the internet: should we be concerned?. *The Canadian child and adolescent psychiatry review = La revue canadienne de psychiatrie de l'enfant et de l'adolescent*, 13(1), 3–6.

END OF PAPER