RESEARCH REPORT

The prevalence and correlates of gambling in secondary school students in Victoria, Australia, 2017

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Enquiries

Rosa Billi +61 3 9452 2625
rosa.billi@responsiblegambling.vic.gov.au

Victorian Responsible Gambling Foundation

Level 6, 14–20 Blackwood Street
North Melbourne
Victoria 3051

PO Box 2156
Royal Melbourne Hospital
Victoria 3050

Telephone: +61 3 9452 2600
Facsimile: +61 3 9452 2660
ABN: 72 253 301 291

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The prevalence and correlates of gambling in secondary school students in Victoria, Australia, 2017

Megan Freund[1,2,3]
Natasha Noble[1,2,3]
David Hill[4,5]
Victoria White[4,6]
Tiffany Evans[7,8]
Christopher Oldmeadow[7,8]
Robert Sanson-Fisher[1,2,3]

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1. Health Behaviour Research Collaborative, School of Medicine and Public Health, Faculty of Health and Medicine, University of Newcastle
2. Priority Research Centre for Health Behaviour, Faculty of Health and Medicine, University of Newcastle
3. Hunter Medical Research Institute
4. Centre for Behavioural Research in Cancer, Cancer Council Victoria
5. School of Psychological Sciences and School of Population and Global Health, University of Melbourne
6. School of Psychology, Deakin University
7. Clinical Research Design, Information and Statistical Support, Hunter Medical Research Institute
8. Centre for Clinical Epidemiology and Biostatistics, School of Medicine and Public Health, Faculty of Health and Medicine, University of Newcastle

THE UNIVERSITY OF NEWCASTLE AUSTRALIA

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Executive Summary

Adolescent gambling has been associated with negative impacts on school performance and family and peer relationships, depression, and is also correlated with engagement in other risk behaviours such as alcohol and other drug use. Adolescents today are increasingly exposed to gambling marketing through social media, online advertising and sports coverage, alongside increased accessibility and opportunities to gamble with the rise of internet and smart phone access. This study aimed to provide up-to-date information regarding the current prevalence, types and correlates of gambling in secondary school students within Victoria, Australia.

Gambling was described to students as “when you pay in your own money knowing that you could lose all of it or, possibly, win back even more than you paid in”. This definition was designed to be understood by all study participants, who ranged in age from 12 to 17 yrs old. Adolescents’ exposure to gambling, including family and peer gambling behaviour, visiting venues where people were gambling, and exposure to advertising and marketing, were also examined. This study also included a measure of youth susceptibility to future gambling, inspired by the utility of measures of susceptibility to smoking. The measure of gambling susceptibility was developed by the researchers based on the Susceptibility Index for adolescent smoking, which defines susceptibility to cigarette use as the absence of a firm commitment not to smoke, across a range of situations.

Data were gathered as part of the 2017 Australian School Students Alcohol and Drug (ASSAD) Survey of students from Victoria (VIC) and Queensland (QLD). The ASSAD is a triennial national cross-sectional survey of students’ use of licit and illicit substances. In 2017, a series of gambling questions were added to the ASSAD survey instrument, which form the basis of this report. Only the VIC results are presented here, with some preliminary comparisons between VIC and QLD presented in Appendix 1. Schools were randomly selected for surveying from a representative sample of Government, Catholic and Independent high schools in each State. Students in Years 7 to 12 from participating schools completed the survey anonymously. Members of ASSAD team attended the school to administer the pencil-and-paper questionnaire to classes of students. The final sample included 3746 Victorian students. The key findings of the study included:

Prevalence and types of gambling

- Almost one in three students reported that they had gambled at some time in the past (31%);
- The prevalence of ever gambling was higher among older compared to younger students, and higher among males (36%) compared to females (26%);
- 6% of all students reported gambling in the last 30 days;
- The prevalence of gambling in the last 30 days was also higher among older compared to younger students, and among males (7%) compared to females (5%);
- Among students who had gambled at some time in the past, nearly one quarter (21%) reported having gambled in the last 30 days. The median amount of money spent by those who had gambled in the last month was $9.30;

- Students who had ever gambled most frequently reported gambling on horse or dog races (54%), followed by purchasing raffle tickets (51%), betting on sport (38%), and buying instant scratchie cards (37%);

- Among students who had ever gambled, the most frequently reported modality was 'at home or at a friend's home' (52%), followed by a parent or guardian purchasing or playing for them (51%). Online gambling (18%) was relatively more common than gambling at a pub or club (10%) or casino (1%).

Problem gambling and exposure to other's gambling

- 1.4% of all students were classified as problem gamblers, using a modified version of the Diagnostic Statistical Manual IV (Multiple Response format) adapted for Juveniles [DSM-IV-[MR]-J] criteria;

- 5% of students who had ever gambled, and 13% of students who had gambled in the last month, were classified as problem gamblers according to the modified DSM-IV-[MR]-J criteria;

- Almost a third of all male students (30%), and 17% of all female students were classified as 'highly susceptible' to gambling in the future (i.e. they indicated that they would 'definitely' or 'probably' gamble in the future in at least one of three scenarios presented in the survey instrument);

- 35% of all students reported knowing someone who gambled; 18% of students knew someone in their household who gambled in the last month. A 'father/caregiver' was most frequently reported as an exemplar/social referent who gambled (14%), followed by another relative (13%);

- 35% of all students had, in the past month, been inside a venue where gambling was available, most often in a pub (25%) or a club (14%);

- Almost three-quarters of all students reported being aware of advertisements or promotions for gambling in the last 30 days on television (73% of all students of both genders);

- More than one-third of all students also reported being aware of advertisements or promotions for gambling in the last 30 days on the radio, sporting scoreboards or signage, websites and on social networking sites.

The association of a number of factors with ever gambling, gambling in the last month, and problem gambling classification (non-problem, at-risk, problem gambling) were examined using univariate analyses. Other people's gambling (parent/caregiver, best friend or sibling) was associated with students ever gambling and gambling in the past month. For example, 51% of students who gambled in the last month reported that their parent/caregiver had gambled, compared to 21% of students who had not gambled in the last month. Socioeconomic disadvantage, and other people's gambling, were significantly associated with higher rates of problem gambling, while rurality was not.

Having been inside a venue where gambling was available in the last 30 days was also associated with an increased prevalence of gambling behaviour. A higher proportion of students who had ever

gambled had visited a club (18%), TAB (11%), or racecourse (10%) in the last month, compared to students who had never gambled (12%, 5% and 4% respectively). Similarly, a higher proportion of students who had gambled in the last month reported visiting a racecourse in the last 30 days (19%), compared to students who had gambled but not in the last month (7%). However, visiting a venue where gambling was available was not associated with higher rates of problem gambling.

Exposure to gambling promotions in the past month was also associated with an increased prevalence of gambling in the last month. Sixty-two percent of students who had gambled in the last month reported seeing four or more types of gambling advertising in the past month, compared to 47% of students who had not gambled in the past month. Exposure to advertising in the past month was not associated with ever gambling, or with problem gambling.

Recent gambling was associated with concurrent tobacco, alcohol and illicit drug use. There was also an association between mental health and recent gambling, with students reporting a mental health condition also more likely to report gambling in the previous month. Smoking, alcohol, and other drug use, were all positively associated with being classified as a problem gambler, although there was no univariate association between mental health conditions and problem gambling.

In terms of susceptibility to gambling in the future, 13% of those who had never gambled were classified as highly susceptible to future gambling. Almost half (45%) of those who had ever gambled but not in the last month were also classified as highly susceptible to future gambling.

The relationships reported here between exposure to gambling in others and gambling prevalence support previous findings in which gambling behaviour has been strongly associated with peer involvement in gambling[2]. Also in line with previous research findings[3], exposure to advertising was significantly associated with gambling behaviour. Results of the current study highlight the need to develop strategies to reduce student exposure to gambling behaviours and advertising, as well as exploring avenues for promoting responsible attitudes and behaviours towards gambling among Australian secondary school students.

Background

Adolescent gambling

In the past, gambling research and its associated harms has focused on adult populations[2, 4]. However, over the past 10 years, there has been a growth in interest examining adolescent gambling[5, 6]. National and international research has found that while youths are unlikely to reach the typical 'rock-bottom' associated with problem gambling[7], harms associated with gambling are not restricted to adult populations[5, 8-12]. Studies undertaken in Australia and elsewhere have consistently indicated that adolescent gambling can lead to a number of harms including: missing or dropping out of school; undermined friendships; family disruptions; and criminal behaviour[13-17]. Adolescent gambling has also been demonstrated to be associated with depression, and tobacco, alcohol and other drug use[10, 18, 19]. Adolescents who gamble, particularly those adolescents who are considered to be problem or severe problem gamblers[12], are also at-risk of suffering financial harm as a result of their gambling[10, 18, 19]. Adolescent gambling is also of concern given there is some evidence that adolescent gambling may be associated with greater gambling involvement, and problems with gambling, in adulthood[20-22].

Prevalence of youth gambling

Generally, youth gambling studies explore prevalence, level and severity of gambling engagement amongst those who are under the legal age to participate in gambling activities[6]. Studies that have examined prevalence tend to include young people between the ages of 10 and 20 years, with 18 years of age being most commonly employed as the age of majority[2, 23]. However, given the varying age of legal adulthood internationally (e.g., 21 years in the United States), studies that include youth over the age of 18 years are not uncommon[24-26]. Further, studies often use varying definitions of gambling and what constitutes gambling behaviour (e.g. inclusion or exclusion of raffle tickets and bingo) and utilise differing measures for gambling severity[27]. The definition of 'problem gambling' is a further point of inconsistency, as are the timeframes in which gambling prevalence is assessed (i.e. gambling in the last 12 months, last week, or ever)[6]. The exclusion of regional and rural areas in favour of a metropolitan focus also prevents effective inter-jurisdictional analysis[6]. These variations should be considered when comparing adolescent gambling prevalence and problem gambling across countries. Table 1 presents an overview of some of the prevalence studies published within the last decade of adolescent gambling for nine countries including Australia[28]. Note that Table 1 is not a comprehensive review of adolescent gambling studies, but presents a snapshot of some of the more recent international studies.

Current global context

There appears to be little if any standardization of methods and measures used in studies of adolescent gambling, thus comparisons between studies should be made with caution. Studies that assess youth gambling prevalence internationally (see Table 1 for study details) have reported that the majority of adolescents have gambled at some point during their lifetime[29-31]. Studies report that between 35% and 70% of young people gamble at least annually. A recent international review reported that the prevalence of problem gambling among youth ranged from 0.2% to 12%[32]. However, there are a range of methodological issues associated with the assessment of problem gambling among youths, including different measures and instruments, possible misunderstanding of screening questions by respondents, and scoring errors, which may be responsible for this variability across studies [33-35]. The age range of 'adolescents' included in these studies also varies

considerably, with some studies including 24 or 25 year olds. Although dependent on access and availability by country, the most prevalent forms of gambling are participation in lotteries (e.g. scratchies), playing card games, and wagering on games of skill and sporting events[36]. In most studies, boys were more likely to gamble compared to girls, and to do so on a more frequent basis. Similarly, older youth were more likely to gamble[28].

Recent international trends suggest a decline in the prevalence of youth gambling. For example, in the UK from 2011 to 2017 there was a significant reduction in the proportion of youth aged 11-15 years who gambled in the last week (from 23% in 2011 to 12% in 2017)[37]. However, estimates of the proportion of problem gamblers in the UK were similar over time, at 0.7% in 2014 and 0.9% in 2017[37]. Examining gambling among young people also needs to consider new developments in gambling, such as the recent emergence of internet gambling[35]. Online gambling may pose a particular risk for young people, given that it is easily accessible, and a familiar environment for young people who have grown up with computers and the internet [35]. In addition, there is growing convergence between gambling and other activities such as computer games and video gaming, blurring the distinction between gambling and gaming [38, 39]. For example, many gaming sites offer rewards such as tokens or credits that can be swapped for monetary prize [38]. Among adults, there is some evidence to suggest that the internet gambling may be more likely to contribute to problem gambling than gambling in offline environments[40].

Table 1: Selected studies that have examined adolescent gambling prevalence

Country (authors/year)	Sample/age/Sample size (consent %)	Prevalence of any gambling (%)			Prevalence of problem gambling	Associations with increased gambling
		Last 12 months	Other	Ever		
UNITED STATES						
Welte et al 2008[41]	National sample, 14–21 yrs, n=2274 (response rate not reported)	68%	11% (more often than twice per week)	-	2% (past year)	Male, increasing age, employed full time
UNITED KINGDOM						
Molinaro et al 2014[42]	National data from European School Survey Project on Alcohol and Other Drugs (ESPAD), 16 yrs, n=1712 (81%)	-	-	-	4%	Male, lack of familial support
Ipsos 2014[43]	Adolescents from England and Wales, 11–16 yrs, n=2796 (20% school response rate)	-	16% (last 7 days)		1% (past year)	Male, increased age, self-perceived school performance
Forrest and McHale 2012[44]	Adolescents, 11–15 yrs, n=8958 (22% school response rate)	-	28% boys 13% girls (last 7 days)	-	2% (past year)	Male, low SES, Asian ethnicity, tobacco use, slot players
CANADA						
Dickson et al 2008[45]	Adolescents, grade 7-13, n=2179 (response rate not reported)	62%	-	-	13% (past year)	Low family connectedness, family peer and problem behaviours, self-perceived academic achievement
GERMANY						
Clements et al 2017[46]	Adolescents, 13-25 yrs, n=4617 (response rate not reported)	42%	7% (last 7 days)	65%	3% (reported probable pathological gambling)	Male, 18 years and older, higher monthly income, father gambled at least once a week during their childhood, scored high on urgency and sensation seeking by low on premeditation and social anxiety

Country (authors/year)	Sample/age/Sample size (consent %)	Prevalence of any gambling (%)			Prevalence of problem gambling	Associations with increased gambling
		Last 12 months	Other	Ever		
DENMARK						
Kristiansen and Jensen 2014[36]	Adolescents, 11-17 yrs, n=2223	70%	16.3% (few times per month); 3.6% (on a daily basis)	84%	1% (overall prevalence rate of problem gambling)	Male, significant correlation between gambling problems and gambling frequency, girls more often introduced to gambling by their parents while boys were more often introduced to gambling by their friends
FRANCE						
Romo et al 2014[47]	School and college adolescents, 11-17 yrs, n=1800 (response rate not reported)	33%	-	-	2% (problematic gambling behaviour)	Significant correlation between the 'urgency' dimension of impulsivity and CPGI scores; 'sensation seeking' is significantly correlated to the CPGI score and a predictor of this score
ITALY						
Nigro et al 2017[48]	Adolescents, 12-19 yrs, n=1010 (response rate not reported)	22% non-gamblers; 51.5% non-problem gamblers; 19% at-risk gamblers, 7.9% problem gamblers	-	-	8%	At-risk and problem gamblers showed higher levels of impulsivity, steeper delay discounting, shorter time horizon, and reported experiencing significantly higher levels of depression, anxiety and stress
NEW ZEALAND						
Rossen et al 2013[49]	Secondary school students, 13-17yrs, n=8500, 68% response rate	24%	10% (in the last 4 weeks)	-	Not assessed	Males and those from more deprived neighbourhoods were more likely to report gambling. Māori, Pacific, and Asian students generally reported higher rates of gambling related harm than NZ European students.
AUSTRALIA						
Purdie et al 2011[2]	Australian youth and adolescents, 10-24 yrs, n=5972 (response rate not reported)	77%	-	-	5% (past year)	Being classified as a problem gambler was associated with: being male, older adolescents (18-24yrs vs <18yrs), those who knew someone who gambled too much, lower self-esteem, and substance use and delinquent behaviours.
Delfabbro and King 2011[50]	Adolescents (Darwin metro), 14–18 yrs,	51%	6% (at least a weekly basis)	-	<1% (past year)	Young Indigenous adolescents significantly more likely to gamble regularly than other adolescents. At-

Country (authors/year)	Sample/age/Sample size (consent %)	Prevalence of any gambling (%)			Prevalence of problem gambling	Associations with increased gambling
		Last 12 months	Other	Ever		
	n=1107 (response rate not reported)					risk or problem gamblers were more likely to: be male, report a large win when first started gambling, know someone with a gambling problem, and drink alcohol and smoke cigarettes.

Australian context

In Australia, the pattern of youth gambling is similar to that found by international research. Gambling in a commercial premises or using an online gambling sites is illegal under the age of 18yrs[10, 51], but adolescents can gamble informally at home or among friends. In the largest and most recent Australian study, the Gambling and Young People in Australia 2011 (ACER) Report, 77% of young people, aged 10 to 24 years old, had engaged in gambling in the past year[2]. After carefully considering the sampling, procedures, and instruments used in the ACER study, we concluded that there was insufficient comparability with the current study to justify using the ACER study results as a meaningful baseline, particularly with respect to prevalence estimates. In addition to other issues of comparability, there was also concern about the very small number of school children included (only 305 10 to 17 year olds in Victoria).

Individual, interpersonal and community factors associated with adolescent gambling

As demonstrated in Table 1, cross-sectional studies have suggested a number of individual, interpersonal and community factors are correlated with increased youth gambling engagement. Factors associated with higher levels of youth gambling include lower levels of family connectedness[15, 52] and a higher reported rate of family members engaging with gambling[10, 15, 52, 53]. Peer gambling was also significant[2, 10, 53], with those reporting a close friend or relative who gambles being more likely to engage in their own gambling activities[5]. A 2013 narrative review identified cognitive bias, perceived incentives, excitement seeking, and impulsivity as predictors of adolescent gambling[54]. In addition, a recent systematic review of longitudinal studies published in 2017 examined the protective and risk factors that may be predictive of problem gambling in young people (to age 25 years)[55]. Early risk factors for later problem gambling included: alcohol, tobacco, cannabis and other illicit drug use; anti-social behaviours (including deviancy and theft); depressive symptoms; impulsivity; male gender; number of gambling activities; peer antisocial behaviours (including deviancy); poor academic performance; problem gambling severity; sensation seeking; uncontrolled temperament; and violence[5, 47, 48, 55]. Early protective factors against problem gambling were: higher parent supervision; less social problems; and higher socio-economic status[55]. Other protective factors which have been identified for adolescent gambling include higher resilience and greater family cohesion[56]. Emerging environmental issues that are likely to impact on adolescent gambling prevalence are the expansion of gambling promotion and opportunities to gamble[28], including internet gambling and online gambling.

Exposure to gambling promotion

Exposure to advertising is indicated to increase the likelihood of engaging in gambling activities[3, 46]. A recent Australian study noted that adolescent exposure to gambling marketing is common, with most adolescents regularly watching televised sport where gambling is promoted[57]. A higher frequency of watching televised sport was associated with greater intention to bet on sports and other gambling activities, and with more positive attitudes towards gambling among adolescents[57]. This is concerning given the expansion of gambling advertising and promotion in Australia in recent years[58]. In 2017, the Victorian Responsible Gambling Foundation reported that the Australian gambling industry spent $236 million on advertising in 2015 alone[59]. Despite restrictions on gambling advertising during children's television programs and sporting events[60], adolescents and children are not shielded from this promotion, with young people being exposed to gambling promotions online through social media platforms such as

Facebook, Twitter and YouTube[61]. New online rules regarding gambling advertising online came into effect in 2018, after this study was conducted[60]. In Australia, five in 10 adolescents reported high levels of exposure to sports betting marketing[59]. A 2016 study of 152 Australian children in a community sporting environment found that one in five children aged 8-16 years were able to identify three or more sports betting brands, and over two thirds were able to recall the name of at least one brand[59].

Opportunities to gamble

The rise of smart phone and other internet-based technologies, including social media, have provided unprecedented access to gambling activities[62]. A 2015 study of 101 Australian young people reported that 80% of Australian adolescents aged 14 to 17 had a smart phone, 65% had used a mobile phone to go online[59], 97% accessed at least one social media platform[61], and a reported 60% of young people who had gambled had done so online[59]. This is despite age restrictions intended to minimise access to gambling products to those under the age of 18. Further, in circumstances where a young person is not able to legally enter a gambling venue, they may still engage in the activity by asking another person, such as a family member, to place bets on their behalf[5].

Gap in knowledge of Australian adolescent gambling

While there is a growing field of research regarding adolescent gambling, gaps in the knowledge base remain. Notably in the Australian context, there is a lack of large population studies. With the exception of the 2011 ACER Report[2], studies have frequently focused on a localised sample across one region or State[10, 63].

Aims of the current research

Given the above, the current study aimed to examine, among Victorian secondary school students aged 12-17 yrs, the:

- Current prevalence, type, and modalities of gambling overall, and by age and gender;
- Prevalence of problem gambling by age and gender;
- Exposure to peer and household gambling, extent of visiting venues where people were gambling, exposure to gambling promotions, and susceptibility (based on the Susceptibility Index for adolescent smoking, defined as the absence of a firm commitment not to gamble across a range of situations) and intention to gamble, by age and gender;
- Association between prevalence of gambling (ever, and in the last month), problem gambling and:
  - rurality and level of disadvantage;
  - household, parental and peer gambling;
  - visiting venues where people were gambling;
  - exposure to gambling promotion;
  - tobacco, alcohol and other drug use and mental health; and
- Association between gambling prevalence and gambling susceptibility.

Preliminary comparisons between VIC and QLD student gambling levels were also undertaken and are presented in Appendix 1. Detailed analysis of data gathered from QLD will be presented separately in a subsequent report.

Approach

Study design and setting

To achieve a large representative sample of school students in Victoria (and potentially every other State), the research platform used was the triennial Australian Secondary School Alcohol and Drug (ASSAD) Survey. This survey was commenced in 1984 by the (then) Anti-Cancer Council of Victoria to provide national estimates of tobacco and alcohol use, and uses a repeated cross-sectional study design. Since then, the survey has been conducted in every State and Territory, and its scope extended to include measures of illicit and prescription drug use as well as certain other health-related behaviours. The sampling and measures used have been standardized for over 30 years, and hence have provided consistent national and State-specific trend data that is of great value to public health. All jurisdictions in Australia continue to support ASSAD, which involves over 20,000 students every three years.

For this study, negotiations with the Cancer Council Victoria enabled the gambling questions which form the basis of this report to be added to the 2017 ASSAD survey instrument, providing automatic (and economical) access to the methodological strengths of ASSAD. This also presented the opportunity to explore relationships between gambling attitudes and behaviours and substance use in Australian secondary school children. Another advantage of participating in ASSAD is that it is expected to continue as a triennial survey, and so offers an opportunity to repeat the gambling measures to establish trend lines.

Sample and procedure

Sample

Working to protocols and sample requirements specified by the ASSAD research team, the Australian Centre for Education Research (ACER) was contracted to supply the ASSAD researchers with a random sample of schools for survey approach. The sample was selected to ensure a representative sample of Government, Catholic and independent high schools within each State for surveying. The basic design of the sampling procedure was a stratified two-stage probability sample. The sample of schools was stratified by sector and State, to ensure that the distribution of schools across the three education sectors within each State was reflected in the sample. Classes of students in Years 7 to 12 were selected within schools, with researchers working with schools to ensure classes surveyed reflected a random grouping of students (no special classes, no selected or elective classes etc). Given that a proportion of Victorian adolescents aged 16-17 years do not attend secondary school, caution should be made when generalising outcomes to the total population of 16-17 year olds. Only VIC students comprised the current sample for this report.

Procedure

All surveying took place in the 2017 academic school year. Permission to conduct the survey was sought from State Education Departments in Victoria (and Queensland) for Government schools; from Catholic Diocesan education offices for Catholic schools; and directly from the Principals of selected independent sector schools. If a Dioceses or Principal declined participation, the school

was replaced by the school nearest to them geographically and within the same education sector (Catholic or independent). In Victoria, a passive (opt-out) parental consent process was used for all Government and independent schools, while active parental consent was sought for participation in Catholic schools. On the day agreed with the school, members of ASSAD team attended the school to administer the pencil-and-paper questionnaire to groups of selected students. Students completed a 25-page questionnaire that covered the use of tobacco, alcohol, illicit (e.g., cannabis and hallucinogens) and licit substances, and students' mental health. In 2017, additional questions regarding student gambling were also included towards the end of the survey booklet. Questionnaires were scanned, converted into data files and cleaned by the Centre for Behavioural Research in Cancer at Cancer Council Victoria. Students with a large amount of missing data or whose responses were wildly exaggerated were removed from the data set before analyses started. The finalised gambling survey items were submitted to, and approved by, the relevant State and institutional Human Research Ethics Committees (HRECs), including the University of Newcastle HREC (Ref: H-2017-0102).

Development of the gambling survey items

The gambling items included in the 2017 ASSAD Survey were developed through an iterative process stemming from an extensive literature review, advice from experts in adolescent youth gambling and smoking research, and pilot testing the selected items with a group of adolescents. Following each stage of survey item development, the advice was discussed and amendments made as required.

The literature review involved a search of Medline, Psychinfo, and Google Scholar, as well as an examination of known key articles and reports. The literature review aimed to determine existing survey tools and items that have been used previously to examine: adolescent gambling prevalence; how adolescents gamble (types and modality); the prevalence of risky or problem gambling; access to gambling venues; exposure to gambling advertising, and (should it exist) a measure for gambling susceptibility. The literature search was limited to articles and reports published since 2010 (to ensure relevance to the current gambling environment) and used a combination of broad search terms including 'gambling', 'adolescents', 'young people', 'prevalence', 'burden', 'at risk/risky/problem', 'promotion/advertising', 'access' and 'susceptibility'.

Following the literature review, the research team developed a draft survey and sought comments and advice from an Expert Advisory Panel that comprised seven national and international experts in the youth gambling field, including representatives from the Victorian Responsible Gambling Foundation. The Expert Advisory Panel was emailed the draft survey and asked to provide feedback on the tools and items included. The draft survey was amended and returned to the Expert Advisory Panel for final comment and amendment.

The draft survey was then pilot tested with 10 adolescents whose age ranged from 11-16 years. The adolescents were provided with a brief written and verbal overview of the survey and asked to provide comment, including their understanding of what was meant by 'gambling', if they understood the questions, and if they had any other opinions on the survey content. Feedback was provided in written form. Adolescents were asked to complete a feedback sheet with specific questions about the survey items and wording, such as "What does the term gambling mean to you? What sort of activities do you think of?". Minor amendments were made as a result of this pilot testing.

Measures

Student characteristics

The survey collected the following self-reported student characteristics: age; gender; postcode; main language spoken at home; money to spend on self per week; self-considered school achievement; and attendance at school on previous school day. Students answered questions on their use of tobacco and alcohol in their lifetime, past year and past month (yes or no), and indicated the number of alcoholic drinks or cigarettes they had consumed on each of the previous seven days. Questions also assessed if students had ever used cannabis, hallucinogens, ecstacy, heroin, cocaine, amphetamines, or steroids, and if they had ever been diagnosed or told by a doctor or nurse that they have a mental health condition.

Gambling behaviour

Ever gambled and gambled in the last 30 days

Prior to answering the gambling-related questions, students were given the following definition of gambling: 'Gambling is when you pay in your own money knowing that you could lose all of it or, possibly, win back even more than you paid in. There are lots of ways to gamble, for example on the results of races, sports, card games, lotteries, raffles, on machines like "pokies", tipping competitions and sweepstakes.' This definition of gambling was designed to be able to be understood by all students ranging in age from 12 to 17 years. Students were asked 'Have you ever bet any money on any form of gambling?' (yes/no).

The subsequent questions about gambling in the past 30 days (yes/no), gambling activities, modalities, money spent/if won, and problem gambling, were tailored so that only students who indicated that they had ever gambled were instructed to answer these questions. Participants were instructed to skip these questions if they had never gambled. All students were instructed to complete the final set of questions, including measures of gambling exposure, and gambling likelihood and susceptibility, regardless of whether they had ever gambled or not.

Types of gambling activities

The items chosen to measure the types of gambling activities were based upon those included in the Gambling and Young People in Australia 2011 ACER Report[2]. Given this was the most recent population level examination of youth gambling in Australia, using similar items in the current study allowed some level of comparison between the two. Unlike the ACER report, the current study also included two additional gambling activities: gambling on personal skill games (e.g. pool) and purchasing raffle tickets. The activities in the 2011 ACER Report measured a broad range of leisure and gambling opportunities. These activities were amended to include recent technological advances, including internet gambling and app based technology, for the current study. Activities that were not specifically gambling activities were excluded (e.g. going to the movies, playing video games). Activities which may be considered 'softer' forms of gambling, including buying raffle tickets, tipping competitions, and sweeps, were included in the definition of gambling given to students, and as specific activities, given that it was difficult to provide children and adolescents with a consistent conceptual definition of gambling while excluding these types of activities. This was also the recommendation of members of the Expert Advisory Panel. The inclusion of raffle tickets, sweeps, and other competitions, is also consistent with several other recent Australian[64, 65] and international

studies[66]. However, for comparison, the prevalence of ever gambling and gambling in the last 30 days are presented in the results section both with the inclusion of these 'softer' forms of gambling, and with these activities excluded.

Students who had ever gambled indicated the recency of their gambling on a range of different activities. Students indicated, for each gambling activity presented, whether they had ever gambled on that activity (e.g. ever gambled playing card games), and whether they had gambled on that activity in the last month (e.g. played bingo in the last month). This recency of gambling is in line with research examining student smoking, alcohol consumption and other drug use, and is the format used in the ASSAD Survey for smoking and other health risk behaviours.

Modality of gambling

Modality of gambling was assessed in a separate set of questions developed for the survey to understand how young people gamble (e.g. online, onsite, or facilitated by another person). Students who had ever gambled were asked to indicate whether they had gambled "in any of these ways?", and provided with a list of response options including online, at a TAB, at a pub or club, at home etc. The online and onsite items were based on work by King et al 2014 and Gainsbury et al 2015 exploring social gaming and gambling[67, 68]. The items examining other peoples' facilitation of student gambling were based on adolescent smoking and alcohol use, where the access to these substances is facilitated by a person who is legally able to purchase the substance. For example, modality options included a parent, sibling, friend etc. purchasing or playing on behalf of the student.

Money spent/if won

Winning money is a common motivation for adolescent gambling[69], and there is some evidence to suggest that 'winning' at gambling may be associated with problem gambling. Lambos et al reported that that those who gambled on a regular basis were more likely to have experienced an early win[70]. Participants who reported gambling in the last 30 days were asked whether they won money, lost money, or finished about even from gambling in the last 30 days. Students who indicated that they had gambled in the past 30 days were also asked to estimate how much money they bet on gambling in that time.

Problem gambling

The Diagnostic Statistical Manual IV (Multiple Response format) adapted for Juveniles (DSM-IV-[MR]-J) was used to screen students for possible problem gambling. This 12 item tool was developed by Fisher in 1992 (DSM-IV-J)[71] and was further revised in 2000 (DSM-IV-[MR]-J[72]. The tool was initially based upon the adult criteria for 'pathological gambling' in the DSM-IV[73], and the items address psychological states and symptoms associated with problem gambling, including preoccupation, tolerance, loss of control, withdrawal symptoms, escaping problems, chasing losses, lies, illegal and antisocial acts and risk [72]. Key differences between the adult DSM-IV and the youth adaptation include a change in illegal acts, such as fraud and embezzlement, being replaced by more age appropriate behaviour such as stealing from family members and crimes outside the home[73]. This tool is frequently used by youth gambling researchers[27] and was used in the 2011 ACER Report[2] to assess problem gambling. The DSM-IV-[MR]-J has demonstrated reasonable levels of reliability and validity[72, 74, 75], and in 2003 was recommended for use in any future national prevalence studies of adolescent gambling, as its low reading age is likely to assist

younger respondents to answer questions more accurately[74]. In the current study, in line with the 2011 ACER report, and other previous Australian research[10, 76], response options were revised to a dichotomous yes/no scale for each of the 12 items. Pilot testing and interviews with students in the ACER study indicated that the 'yes/no' response option was more clear and less demanding than frequency response options (e.g. 'more/less than half the time', 'once or twice/sometimes/often'), in particular for younger students[2]. Scores on the DSM-IV-[MR]-J were used to classify respondents as non-problem gamblers, at-risk gamblers, or problem gamblers[2]. Details about the scoring of problem gambling are provided in the Analysis section below.

Gambling exposure and susceptibility

All students were asked to complete the following gambling questions, regardless of whether they had gambled in the past or not.

Other people's gambling

Studies have demonstrated links between family and peer gambling and increased likelihood of gambling amongst youth[10, 52, 53]. To explore the influence of these social referents in a contemporary Australian youth sample, the survey included measures of peer and family gambling based on those developed by Delfabbro and Thrupp[10], and previously implemented in the 2011 ACER Report[2]. The survey asked if anyone in the student's household gambles. This item was based on adolescent smoking literature which has found that household smoking is associated with adolescent smoking[77]. The survey also asked participants whether they knew anyone (including household members and others) who had gambled in the last 30 days.

Physical access to places where gambling takes place

Items to assess students' access to physical places/organisations where gambling takes place in the last 30 days were developed by the researchers, as no previously developed items could be identified in the literature. Places/organisations included pubs and clubs, TAB retail outlets and racecourses. Students were asked whether they had been inside any of a range of venues where people could gamble in the last 30 days. This could include visiting a venue, for example a pub or club, without necessarily visiting the gambling section or seeing gambling take place.

Exposure to gambling promotion

Exposure to gambling promotion has been demonstrated to increase the likelihood of future gambling[57]. Exposure to advertising was measured through the adaption of Hing et al's exposure to sports advertising scale[57]. For the current study, this item was modified to include non-sports promotions, including promotion on social media. Students were asked to indicate whether they were aware of a range of advertisements or promotions for gambling in the past 30 days, such as ads for gambling on TV, radio, billboards, live studio crosses to gambling operators etc.

Likelihood of gambling and susceptibility

The likelihood of future gambling was assessed by asking participants how likely they were to gamble in the next 12 months. Response options were: definitely will gamble; likely to gamble; not sure/unlikely to gamble; and definitely will not gamble.

The measurement of gambling susceptibility was developed by the researchers based on the Susceptibility Index for adolescent smoking[78]. Susceptibility to cigarette use has been defined as the absence of a firm commitment not to smoke, across a range of situations[78]. Susceptibility assesses an openness to engage in a behaviour at some time in the future, and thus is a potential predictor of future behaviour. In several studies, the Susceptibility to Smoking Index has identified adolescents with a twofold risk of starting to smoke[79]. Susceptibility to future gambling was assessed by asking participants whether they: thought they would gamble soon; would gamble if their best friend invited them to; and thought they would gamble in the next year. Responses were made on a 5-point scale from definitely/probably yes to definitely/probably no, or unsure. Susceptibility to future gambling was derived from responses to these three susceptibility items alone, and as such does not take into account or reflect gambling behaviours such as whether the student had ever gambled or the recency or frequency of gambling. Details about the scoring of susceptibility are given below in the Analysis section.

Analysis

All statistical analyses were programmed using SAS v9.4 (SAS Institute, Cary, North Carolina, USA). Students aged 12 to 17 years were included in the analysis. To ensure that disproportionate sampling of any education sector, age and sex grouping did not bias the prevalence estimates, data were weighted to bring the achieved sample into line with the distribution of the population of 12 to 17 year olds in secondary schools within the State. The prevalence estimates reported here are based on weighted data. Enrolment details of male and female students in each age group at Government, Catholic and independent schools were obtained from the Australian Bureau of Statistics (ABS).

For each strata, the ratio of the State population to the sample population yielded the inverse sampling weights; dividing this by the State mean inverse sampling weight yielded State weights appropriately scaled to the sample size. Weighted prevalence/percentages were calculated for all non-demographic survey variables using the SAS software SURVEYFREQ procedure with Taylor series variance estimation and school as the cluster variable. Prevalence and proportions are from available (non-missing) data. Due to attrition, the amount of missing data varied considerably across survey items. Unless otherwise stated, weighted prevalence, percentages and sample sizes are presented in all tables and text.

Data cleaning and missing values

If a participant provided no answer or provided invalid and/or inappropriate multiple responses to gambling questions, the response was set to missing. Participants who were missing data for all seven essential gambling questions (i.e. 1. Whether the participant had ever gambled; Susceptibility to future gambling: 2. soon, 3. if your best friend invited you, or 4. in the next year; 5. Whether other people in the household had gambled in the last 30 days; 6. Whether known others had gambled in the last 30 days; and 7. Likelihood of future gambling) were deleted from the dataset. Responses to the types of gambling activities, modality of gambling, gambling in the last 30 days, amount of money spent on gambling in the last 30 days, winning money on gambling in the last 30 days, and the DSM-IV-[MR]-J problem gambling screening questions, were only included for those participants who responded ‘yes’ to whether they had ever gambled in the past. Responses to the amount of money spent on gambling in the last 30 days, and winning money on gambling in the last 30 days, were only included for those participants who indicated that they had

gambled in the last 30 days. Results are presented for non-missing responses. The weighted sample sizes are presented for each item in the relevant results section.

Student and gambling characteristics

Student characteristics and gambling variables are presented descriptively. Categorical variables were summarised as frequencies and percentages of non-missing responses. Due to the large sample size, *p*–values alone should not be used to determine if the groups are different. Consideration to the practical significance should be made regarding the size of the differences in distributions across groups. The Rao-Scott F-adjusted chi-square statistic was used for statistical comparisons of categorical variables. Trends of means across age groups used the SAS software SURVEYREG procedure, reporting the design-adjusted p-values from the t-test. Multiple testing was accounted for by controlling the false discovery rate at 5%; *p*-values less than 0.0135 were considered statistically significant[80].

Problem gambling and gambling susceptibility

Students who reported that they had ever gambled were screened for problem gambling using the DSM-IV-[MR]-J[72], with response options modified to a yes/no format[2, 76]. Respondents were classified as non-problem-, at-risk, and problem gamblers, based on the number of 'yes' responses they made to the 12 diagnostic criteria. Participants were classified according to the scoring system used in the ACER study[2], as follows: (a) non-gamblers (those who had never gambled); (b) non-problem gamblers (those who had gambled in the past but who did not endorse any of the diagnostic criteria); (c) at-risk gamblers (those who had gambled in the past and who responded 'yes' to between one and three of the diagnostic criteria); and d) problem gamblers (those who had gambled in the past and who responded 'yes' to four or more of the diagnostic criteria). Classification d) 'problem gambler' is consistent the scoring system used by Fisher, where a respondent with four or more 'yes' responses is classified as a problem gambler[14]. Participants who reported that they had never gambled were classified as non-gamblers. Ordinal logistic regression was used to explore any associations between problem gambling categories and age and gender.

Respondents were also classified in terms of their responses to the susceptibility to future gambling questions. Respondents who reported 'definitely not' to all three questions were classified as 'committed never-gamblers'. Those reporting 'probably yes' or 'definitely yes' to at least one question were classified as 'highly susceptible'. Those who did not endorse probably yes or definitely yes for any question, and failed to report definitely not on all questions, were classified as 'susceptible'. As noted above, the assessment of future susceptibility did not reflect reported gambling behaviours such as prevalence or recency of gambling, and did not provide an indication of the type of gambling activity that the student may be susceptible to in the future.

Factors associated with Victorian student gambling behaviour

A preliminary examination of factors associated with student gambling behaviours was undertaken using univariate analyses. Further analysis using a multivariate approach will be explored in subsequent reports. The Rao-Scott F-adjusted chi-square statistic was used for statistical comparisons of categorical variables. Trends of means across age groups used the SAS software SURVEYREG procedure, reporting the design-adjusted p-values from the t-test. Dependent variables included ever gambling, gambling in the past month and problem gambling categories

(non-gambler, non-problem gambler, at-risk gambler, problem gambler). Independent variables included: rurality (major city vs other); level of socioeconomic disadvantage (high vs low); exposure to family/peer gambling; visited a venue where people were gambling in the last 30 days; exposure to gambling advertising/promotion in the last 30 days; susceptibly; tobacco smoking, alcohol and other drug use, and mental health. Rurality was based on student postcode and classified according to the Accessibility and Remoteness Index of Australia (ARIA+), as either major city or other (Inner regional, Outer regional, Remote, Very remote)[81]. Level of socioeconomic disadvantage was based on student postcode and using the Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-economic Disadvantage (IRSD) decile classifications[82]. Deciles 1-6 (higher disadvantage) were compared to Deciles 7-10 (lower disadvantage). As above, multiple testing was accounted for by controlling the false discovery rate at 5%, and a *p*-value of 0.0135 was used to indicate a statistically significant association[80].

Results

Fifty-eight Victorian schools participated. The most common reasons for non-participation of secondary schools were multiple survey requests from various organisations (unable to meet all requests), timing of request (close to exams, school camps, students participating in work experience) and lack of staff time to coordinate survey. In Victoria, 38 (65%) of the participating schools were Government schools, 8 (14%) were Catholic schools and 12 (21%) were independent schools. This was broadly representative of the distribution of schools across the three education sectors, and data were weighted in analyses by age and sex within education sector to maintain representativeness.

Student characteristics

A total of 4269 students from Victoria took part in the survey. Of these, 12% (n=523) had no response to all of the seven essential gambling questions and were excluded from the analysis. These may have been students who simply did not complete the survey in the time allocated. Those who were excluded were younger and more likely to be male. This resulted in a final sample of 3746 students from Victoria who were included in the analysis. The unweighted demographics of participants are shown in Table 2.

Gambling behaviour

Gambling behaviour is summarised in Table 3. A total of 31% of students (weighted data) reported that they had ever gambled, and 6% reported they had gambled in the last month. Of students who had ever gambled, 21% reported gambling in the last 30 days (data not shown in table).

Using analysis of the types of gambling activities question, where students indicated if they had ever gambled on the activity, or gambled on it in the last month, and restricting analysis to those students who also reported that they had ever gambled, or had gambled in the last month, we were able to examine prevalence when including or excluding particular forms of gambling. Based on responses to the types of gambling activities (n=3643), the overall prevalence of ever gambling among the whole sample was 27%, while the prevalence of gambling in the last month was 5%. When students who only reported gambling on either raffles, tipping competitions and/or sweeps were reclassified as non-gamblers (n=176), the resulting prevalence of ever gambling across the whole sample was 26%, and the prevalence of gambling in the last month was 4%.

The prevalence of ever gambling differed significantly across age groups, with a higher prevalence of gambling among older students compared to younger students ($p<0.0001$). The prevalence of ever gambling was also higher in males (36%) compared to females (26%) ($p=0.0090$). Similarly, the prevalence of gambling in the past 30 days was higher among older than younger students ($p<0.0001$), and among males (7%) compared to females (5%; $p=0.0039$).

For students who had ever gambled, the most frequent types of gambling activities are shown in Tables 4 and 5, for ever gambling, and for gambling within the last 30 days respectively. The most frequent gambling activity was horse or dog races for both ever gamblers (54%) and those gambling in the last month (15%). Betting on results of other popular sports (football etc.) was the next most frequent (12% in last 30 days). Of note is that 20% of students who had ever gambled

had at some time gambled on casino-type games and 17% on the pokies, including 3% and 4% respectively who had done so in the last 30 days. Older students were more likely than younger students to have ever gambled on tipping competitions (e.g. picked a football team) and on instant scratchie cards. Older students were also more likely to have gambled on tipping competitions and raffle tickets in the last month, compared to younger students. Male students were significantly more likely than females to have ever gambled on casino-type games (24% vs 16%, p=0.0027) and personal skill games (42% vs 28%, p=0.0003), while female students were more likely than males to have ever gambled on horse or dog races (62% vs 48%, p=0.0028), raffle tickets (58% vs 46%, p=0.0016), and scratchies (41% vs 33%, p=0.0028; data not shown in the table). The same patterns were seen for the prevalence of gambling in the last month: 2.8% of males compared to 2.6% of females had gambled on casino-type games (p=0.007) and 12% compared to 8% had gambled on personal skill games (p=0.0006); while 19% of female students compared to 12% of males students had gambled in the last month on horse or dog races (p=0.0051), 14% compared to 11% on raffle tickets (p=0.0058), and 9% compared to 5% on scratchies (p=0.0034; data not shown in the table). Students who had ever gambled reported they had engaged in an average of 4.28 different types of gambling activities ever, while those who had gambled in the last month reported an average of just over 1 different type of gambling activity during that past month (data not shown in the table).

Table 2: Student characteristics (unweighted sample), N=3746

Characteristic:	N	%
Gender		
Male	1577	42%
Female	2169	58%
Age		
12	338	9%
13	859	23%
14	586	16%
15	607	16%
16	784	21%
17	572	15%
Socioeconomic disadvantage[1]		
Deciles 1-2	506	14%
Deciles 3-4	743	20%
Deciles 5-6	511	14%
Deciles 7-8	927	25%
Deciles 9-10	1025	28%
ARIA+		
Major city	2410	65%
Inner regional	1038	28%
Outer regional	269	7%
Remote/very remote	1	0%
Main language spoken at home		
English	2841	76%
Another language	84	2%
English & another language	812	22%

Characteristic:	N	%
Money to spend on self per week		
None	529	14%
$10 or less	719	19%
$11-$20	721	19%
$21-$60	818	22%
$61-$100	364	10%
Over $100	549	15%
Self-considered school achievement		
A lot above average	192	5%
Above average	1271	34%
Average	1880	51%
Below average	317	9%
A lot below average	46	1%

Notes. Columns may not add to total due to missing data.
[1]Socioeconomic disadvantage was classified according to SEIFA IRSD deciles based on student's self-reported postcode; Decile 1 represents the highest level of disadvantage; Decile 10 the lowest level of disadvantage.

Table 3: Prevalence of gambling by age and gender, N=3673

	Age in years							
	12	**13**	**14**	**15**	**16**	**17**	**Total**	***p*[1]**
Ever gambled								
Male	23%	28%	38%	41%	45%	36%	36%	0.0012*
Female	19%	21%	31%	27%	32%	28%	26%	0.0046*
Total	21%	24%	34%	33%	38%	32%	31%	<.0001*
Gambled in last month								
Male	1%	5%	10%	10%	7%	8%	7%	0.0017*
Female	2%	4%	5%	5%	6%	5%	5%	0.0048*
Total	1%	5%	7%	7%	7%	6%	6%	<.0001*

Percentages are expressed as a proportion of the total sample.
*Indicates statistically significant differences (using $p \leq 0.0135$).
[1]p values refer to age group comparisons

Among students who had ever gambled, and gambled in the last month, the different modalities of gambling are shown in Tables 6 and 7. The most frequently reported modality for ever gambling was at home or at a friend's home (52%), followed by a parent or guardian purchasing or playing for the student (51%). Online gambling (18%) was relatively more common than gambling at a pub or club (10%) or casino (1%). Of note was the gambling that was ever done at a racecourse (16%), TAB (12%), or pub/club (10%), either directly by the student or on their behalf by an adult. A similar distribution of gambling modalities was reported for gambling in the last month. There were no significant differences in modality of ever gambling or gambling in the last month across age groups, although some categories were absent or too small to enable comparisons to be made.

For students who had gambled in the last 30 days, the median reported amount of money spent in the last month was $9.30 (data not shown in the table). Of these students, 44% reported that they finished ahead, 39% reported they had lost money, and 17% reported they finished about even (data not shown in the table).

Table 4: Types of gambling activity for all students who had ever gambled by age group, N=1121

Ever gambled on:	Age in years							
	12	13	14	15	16	17	Total	*p*
Card games (e.g. poker, blackjack, 21)	29%	32%	37%	38%	44%	37%	37%	0.2497
Casino games (e.g. roulette, craps or dice)	15%	20%	18%	22%	23%	20%	20%	0.7011
Sports games (e.g. football, rugby, cricket)	29%	38%	36%	39%	41%	40%	38%	0.7361
Poker machines (pokies)	12%	19%	15%	22%	15%	19%	17%	0.41383
Horse or dog races	46%	55%	53%	49%	60%	61%	54%	0.3204
Personal skill games (e.g. pool, darts, video games)	26%	36%	31%	41%	40%	35%	36%	0.3573
Two up	11%	19%	13%	20%	13%	16%	16%	0.4412
Tipping competitions	13%	26%	29%	30%	43%	40%	32%	0.0004*
Sweeps	21%	28%	25%	33%	34%	32%	29%	0.3303
Bingo for prizes or money	14%	28%	19%	26%	23%	22%	22%	0.1804
Lottery ticket (e.g. Keno, Tattslotto, Powerball)	21%	25%	31%	30%	29%	31%	28%	0.4791
Instant scratchie card	23%	35%	31%	42%	36%	48%	37%	0.0080*
Bought raffle tickets	39%	51%	44%	52%	59%	58%	51%	0.0417
Other	17%	10%	16%	7%	5%	5%	9%	0.0062*

Notes. Percentages are expressed as a proportion of the number of students who reported ever gambling.
*Indicates statistically significant differences (using $p \leq 0.0135$).

Table 5: Types of gambling activity in the last month for all students who had ever gambled by age group, N=1121

Gambled in the last month on:	Age in years							
	12	13	14	15	16	17	Total	*p*
Card games (e.g. poker, blackjack, 21)	8%	10%	12%	11%	9%	9%	10%	0.4527
Casino games (e.g. roulette, craps or dice)	3%	2%	1%	5%	3%	3%	3%	0.6625
Sports games (e.g. football, rugby, cricket)	9%	15%	10%	14%	11%	13%	12%	0.8398
Poker machines (pokies)	3%	3%	1%	6%	4%	5%	4%	0.4035
Horse or dog races	12%	18%	18%	17%	15%	11%	15%	0.3475
Personal skill games (e.g. pool, darts, video games)	8%	11%	9%	14%	9%	8%	10%	0.4934
Two up	4%	2%	1%	5%	2%	3%	3%	0.3398
Tipping competitions	3%	4%	6%	11%	8%	12%	8%	0.0001*
Sweeps	2%	7%	7%	9%	6%	5%	6%	0.2884
Bingo for prizes or money	1%	5%	2%	5%	2%	4%	3%	0.2545
Lottery ticket (e.g. Keno, Tattslotto, Powerball)	4%	5%	6%	8%	5%	5%	6%	0.8203
Instant scratchie card	5%	8%	7%	8%	6%	9%	7%	0.0413
Bought raffle tickets	7%	10%	11%	18%	9%	16%	12%	0.0101*
Other	5%	2%	7%	2%	2%	2%	3%	0.0489

Notes. Percentages are expressed as a proportion of the number of students who reported ever gambling.
*Indicates statistically significant differences (using $p \leq 0.0135$).

Table 6: Gambling modality for those who had ever gambled by age group, N=866*

Ever gambled:	Age in years							
	12	13	14	15	16	17	Total	*p*
Online via a website (e.g. on a laptop or computer)	5%	8%	20%	20%	23%	21%	18%	0.0688
Using an app on a tablet or mobile	5%	6%	14%	20%	15%	16%	14%	0.0800
Over the phone	0%	2%	2%	4%	5%	3%	3%	-
At a TAB	7%	7%	8%	13%	17%	13%	12%	0.0732
At a newsagent	2%	10%	6%	11%	9%	11%	9%	0.2502
At a pub or club	0%	6%	8%	17%	9%	11%	10%	-
At a casino	0%	1%	1%	1%	3%	1%	1%	-
At home or the home of a friend	58%	49%	49%	59%	53%	48%	52%	0.5788
At the racecourse	7%	16%	12%	15%	18%	20%	16%	0.2987
Parent/guardian purchased or played for me	45%	58%	49%	48%	48%	59%	51%	0.3837
Brother/sister purchased or played for me	2%	3%	5%	12%	6%	7%	6%	0.0274
Another relative purchased or played for me	16%	19%	16%	17%	17%	12%	16%	0.8239
A friend purchased or played for me	4%	4%	5%	10%	16%	7%	9%	0.0193
Someone else purchased/played for me	5%	6%	6%	11%	6%	6%	7%	0.5818

Notes. Percentages are expressed as a proportion of the number of students who reported ever gambling.
*Some p-values could not be calculated as some cells contained zero

Table 7: Gambling modality in the last month, N=184*

Gambled in the last month on:	Age in years							
	12	13	14	15	16	17	Total	*p*
Online via a website (e.g. on a laptop or computer)	0%	9%	28%	33%	37%	41%	30%	-
Using an app on a tablet or mobile	0%	5%	24%	42%	27%	40%	29%	-
Over the phone	0%	3%	4%	4%	14%	8%	7%	-
At a TAB	20%	16%	9%	27%	20%	23%	19%	0.3452
At a newsagent	0%	16%	4%	25%	10%	8%	12%	-
At a pub or club	0%	10%	13%	25%	16%	14%	15%	-
At a casino	0%	3%	3%	2%	6%	4%	3%	-
At home or the home of a friend	71%	50%	59%	54%	52%	37%	52%	0.3933
At the racecourse	0%	23%	15%	34%	27%	18%	23%	-
Parent/guardian purchased or played for me	74%	74%	42%	54%	53%	61%	55%	0.4461
Brother/sister purchased or played for me	0%	6%	3%	11%	10%	11%	8%	-
Another relative purchased or played for me	26%	22%	12%	13%	27%	10%	17%	0.2483
A friend purchased or played for me	0%	8%	0%	15%	23%	9%	11%	-
Someone else purchased/played for me	0%	7%	2%	11%	10%	11%	8%	-

Notes. Percentages are expressed as a proportion of the number of students who reported ever gambling. *Some p-values could not be calculated as some cells contained zero

Table 8: Problem gambling screening items for students who reported ever gambling, N=926*

Problem gambling items:	Age in years							
	12	13	14	15	16	17	Total	*p*
1) Found yourself thinking about gambling or planning to gamble?	10%	14%	19%	21%	32%	22%	22%	0.0026*
2) Needed to gamble with more and more money to get the same amount of excitement?	2%	5%	10%	5%	8%	2%	6%	0.1087
3) Spent much more than you planned to on gambling?	5%	5%	4%	6%	14%	5%	7%	0.0379
4) Tried to cut down or stop gambling?	21%	14%	12%	17%	20%	4%	15%	0.0208
5) Gambled to help you to escape from problems or when you are feeling bad?	3%	2%	0%	6%	3%	1%	2%	-
6) After losing money gambling returned another day to try and win back the money you lost?	3%	4%	6%	8%	6%	4%	6%	0.7622
7) Lied to your family about your gambling?	4%	2%	0%	3%	4%	2%	3%	-
8) Used your school lunch money or transport fare money to spend on gambling?	2%	4%	1%	3%	4%	3%	3%	0.7039
9) Taken money without permission from your family to gamble?	5%	2%	1%	4%	3%	1%	2%	0.1506
10) Taken money from someone outside your family to gamble with?	0%	1%	0%	1%	2%	<1%	1%	-
11) Argued with your family, friends or other people about you having gambled?	0%	1%	2%	2%	1%	2%	1%	-
12) Missed school to gamble?	0%	1%	0%	1%	1%	<1%	1%	-

Notes. Percentages are expressed as a proportion of the number of students who reported ever gambling. Gambling items are from the DSM-IV-[MR]-J.

*Indicates statistically significant differences (using $p \leq 0.0135$). *Some p-values could not be calculated as some cells contained zero

Problem Gambling

The most frequently reported risk indicators for problem gambling (see Table 8) were students thinking about or planning to gamble (22% of students), and students who had tried to cut down or stop gambling (15% of students). Across all students, the majority were non-gamblers (73%), while 18% were classified as non-problem gamblers, 7% as at-risk gamblers, and 1% as problem gamblers (see Table 9). The exact proportion of problem gamblers across the whole sample was 1.4% (decimals not shown in Table). Increasing age was associated with an increased prevalence of problem gambling ($p<0.0001$), while there was no association between gender and problem gambling ($p=0.0191$).

Among those students who had ever gambled (N=926), 68% were classified as non-problem gamblers, 26% as at-risk gamblers and 5% as problem gamblers (data not shown in the table). For students who had gambled in the last 30 days, the corresponding proportions were: 53% non-problem gamblers, 34% at-risk gamblers, and 13% problem gamblers (see Table 10).

Again using analysis of the types of gambling activities question to reclassify some forms of gambling, we were able to examine problem gambling categories with students who gambled on raffles, sweeps, and tipping competitions reclassified as non-gamblers. The resulting proportions across problem gambling categories were: 76% non-gamblers; 17% non-problem gamblers; 6% at-risk gamblers; and 1% problem gamblers. The same patterns in age and gender were seen, with older students more likely to be classified as problem gamblers ($p<0.0001$) and no difference between genders ($p=0.0641$) (data not shown in table).

Table 9: Problem gambling classification for all students by age and gender, N=3448

Classification:	Non-problem gambler	At-risk gambler	Problem gambler	Non-gambler
Age group				
12yrs	12%	4%	1%	84%
13yrs	14%	4%	1%	81%
14yrs	21%	8%	1%	70%
15yrs	19%	9%	2%	70%
16yrs	21%	10%	3%	67%
17yrs	23%	7%	1%	70%
Gender				
Males	18%	10%	3%	70%
Females	19%	4%	1%	76%
Total	18%	7%	1%	73%

Notes. Percentages are expressed as a proportion of the total sample. Classification of problem gambling was based on Fisher (2000) and ACER 2011 scoring of the DSM-IV-[MR]-J with modified yes/no response options.

Table 10: Problem gambling classification for students who reported gambling in the last 30 days by age and gender, N=196

Classification:	Non-problem gambler	At-risk gambler	Problem gambler
Age group			
12yrs	55%	45%	0%
13yrs	64%	30%	6%
14yrs	66%	20%	14%
15yrs	32%	57%	12%
16yrs	48%	28%	24%
17yrs	58%	35%	8%
Gender			
Males	42%	40%	18%
Females	67%	27%	6%
Total	53%	34%	13%

Notes. Percentages are expressed as a proportion of the number of students who reported gambling in the last month. Classification of problem gambling was based on Fisher (2000) and ACER 2011 scoring of the DSM-IV-[MR]-J with modified yes/no response options.

Gambling exposure and susceptibility

According to social learning theory[83], other household members can be social referents/role models for adolescents, as can their friends. For all students, 18% reported that someone living at their house had gambled in the last 30 days, and 35% reported that someone they knew (including household members and others outside the home) had gambled in the last month (see Table 11).

For students who had ever gambled, 31% reported that someone living at their house had gambled in the last 30 days, and 52% reported that they knew someone (either from their household or others outside the home) who had gambled in the last 30 days (data not shown in the table). For students who had ever gambled, the person most frequently reported as having gambled in the last 30 days was a father/caregiver (25%), followed by another relative (19%) (data not shown in table).

For students who reported gambling in the last 30 days, 61% reported that someone living at their house had gambled in the last 30 days, and 81% reported that they knew someone who had gambled in the last 30 days (either from their household or others outside the home) (data not shown in table). Students who had gambled in the last 30 days also most frequently reported that a father/caregiver had gambled in the last 30 days (47%), followed by someone else they know (31%) (data not shown in table).

Table 11: Household and peer gambling for all students, N=3381

Household and peer exposure to gambling:	%
Anyone living in house gambled in last 30 days	18%
People you know gambled in last 30 days:	
Mother/caregiver 1	7%
Father/caregiver 2	14%
Brother or sister	6%
Other relative	13%
One of your best friends	5%
Someone else you know	11%
Don't know anyone who gambled	65%

Notes. Percentages are expressed as a proportion of the total sample. Percentages do not add to 100 as multiple responses could be selected.

The proportions of students visiting venues where people can gamble by age categories are shown in Table 12. The majority of participants had not been to a venue where people were gambling in the last month (64%). The most frequent venues visited in the last month were pubs (25%), and clubs (14%). For all students, the mean number of venues visited in the last 30 days was 0.56 (see Table 12). Approximately 14% of participants reported that they had been in two or more venues where people could gamble in the last 30 days (data not shown in table). Older students were significantly more likely to have visited a pub compared to younger students, and younger students were significantly more likely not to have been in any venues where gambling was available in the last 30 days compared to older students. There were no gender differences in the types of venues visited (see Table 13).

When examining only students who reported that they had ever gambled, 55% reported that they had not been in any venues where people were gambling, and 30% reported having been in a pub where gambling occurs (data not shown in the table). Twenty percent of those who had ever gambled reported having been in two or more venues where gambling was available within the last 30 days (data not shown in the table). The mean number of venues where gambling was available visited in the last 30 days for students who had ever gambled was 0.75 (data not shown in table).

Among students who reported gambling in the last 30 days, 47% had not been to a venue in the last month where gambling was available (data not shown in the table). The most frequently visited venues where gambling was available for students who had gambled in the last month were pubs (32%) and clubs (19%). The mean number of venues visited was 0.99 (data not shown in table).

Table 12: Been inside venue where gambling was available in the last 30 days for all students by age group, N=3371

Been inside venue in last 30 days:	Age in years							
	12	13	14	15	16	17	Total	*p*
TAB betting shops	4%	5%	7%	7%	10%	6%	7%	0.0434
Pub where gambling occurs	12%	23%	23%	23%	34%	31%	25%	<.0001*
Club where gambling occurs (e.g. football social club, bowling club)	11%	10%	13%	13%	18%	17%	14%	0.0569
Casino	4%	3%	7%	6%	4%	7%	5%	0.0283
Racecourse	5%	6%	8%	6%	6%	4%	6%	0.4791
Not been in any venue	76%	69%	65%	63%	56%	60%	64%	<.0001*
Mean number of venues accessed in last 30 days	0.36	0.47	0.56	0.55	0.71	0.65	0.56	0.0006*

Notes. Percentages are expressed as a proportion of the total sample.
*Indicates statistically significant differences (using $p \leq 0.0135$).

Table 13: Been inside venue where gambling was available in the last 30 days for all students by gender, N= 3371

Been inside venue in last 30 days:	Females	Males	Total	*p*
TAB betting shops	5%	8%	7%	0.0493
Pub where gambling occurs	23%	26%	25%	0.1901
Club where gambling occurs (e.g. football social club, bowling club)	12%	15%	14%	0.0137
Casino	5%	5%	5%	0.8821
Racecourse	6%	6%	6%	0.7338
Not been in any venue	66%	63%	64%	0.3074

Notes. Percentages are expressed as a proportion of the total sample.

Exposure to gambling promotions advertising/promotion is shown separately for female and male students in Tables 14 and 15 respectively. Across the sample, the most frequently reported exposure to gambling promotion in the last month was through ads on television (73%), followed by ads on social networking sites (38%), on scoreboards or signage at sporting events (36%), and ads on the radio (35%). Older female students were more likely to recall seeing gambling advertising than their younger counterparts for all 11 promotional opportunities asked about (see Table 14). Amongst male students, recall of four of the 11 promotional opportunities was more common in older than younger students (ads on radio, celebrities promoting gambling, ads in pubs or clubs, ads on websites).

When examining only participants who reported that they had ever gambled, 79% of students reported seeing gambling ads on television, 46% on social networking sites, and 43% reported seeing gambling ads on scoreboards or signage at sporting events, and at a convenience store or newsagency (data not shown in the table). Among participants who had gambled in the last 30 days, these proportions were 82% for ads on television, 54% for social networking sites, and 50% for ads on scoreboards or signage at sporting events (data not shown in table).

The mean number of different types of gambling advertisements (i.e. ads on television, online, billboards etc.) seen by all students was 3.8, compared to 4.5 different types of advertisements seen by students who had ever gambled, and 5.1 seen by students who had gambled in the last month (data not shown in the table).

Table 14: Exposure to gambling promotion by age group: Females only, N=1849

Aware of gambling promotion in last 30 days:	Age in years							
	12	13	14	15	16	17	Total	*p*
Ads on television	63%	70%	76%	77%	78%	74%	73%	0.0004*
Ads on radio	30%	34%	36%	41%	42%	34%	36%	0.0002*
Ads on billboards	25%	29%	35%	35%	30%	27%	30%	<.0001*
Ads at a convenience store or newsagency	32%	28%	36%	31%	35%	29%	32%	<.0001*
Ads on sporting scoreboards/signage that you attended or watched on TV	27%	30%	32%	38%	38%	36%	34%	0.0001*
Live studio crosses to gambling operators during sports broadcasting	18%	17%	22%	17%	20%	18%	19%	0.0006*
Celebrities promoting gambling	10%	14%	14%	17%	14%	18%	15%	<.0001*
Ads in pubs or clubs that you have visited	16%	25%	29%	30%	31%	27%	26%	0.0001*
Ads on websites	20%	30%	33%	37%	39%	35%	33%	<.0001*
Pop-ups on websites about gambling	27%	31%	32%	35%	40%	39%	34%	<.0001*
Ads on social networking sites	31%	34%	31%	36%	38%	40%	35%	<.0001*
Mean number advertisements types in last 30 days	2.97	3.40	3.74	3.93	4.04	3.78	3.66	0.0052*

Notes. Percentages are expressed as a proportion of the total sample.
*Indicates statistically significant differences (using $p \leq 0.0135$).

Table 15: Exposure to gambling promotion by age group: Males only, N=1658

Aware of gambling promotion in last 30 days:	Age in years							
	12	13	14	15	16	17	Total	*p*
Ads on television	69%	73%	71%	75%	83%	70%	74%	0.0657
Ads on radio	23%	41%	26%	38%	44%	31%	34%	0.0024*
Ads on billboards	21%	33%	26%	35%	40%	30%	31%	0.0137
Ads at a convenience store or newsagency	29%	35%	34%	37%	45%	31%	35%	0.2594
Ads on sporting scoreboards/signage that you attended or watched on TV	30%	37%	36%	40%	50%	38%	39%	0.0996
Live studio crosses to gambling operators during sports broadcasting	16%	22%	20%	31%	34%	27%	25%	0.0157
Celebrities promoting gambling	11%	14%	17%	27%	24%	20%	19%	0.0040*
Ads in pubs or clubs that you have visited	22%	23%	24%	27%	44%	28%	29%	<.0001*
Ads on websites	26%	31%	34%	39%	48%	37%	36%	0.0111*
Pop-ups on websites about gambling	26%	30%	27%	35%	43%	32%	32%	0.1262
Ads on social networking sites	38%	38%	35%	44%	40%	48%	40%	0.3239
Mean number advertisements types in last 30 days	3.10	3.78	3.49	4.29	4.94	3.92	3.95	<.0001*

Notes. Percentages are expressed as a proportion of the total sample.
*Indicates statistically significant differences (using $p \leq 0.0135$).

Results for intention to gamble in the next year and susceptibility to gambling for all female and male students are shown separately in Tables 16 and 17. For female students, the majority reported that they would definitely not (66%), or were unlikely to (22%), gamble in the next 12 months. A small proportion of female students reported that they would definitely gamble in the next 12 months (1%) or were likely to gamble in the next 12 months (3%), while 8% were not sure. Susceptibility to gambling in the future was defined as the absence of a firm commitment not to gamble in the future across three possible scenarios (including 'soon', 'if a friend was gambling', and 'in the next year'). Sixty-six percent of female students were classified as committed never-gamblers (i.e. they responded 'definitely not' to the three susceptibility questions), 17% were classified as susceptible to gambling (i.e. they did not report definitely not for all three questions and did not endorse probably or definitely yes for any question), and 17% classified as highly susceptible to future gambling (i.e. they responded 'probably yes' or 'definitely yes' to at least one of the three susceptibility questions).

For male students, the majority also reported that they would definitely not, or were unlikely to, gamble in the next 12 months (56% and 22% respectively). A small proportion of male students reported that they would definitely gamble in the next 12 months (3%) or were likely to gamble in the next 12 months (6%), while 13% were not sure. In terms of susceptibility to gambling in the future, 52% of male students were classified as committed never-gamblers, 18% were classified as susceptible to gambling, and 30% classified as highly susceptible to gambling in the future.

When looking only at participants who reported that they had ever gambled, the majority reported that they would definitely not, or were unlikely to, gamble in the next 12 months (27% and 33% respectively), while 5% reported that they would definitely gamble in the next 12 months, 12% were likely to gamble in the next 12 months, and 23% were unsure (data not shown in the table). Among the students who had gambled in the past, only 32% were classified as future 'committed never-gamblers', while 21% were classified as susceptible, and 47% as highly susceptible to gambling in the future (data not shown in table).

Similarly, among students who reported gambling in the last 30 days, 11% reported that they would definitely, and 24% that they were likely to, gamble in the next 12 months. Approximately a quarter of these students (23%) were unsure (data not shown in the table). Approximately 40% of students who had gambled in the last 30 days were inclined not to continue; 15% were definitely not and 27% were unlikely to gamble in the next 12 months. Less than a quarter (24%) of those who had gambled in the last 30 days were classified as future committed never-gamblers, while 14% were classified as susceptible, and 63% as highly susceptible to gambling in the future (data not shown in table).

Table 16: Likelihood and susceptibility to future gambling by age group: Females only, N=1892

	Age in years							
	12	**13**	**14**	**15**	**16**	**17**	**Total**	***p***
Intention to gamble in the next year (N=1821)								
I definitely will gamble	1%	1%	2%	1%	<1%	2%	1%	
I'm likely to gamble	2%	2%	2%	2%	3%	5%	3%	
I'm not sure if I will gamble	5%	5%	5%	6%	12%	14%	8%	
I'm unlikely to gamble	13%	12%	20%	26%	29%	31%	22%	
I definitely will not gamble	79%	80%	70%	65%	56%	48%	66%	
								<.0001*
Susceptibility to future gambling (N=1892)								
Committed never-gamblers	76%	75%	71%	63%	60%	50%	66%	
Susceptible	11%	15%	17%	21%	18%	22%	17%	
Highly susceptible	13%	10%	13%	17%	22%	27%	17%	
								<.0001*

Notes. Percentages are expressed as a proportion of the total sample.
*Indicates statistically significant differences (using $p \leq 0.0135$).

Table 17: Likelihood and susceptibility to future gambling by age group: Males only, N=1749

	Age in years							
	12	**13**	**14**	**15**	**16**	**17**	**Total**	***p***
Intention to gamble in the next year (N=1617)								
I definitely will gamble	1%	2%	2%	3%	3%	8%	3%	
I'm likely to gamble	1%	4%	5%	10%	11%	5%	6%	
I'm not sure if I will gamble	8%	8%	9%	13%	17%	20%	13%	
I'm unlikely to gamble	18%	20%	21%	20%	24%	30%	22%	
I definitely will not gamble	72%	67%	63%	54%	45%	37%	56%	
								<.0001*
Susceptibility to gambling (N=1749)								
Committed never-gamblers	68%	57%	56%	50%	45%	33%	52%	
Susceptible	17%	20%	20%	17%	15%	19%	18%	
Highly susceptible	15%	23%	24%	34%	40%	48%	30%	
								<.0001*

Notes. Percentages are expressed as a proportion of the total sample.
*Indicates statistically significant differences (using $p \leq 0.0135$).

Gambling susceptibility and prevalence of gambling behaviour

As shown in Table 18, a higher proportion of those who had ever gambled were classified as 'highly susceptible' to future gambling (47%), compared to students who had never gambled (13%). Similarly, among students who reported that they had gambled in the last month, a significantly greater proportion were classified as 'highly susceptible' to future gambling (63%) compared to students who had ever gambled but not in the last month (63% vs 45% respectively, $p = 0.0112$; data not shown in table).

Table 18: Associations between susceptibility to future gambling classification and prevalence of ever gambling for all students (N=3614)

Susceptibility to future gambling:	Ever gambled % Yes	No	*p*
Committed never-gambler	32%	72%	<.0001*
Susceptible	21%	16%	
Highly susceptible	47%	13%	

Notes. Percentages are expressed as a proportion of the total sample.
*Indicates statistically significant differences (using $p \leq 0.0135$).

Factors associated with Victorian student ever gambling, gambling in the past month, and problem gambling

Geographic location and level of disadvantage

There was no association between rurality, nor level of disadvantage, and the prevalence of ever gambling or gambling in the last month. While the classification of problem gambling did not differ significantly according to rurality, students from areas of higher disadvantage were significantly more likely to be classified as problem or at-risk gamblers than those from less disadvantaged areas (2% compared to <1% for problem gamblers, 8% compared to 6% for at-risk gamblers respectively, $p = 0.0061$). The same patterns were seen among students who had ever gambled, with no differences according to rurality, but with students from more disadvantaged areas more likely to be classified as at-risk or problem gamblers (30% of students from areas of higher disadvantage classified as at-risk and 8% as problem gamblers, compared to 23% and 3% respectively of students from less disadvantaged areas; $p = 0.0001$).

Other people's gambling

The prevalence of ever gambling and gambling in the last month was explored in relation to household and peer exposure to gambling, with results shown in Table 19. A larger proportion of students who had ever gambled reported that a parent, sibling, or best friend had gambled in the last 30 days, compared to students who had never gambled. Similarly, a larger proportion of students who had gambled in the last month reported that a parent, sibling, or best friend had gambled in the last 30 days, compared to students who had ever gambled but not in the last month.

Table 19: Prevalence of gambling associated with exposure to other people's gambling, N=3381

People you know who have gambled in the last 30 days:	Ever gambled (n=3381)		Gambled in last month (n=971)		*p* ever	*p* last month
	Yes	No	Yes	No		
Parent/caregiver	26%	10%	51%	21%	<.0001*	<.0001*
A best friend	11%	2%	26%	7%	<.0001*	<.0001*
Sibling	11%	3%	25%	8%	<.0001*	<.0001*

Notes. Percentages for ever gambled are as a proportion of the total sample. Percentages for gambled in the last month are as a proportion of the sample who had ever gambled. *Indicates statistically significant differences (using $p \leq 0.0135$).

The association between exposure to household and peer gambling and problem gambling was explored for students who had ever gambled. Results are presented in Table 20. A lower proportion of those classified as non-problem gamblers reported that their parents or best friend/s had gambled in the last 30 days, compared to those classified as at-risk and problem gamblers.

Table 20: Problem gambling classification associated with exposure to other people's gambling among those who had ever gambled, N=923

People you know who have gambled in the last 30 days:	Non-problem gambler	At-risk gambler	Problem gambler	*p*
Parent/caregiver	23%	41%	36%	0.0004*
A best friend	6%	17%	30%	<.0001*
Sibling	9%	17%	14%	0.0225

Notes. Percentages are expressed as a proportion of the sample who had ever gambled. *Indicates statistically significant differences (using $p \leq 0.0135$).

Visits to venues where people were gambling

A higher proportion of students who had ever gambled had visited a TAB, a pub or club where people were gambling, or a racecourse in the past 30 days, compared to students who had never gambled (see Table 21). A similar pattern was found for students who reported gambling in the last month; a significantly higher proportion of those who reported gambling in the last 30 days had visited a TAB (20%) or a racecourse (19%) in the last 30 days, compared to students who had ever gambled but not in the last month (6% and 5% respectively) (data not shown in table).

Table 21: Been inside venue where gambling was available associated with prevalence of ever gambling, N=866

Been inside venue in the last 30 days:	Ever gambled % Yes	No	*p*
TAB	11%	5%	<.0001*
Pub where gambling occurs	30%	22%	0.0006*
Club where gambling occurs	18%	12%	0.0007*
Casino	6%	5%	0.0627
Racecourse	10%	4%	<.0001*

Notes. Percentages are expressed as a proportion of the sample who had ever gambled. *Indicates statistically significant differences (using $p \leq 0.0135$).

As shown in Table 22, for students who had ever gambled, there were no associations between problem gambling classification (non-problem, at-risk, or problem gambler), and visiting different types of venues where gambling was available in the last 30 days.

Table 22: Been inside venue where gambling was available associated with problem gambling classification among ever gamblers N=866

Been inside venue in the last 30 days:	Non-problem gambler	At-risk gambler	Problem gambler	*p*
TAB	9%	17%	18%	0.0198
Pub where gambling occurs	28%	34%	19%	0.1430
Club where gambling occurs	19%	17%	16%	0.9218
Casino	6%	8%	4%	0.4497
Racecourse	9%	13%	10%	0.1780

Notes. Percentages are expressed as a proportion of the sample who had ever gambled.

Exposure to gambling promotions

In terms of exposure to gambling advertising/promotion, the proportion of students who reported being aware of seeing ≤3 or ≥4 different types of gambling ads/promotions in the last month were compared, with results shown in Tables 23 and 24. The number of different types of ads seen was associated with both having ever gambled, and having gambled in the last 30 days.

Table 23: Exposure to gambling promotions and prevalence of ever gambling for all students, N=3507

Number of types of advertisements seen in last 30 days:	Ever gambled % Yes	No	*p*
≤ 3 types	45%	56%	0.0053*
4 or more types	55%	44%	

Notes. Percentages are expressed as a proportion of all students. *Indicates statistically significant differences (using $p \leq 0.0135$).

Table 24: Exposure to gambling promotions and prevalence of gambling in the past month versus not gambling in past month (never plus not gambling past month), N=3507

Number of types of advertisements seen in last 30 days:	Gambled past month % Yes	No	*p*
≤ 3 types	38%	53%	0.0006*
4 or more types	62%	47%	

Notes. Percentages expressed as a proportion of students who had ever gambled. *Indicates statistically significant differences (using $p \leq 0.0135$).

Among students who had ever gambled, there were no significant associations between problem gambling classification (non-problem, at-risk, or problem gambler) and the number of types of advertising for gambling seen in the last 30 days (see Table 25).

Table 25: Exposure to gambling promotions and problem gambling classification among those who had ever gambled, N=866

Number of types of advertisements seen in last 30 days:	Non-problem gambler	At-risk gambler	Problem gambler	*p*
≤ 3 types	47%	38%	36%	0.0838
4 or more types	53%	62%	64%	

Notes. Percentages are expressed as a proportion of the Victorian sample who had ever gambled.

Tobacco, alcohol and other drug use and mental health

Utilising data from the substance use questions in the ASSAD survey, the association between regular use of tobacco (smoking on at least 3 of the previous 7 days), drinking alcohol in the previous week, and the number of different types of illicit substances students reported ever using was explored. In univariate analyses, smoking was not related to ever gambling, while both drinking (OR 1.86, 95% CIs 1.46-2.38) and greater use of illicit substances (OR=1.26, 95% CIs 1.16-1.37) were related to ever gambling. There was no association between reporting a mental health condition and ever gambling.

There were slightly different patterns of association between substance use and gambling in the past month, with regular smoking, past week drinking and greater use of different substances all positively significantly associated with gambling in this time period. In univariate analyses, the odds of a student who reported smoking on at least three days of the previous seven and gambling in the previous month were over 2.5 times greater than the odds for students not smoking in this time period (OR=2.64, 95% CIs 1.06-6.57). A similar increase in likelihood of gambling in the past month was found for students who drank alcohol in the past week (OR=2.63, 95% CIs 1.73-3.99). In addition, using more illicit substances was associated with greater likelihood of gambling in the past month. Unlike the results for ever gambling, students reporting a mental health condition (OR=1.62, 95% CIs 1.07-2.44) were more likely to report gambling in the previous month.

In terms of problem gambling classifications, in univariate analyses, regular use of tobacco, drinking alcohol in the previous week, and using a greater number of different types of illicit drugs, were positively related to problem gambling (p's < 0.001). However there was no univariate relationship between mental health conditions and problem gambling.

Conclusions

This study provides up to date and reliable prevalence estimates on a number of gambling and gambling-related measures for a large, representative sample of Victorian secondary school children aged 12-17 years using robust, replicable measures and methods. Expected age- and gender-related associations were confirmed, as were relationships between the exemplar behaviours of social referents (family, friends), opportunities to gamble and exposure to gambling advertising and promotions. The value of this study will grow should it be repeated at regular intervals, when it will be possible to interpret changes over time in light of change in gambling-related products, policies, and public programs.

Prevalence, type and modality of student gambling

Almost one in three students reported that they had gambled at some time in the past (31%), and 6.1% reported that they had gambled in the last month. The prevalence of gambling reported in this study was substantially lower than has been reported in other Australian studies, but is broadly consistent with a 2007 South Australian study of 13-17yr olds which reported 6% regularly participated in gambling[70]; and the 2013 New Zealand study which reported 24% of students had gambled in the last 12 months and 10% in the last month[49]. Consistent with previous studies[41, 43, 46], gambling prevalence was higher among male students and older students.

Some of the gambling activities contributing to gambling prevalence in this study, such as buying a raffle ticket, may be considered less serious forms of student gambling[2]. The estimates of gambling prevalence reported here do not make a distinction between 'minor' and more 'serious' forms of gambling. However, it should be noted that the most frequently reported type of gambling activity among students who had ever gambled, and for those that had gambled in the last month, was on horse or dog races, and not the less serious forms of gambling. In addition, the exclusion of raffles, sweeps and tipping competitions did not substantially reduce the overall prevalence of ever gambling or gambling in the last month, nor the prevalence of problem gambling. Punting on racing may have been influenced by participation in gambling on the Melbourne Cup horse racing carnival held annually in Victoria. Gambling on horse or dog races was more frequent among female than male students, which may reflect betting on the Melbourne Cup. There was very little difference in the types of gambling activities reported across age groups, with only scratchies and tipping competitions more common for older students as compared to 12 year olds.

The most frequently reported modality for gambling were at home or at a friend's home, followed by a parent or guardian purchasing or playing for the student. Gambling on premises (e.g. at a pub or club) was less prevalent, and suggests that legislation restricting underage gambling in gambling venues is relatively effective. However, as 10% of students who gambled reported gambling in a pub or club, some law-breaking is implied. The relatively high prevalence of parents/guardians and others purchasing or playing for students is consistent with student alcohol consumption behaviours. In the 2014 ASSAD report, 44% of Victorian 12 to 17 year olds who were current drinkers reported that their parents were the most common source of supply[84]. Although online gambling or using an app on a tablet or mobile were only reported for 18% and 14% respectively of those who had ever gambled, these modalities of gambling were particularly prevalent for older students who had bet in the last month (among 17yr olds, 40% had gambled online and 41% had gambled using an app).

Problem gambling, susceptibility, and intentions

The prevalence of problem gambling across the whole sample was 1.4%. This is again lower than previous international and national estimates of between 4-8% of youths being classified as problem gamblers[28], but closer to the 2.4% estimate from the South Australian study[70], and within the range reported in the 2017 systematic review by Calado et al [32]. Among students who reported that they had ever gambled in the past, just over a quarter were classified as at-risk gamblers, and a further 5% as problem gamblers. For students who had gambled in the last month, greater proportions were classified as at-risk (34%) or problem gamblers (13%). The prevalence of problem gambling increased with age but did not differ significantly by gender.

In relation to gambling intentions, among students who had ever gambled, nearly one-fifth (19%) reported that they would 'definitely' or were 'likely' to gamble in the next 12 months, with older students and males more likely to indicate intention to gamble in the next year. In addition, among students who had ever gambled, 68% were classified as being susceptible or highly susceptible to gambling. These proportions were larger for those who reported gambling in the past month, where 77% were classified as susceptible or highly susceptible to gambling.

Exposure to others gambling, gambling promotion, and venues where gambling was available

There was substantial exposure to the gambling behaviours of others and to advertising/promotion among the sample. Just over a third of students reported that someone they knew had gambled in the last 30 days (35%) or that they had accessed a venue where gambling was available in the last 30 days (36%). Widespread gambling promotion was evident with almost three-quarters (73%) of all students reporting they recalled seeing gambling promotion or advertising on television in the last month. Students reported having seen an average of 3.8 different types of ads for gambling in the last month.

Factors associated with gambling prevalence and problem gambling

Although rurality and socioeconomic disadvantage were not significantly associated with the prevalence of ever gambling or gambling in the last month, there were some significant differences in gambling behaviours according to these factors. For example, students from outside of major cities were significantly more likely to have ever gambled at a pub or club than students from major cities. Exposure to gambling by a family member or peer in the last 30 days was associated both with ever gambling and with gambling in the last month. Visiting venues in the last 30 days where people were gambling was also significantly associated with ever gambling and gambling in the last month, with more students who had gambled having visited a TAB or racecourse in the last 30 days compared to students who had never gambled. Exposure to advertising was also significantly associated with ever having gambled, with more students who had ever gambled recalling having seen four or more types of gambling advertising in the last month than students who had never gambled. This is in line with previous research findings where exposure to advertising was significantly associated with ever having gambled[3].

Drinking alcohol in the last seven days and the number of illicit drugs used in their lifetime were associated with ever gambling and gambling in the last month. Smoking and reporting having a mental health condition were also associated with gambling in the past month only. Smoking, alcohol, and other drug use, were all positively associated with being classified as a problem gambler, although there was no univariate association between mental health conditions and problem gambling.

Of the above factors, socioeconomic disadvantage, and exposure to parent/caregiver and best friend gambling in the last 30 days, were associated with problem gambling among students who had ever gambled. Students from areas of greater socioeconomic disadvantage were more likely than those from less disadvantaged areas to be classified as problem gamblers. A higher proportion of those students classified as problem gamblers reported that a family member or peer had gambled in the last 30 days, compared to those classified as non-problem gamblers.

Limitations

Several study limitations should be noted. Although this study had a large and representative sample of secondary school students, there were 523 students (12%) who did not complete all of the essential gambling questions and were excluded from analysis. It is possible that these students may have had less interest or involvement in gambling, or simply could not complete the questionnaire in the time allowed. Thus there is no way to know how their exclusion influenced the overall gambling prevalence rates reported. The well-known tendency of respondents to 'telescope' responses to questions about behaviours in a specific time period may have inflated estimates of gambling-related behaviours and exposures in 'the past 30 days'. Another potential limitation of this study was the inclusion of purchasing raffles tickets in the definition of gambling to be treated as a gambling activity. Purchasing raffles may be done predominantly as a form of donation rather than as a gambling behaviour, although this seems unlikely in children. Inclusion of raffles limits comparison of the current findings with other prevalence studies where raffles were excluded. Similarly, the current study did not include a measure of past year gambling, which is often reported in prevalence studies. The use of a modified binary response scale (yes/no) for the DSM-IV-[MR]-J criteria to classify students as problem gamblers in this study limits comparability with estimates of the youth problem gambling reported in other studies using the multiple response options. More broadly, there is some evidence to suggest that young people can misinterpret or fail to understand some of problem gambling screening items[33]. The measure used to explore whether students had accessed venues where other people were gambling should also be interpreted with caution, given that these venues could be visited without the student necessarily visiting the gambling section or seeing gambling taking place, for example attending a pub or club with their family for dinner. The lack of an association between visiting a venue where gambling was available and problem gambling potentially supports this notion. Caution may also be needed in the analysis of the outcomes of the likelihood of gambling in the future. Only 7% of 17 year olds indicated that they would definitely, or were likely to, gamble in the next year, which is substantially lower than some estimates of the proportion of Australian adults aged 18-24 years who report gambling at least once per year [85]. Similarly, the validity of results regarding students expenditure on gambling in the last month and finishing ahead, behind or about even, is potentially questionable, given that self-reported gambling expenditure rarely matches actual gambling revenues[86]. Finally, some of the situational and measurement issues identified by Derenvensky et al (2003)[33] in youth gambling prevalence studies, such as differences in sampling procedures and in instruments and measures, need to be considered when comparing the outcomes of this current study with previous research findings.

Implications and final conclusions

This study found that almost one-third of Victorian secondary school students had ever gambled, and 6% of all students reported gambling recently (in the last 30 days). Although the prevalence of gambling in the last month was relatively low, compared to previous findings, if extrapolated to the Victorian population, this figure represents approximately 25,600 of adolescents who spent an estimated $2.9 million per year. The overall prevalence of problem gambling was also quite low at 1.4%, however among students who had gambled in the last month, the prevalence of problem gambling was 13%. Interestingly, even with an overall downward trend in the prevalence of youth gambling reported recently in the UK, the proportion of young people classified as problem gamblers remained relatively consistent over the same time period [37]. Despite some caveats in the assessment of problem gambling among young gamblers, adolescent problem gambling remains an area of concern. In particular, the continued and predicted growth in internet gambling may pose a new risk for young gamblers[35], and there is some evidence to suggest that internet gambling may be more likely to contribute to problem gambling than gambling in offline environments[40]. In the current study, only 18% of students who had ever gambled reported gambling online, however this may be expected to increase over time. Other outcomes of this study confirm the relationship between student gambling behaviour and socioeconomic disadvantage, social influence (parents or friends gambling), advertising and promotion, and having been inside a venue where gambling was available. Although further research is required to understand those factors that were found to be associated with student gambling, the findings of this study may provide some guidance for future initiatives that aim to reduce adolescent gambling and associated harms. For example, given its extensiveness, decreasing student exposure to gambling advertising and promotion is likely to be advantageous. The VRGF have previously made a series of recommendations that aim to reduce gambling promotions. These include changes to advertising laws in Australia, such as removing exemptions for gambling advertising during sporting programs, and better regulation of gambling advertising on social media[59]. Lastly, monitoring adolescent gambling over time is valuable in order to track changes, identify likely causes and implications, and adjust policy and program priorities. The inclusion of gambling questions in future triennial ASSAD surveys will provide an ongoing mechanism for monitoring adolescent gambling in Victoria.

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Appendices

Appendix 1- Comparison of VIC and QLD adolescent gambling

Student characteristics

A total of 2927 adolescents from Queensland took part in the survey. Six percent of the Queensland students (n=184) had no responses to all of the seven essential gambling questions and were excluded from the dataset. This resulted in a final sample of 2895 students from Queensland. In comparison to the Victorian data, the Queensland sample had a higher proportion of students: in older age groups (15 yrs and above); from areas with higher levels of socioeconomic disadvantage (SEIFA IRSD deciles 1-6), from Outer Regional or Remote/Very remote locations; and who only spoke English at home (all *p*s <.0001).

Comparisons between VIC and QLD student gambling

The following Tables present preliminary comparisons in the gambling data between the Victorian and Queensland samples of students.

Table A1: Prevalence of gambling among all students by State

Prevalence %	**Victoria %**	**Queensland %**
Ever gambled (**N=6296**)	30.8%	27.6%
Gambled in the last month (**N=1574**)	5.6%	6.8%

Notes. Percentages are expressed as a proportion of the total number of non-missing responses.

Table A2: Prevalence of ever gambling among all students by State, age and gender

	Victoria % (N=3643)	**QLD % (N=2653)**
Age		
12yr olds	20.9%	17.5%
13yr olds	24.4%	20.1%
14yr olds	34.1%	31.4%
15yr olds	33.4%	31.4%
16yr olds	38.4%	33.3%
17yr olds	31.6%	33.6%
Gender		
Male	35.5%	34.7%
Female	26.4%	20.6%

Notes. Percentages are expressed as a proportion of the total number of non-missing responses.

Table A3: Prevalence of gambling in the last month by State, age and gender

	Victoria % (N=971)	Queensland % (N=603)
Age		
12yr olds	8.2%	37.0%
13yr olds	24.3%	24.6%
14yr olds	25.7%	29.0%
15yr olds	23.5%	30.5%
16yr olds	19.6%	25.7%
17yr olds	21.0%	39.2%
Gender		
Male	23.2%	32.6%
Female	19.2%	26.7%

Notes. Percentages are expressed as a proportion of those who had ever gambled.

Table A4: Types and recency of gambling activities among students who had ever gambled by State

Type of gambling activity:	Victoria % (N=1121)		Queensland % (N=733)	
	Ever	Past month	Ever	Past month
Card games (e.g. poker, blackjack, 21)	37.3%	9.9%	46.2%	10.3%
Casino games (e.g. roulette, craps or dice)	20.2%	2.7%	29.2%	6.1%
Sports games (e.g. football, rugby, cricket)	37.9%	11.9%	44.9%	11.3%
Poker machines (pokies)	17.3%	3.8%	25.8%	5.5%
Horse or dog races	54.3%	15.1%	39.8%	9.6%
Personal skill games (e.g. pool, darts, video games)	35.9%	9.9%	46.4%	13.0%
Two up	15.5%	2.6%	25.4%	5.2%
Tipping competitions (e.g. picked football teams each week)	31.9%	7.8%	32.3%	7.9%
Sweeps (e.g. you are given the name of a horse and if they win so do you)	29.4%	6.3%	27.2%	5.1%
Bingo for prizes or money	22.4%	3.2%	32.3%	7.3%
Lottery ticket (e.g. Keno, Tattslotto, Powerball)	28.3%	5.5%	42.5%	11.1%

Type of gambling activity:	Victoria % (N=1121)		Queensland % (N=733)	
	Ever	Past month	Ever	Past month
Instant scratchie card (that you rub or scratch to see if there is a prize)	36.5%	7.2%	50.8%	15.1%
Bought raffle tickets	51.4%	12.3%	54.1%	14.5%
Other	9.3%	3.2%	13.7%	6.5%

Notes. Percentages are expressed as a proportion of the number of students who reported ever gambling in each State.

Table A5: Gambling modality among students who had ever gambled by State

Modality:	Victoria % (N=866)	Queensland (N=562)
Online via a website (e.g. on a laptop or computer)	18.3%	21.8%
Using an app on a tablet or mobile	14.1%	12.5%
Over the phone	2.9%	6.3%
At a TAB	11.8%	8.4%
At a newsagent	8.6%	12.4%
At a pub or club	9.6%	13.5%
At a casino	1.4%	3.4%
At home or the home of a friend	52.4%	54.9%
At the racecourse	15.7%	9.0%
My parent/legal guardian purchased or played for me	50.9%	47.3%
My brother or sister purchased or played for me	6.4%	8.4%
Another relative purchased or played for me	15.9%	21.2%
A friend purchased or played for me	8.7%	8.4%
Someone else purchased/played for me	6.8%	8.0%

Notes. Percentages are expressed as a proportion of the number of students who reported ever gambling in each State.

Table A6: Problem gambling items among students who had ever gambled by State

Gambling burden:	Victoria %	Queensland %
1) Found yourself thinking about gambling or planning to gamble? (N=1547)	21.6%	26.9%
2) Needed to gamble with more and more money to get the same amount of excitement? (N=1541)	5.8%	10.8%
3) Spent much more than you planned to on gambling? (N=1531)	6.8%	11.6%
4) Tried to cut down or stop gambling? (N=1518)	14.5%	17.0%
5) Gambled to help you to escape from problems or when you are feeling bad? (N=1548)	2.3%	6.9%
6) After losing money gambling returned another day to try and win back the money you lost? (N=1523)	5.5%	10.7%
7) Lied to your family about your gambling? (N=1523)	2.5%	7.2%
8) Used your school lunch money or transport fare money to spend on gambling? (N=1514)	3.0%	8.5%
9) Taken money without permission from your family to gamble? (N=1522)	2.4%	6.2%
10) Taken money from someone outside your family to gamble with? (N=1520)	0.9%	6.6%
11) Argued with your family, friends or other people about you having gambled? (N=1517)	1.4%	5.8%
12) Missed school to gamble? (N=1517)	0.6%	4.2%
Classification of problem gambling		
Non-problem gambler	68.3%	60.4%
At-risk gambler	26.4%	29.5%
Problem gambler	5.4%	10.1%

Notes. Percentages are expressed as a proportion of the number of students who reported ever gambling in each State. Classification of problem gambling was based on Fisher (2000) scoring of the DSM-IV-[MR]-JR with modified yes/no response options.

Table A7: Problem gambling classification among students who had gambled in the last 30 days by State

Classification of gambling burden:	Victoria %	Queensland %
Social gambler	52.6%	56.7%
At-risk gambler	34.4%	29.6%
Problem gambler	13.0%	13.7%

Notes. Percentages are expressed as a proportion of the number of students who reported ever gambling in each State. Classification of gambling burden was based on Fisher (2000) scoring of the DSM-IV-[MR]-J with modified yes/no response options.

Table A8: Prevalence of household and peer gambling among all students by State

Household and peer exposure to gambling:	Victoria %	Queensland %
Anyone living in house gambled in last 30 days (N=6078)	17.8%	25.3%
People you know gambled in last 30 days (N=5908)		
Mother/caregiver 1	6.9%	10.9%
Father/caregiver 2	14%	17.5%
Brother or sister	5.6%	7.6%
Other relative	13.3%	15.2%
One of your best friends	4.6%	4.8%
Someone else you know	11.2%	10.0%
Don't know anyone who gambled	65.2%	59.6%

Notes. Percentages are expressed as a proportion of the total number of non-missing responses in each State. Percentages do not add to 100 as multiple responses could be selected.

Table A9: Been inside gambling venues in the last 30 days among all students by State

Been inside gambling venue in last 30 days:	Victoria (N=3371) %	Queensland (N=2535) %
TAB betting shops	6.6%	7.1%
Pub where gambling occurs	24.5%	26.5%
Club where gambling occurs (e.g. football social club, bowling club, RSL)	13.5%	19.1%
Casino	5.3%	4.0%
Racecourse	5.7%	3.9%
Not been in any venue	64.4%	59.5%
Mean number of venues accessed in last 30 days	0.56	0.61

Notes. Percentages are expressed as a proportion of the total number of non-missing responses in each State. Percentages do not add to 100 as multiple responses could be selected.

Table A10: Exposure to gambling promotion among all students by State

Aware of gambling promotion in last 30 days:	Victoria (N=3506) %	Queensland (N=2638) %
Ads on television	73.4%	66.9%
Ads on radio	35.3%	29.2%
Ads on billboards	30.6%	24.0%
Ads at a convenience store or newsagency	33.6%	29.0%
Ads on scoreboards or signage at sporting events that you have attended or watched on TV	36.1%	29.2%
Live studio crosses to gambling operators during sports broadcasting	21.6%	19.5%
Celebrities promoting gambling	16.7%	16.0%
Ads in pubs or clubs that you have visited	27.5%	23.1%
Ads on websites	34.3%	28.9%
Pop-ups on websites about gambling	33.2%	29.8%
Ads on social networking sites	37.6%	39.6%
Mean number advertisements types seen in last 30 days	4.55	4.02

Notes. Percentages are expressed as a proportion of the total number of non-missing responses in each State.

Table A11: Likelihood and susceptibility to gambling among all students by State

Likelihood and susceptibility to gamble in the future:	Victoria %	Queensland %
Intention to gamble in the next year (N=6032)		
I definitely will gamble	2.1%	3.1%
I'm likely to gamble	4.3%	5.6%
I'm not sure if I will gamble	10.1%	15.6%
I'm unlikely to gamble	22.3%	23.7%
I definitely will not gamble	61.2%	52.0%
Susceptibility to gambling (N=6229)		
Committed never-gamblers	59.0%	47.4%
Susceptible	17.6%	22.5%
Highly susceptible	23.4%	30.1%

Notes. Percentages are expressed as a proportion of the total number of non-missing responses in each State.

Appendix 2- Supplementary gambling questions

The next set of questions are about gambling.

Gambling is when you pay in your own money knowing that you could lose all of it or, possibly, win back even more than you paid in. There are lots of ways to gamble, for example on the results of races, sports, card games, lotteries, raffles, on machines like 'pokies', tipping competitions and sweepstakes.

1. **Have you ever bet any money on any form of gambling?**

   ☐ Yes ☐ No

2. **We would like to know whether you might gamble in the future:**

	Definitely yes	Probably yes	Probably not	Definitely not	Not sure
Do you think you will gamble soon?	☐	☐	☐	☐	☐
If your best friend invited to you to gamble with them, would you do it?	☐	☐	☐	☐	☐
Do you think you will gamble in the next year?	☐	☐	☐	☐	☐

The next set of questions are for people who have ever gambled or placed a bet. If you have never gambled or placed a bet please go to Question 9.

3. What type of gambling have you bet on in your life time (ever) and in the past month? For each activity listed below, please indicate if you have ever gambled on it, and gambled on it in the past month (cross all that apply).

	Ever	Past month
Card games (e.g. poker, blackjack, 21, etc.)	☐	☐
Casino games (e.g. roulette, craps or dice)	☐	☐
Sports games (e.g. football, rugby or cricket)	☐	☐
Poker machines (pokies)	☐	☐
Horse or dog races	☐	☐
Personal skill games (e.g. pool, darts, video games)	☐	☐
Two up	☐	☐
Tipping competitions (e.g. picked football teams each week)	☐	☐
Sweeps (e.g. you are given the name of a horse and if they win so do you)	☐	☐
Bingo for prizes or money	☐	☐
Lottery ticket (e.g. Keno, Tattslotto, Powerball)	☐	☐
Instant scratchie card (that you rub or scratch to see if there is a prize)	☐	☐
Bought raffle tickets	☐	☐
Other (please specify) _____	☐	☐

4. Have you ever gambled in any of these ways? (cross all that apply)

- ☐ Online via a website (e.g. on a laptop or computer)
- ☐ Using an app on a tablet or mobile
- ☐ Over the phone
- ☐ At a TAB
- ☐ At a newsagent
- ☐ At a pub or club
- ☐ At a casino
- ☐ At home or the home of a friend
- ☐ At the racecourse
- ☐ My parent/legal guardian purchased or played for me
- ☐ My brother or sister purchased or played for me
- ☐ Another relative purchased or played for me
- ☐ A friend purchased or played for me
- ☐ Someone else purchased or played for me
- ☐ Other (please specify)----------

5. Have you gambled or placed a bet in the past 30 days?

☐ Yes ☐ No → **Go to Q8**

6. How much money did you bet on gambling in the past 30 days? Write in the $ amount below (provide your best estimate)

$_____ **or** ☐ I have not bet money or gambled in the past 30 days **(Go to Q8)**

7. Overall, did you win back more money than you bet on gambling in the past 30 days?

- ☐ Yes, I finished ahead
- ☐ No, I lost money
- ☐ No, I finished about even

The next questions are for everyone

8. **We would like to understand a little bit more about your experience of gambling. In the *past year* have you…..**

	Yes	No
Found yourself thinking about gambling or planning to gamble?	☐	☐
Needed to gamble with more and more money to get the same amount of excitement?	☐	☐
Spent much more than you planned to on gambling?	☐	☐
Tried to cut down or stop gambling?	☐	☐
Gambled to help you to escape from problems or when you are feeling bad?	☐	☐
After losing money gambling returned another day to try and win back the money you lost?	☐	☐
Lied to your family about your gambling?	☐	☐
Used your school lunch money or transport fare money to spend on gambling?	☐	☐
Taken money without permission from your family to gamble?	☐	☐
Taken money from someone outside your family to gamble with?	☐	☐
Argued with your family, friends or other people about you having gambled?	☐	☐
Missed school to gamble?	☐	☐

9. In the past 30 days, have you been inside the following places where people were gambling? (cross all that apply)

- ☐ TAB betting shops
- ☐ Pub where gambling occurs
- ☐ Club where gambling occurs (e.g. football social club, bowling club, RSL)
- ☐ Casino
- ☐ Racecourse
- ☐ I have not been inside any of these places

10. Thinking about the people living at your house, did anyone who lives at your house gamble in the past 30 days?

☐ Yes ☐ No

11. In the past 30 days, did any of the following people you know gamble? (cross all that apply)

- ☐ Mother/caregiver 1
- ☐ Father/caregiver 2
- ☐ Brother or sister
- ☐ Other relative
- ☐ One of your best friends
- ☐ Someone else you know
- ☐ I do not know anyone who gambled in the last month

12. In the past 30 days, have you been aware of the following advertising or promotions for gambling? (cross all that apply)

- ☐ Ads for gambling on TV
- ☐ Ads for gambling on radio
- ☐ Ads for gambling on billboards (e.g. at the train station)
- ☐ Ads for gambling at a convenience store or newsagency
- ☐ Ads for gambling on scoreboards or signage at sporting events that you have attended or watched on TV
- ☐ Live studio crosses to gambling operators during sports broadcasting (e.g. crosses to betting odds)
- ☐ Celebrities promoting gambling (e.g. sports person or TV personality)
- ☐ Ads for gambling in pubs or clubs that you have visited
- ☐ Ads for gambling on websites
- ☐ Pop-ups on websites about gambling (e.g. new windows opening automatically)
- ☐ Ads for gambling on social networking sites (e.g. Facebook, YouTube, Twitter, Instagram)

13. How likely are you to gamble in the next 12 months?

I definitely WILL gamble	I'm likely to gamble	I'm not sure if I will gamble or not	I'm unlikely to gamble	I definitely will NOT gamble
☐	☐	☐	☐	☐

Appendix 3 - Frequently asked questions for survey administrators

Question 1

Q. What if I have bet using my parents or a family member's money? (e.g. dad gave me $5 to buy raffle tickets).
A. This counts as gambling because you are spending money on a game of chance.

Q. What counts as gambling?
A. At the start of the survey there is a definition of gambling as well as a list of activities that count as gambling. *Gambling is when you pay in your own money knowing that you could lose all of it or, possibly, win back even more than you paid in. There are lots of ways to gamble, for example on the results of races, sports, card games, lotteries, raffles, on machines like 'pokies', tipping competitions, instant scratchie cards and sweepstakes.* Please read the definition of gambling and the activities listed to decide if they count as gambling.

Q. Does Keno count as gambling?
A. Yes, Keno is a lottery game and is considered gambling.

Question 2

Q. What does it mean by will I gamble "soon"?
A. For this survey, soon means any time in the next 30 days.

Question 3

Q. What if I only made a bet with my friends, for example on a backyard game or a local sports club game?
A. If you bet your friend money this is still considered gambling. If you have made a bet with your friends or made a deal based on the outcome of a sporting event or a game that you were playing, that is still considered gambling.

Q. What if I made a "bet" that didn't involve money? Is that gambling?
A. No. This does not count as gambling for this survey. We want to know about bets you have made using money.

Q. What if I bet my friends that I could kick the next goal in a football game or hit the bullseye while playing darts etc.?
A. If you bet your friends money this is still considered gambling. If you have made a bet with your friends or made a deal based on the outcome of a sporting event or a game that you were playing, even if it is in a friendly or casual way that is considered gambling.

Question 4

Q. What if I have placed a bet on a website by using my phone to access the internet (not an app)?

A. This is placing a bet over a website. Please tick the first box “online via a website”

Q. Does betting on my phone by app or on a website mean I have bet over the phone?

A. No, over the phone refers to calling or texting someone to make a bet. If you have bet using a webpage on your mobile phone, please tick the box “online via a website”. If you have used an app to make a bet on your phone, please tick the box “using an app on a tablet or mobile”. If you have called a betting telephone number, called a gambling hotline or spoken/texted with someone to place a bet, please tick the box “over the phone”.

Q. How could I place a bet/gamble at a newsagent?

A. There are many ways to gamble a newsagent. These include buying a lottery ticket (Powerball, Lotto, Oz Lotto etc.) or buying a scratchie/scratch card game.

Q. What does it mean “someone has bought or played for me”?

A. This means that somebody played a game or placed a bet on your behalf. They could have bought a scratchie or a lottery ticket for you, placed a bet on a sporting event, put a tip in a tipping competition for you, or played the pokies for you. They may have placed a bet on a dog or horse race for you, or entered you in a sweepstakes.

Question 5

Q. What if I have not bet any money?

A. Tick the box “I have not bet any money or gambled in the past 30 days” and go to Question 8.

Question 6

Q. What do you mean by finished ahead, lost money or finished even?

A. To finish ahead means that you made more money than you started with. For example if you bet $10 and overall you won $15, you are $5 ahead because you still have your original $10 plus $5 profit. To lose money means that after you have finished betting you have less money than you started with. For example if you bet $10 and only won $5 back you have lost money because you started with $10 but now you only have $5. To finish even means that after you have finished betting you have the same amount of money as when you started. You have neither won money nor lost money. For example, if you bet $10 and overall you won $10 back then you finished even, because you have the same amount of money as when you started.

Question 7

Q. What do you mean by the past year? Is that this year or from this time last year?

A. By the past year we mean in the last 12 months. This means that we are counting backwards from the current month to this month last year. Have you gambled in any of the ways listed since this time last year**?**

Question 8

Q. What is a TAB/UBET shop?

A. A TAB or UBET shop is a store where you can place a bet on sporting events and races in person.

Question 9

Q. I live between multiple houses. Do I count everyone that I share a house with?

A. If you live in more than one house you may need to think about where you spend most of your time. Do you spend more time at one house than the other? It is up to you to decide where you feel you spend most of your time and answer for the people that live in that house.
If you spend the same amount of time at two houses, you can answer for everyone that you live with at both houses.

Q. Until recently I lived in different house with different people. Which house do I count?

A. We are interested to know if anyone that you currently live with gambles. Please think about the house that you live in now and answer for the people that live in that house.

Question 10

Q. Who is my caregiver?

A. A caregiver is someone who acts like one of your parents. This may include your step mother, step father or an aunt, uncle, grandparent or foster parent who looks after you as a parent would. It does not include a baby sitter or someone who takes care of you for short amounts of time.

Question 11

Q. What do you mean by advertising or promotion?

A. Advertising or promotion is the way that gambling companies draw attention to themselves and their products. Advertising is designed to tell people about a service or product. These advertisements are sometimes called ads or commercials.

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