

NSW Longitudinal Youth Gambling Study 2024

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NSW Longitudinal Youth Gambling Study 2024

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Terminology

Where the DSM-IV-MR-J (Fisher, 2000) has been used to classify people into gambling risk groups, this report uses the screening instrument's terms: 'non-gambling', 'non-problem gambling', 'at-risk gambling', and 'problem gambling'.

Where the Problem Gambling Severity Index (Ferris & Wynne, 2001) has been used to classify people into gambling risk groups, the report uses the screening instrument's terms: 'non-gambling', 'non-problem gambling', 'low risk gambling', 'moderate risk gambling', and 'problem gambling'.

People who report gambling harm are those who endorse one or more items on the Gambling Harms Scale (Browne, Newall et al., 2023), which assesses the negative consequences of gambling.

While we recognise that some of the above terms are stigmatising, they are the categories used by the validated screening instruments. We retain their use here for clarity and accuracy.

Gambling refers to spending real money on poker machines, race betting, sports betting, scratchies/lotteries, keno, bingo, poker, other casino games, esports betting, fantasy sports betting, and informal private betting, as well as betting with skins on esports and games of chance.

Simulated gambling comprises digital games with features that resemble or function like commercial gambling activities and includes loot boxes, social casino games, demo or practice games, and games with gambling components. These games replicate the look and feel of gambling games as a central or peripheral feature of play, although their underlying mechanics may be very different from gambling. Many games allow real money to be spent in-game, but real money cannot be won.

This study examines trajectories and transitions between different gambling states, including non-gambling, non-problem gambling and at-risk/problem gambling. A stable trajectory refers to reporting the same gambling state in the 2020 and 2024 surveys. A transition refers to reporting different gambling states in the 2020 and 2024 surveys.

Abbreviations

EGM	Electronic gaming machine
GHS	Gambling Harms Scale
IGD	Internet Gaming Disorder Scale
NSW	New South Wales
ORG	Office of Responsible Gambling
PGSI	Problem Gambling Severity Index
Pokies	Also called poker machines, electronic gaming machines, and slot machines
UK	United Kingdom
UKGC	UK Gambling Commission
USA	United States of America

Executive summary

Conclusions

- The NSW Gambling Survey 2024 indicates that young adults, aged 18-24 years, have the highest population prevalence of gambling problems and harm in NSW.
- However, the current study found that gambling problems and harm do not suddenly emerge in early adulthood. Rather, they develop over time, often from foundations in childhood or adolescence.
- In the study's longitudinal analysis, the strongest predictor of at-risk/problem gambling in 2024 was at-risk/problem gambling four years earlier when participants were aged 12-17 years.
- Participants who reported gambling harm in 2024 were more likely to report prior gambling (including non-problematic gambling involvement), and positive attitudes to gambling advertising, when underage in 2020.
- The study's qualitative analysis reveals that early exposure to pro-gambling influences – such as parental and peer behaviours, advertising, product accessibility, and simulated gambling – can establish a foundation for gambling problems and harm in later years. This risk intensifies as individuals reach the legal gambling age of 18, often leading to an escalation in gambling activities.
- These findings highlight the importance of preventive measures from childhood, through adolescence, and into early adulthood to reduce gambling harm in young people in NSW.

Research questions

The NSW Office of Responsible Gambling (ORG) commissioned this study to address the following research questions.

1. What is the nature and extent of youth gambling transitions? These may include, but are not limited to:
 - o a transition from non-gambling to gambling
 - o a transition from gambling to problem gambling
 - o a transition from simulated gambling to monetary gambling
 - o a transition from simulated gambling to at-risk and problem gambling
 - o a transition from problematic gaming to problematic gambling
2. What harm is associated with these transitions?
3. What are the protective and risk factors that impact these transitions and associated harm? These include personal, parental, peer and environmental factors.

Methods

To answer these questions, three different methodologies were used:

1. A systematic review of existing evidence published between 1995 and 2024.
2. A survey of 229 young people in 2020 when all were aged 12-17 years and then again in 2024 when most were aged 16-21 years.
3. A qualitative interview study of 50 people aged 18-23 living in NSW.

Results: Youth gambling trajectories and transitions (RQ1)

In the Wave 1 survey in 2020 and the Wave 2 survey in 2024, some participants reported a stable trajectory, being in the same gambling state in both years. Others transitioned from one state to another. The current qualitative study also explored these pathways and over the life course amongst three cohorts – those who reported no gambling, non-problem gambling or at-risk/problem gambling when interviewed. In addition, the interviews explored any transitions when participants turned the legal gambling age of 18 years, since this is a current gap in the literature.

Stable non-gambling trajectory

About a third (37%) of the survey participants reported no gambling in both 2020 and 2024. This pattern of non-gambling was more common among those still under 18 in 2024 (with 48% continuing in their abstinence) compared to those aged 18 years or over (31%).

The qualitative study found that many participants who had maintained abstinence since childhood recalled early family environments where gambling was either absent or they were involved only in low-stakes, indirect activities (such as picking keno numbers). Their parents often cautioned them about gambling. Even as gambling opportunities increased as they matured, this cohort maintained the negative view of gambling that they had adopted in childhood.

Transition from non-gambling to gambling

An overall trend was that more survey participants moved into gambling than moved away from it. The percentage of youth reporting past-year gambling increased from 36% in 2020 to 56% in 2024, with an even higher rate (62%) among those aged 18 or older in 2024. An additional 27% of participants had started gambling by 2024 (and 7% had stopped). This overall rise reflects not only that many participants had reached the legal gambling age by 2024, but also that gambling is a highly normative behaviour among young people both before and after reaching adulthood.

Qualitative narratives from participants who engaged in non-problem gambling in 2024 illustrate that early exposure often laid the groundwork for commercial gambling once legal access was granted. These early experiences included participating in family card games and private betting on cards and sports with friends during adolescence. Many reported their first commercial experiences with gambling on their 18th birthday, typically on poker machines. Most then continued to gamble at least occasionally, mainly on poker machines and sports betting. Gambling was a normalised activity when at licensed venues with friends, a frequent topic of peer conversations, and advertised relentlessly in the media they used. Despite viewing moderate gambling as fun, this cohort tended to recognise the potential for harm if gambling becomes excessive.

Transition from gambling to at-risk/problem gambling

About 13% of participants in each of the 2020 and 2024 surveys reported at-risk or problem gambling on the DSM-IV-MR-J. Notably, 70% of those who reported these problems in 2020 also reported them in 2024. The young age of participants likely explains the more enduring nature of these problems, compared to other studies.

The qualitative study found that many participants in the at-risk/problem gambling cohort had been regularly exposed to gambling from an early age, mostly through family activities. They recalled having positive attitudes to gambling since childhood. In adolescence, about half gambled with money. Sports betting often became a core interest and activity with friends as they were exposed to prolific advertising. Several bet with commercial operators when underage, using fake IDs and others' betting accounts, and regularly played private card games for money. Many were curious about gambling, saw it as an easy source of income, and were excited about being able to legally gamble once they were 18.

Legal access at 18 marked a turning point when gambling escalated substantially. Half of this cohort gambled on their 18th birthday or as soon as COVID restrictions allowed, nearly always on poker machines as a rite of passage. Poker machine gambling and sports betting often became regular and normalised social activities with friends. These participants reported gambling harm across several life domains.

Transitions from simulated gambling to monetary gambling and to at-risk/problem gambling

Nearly half (44%) of the survey participants engaged in simulated gambling only (no monetary gambling) in 2020 when they were adolescents. By 2024, two-fifths (40%) of these participants had transitioned to monetary gambling, including 6% who had moved into at-risk/problem gambling (based on low numbers). Although our longitudinal analysis did not observe statistical evidence linking simulated gambling to later gambling, problems and harm – possibly due to small sample sizes – the qualitative findings revealed distinct differences in the three cohorts.

During childhood and adolescence, the non-gambling cohort either did not engage with simulated gambling or showed little interest in it, were aware of the tactics used to encourage real money expenditure and recognised its potential to foster gambling addiction. The non-problem gambling cohort was increasingly exposed to simulated gambling as they grew up, especially loot boxes, chance-based player packs, and wheel spins. A few spent real money on these features. Some participants actively sought out simulated gambling games and imagined the rewards they would win if real money was at stake. In early adulthood, most lost interest in gaming because monetary gambling was accessible and more appealing.

Most of the at-risk/problem gambling group had been exposed to simulated gambling from an early age. They recalled playing games with loot boxes, daily spins, spinning wheels, player packs, battle passes, mock casino games, and slot machines. They nearly all engaged in simulated gambling during adolescence, spent real money on these features, and many regularly played social casino games. Motivations for simulated gambling included social interaction, competition, status, entertainment, and the pursuit of in-game items that could be sold or showcased. Few initially linked simulated gambling to monetary gambling; however, many later realised that it exposed them to gambling-like activities and advertising. Most of these participants reduced their gaming in early adulthood because they preferred monetary gambling.

Transition from problematic gaming to problematic gambling

Only 22 survey participants reported problematic gaming in 2020, which was too few to examine a transition to at-risk/problem gambling. Unfortunately, we were unable

to recruit any participants who reported this transition for the qualitative interviews.

Results: Gambling-related harm (RQ2)

Emotional harm

Gambling-related harm was evident in both the qualitative and quantitative data. Emotional harm emerged as a significant consequence among interview participants with at-risk or problem gambling. Many described feelings of regret, guilt, and shame, along with persistent low self-esteem and heightened stress. They recounted experiences of immediate disappointment and anger after losing, which often intensified over time and contributed to a cycle of loss-chasing and self-criticism.

These emotional harms were also reported in the survey. Among those aged 18 years or over who gambled in 2024, about a fifth (22%) reported regret about their gambling and one-in-seven reported feeling like a failure (14%), ashamed (14%), or insecure or vulnerable (13%) due to their gambling. One-in-ten reported increased experiences of depression (10%) and feeling worthless (10%) because of their gambling. These proportions were similar amongst the under-18s who gambled.

Financial harm

Financial consequences were another prominent type of harm. Interviewees in the at-risk/problem gambling cohort noted that regular, small losses, rather than occasional large losses, accumulated to reduce their savings and spending money. Many participants later realised that the money could have been used for more meaningful purposes. Some reported having to borrow money to cover shortfalls.

Survey data corroborated these findings. A sizeable proportion of participants aged 18 or over who gambled reporting reduced spending money (34%), reduced savings (21%), and cutbacks on recreational (20%) and essential (18%) expenditures. Fewer noted increased credit card debt (8%), selling personal items (6%), and promising to pay back money without intending to (4%). These proportions were similar amongst the under-18s who gambled, although a higher proportion reported reduced savings (36%), rather than reduced spending money (31%).

Work, study and relationship harm

While the most frequently reported harms were emotional and financial, some participants also reported negative impacts on work, study, and relationships, highlighting the numerous ways in which gambling can disrupt young people's lives.

Some interview participants noted that gambling occasionally interfered with their work or study, such as using work hours for betting or reduced academic performance. In the survey, few adults who gambled reported using work or study time to gamble (9%), although this proportion was higher amongst the under-18s who gambled (17%, based on small numbers).

Relationship harm was noted by the interviewees, including reduced time with family and friends, increased social isolation, and conflicts arising from financial strain or prioritising gambling over other obligations. In the survey, adults who gambled reported spending less time with people they care about (14%), social isolation (9%), and greater conflict (5%). Fewer than four under-18s reported each of these harms.

Efforts to reduce harm

About a third of the interviewees in the at-risk/problem gambling cohort, all in their early 20s, reported taking steps in the past year to cut back their gambling. Their decisions to change were prompted by the gambling harm they experienced, such as realising that gambling now resulted in stress, anger, and regret, rather than enjoyment. Many participants also became aware of gambling's addictive effects, like irrational thinking, loss of control, denial of its harms, and a desire for increased risk-taking. A few became disillusioned with the gambling industry's exploitative tactics. Efforts to change were also motivated by shifting life priorities as they grew older, including increased financial obligations, wanting to use their time more effectively, more focus on health, and planning for the future. Observing friends suffer serious gambling harm also prompted attempts to change.

To manage their gambling, these participants adopted various strategies, including setting budgets, restricting access to cash, setting deposit limits on their betting accounts, picking up new hobbies, and avoiding gambling venues. Some adjusted their social routines or sought out friendships with people who gamble less. However, most were still in the initial phases of behaviour change and continued to face strong gambling urges. In fact, most of the at-risk/problem gambling group was not actively trying to reduce their gambling at the time they were interviewed.

Results: Protective and risk factors (RQ3)

Personal and behavioural factors

The longitudinal analysis examined personal and behavioural factors that predicted gambling transitions. Age was a significant predictor, with older participants more likely to gamble. Additionally, those who reported at-risk/problem gambling in 2020 were more likely to report at-risk/problem gambling and gambling harm in 2024. Having gambled in 2020, even when not problematic, was linked to later gambling harm, indicating that underage gambling predicts negative gambling impacts in the future.

Parental factors

The interview participants identified parental role modelling and guidance as factors that influenced their attitudes to gambling and subsequent gambling involvement. The non-gambling cohort often reported that their parents did not gamble or only engaged in low-stakes activities and explicitly cautioned them against gambling. In contrast, those who transitioned to gambling, especially to problematic levels, frequently recalled a childhood environment where parental gambling was normalised, and in some cases, parents even introduced gambling as a rite of passage on their 18th birthday. Those in the non-problem gambling cohort typically recalled that their parents did not oppose gambling in moderation but conveyed cautious attitudes about gambling to their children. Most of the at-risk/problem gambling cohort could not recall their parents cautioning them about gambling at all.

Although the longitudinal analysis did not show significant associations between parental approval or exposure and later gambling outcomes (possibly due to the small sample size), the qualitative study indicates that parental factors are influential.

Peer factors

Peer dynamics were central to the development of gambling behaviours. The non-gambling cohort tended to have social circles that discouraged gambling, whereas those who gambled reported substantial peer influences. Friends and older siblings often introduced and facilitated early gambling experiences through private card games and sports bets. The at-risk/problem gambling cohort reported frequently betting with bookmakers, which was usually facilitated by older friends or relatives. Peer environments familiarised participants with betting products, normalised gambling, and promoted friendly competition and social acceptance through betting.

Once participants reached 18, those who gambled typically did so with friends. Gambling, particularly on poker machines, became a normalised activity when visiting licensed venues, driven by a desire for fun, camaraderie, and to fit in. The at-risk/problem gambling group described how gambling, whether on poker machines, sports, or private card games, became embedded in their social circles as a regular shared activity. Many of those who later reduced their gambling noted changing friendship groups as instrumental to their behavioural change.

Advertising and normalisation

In the qualitative study, participants in all cohorts reported intense exposure to gambling advertising as they grew older, especially with increased social media use, gaming, and sports-watching. They were mainly exposed to sports betting ads. The non-gambling cohort mostly ignored or were put off by these ads. Their established negative attitudes overrode the pro-gambling messages they saw. The non-problem gambling cohort mostly ignored gambling ads or felt no temptation, particularly when underage, although some noted that their constant presence normalised gambling and downplayed its harms. In early adulthood, those who followed sport were increasingly exposed to betting ads, which sometimes triggered their betting.

The at-risk/problem gambling cohort recalled aggressive advertising tactics. During adolescence, sports betting ads sometimes prompted bets among those already betting, while others internalised messages that betting is an easy way to make money. In early adulthood, those who followed sport felt intensely targeted by sports betting ads, often placing bets directly in response to frequent reminders and inducements. Many noted that these ads contribute to the view of gambling as a normal social activity and a pathway to wealth.

The findings suggest that young people's attitudes toward gambling advertising, rather than mere exposure to ads, have more impact on their gambling behaviour. Consistently, the longitudinal analysis found that positive attitudes toward gambling advertising in 2020, rather than exposure itself, predicted gambling harm in 2024.

Product access and features

Without legal access to commercial gambling, some interviewees who gambled during adolescence, especially the non-problem gambling group, gambled only in private settings, such as card games or sports bets with friends. The at-risk/problem gambling group more frequently engaged in sports betting with commercial bookmakers, and a few gambled on poker machines. In both groups, attaining legal access when they turned 18 marked a significant shift in their gambling.

In addition, the co-location of gambling in licensed venues helped to normalise gambling as part of social outings to pubs and clubs. Participants who gambled noted that their initial gambling experiences were often spontaneous, simply because gambling was available where they socialised. Immediate access to online betting through smartphones further encouraged their participation. The at-risk/problem gambling cohort specifically mentioned several product features, notably on poker machines, that fostered their continued gambling involvement.

Simulated gambling

As discussed earlier, simulated gambling can be a further risk factor by virtue of people with current gambling problems being much more likely to have used these products at an early age.

Implications

The NSW Gambling Survey 2024 (Browne et al., 2024) indicates that people aged 18-24 have the highest rate of moderate risk/problem gambling in NSW. Efforts to reduce gambling harm should therefore have a key focus on young people. Critically, the current study found that gambling problems and harm do not suddenly appear in early adulthood, but instead incubate during childhood and adolescence. This finding points to the importance of preventive measures in childhood, though adolescence, and into early adulthood to reduce gambling harm in young people in NSW.

Limitations of the study

The survey data may be subject to recall and social desirability biases. It may not be representative of young people in NSW due to selection biases. The longitudinal analyses were based on small subsamples in each trajectory and transition, limiting the power to detect significant relationships. About six-in-ten survey participants were male, so the results reflect mostly male experiences.

In the qualitative study, nearly two-thirds of participants were male. The extent to which female experiences diverge or converge with the experiences reported is unclear. The results should be interpreted as insights into the participants' lived experiences and not necessarily representative of all young people in NSW. Nonetheless, the study achieved data saturation, with no new themes emerging in the later interviews, so the results should be indicative. The findings may be affected by social desirability and recall bias, although how young people recall events also likely influences their gambling attitudes and behaviours.

The study focused on experiences up to early adulthood. Research is needed into later gambling trajectories and legacy harms over the life course.

Strengths of the study

This study is the first longitudinal analysis of gambling trajectories and transitions in young people in NSW, and the first to examine the critical milestone of reaching the legal gambling age of 18 years. It provides new information about the nature of these pathways and how entry into adulthood can combine with formative experiences, and risk and protective factors, to catalyse changes in gambling and gambling harm among young people.

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Chapter 1. Background

Key findings

- The literature review examined 83 longitudinal and life course studies of child, adolescent, or young adult gambling published between 1995 and 2024.

Changes in gambling behaviours over time

- Gambling participation tends to increase slowly in early adolescence and sharply at the legal age. Gambling problems tend to first emerge in late adolescence or early adulthood.
- Youth gambling behaviour is dynamic, with transitions into and out of gambling problems over time. Gambling problems in youth are often short-lived but can persist for some individuals.
- Limited research has explored the specific harms of youth gambling transitions. Most studies have focused on gambling problems rather than harm.

Evidence on the relationship between simulated gambling and monetary gambling

- Limited longitudinal research exists on the relationship between simulated gambling, and monetary gambling and gambling problems, and results are not clear-cut. Only one study focused on the transition from problematic gaming to problematic gambling.

Risk and protective factors for gambling and gambling harm

- Most studies focus on early predictors of later gambling behaviour or problems. This research has mainly examined personal characteristics.
- Personal risk factors for youth gambling include being male, alcohol use, lower socio-economic status, high impulsivity, sensation-seeking, delinquency, and substance use. Protective factors include being female, good problem-solving skills, and higher socio-economic status.
- Parental risk factors include pro-gambling attitudes, behaviours and gambling problems, and limited supervision of their children. Protective factors include greater parental monitoring, encouragement of prosocial behaviours, having a good relationship with parents, and shared family values.
- Peer influences that encourage or discourage gambling become more significant from late adolescence but have received little attention in longitudinal studies.
- Likewise, there is little longitudinal evidence on environmental factors such as gambling availability and advertising exposure.

Gaps in knowledge

- Longitudinal research provides insights into youth gambling trajectories and influential factors but has gaps in understanding transitions into and out of gambling problems and harm, social/environmental influences, and specific harms.
- No prior longitudinal gambling research has been conducted with young people in NSW.
- No prior research in NSW has examined youth gambling transitions when young people turn 18 years and can legally gamble.

1.1. Introduction

Transitions from childhood to adolescence and early adulthood are critical developmental stages associated with significant biological, psychological, and social changes, including brain development, identity formation, changing social roles, and establishing life trajectories, which can have lasting impacts on individuals (Arnett, 1992; Casey et al., 2008; Steinberg, 2008). These periods can include risky or reckless behaviour, which may make gambling more appealing, alongside the still-developing executive function and decision-making skills, which may impact young people's gambling-related choices (Arnett, 1992; Casey et al., 2008; Steinberg, 2008). In Australia, the legal gambling age of 18 marks a significant transitional phase, coinciding with other key life milestones such as finishing school and entering higher education or the workforce. Older adolescents and young adults gradually move away from strong parental influence and direct supervision towards increased autonomy, with peer relationships becoming more influential and self-regulation skills developing. Around this age, they typically gain access to their own money but have fewer significant financial responsibilities, such as mortgages or family obligations.

Recent research has examined youth gambling in NSW (Browne et al., 2019; Hing, Lole, Thorne, Rockloff, et al., 2023; Hing et al., 2021). The 2020 Youth Gambling Study (Hing et al., 2021) examined adolescents aged between 12 and 17 years. Overall, 29.8% of adolescents had gambled within the past year, with adolescents aged 15-17 more likely to have gambled than those aged 12-14 (38.4% vs 21.4%). First participation in gambling was reported to be around 5 to 9 years for race betting and 10 to 12 years for scratchies/lotteries, keno and poker. Gambling was most commonly conducted with a parent/guardian, followed by peers under 18 years. Around 3.7% of participants were classified as at-risk or experiencing problem gambling on the DSM-IV-MR-J (Fisher, 2000). Many adolescents (40.1%) in NSW engage in simulated gambling games. The study identified risk and protective factors associated with youth gambling attitudes and behaviours, including parental, peer and personal factors, as well as environmental factors such as exposure to gambling advertising and access to internet-connected devices.

The companion qualitative report for the NSW Youth Gambling Study (Hing, Lole, Thorne, Rockloff, et al., 2023) conducted online communities and in-depth interviews with 89 young people aged between 12 and 17 to explore youth gambling transitions and influential factors. Transitions to gambling occurred after being exposed as children. Participants reported positive family memories associated with outings to gambling venues and exposure to sport-betting gambling during childhood. Adolescents with gambling problems recalled big wins (such as on the signature Melbourne Cup horse race). In early adolescence, they participated in gambling-like activities with peers and bonded with peers and family around sports, private wagers and footy tipping competitions. In older adolescents, participation was across a broader range of gambling activities. Those experiencing harm from gambling tended to participate in riskier activities such as sports and race betting, skin gambling, and electronic gambling machines (EGMs). Again, key reported influences included parents, peers, and exposure to gambling advertising.

The legal gambling age marks the start of increased gambling participation, problems and harm in the young adult population. The NSW Gambling Survey 2019

(Browne et al., 2019) found that young adults (18-24 years) had a higher prevalence than any other age group of gambling on EGMs, sports betting, casino table games, esports, fantasy sports, and informal betting, and betting via services such as Lottoland and Planet Lottery, playing bingo or housie, betting on non-sporting events, and playing internet casino games. This age group was also more likely to report moderate risk and problem gambling (14.9%) than adults in NSW who gamble overall (7.2%). The second highest prevalence of experiencing gambling problems was 9.2% for those aged 25-34 years, with the risk reducing by age. A similar trend was seen with gambling harm, with 18- to 24-year-olds experiencing the largest number of gambling-related harms per 1000 people (255), followed by 25- to 34-year-olds (201).

A large body of correlational research has examined youth gambling, including transitions into gambling and harmful gambling, including from simulated gambling, and risk and protective factors associated with these transitions, including individual characteristics, and social and environmental factors. Detailed reviews of this work were conducted for the 2020 and 2022 NSW Youth Gambling Studies (Hing, Lole, Thorne, Rockloff, et al., 2023; Hing et al., 2021). However, longitudinal studies can provide greater insights into causal relationships and directions and track changes in behaviour over time.

In 2017, a systematic review and meta-analysis of longitudinal studies examined risk and protective factors for problem gambling in childhood, adolescence and young adulthood, identifying 15 studies (across 23 articles) (Dowling et al., 2017). The meta-analyses identified a range of risk factors for problem gambling, predominantly concentrated on personal characteristics. These factors included alcohol and drug consumption, antisocial behaviours, impulsivity, poor academic performance, and gambling-specific elements like problem gambling severity and engagement in multiple gambling activities. Beyond individual factors, the study highlighted peer antisocial behaviours as a significant relationship-level risk factor and parental supervision as a protective factor. Other protective elements were higher socio-economic status and addressing social problems. The study noted the paucity of evidence of risk and protective factors outside personal characteristics.

The current review aims to update and extend previous research by examining evidence from a broad range of longitudinal studies of youth gambling. It focuses on:

- the nature of youth gambling transitions,
- the harm associated with these transitions, and
- the risk and protective factors that impact these transitions and associated harm.

1.2. Literature review methodology

This review aimed to identify longitudinal studies of youth gambling in Australia and internationally. For this review, the term youth encompasses childhood, adolescence and young adulthood (under 30). Searches were conducted on databases (PsycINFO and Scopus) using keywords and logic, including ('gambl*' or 'wager*' or 'betting' or 'simulated gambling' or 'gaming') AND ('longitudinal' or 'life course') AND ('transition*' or 'harm' or 'problem' or 'protective' or 'risk') AND ('adolescent' or 'child' or 'children' or 'young adult' or 'youth' or 'emerging adult'). Additional searches were conducted on Google Scholar and the GREO Evidence Centre (GREO, 2024) to

identify relevant grey literature. Reference lists of relevant articles were also reviewed.

1.3. Longitudinal studies of youth gambling

The search identified 84 longitudinal studies of child, adolescent, or young adult gambling published between 1995 and 2024. These are described in Table A.1. Most of the studies are quantitative longitudinal studies (n=80); there were two qualitative longitudinal studies and two qualitative life course studies. The two life course studies gathered retrospective and not longitudinal data but are included here due to their specific focus on young people in NSW.

Over a third of the studies were conducted in Canada (n=29), followed by the USA (n=20) and Australia (n=10). Just over half (n=46) of the studies used representative data. These samples provide a more accurate reflection of gambling prevalence and associated factors. However, a low prevalence of gambling problems in the community can potentially limit statistical power and the ability to detect significant effects.

The most prominent themes across the studies are gambling trajectories/transitions and risk/protective factors, with many studies focusing on how gambling behaviours develop over time and what factors influence these developments. There is also significant interest in comorbidity with other mental health issues and related behaviours.

Ten Australian studies were identified. These generally align with the broader international research, examining various themes. These include gambling trajectories and transitions of gambling behaviours or problems (Delfabbro et al., 2014, 2009; Hing et al., 2024a), risk and protective factors for problem gambling (Scholes-Balog et al., 2014, 2015, 2016; Yücel et al., 2015), co-occurrence with substance use and mental health problems (Merkouris et al., 2021), and the relationship between simulated and monetary gambling (Hing, Lole, Thorne, Sproston, et al., 2023; Sakata & Jenkinson, 2022).

This literature review first examines youth gambling transitions, focusing on longitudinal studies that track the process of movement between different gambling states (e.g., non-gambling to gambling, gambling to problem gambling). The following section discusses the harm associated with these transitions. The final section draws upon the broader set of longitudinal studies to identify factors influencing youth gambling behaviour and gambling problems.

1.3.1. Youth gambling transitions

Of the 84 longitudinal studies identified, a subset (n=30; as noted in Table A.1 in Appendix A) focussed more closely on gambling transitions. These will be discussed in this section. These studies reveal that youth gambling can follow different patterns, with, in some young people, gambling problems developing, resolving or persisting over time. A smaller sub-group of studies that identify and describe specific trajectories are detailed in Table 1.1. The most common trajectories for adolescents involve no or relatively low levels of gambling involvement and low risk of gambling problems, but in later adolescence, there is more variability. The least common trajectories are having consistent gambling problems over time.

Table 1.1. Youth gambling trajectories

Vitaro et al. (2004)	
Low gambler (61.7%)	Minimal gambling involvement throughout (ages 11 to 16 years).
Early-onset high-level chronic (22.1%)	Started gambling early, maintained high levels of involvement, greater risk of gambling problems at 17 than 'low' group, no difference to 'late-onset'.
Late-onset high-level (16.2%)	Began gambling later but engaged in high levels of gambling, greater risk of gambling problems at 17 than 'low' group, no difference to 'early onset'.
Winters (2005)	
Resistance (60%)	No at-risk or problem gambling at any time (ages 16 to 24).
New incidence (21%)	At-risk or problem gambling following non-problem gambling.
Desistance (13%)	Non-problem gambling following at-risk or problem gambling.
Persistence (4%)	Continued at-risk or problem gambling.
Delfabbro et al. (2009)	
Consistent gamblers (27%)	Gambled all four years (age 15 to 19).
Three-year gamblers (24%)	Gambled for three years.
One or two-year gamblers (17-18%)	Gambled for one or two years.
Non-gamblers (13%)	Never gambled during the study.
Edgerton et al. (2015a)	
Non-problems diminishing (73.9%)	Decreasing non-problematic gambling over time (18-20 to 22-26 years).
Low-risk stable (16.8%)	Stable low-risk gambling throughout.
Marginal/non-gambler diminishing (7.1%)	Decreasing low-level or non-gambling over time.
Moderate risk increasing (2.2%)	Increasing moderate risk gambling over time.
Carboneau et al. (2015a)	
Low decreasing (92.6%)	Low chance of having any gambling problems (at ages 15, 22, 30).
High decreasing (7.4%)	Likely to have at least one gambling problem at one of the ages, with probabilities decreasing from age 22 to 30.
Carboneau et al. (2015b)	
Early-onset low trajectory (64.8%)	Low levels of gambling from early age (15), maintaining low involvement throughout (at ages 22, 30).
Late-onset low trajectory (26.7%)	Low levels of gambling starting later (age 22), maintaining low involvement (age 30).
High trajectory (8.4%)	High levels of gambling from early age (15), maintained throughout (at ages 22, 30); three times more likely than late-onset and twice as likely than early-onset to be problem gambling at age 30.
Scholes-Balog et al. (2016)	
Resistance (91.7%)	Never experienced gambling problems (ages 17-24 and 19-26)
New incidence (3.6%)	Developed problems during the study (over 2 years)
Desistence (2.6%)	Stopped having problems
Persistence (2.1%)	Consistent problems across waves
Sagoe et al. (2017)	
Consistent non-gambling (71.1%)	No gambling during the study (ages 17 to 19)
Consistent non-risky gambling (23.8%)	Non-gambling at age 17, non-risky gambling at ages 18 and 19

Risky and problem gambling (5.1%)	Non gambling or non-problem gambling at age 17, transitioning into gambling problems at ages 18 or 19.
Kristiansen et al. (2017)	
Non-linearity (31.3%)	Irregular patterns, moving in and out of gambling (aged 12-20, 13-21, 14-22)
Reduction (27.1%)	Decreased gambling activities over time
Progression (22.9%)	Escalating gambling activities
Consistency (18.8%)	Stable gambling behaviour, maintaining a consistent level of engagement over time
Hayer et al. (2018)	
Onset (11.9%)	Started monetary gambling during the year of the study (aged between 11 and 19)
Termination (27.3%)	Stopped monetary gambling during the year
Consistent consumption (27.7%)	Gambled with money at both waves
Consistent non-consumption (33.2%)	No participation in monetary gambling
Bilevicius et al. (2020)	
High (46%)	High levels of gambling activity, without alcohol dependence (ages 18-20 across 4 annual waves)
Low (37%)	Low levels of gambling activity involvement
Moderate (16%)	Moderate levels of gambling activity, with high levels of alcohol dependence. The most stable group (91% likelihood of remaining in the group 4 years later)
Pisarska et al. (2020)	
<i>Gambling participation</i>	
No gambling (41.9%)	Maintained no gambling participation across waves (15-16 to 17-18 years)
Stopped (13.9%)	Stopped gambling participation
Started (16.0%)	Started gambling participation
Maintained (28.2%)	Maintained gambling participation
<i>Gambling issues</i>	
No/low gambling involvement (issues) (81.8%)	Maintained no or low gambling issues (bespoke measure of gambling participation and gambling problems) across waves (15-16 to 17-18 years)
Stopped or reduced gambling involvement (8.2%)	Stopped or reduced gambling involvement
Started or increased gambling involvement (6.5%)	Started or become more involved in gambling
Maintained gambling involvement (3.5%)	Maintained levels of gambling involvement

1.3.1.1. Transitions from non-gambling to gambling

Longitudinal studies (Table A.1 in Appendix A) identified different trajectories in gambling behaviours across age groups, starting with transitions into gambling. Despite the illegality of gambling for adolescents, many do participate (Brosowski et al., 2020; Sakata & Jenkinson, 2022). Early adolescence is often identified as crucial for gambling initiation (Vitaro et al., 2004; Wanner et al., 2006), commonly via exposure through parents and other family members (Hing et al., 2024a; Kristiansen et al., 2015).

The age of 13-14 has the highest percentage of gambling onset; however, girls may begin slightly later (Botella-Guijarro et al., 2020). Gambling behaviours then tend to slowly increase from age 13 to 18 (Botella-Guijarro et al., 2020). By late adolescence (ages 16-17), gambling behaviours are better predictors of early adult gambling behaviours than those at age 15 (Delfabbro et al., 2009). Several studies then note an increase in gambling in early adulthood before stabilising (Delfabbro et al., 2014; Dussault et al., 2016; Hollén et al., 2020). For example, Hollén et al. (2020) observed that gambling participation and regular (weekly) gambling increased between ages 17 and 20, then reduced again by 24 years.

A population-representative study in the United Kingdom examined transitions in gambling participation (Hollén et al., 2020). Participants who were not gambling at age 17 were more likely to stay that way, with only around a third transitioning to occasional gambling (less than once a week) and a much smaller proportion to regular gambling (weekly). For those people who were occasionally gambling at age 17, the vast majority (70%) continued this level of engagement at ages 20 and 24, while 23% stopped gambling and 7% started gambling more regularly (weekly). Participants who engaged in regular (weekly) gambling at age 17 tended to continue, with 56% still gambling regularly at age 24.

Contributing factors

The period around the transition to adulthood (ages 18-21) coincides with reaching the legal gambling age in many jurisdictions, with changes in gambling behaviour presumably linked to access to legal gambling (Delfabbro et al., 2009; Edgerton et al., 2015b; Sagoe et al., 2017; Winters et al., 2002). Attitudes towards gambling can become more accepting over this period, leading to continued or increased gambling participation (Pallesen et al., 2016). Youth often transition from informal or simulated gambling to more formal, regulated forms of gambling (Sakata & Jenkinson, 2022; Winters et al., 1995). For example, Winters et al. (1995) found significant increases in gambling frequency in formal gambling (compared to informal and unregulated gambling) at the legal gambling age.

Gambling, particularly in casinos, can become a rite of passage upon reaching the legal gambling age (Kristiansen & Trabjerg, 2017). In Australia, betting on EGMs and casino card games becomes more common at age 18 (Delfabbro et al., 2009). Goudriaan et al. (2009) examined patterns of gambling behaviours amongst college students, identifying clusters of gambling activities and how these behaviours change over time. The study found that many students transitioned from low-level gambling and card gambling to casino slots gambling as they reached the legal gambling age of 21.

A representative study of Australian youth found a threefold increase in gambling participation from age 16-17 (15%) to 18-19 (46%) as the legal gambling age was reached (Sakata & Jenkinson, 2022). In Ireland, a similar national representative study found online gambling participation increased four-fold (from 2.5% to 9.3%) between the ages of 17 and 20 (Duggan & Mohan, 2023). The increase was greater for males, increasing from 4 percent to 16 percent.

The British Gambling prevalence survey found participation in race betting and online betting increased significantly between the ages of 17 and 24, while casino gambling decreased (Hollén et al., 2020).

1.3.1.2. Transitions from gambling to problem gambling

Some young people who commence gambling go on to develop a gambling problem (at-risk or problem gambling). Gambling problems in early adolescence are less common but may persist into adulthood (Delfabbro et al., 2014; Scholes-Balog et al., 2014, 2016; Winters et al., 2005). However, the risk of developing problem gambling appears to peak in late adolescence and early adulthood (Edgerton et al., 2015b; Sagoe et al., 2017; Slutske et al., 2003). For example, in Australia, the prevalence of youth experiencing gambling problems increased from 2 percent to 9 percent from ages 16-17 to 18-19 (Sakata & Jenkinson, 2022). A Norwegian study found that age 18 represented the peak of gambling problems compared to ages 17 or 19 (Sagoe et al., 2017). These findings align with the legal age of gambling in those countries. At around the age of 20, problem gambling behaviours appear to be established, particularly in males (Emond et al., 2022).

For most people, the risk of gambling problems then tends to reduce or stabilise into early adulthood. For example, several trajectory studies found the probability of gambling problems reduced from early to late twenties (Carbonneau et al., 2015a; Edgerton et al., 2015b), while another, examining transitions in males, found that gambling problems increased between 17 and 23 and remained relatively stable until age 28 (Dussault et al., 2016). Many early adults appear to resolve their gambling issues later (Edgerton et al., 2015b; Sagoe et al., 2017; Slutske et al., 2003).

Overall, youth gambling behaviour appears dynamic and includes transitions into and out of harmful gambling over time. Gambling problems tend to be relatively short-lived, with severe issues often limited to a single year (Delfabbro et al., 2014). For example, Slutske et al. (2003) observed that most participants who experienced problem gambling did so for only a single period, with consecutive periods of problems being rare. Another study found their *moderate* group (moderate gambling/high alcohol dependence) to be the most stable (91.1% probability of remaining in the group over four years), while people with high levels of gambling without alcohol dependence were the least stable, often transitioning to the moderate or low gambling groups (Bilevicius et al., 2020).

1.3.1.3. Transitions from simulated to monetary gambling

Simulated gambling may provide a path to monetary gambling and subsequent gambling problems. Simulated gambling is common in adolescents. In NSW, 40.1% engage in simulated gambling games (social casino games, demo or practice games, and digital games with gambling components), and many adolescents have opened (72.2%) or purchased (36.5%) loot boxes (Hing et al., 2021). Engagement in

simulated gambling tends to increase as adolescents become older and simulated gambling is perceived as a regular part of gaming, not linked to gambling (Hing, Lole, Thorne, Sproston, et al., 2023).

Several studies explored transitions from simulated to monetary gambling in adolescents (n=6). An Australian quantitative study examined the relationship between daily video gaming and simulated gambling games on monetary gambling (Sakata & Jenkinson, 2022). Playing simulated gambling games at age 16/17 was linked to monetary gambling on sports, racing and casino games at age 18/19 years. Adolescents who participated in simulated gambling had a 40 percent higher probability of monetary gambling as an adult, compared to adolescents who did not.

A large German longitudinal study found that 12% of adolescents transitioned from simulated gambling to gambling with real money during their one-year study period (Hayer et al., 2018). Playing free gambling games on social networks and high exposure to gambling advertising increased the likelihood of this transition to monetary gambling. The transition was not predicted by their motives for playing simulated gambling games, their level of involvement in simulated gambling, or whether they made small purchases in these games. However, a larger proportion of adolescents (27%) stopped monetary gambling during the period of the study, potentially indicating a high level of variability or experimentation in adolescent gambling participation.

In examining the transition from simulated gambling to real-money gambling among adolescents, Dussault et al. (2017) identified several factors that increased the likelihood of engaging in monetary gambling. Older age, higher impulsivity, more frequent alcohol and cannabis use, and previous experience with simulated gambling games all increased the probability of gambling with real money. Different factors predicted involvement in specific types of gambling activities. For instance, females and older participants were more likely to play scratch games, while males with experience with simulated poker games were likelier to gamble on real poker. Another study using the same data found that the impact of simulated gambling on problem gambling was primarily via indirect effects of gambling frequency, irrational cognitions and problematic gaming (Brosowski et al., 2020).

One study explored the relationship between problematic gaming and problem gambling (Vadlin et al., 2018). Problematic gaming between the ages of 13 to 15 was associated with an almost twofold risk of having gambling problems three years later. However, the relationship was relatively weak, with problematic gaming only explaining a small part of why someone might develop gambling problems. Examining the association between gambling activity and gambling problems, Wardle and Tipping (2023) found that young adults who engage in skin betting experienced a 2.3 times increase in PGSI scores. While the study also examined loot boxes, skin betting appeared to have a more pronounced impact on gambling harm.

An Australian qualitative life course study (Hing, Lole, Thorne, Sproston, et al., 2023) interviewed people who had transitioned to problem gambling about their experience with simulated gambling. Participants reported that using skins from simulated gambling facilitated their transition to monetary gambling. Playing social casino games generated excitement but also developed misconceptions about their chances of winning on monetary gambling. Some transitioned to monetary gambling

for potential financial rewards instead of only virtual prizes. However, most youth who participated in simulated gambling games did not develop gambling problems, indicating that other protective and risk factors may be influential in this transition.

1.3.2. Harm associated with transitions

Young people transitioning into at-risk or problem gambling, by definition, experience associated harm (Langham et al., 2016; Neal et al., 2005). Gambling harm occurs across various life domains, including financial, relational, emotional/psychological, decrements to health, work/study and criminal activity (Langham et al., 2016).

Gambling has been shown to impact work/study in young people. For example, Vitaro et al. (2018) found that gambling participation at age 14 was linked to poorer academic performances at age 17, even after controlling for factors such as impulsivity and adversity. Additionally, Slutske et al. (2022) found that gambling problems in youth predicted subsequent occupational, education and financial problems in adulthood. Additionally, gambling problems can lead to an increased risk of suicide in young adults (Wardle et al., 2023), particularly in females (Feigelman et al., 2006).

Emond et al. (2022) examined a range of negative outcomes at age 24 associated with moderate risk and problem gambling at age 20 (depression, anxiety, self-harm, criminal activity, use of cigarettes, drugs and alcohol, and employment). Regular alcohol use at 24 was associated with prior gambling problems. While depression at 24 was associated with gambling problems at age 20, people without a gambling problem were more likely to have signs of depression/anxiety. Participants categorised as non-problem and low-risk gambling at age 20 were more likely to be employed at 24 than participants who did not gamble.

Overall, the longitudinal studies in this review tend to focus on factors associated with the development of gambling problems, as well as co-occurring mental health issues (like depression and anxiety) and substance use problems. Consequently, little of this research has examined specific harms associated with youth gambling.

1.3.3. Influences on youth gambling

A public health perspective suggests that young people's gambling transitions and the associated harm can be influenced by multi-level risk and protective factors (Hilbrecht et al., 2020). These factors include personal, parental and peer influences, as well as environmental factors such as experiences with simulated gambling, gambling products and gambling advertising. The studies in this review identified a number of risk and protective factors associated with youth gambling or gambling harm longitudinally. These are summarised below.

1.3.3.1. Personal factors

Some personal factors, including demographic and socio-economic factors, psychological factors, comorbidities and gambling behaviours, can place youth at greater risk of gambling and gambling problems.

Demographic and socio-economic factors

Being male has been consistently longitudinally linked to a higher risk of gambling and gambling problems (Allami et al., 2018; G. M. Barnes et al., 1999; Carbonneau et al., 2015b; Dowd et al., 2020; Edgerton et al., 2015b; Hollén et al., 2020; Pisarska & Ostaszewski, 2020; Sagoe et al., 2017; Scholes-Balog et al., 2014, 2016; Temcheff et al., 2016). As previously discussed, age also appears to be a factor, with older adolescents/young adults appearing to be at the greatest risk of gambling problems (Edgerton et al., 2015b; Sagoe et al., 2017). Having lower socioeconomic status is also associated with gambling participation and gambling problems (G. M. Barnes et al., 1999; Slutske et al., 2022). In youth, the availability of money can impact gambling behaviour. For example, Kristiansen et al. (2017) found that participants with a greater amount of disposable income were more likely to engage in gambling activities. At the same time, those facing financial constraints tended to reduce their gambling involvement.

Psychological and biological factors

A common and highly researched psychological predictor of youth gambling and gambling problems is impulsivity (Auger et al., 2010; G. M. Barnes et al., 1999; Dussault et al., 2011; Edgerton et al., 2015b; Liu et al., 2013; Shenassa et al., 2012; Frank Vitaro et al., 1999, 2004). Impulsivity at a very young age has been associated with increased gambling involvement in adolescence (Pagani et al., 2009; Slutske et al., 2012; Frank Vitaro & Wanner, 2011). One study followed early adolescent males across two impulsivity trajectories (high and low), finding that those in the high impulsivity group were nearly three times more likely to develop gambling problems (Liu et al., 2013). Similarly, sensation-seeking has been shown to predict regular gambling participation (Hollén et al., 2020; Pisarska & Ostaszewski, 2020) and gambling problems (Emond et al., 2022) in youth. However, a longitudinal study of sensation-seeking and gambling in Puerto Rican youth found that individuals with high sensation-seeking were less likely to gamble compared to those with average levels (Levy et al., 2020).

Youth gambling is also associated with delinquent or antisocial behaviour (G. M. Barnes et al., 1999; Pisarska & Ostaszewski, 2020; Scholes-Balog et al., 2014), conduct problems (Emond et al., 2022; Temcheff et al., 2016) moral disengagement (G. M. Barnes et al., 1999), low-self-control in childhood (Slutske et al., 2022), lower behavioural constraint in late adolescence (Slutske et al., 2005), and escape-avoidance coping styles (Edgerton 2015). Personality traits of agreeableness and high neuroticism in adolescence also predict later gambling problems (Spychala et al., 2022).

Allami et al. (2017) examined the developmental Pathways Model in relation to problem gambling in adolescents and emerging adults. The study identified four profiles. The behaviourally conditioned (58%) group tend to start gambling for excitement and social reasons, often with fewer problems and quitting as adults; emotionally vulnerable (17%) youth exhibit higher levels of depression and anxiety linked to their gambling; and biologically vulnerable (20%) youth have higher levels of impulsivity, hyperactivity and drug problems in early adolescence. The final group was a combination of biologically and emotionally vulnerable (5%) youth. These pathways were not associated with any age difference in starting to gamble, nor any difference in gambling problems at age 16. However, by age 23, those in the

biologically vulnerable group were more likely to have gambling problems than the behaviourally conditioned group. Gambling problems for people in the biologically vulnerable group appeared more likely to persist, while those in the emotionally vulnerable and behaviourally conditioned groups tended to resolve gambling problems in early adulthood.

Dowd et al. (2020) also examined the Pathways Model in early adulthood, identifying three groups: non-problem (low scores on impulsiveness, alcohol dependence, drug use and psychiatric disorders), emotionally vulnerable (likely to report drug use and anxiety diagnosis), and impulsive (high impulsivity and alcohol dependence). Participants in the non-problem group tended to remain in that group; those classified as emotionally vulnerable were likely to transition into non-problem gambling. Participants categorised in the impulsive gambling group were most likely to transition into either emotionally vulnerable or non-problem gambling, with only around 12% continuing in the impulsive group over the 2 years of the study.

In another study, Allami et al. (2018) examined at-risk profiles for problem gambling. The study identified four distinct profiles of participants based on their personality-based risk factors: internalising (high depression and anxiety scores), externalising (high antisociality, aggression and impulsivity scores, and co-morbid drug/alcohol use), comorbid (high levels of all risk factors) and well-adjusted (low scores on all risk factors). At ages 16 and 23, the externalising and comorbid profiles reported significantly more gambling problems compared to the well-adjusted profile.

Similarly, Richard et al. (2022) found that gambling participation was more strongly predicted by externalising problems, such as aggressive and antisocial behaviours and conduct problems, than internalising problems, such as depression and anxiety. Anxiety has been identified as being protective against gambling problems (Frank Vitaro et al., 2004), and another study found no longitudinal relationship between problem gambling and anxiety (Scholes-Balog et al., 2015). However, anxiety has been associated with gambling alone and spending more time gambling (Bristow et al., 2018), which may lead to harm.

Symptoms of depression and negative emotions may be a factor for risky and problem gambling (Sagoe et al., 2017; Slutske et al., 2005). Dussault et al. (2016) identified a common joint trajectory of gambling problems and depressive symptoms, with most young males experiencing high levels of gambling problems also showing high depressive symptoms. Another study found that males with depressive symptoms in early adolescence had four times the risk of problem gambling compared to non-gambling or social gambling (Lee et al., 2011). There is some evidence to indicate that this might be a bi-directional relationship (Dussault et al., 2011). However, other studies have found no longitudinal relationship between problem gambling and depression in youth (Chinneck et al., 2016; Edgerton et al., 2018; Scholes-Balog et al., 2015), indicating that this co-occurrence may be due to an underlying factor.

Alcohol or drug use has been commonly found to predict risky gambling (Bilevicius et al., 2020; Carbonneau et al., 2015a; Edgerton et al., 2015a; Emond et al., 2022; Goudriaan et al., 2009; Ladouceur et al., 2001; Merkouris et al., 2021; Sakata & Jenkinson, 2022; Scholes-Balog et al., 2014, 2015) with lower alcohol dependence being protective (Edgerton et al., 2015a). For example, Carbonneau et al. (2015a) found that individuals with high involvement with gambling were more likely to report

drug and alcohol misuse. However, June et al. (2021) identified alcohol use and heavy drinking to be associated with increased risk of participation in gambling in emerging adults, but not problem gambling.

More general factors associated with gambling participation and problems include lower IQ intelligence in childhood (Hollén et al., 2020; Slutske et al., 2022), learning difficulties (McNamara & Willoughby, 2010), poor school performance (Fröberg et al., 2015; Scholes-Balog et al., 2014; Winters et al., 2002) and ADHD and hyperactivity (Breyer et al., 2009) (Emond et al., 2022). Protective factors include good problem-solving skills (Slecicka et al., 2018).

Gambling behaviour

Transition-focused research has identified that some groups have a higher risk of developing gambling problems, particularly those with a high level of gambling involvement (Carbonneau et al., 2015b; Frank Vitaro et al., 2004). Conversely and unsurprisingly, low gambling involvement can be protective against gambling problems (Frank Vitaro et al., 2004). Gambling problems are also predicted by prior at-risk gambling (Wanner et al., 2009; Winters et al., 2002) and participation in multiple types of gambling (Carbonneau et al., 2015b). For instance, in college students, more frequent engagement with a wide range of gambling activities is associated with the development of gambling problems (Goudriaan et al., 2009). Additionally, experiencing a large win when young is associated with later gambling problems (Delfabbro et al., 2014).

1.3.3.2. Social factors

Social factors, such as parents/family and peers, are highly influential on youth gambling and youth gambling harm. Parental gambling habits and attitudes towards gambling can impact youth behaviour. A qualitative life course study (Hing et al., 2024a) showed that young people often have their first experiences of gambling and learn to gamble through their parents. These early experiences shape children's attitudes toward gambling.

Longitudinal studies find that a major risk factor for gambling is having parents who gamble or have gambling problems (Hing et al., 2024a; Hollén et al., 2020; Kristiansen et al., 2017; Kristiansen & Trabjerg, 2017; Sakata & Jenkinson, 2022; Winters et al., 2002). However, some studies indicate a cross-gendered relationship. For instance, Forrest and McHale (2021) found the mother's gambling problem (when the child was 6) predicted problem gambling in male children (at age 20) and the father's gambling problem similarly predicting problem gambling in female children. Similarly, problem gambling at age 20 has been associated with only the mother's problem gambling (Emond et al., 2022).

Parental supervision behaviours are also associated with youth gambling, with lower levels of parental monitoring associated with an increased risk of problem gambling (Emond et al., 2022; Lee et al., 2014). For example, declining levels of parental monitoring from ages 11 through 14 have been associated with greater odds of problem gambling between ages 16 and 22 (Lee et al., 2014). Parental supervision around simulated gambling activities within games tends to be low (Hing, Lole, Thorne, Sproston, et al., 2023), which may increase the risk associated with this pastime.

Other familial risk factors include family conflict (Scholes-Balog et al., 2014) and lower levels of parental education (Hollén et al., 2020; McNamara & Willoughby, 2010).

Protective factors tend to be the opposite of the above. These include higher levels of parental monitoring (G. M. Barnes et al., 1999; Lee et al., 2014), encouragement of prosocial behaviours (Scholes-Balog et al., 2014), having a good relationship with parents (Pisarska & Ostaszewski, 2020), and shared family values (Sleczka et al., 2018). For instance, higher levels of parental involvement at age 16 have been identified as a protective factor for gambling problems at age 23 (Allami et al., 2018).

Qualitative longitudinal and life-course research finds that peer groups and social networks also play a significant role in shaping gambling habits. Gambling with friends tends to start with informal bets (Hing et al., 2024a). Peer influence becomes increasingly important in later adolescence and early adulthood, and gambling is used to bond and practise gambling skills (Hing et al., 2024a). Changes in social circles lead to increased or decreased gambling participation as individuals adopt the behaviours of their peers (Kristiansen et al., 2017; Kristiansen & Trabjerg, 2017). Significant life events, such as changing schools or entering new social environments, can also lead to shifts in gambling behaviour (Kristiansen et al., 2017; Kristiansen & Trabjerg, 2017). These transitions often bring new social dynamics and opportunities that can affect gambling patterns.

Quantitative longitudinal studies have placed less emphasis on peer influence than parental influence. Studies that have examined the links quantitatively have found that spending time with delinquent peers increases the likelihood of gambling (G. M. Barnes et al., 1999), as does gang involvement (Bellringer et al., 2022).

Protective peer factors include higher levels of peer conformity and peer connectedness at age 16, which are linked to fewer gambling problems at age 23 (Allami et al., 2018). Involvement in meaningful activities (Pisarska & Ostaszewski, 2020) and civic activism (Scholes-Balog et al., 2016) have also been identified as protective.

Specific religious upbringings also appear to be protective against gambling participation in young adults (Uecker & Stokes, 2015). However, in those who do gamble, regular attendance of religious services (up to three times a month) during adolescence was associated with an increased risk of gambling problems later (Uecker & Stokes, 2015).

1.3.3.3. Environmental factors

Longitudinal and life course studies, primarily qualitative studies, have identified several environmental factors associated with youth gambling.

One key factor in youth gambling is having opportunities to gamble, with accessibility a factor in the onset and maintenance of youth gambling (Botella-Guijarro et al., 2020). The availability of gambling options, both online platforms and venues, significantly affects how often and in what ways young people gamble. For example, increased access can lead to high participation rates and lack of access is associated with decreases in gambling involvement (Kristiansen et al., 2017; Kristiansen & Trabjerg, 2017). Similarly, technology such as smartphones and gambling apps make gambling more accessible, leading to increased frequency of

gambling and difficulties in controlling spending (Kristiansen et al., 2017; Kristiansen & Trabjerg, 2017).

Higher social media use has also been associated with gambling problems in young adults (Emond et al., 2022), as has higher television viewing times (McAnally et al., 2022). These results may be due to the exposure to media and advertisements, particularly online and in social media (Hing et al., 2024a). High levels of exposure to gambling advertising are associated with an increased risk of transitioning from simulated gambling to real money gambling (Hayer et al., 2018). Overall, however, there is little longitudinal evidence of the effects of gambling advertising on youth gambling and gambling problems.

Shifts in personal interests, such as a newfound focus on sports or other hobbies, can also influence gambling behaviour. For instance, individuals may transition to sports betting if they become more involved in sports (Kristiansen et al., 2017; Kristiansen & Trabjerg, 2017). For youth interested in sports, participation in football tipping competitions and informal bets with friends and family are common from early adolescence (Hing et al., 2024a). This is because sports and gambling are highly interconnected in some countries, including Australia (Seal et al., 2022). A 'dose-response' association has been identified between participation in team sports and gambling engagement (Duggan & Mohan, 2023), with a longer period of association with team sports during adolescence associated with a higher likelihood of gambling engagement at 20 years old.

1.4. Summary and gaps in knowledge

Longitudinal research provides insights into patterns of youth gambling, such as stable trajectories of non-gambling, consistent gambling over time, and progression into harmful gambling. This body of research also identifies numerous personal and parental risk and protective factors associated with these patterns.

However, there are gaps in understanding specific transitions from non-gambling to gambling, and from gambling to problem gambling, including those that involve engagement in simulated gambling and problematic gaming.

Further, there is little longitudinal evidence about risk and protective factors relating to social influences (e.g., peers), and environmental influences (e.g., advertising, simulated gambling), probably due to the difficulties of operationalising these factors in survey research. Longitudinal research has also not measured specific harms from gambling but has instead focused on problem gambling scores or categories.

No prior longitudinal gambling research has been conducted with young people in NSW. Further, no prior research in NSW has examined youth gambling transitions when young people reach the critical milestone of 18 years of age and can legally gamble.

This NSW Longitudinal Youth Gambling Study helps to address these gaps in relation to young people in NSW through the research questions below.

1.5. Research questions

1. What is the nature and extent of youth gambling transitions?

These may include, but are not limited to:

- o a transition from non-gambling to gambling
- o a transition from gambling to problem gambling
- o a transition from simulated gambling to monetary gambling
- o a transition from simulated gambling to at-risk and problem gambling
- o a transition from problematic gaming to problematic gambling

2. What harm is associated with these transitions?

3. What are the protective and risk factors that impact these transitions and associated harm?

These include personal, parental, peer and environmental factors.

Chapter 2. Methods

Key points

Quantitative study

- This study involved 239 participants who responded to both a Wave 1 survey in 2020 when aged 12-17 years, and a Wave 2 survey in 2024 when most were aged 16-21 years.
- Notably, 62.3% of participants were male, so the quantitative results reflect predominantly male experiences.
- Descriptive analyses identified gambling transitions over this period.
- Three separate logistic regression models examined the factors associated with monetary gambling, at-risk/problem gambling, and gambling harm status in 2024. These factors were monetary gambling, at-risk/problem gambling, simulated gambling, and problematic gaming in 2020, as well as selected demographic, parental, peer, and environmental factors.

Qualitative study

- This study interviewed 50 people in NSW aged 18-23 years to explore gambling transitions once young people reach the legal gambling age of 18.
- The sample comprised 20 participants reporting at-risk/problem gambling when recruited, 15 reporting non-problem gambling, and 15 in the non-gambling category.
- Notably, 64.0% of participants were male, so the qualitative results reflect predominantly male experiences.
- The interviews collected narrative accounts of their gambling experiences and influences during childhood, adolescence, and early adulthood and were analysed using thematic narrative analysis.

2.1. Introduction

This chapter explains the methods for the two empirical stages of the study – the quantitative longitudinal study and the qualitative interview stage. Approval for the study was obtained from the CQU Human Research Ethics Committee (#24880).

2.2. Quantitative longitudinal study

2.2.1. Important considerations about representativeness

The Wave 1 study obtained three survey samples (see Hing et al., 2020). Only the letterbox drop sample was used to estimate prevalence in 2020. This is because the recruitment method (placing flyers into letterboxes across NSW) potentially allowed for almost all young people in NSW to take part. For the Wave 2 survey, the participants were not drawn only from this letterbox drop sample, but also from the other two non-representative samples obtained in 2020 (i.e., recruited via Qualtrics and from emails to previous research participants and advertisements on social media). Therefore, the survey results reported in the current report should not be

treated as representative, because they are drawn from non-representative samples. These results instead reflect changes amongst those who took part in the 2020 survey and who also opted to take part in the 2024 follow-up survey. The introduction of self-selection bias further reduces representativeness.

2.2.2. Recruitment, participants and procedure

The study involved participants who responded to both a Wave 1 survey in 2020 when aged 12-17 years, and a Wave 2 survey in 2024 when most were aged 16-21 years.

Participants were invited to the 2024 (Wave 2) survey if they had taken part in the original NSW Youth Gambling survey in 2020 (Wave 1), had consented to be contacted, and had provided contact details (email address or phone number). Please see Hing et al. (2020) for the consent procedures for the Wave 1 survey. People under 18 were asked to confirm they had permission from their parent/guardian to take part in the Wave 2 survey. The survey contained an informed consent preamble and was conducted online on the Qualtrics survey platform.

We conducted an initial soft launch with 99 participants on 7th July 2024, followed by invitations to the remaining 1,384 valid email addresses or phone numbers on 8th July 2024. All participants were invited via email, and the 411 participants who provided their mobile phone number were also invited by SMS. Of the 1,483 emails sent, 335 emails bounced. Reminders were sent on 17th July and 25th July 2024.

The Wave 2 survey received a total of 452 responses. Participants were excluded if they did not indicate informed consent ($n = 2$), indicated an age outside of the age range ($n = 36$), or started but did not complete the survey ($n = 20$). A wide range of data quality checks were employed, incorporating checks for potential duplicates, potential bots (i.e., automated responses), or other measures that indicated that participants were not paying attention to survey measures (e.g., inconsistent responses, very fast survey completion, indication of inappropriate straightlining – i.e., selecting the same response down a matrix table), in line with standard survey data quality practices. All check measures were considered before exclusions were made. A total of 155 responses were excluded due to one or more of these measures. The final sample size for analysis was 239 participants.

All Wave 2 participants who completed the survey received a \$40 Prezzee voucher that can be redeemed with over 300 brands but cannot be exchanged for cash.

2.2.3. Survey measures

To facilitate comparisons between waves, questions in the Wave 2 survey were generally identical to the Wave 1 survey, although we made some changes to accommodate that some participants were now aged 18 years or older (e.g., expanding the response options for location of private betting to include university). We removed some questions because they were not considered relevant to the whole sample (e.g., parental permission around devices in bedrooms), or because they had provided limited information in the Wave 1 analyses. All changes were made in consultation with the NSW Office of Responsible Gambling (ORG) and the ORG engaged a peer reviewer to review the methodology and research instruments. The Wave 1 survey was also conducted in consultation with the ORG and underwent

cognitive testing with the target population to ensure that questions were appropriate and understandable. Appendix B contains the 2024 Wave 2 survey instrument.

Several outcome (dependent) variables were measured in Wave 1 and Wave 2. These included participation in gambling, problem gambling severity, participation in simulated gambling, and problematic gaming. Gambling-related harm was also measured in Wave 2. Where possible, validated measures were used, for example to measure problem gambling severity, problematic gaming, gambling-related harm, and impulsiveness. Validated measures do not exist for many variables measured or were too lengthy. The Wave 1 survey therefore drew on measures used in previous youth surveys where possible, particularly youth gambling and gaming surveys. These measures were generally replicated in Wave 2.

2.2.3.1. Demographics

Participants were asked their age, gender, residential postcode, main language spoken at home, Aboriginal or Torres Strait Islander status (only in 2020), parents' living situation, whether the participant started living independently in the last four years, marital status, own living situation, work status, and highest level of education.

2.2.3.2. Gambling

Gambling behaviour. Questions about monetary gambling were based on the 2019 youth gambling survey conducted by the UK Gambling Commission (UKGC; 2019), with the forms of gambling based on the NSW Gambling Survey 2019 (Browne et al., 2019). Participants were asked: when they had last engaged in each of 11 gambling activities for money: pokies, race betting, scratchies/lotteries, keno, bingo, poker, casino games, sports betting, esports betting, fantasy sports betting, and informal private betting; and which they participated in most frequently and how often. Participants were also asked how old they were when they first participated in each activity, and whether they mostly played each form in venues, online, or both. For informal private betting, response options included a range of potential locations (home, schools, etc.). Participants were asked how much money they had spent during the last 12 months on each activity, and their sources of money for gambling. They were asked to indicate who they usually gambled with; if they had tried to gamble for real money and been stopped because they were too young; and if and how they had gained access to an online gambling account.

Attitudes about gambling. Adapted from Canale et al. (2016), participants were asked how much they approved or disapproved of people who gambled once a week or more often, and people who gambled less often than once a week. They were also asked how much they thought people risked harming themselves if they gambled once a week or more often, and less often than once a week.

Problematic gambling. Problematic gambling was assessed using the DSM-IV-MR-J (Fisher, 2000). This scale has been validated amongst youth. It consists of nine questions. Participants who endorsed 4 or more items were classified as experiencing problem gambling, 2 to 3 items were classified as at-risk, and 0 to 1 item as not experiencing problems. A slight adjustment was made to DSM8a. "School dinner money or fare money" was changed to "Lunch, dinner or fare money" as this was considered more appropriate to the age group in Wave 2. DSM8a,

DSM8b and DSM8c are scored as 1 item (one point for Yes to any of these 3 items), so a Yes or No to DSM8a has marginal impact, depending on responses to the other 2 items. For DSM9b, we adapted “missing school, TAFE or work” to “missing school, university, TAFE or work.” We note that the DSM-IV-MR-J was not developed with those aged 18 as the target, but we repeat its use in Wave 2 for consistency, because the study is most focused on transitions. The transition data may be impacted by this issue.

Gambling harm. Gambling harm was measured using the Gambling Harms Scale 20 (GHS-20; Browne, Newall et al., 2023). This scale consists of 20 items relating to harm-to-self experienced from gambling in the last 12 months, such as ‘sold personal items’ or ‘spent less time with people I care about’. Participants indicate no or yes for each item, and the number of ‘yes’ responses is summed for a score between 0 and 20. Cronbach’s alpha for this scale was .91.

Childhood exposure to gambling. Questions were asked about gambling by adults in their household when the participant was growing up. These included how often these adults gambled, how often the participant was present when they gambled, how often they participated in gambling with these adults, and if any adults in their household experienced gambling problems when they were growing up (no, minor, moderate or serious gambling problems).

Parental approval of gambling. This was assessed via a single question (Leeman et al., 2014), which asked how the participant thought their parents/guardians would feel if they gambled, even once or twice in the next year. Participants were also asked about rules that their parents set for gambling (adapted from the UKGC, 2019).

Peer gambling. This was assessed by asking participants if none, some, or most of their friends gamble, and participants could also report that they did not know (Dowling et al., 2010). Participants were also asked if their friends approved of someone their age gambling, and whether they had any close friends who strongly approved of gambling (Wickwire et al., 2007). New in 2024, participants who reported having a partner were asked about their partner’s gambling behaviour and approval of gambling.

Peer belonging. This was assessed by asking how strongly the participant felt that they belonged to a friendship group, and to an online community (Savolainen et al., 2019).

Exposure and attitudes to gambling advertising. Participants were asked how often they had noticed gambling advertising during the last 12 months in each of eight forms of media (adapted from the UKGC, 2019). They were asked how strongly they agreed with eight statements about gambling advertising (e.g., ‘I am more likely to gamble after seeing a gambling advertisement’). These items were based on Hanss et al. (2015), with additional items suggested by the ORG.

2.2.3.3. Simulated gambling

Simulated gambling behaviour. Most of these items were adapted from the UKGC (2019). Participants were asked about their frequency of playing games with gambling components (video games with ‘mini’ gambling components, gambling-themed apps from an app store, free demo or practice games on real gambling

websites, and games with gambling components on social networking websites). They were also asked which gambling components they had played in games (e.g., wheel spinning, pokies). All participants who had played these games were asked how old they were when they first did so; where they played them; and hours per week/month they spent playing these games.

Loot boxes. Participants were asked when, if ever, they last obtained a loot box: for free during a game, paid for with real money, and paid for with virtual currency; and how old they were when they first opened a loot box. Participants who had purchased loot boxes were asked how much they spent on loot boxes in a typical month; and how much they spent on other in-game items through microtransactions (adapted from Rockloff et al., 2020).

Betting with in-game items. Questions in this section were adapted from the UKGC (2019). Participants were asked when they had last used in-game items for: betting on esports, betting on other sports or events, betting on another site (skin betting), or betting privately with friends. Participants who had bet using in-game items were asked how old they were when they first did so.

2.2.3.4. Other gaming

Participation. Participants were asked when they had last done each of five activities related to gaming: played a video game other than an esports, played a video game that is an esports, watched esports events, competed in professional esports competitions, and entered a free fantasy sports or daily fantasy sports competition (Russell et al., 2020). They were asked how many hours per week (or month) they usually spent on gaming.

Problematic gaming. This was measured with the Internet Gaming Disorder Scale (Petry et al., 2014), which consists of nine items (e.g., 'did you spend a lot of time thinking about games even when you were not playing, or planning when you could play next?'). The scale asks about gaming in the last 12 months, with no/yes response options. The survey instructions noted that the questions referred to all types of gaming, not just games with gambling components. A score of 5 or more indicates problematic gaming, as long as one of the endorsed items is the last item: 'did you risk or lose significant relationships, or job, educational or career opportunities because of gaming?'.

2.2.3.5. Access to devices

Participants were asked about their access to a desktop computer, laptop computer, smartphone, games console, and tablet in their household. Based on Smith et al. (2015), participants were asked whether their parents had talked to them about online safety, and any rules and limits parents set for their online media use.

2.2.3.6. Psychological characteristics

Wellbeing was captured using the single item from the Personal Wellbeing Index – School Children, which has been validated with young people (Cummins & Lau, 2005). This item asks people to rate how happy they are with their life as a whole (0 = very sad to 10 = very happy).

Impulsiveness was captured with the Barratt Impulsiveness Scale – Brief (Steinberg et al., 2013). The longer form of this scale has been validated amongst youth. The short form was used here to reduce survey length. The BIS-Brief consists of eight items (e.g., ‘I plan tasks carefully’ and ‘I do things without thinking’). Appropriate items are reverse-coded, and items are summed for a total score on a continuous scale.

2.2.4. Analysis

2.2.4.1. Descriptive analyses

The descriptive analyses present the 2020 and 2024 results for the 239 participants who took part in both Wave 1 and Wave 2. We did not conduct statistical comparisons between surveys due to the large number of measures and the high risk of Type I errors, however inferential statistics are included in Tables 3.3 to 3.5 for key measures. Instead, descriptions of patterns over time are based on observable trends in the figures and graphs presented. Descriptions of these trends should not be interpreted as statistically significant results. For the gambling variables, the 2024 results are presented separately for participants under 18 and over 18 years, because different patterns might be expected between those below or above the legal gambling age. These age distinctions are not made for the simulated gambling variables because no age restrictions apply to this activity. In 2020, all participants were under 18 years, so no age distinctions are made for the Wave 1 results. Colour coding is used in the figures and text to distinguish the 2020 and 2024 results. Legends are shown in greyscale, to allow interpretation across both blue (2020) and orange (2024) colours in figures.

Sankey diagrams are included in the descriptive results to indicate flows between gambling states from 2020 to 2024 (no gambling, monetary gambling, at-risk/problem gambling, simulated gambling and problematic gaming). Unlike the longitudinal analysis, explained below, these diagrams are based on non-exclusive gambling categories, and the results therefore differ to when exclusive categories are considered later. A description of how to interpret these figures is shown above the first one, Figure 3.1.

2.2.4.2. Longitudinal analyses

The results include longitudinal analyses, where p-values are used. Key transitions between gambling states were examined to develop an understanding of factors that predict increases in gambling involvement and experiencing gambling problems. Our approach recognised an important consideration of the overlap between some of the categories of interest. For instance, youth who play simulated gambling games may also gamble with money. Consequently, in considering categorical transitions, we used the following exclusive categories, measured within the last 12 months:

- No gambling (including no simulated gambling)
- Problematic *gaming* (but no gambling)
- Simulated gambling (but no monetary gambling)
- Monetary gambling (including simulated gambling but without at-risk/problem gambling), and
- At-risk and problem gambling (combined).

Using these exclusive categories allowed us to unambiguously examine the specific transitions of interest in the longitudinal analysis, based on the Research Objectives specified by the Office of Responsible Gambling.

The analysis plan focused on detecting non-random transitions in gambling states from 2020 to 2024. For modelling, variables measured at both time points (Table 2.1) were represented as binary categories. Other research questions involved considering individual differences as potential risk factors, also detailed in Table 2.1. Finally, we wished to consider whether or not individual differences risk factors moderated the transition probabilities in the categorical behaviour variables. These questions can all be addressed wholistically using a logistic regression framework, with the binary 2024 behavioural outcome categories representing the dependent variables, and the sets of the binary 2020 behavioural predictor variables and 2020 risk factor variables (co-variables) representing the independent variables. Interaction terms between the individual differences and the binary behavioural predictor variables capture these potential moderating effects.

Table 2.1. Behavioural outcomes, behavioural predictors and covariates included in the risk factor models

Behavioural outcomes (2024)	Behavioural predictors (2020)	Covariates (2020)
Monetary gambling	Monetary gambling	Age
At-risk/problem gambling	At-risk/problem gambling	Gender
Gambling harm	Simulated gambling	Aboriginal and/or Torres Strait Islander
	Problematic gaming	Main language spoken at home
		Wellbeing
		Impulsivity
		Attitudes to gambling
		Parental approval of gambling
		Parental rules for gambling
		Exposure to adults' gambling
		Proportion of friends who gamble
		Friends' approval of gambling
		Belonging to a friendship group
		Belonging to an online community
		Exposure to gambling ads
		Attitudes towards gambling ads

Gambling harm was not measured in Wave 1, leading to four individual behaviour categories (monetary gambling, at-risk gambling, simulated gambling and problematic gaming). The analyses involved a total of 16 potential moderators, and a full model specification including both main effects and interactions involving 80 potential degrees of freedom for each model. A total of 239 cases were available for analysis, with the number of non-zero observations for each DV ranging between 33 (for at-risk/problem gambling in 2024) and 133 (for monetary gambling in 2024). Only 17 individuals were positively classified for problematic gaming status in 2024, and therefore this variable was not analysed further as an outcome variable. For the

remaining DVs, this represents a problematic ratio of information in the dataset to support the models, with a fully specified model being severely underfit. Accordingly, we conducted a forward stepwise variable selection procedure, with both main effects and interactions retained in the model if they reduced the Akaike Information Criteria. This ensured that all variables could be considered as predictors, such as simulated gambling and problematic gaming in 2020, but most were not present in the final models because they did not explain sufficient information in the models.

The stepwise exploratory approach ensures numerical stability and provides for the ability to explore interactions for non-negligible effects. However, as it considers all potential variables for inclusion, it does not prevent inflated Type I (false positive) errors. This inflation arises from multiple comparisons arising from the exploratory nature of the technique operating on 4×15 interactions + 4 + 15 main effects = 79 possible effects. Accordingly, we draw firm inference only from Bonferroni corrected p -values based on a $p < .05$ threshold. More efficient methods for correction are available, but these rely on explicit calculation of p -values for each coefficient, which is not possible in this case. Given the Bonferroni method is a maximally conservative approach, we also make tentative inference from a reduced $p < .01$ threshold. Exact p -values are reported.

2.3. Qualitative interview study

2.3.1. Rationale

The study conducted qualitative interviews with young people in order to 1) provide additional insights into youth gambling transitions; and 2) serve as a back-up in case the Wave 2 survey had poor recruitment.

The NSW Youth Gambling Qualitative Study 2022 (Hing, Lole, Thorne, Rockloff et al., 2023) conducted qualitative research with adolescents in NSW, exploring gambling transitions as these young people grew up. However, the oldest participants were aged 17 at the time, so the study was not able to examine their gambling transitions once they reached the legal gambling age of 18 years when changes are most likely to occur.

We therefore considered that the best way to supplement the current study was to interview young adults to provide new insights into gambling transitions once young people reach the legal gambling age and enter early adulthood. No previous qualitative studies have examined gambling transitions when young people in NSW turn 18. This detailed knowledge is particularly important given that the NSW Gambling Survey 2019 (Browne et al., 2019) indicated that young people aged 18-24 years who gamble have over double the rate of moderate risk/problem gambling (14.9%) compared with NSW gamblers overall (7.2%).

The interviews with participants aged 18+ therefore aimed to provide unique insights into the personal, parental, peer and environmental influences on gambling transitions experienced by the highest-risk age group in NSW for gambling problems.

2.3.2. Sample design

We recruited interviewees by gambling risk group rather than by gambling transitions because these transitions are not mutually exclusive. For example, a participant might engage in both gambling and simulated gambling when younger and then have transitioned to problem gambling in early adulthood.

The targeted interview sample was $N = 50$, with approximately 20 in the at-risk/problem gambling category, 15 in the non-problem gambling category, and 15 in the non-gambling category (with variation in each group by age and gender, as well as problematic gaming where possible as measured by the IGD). The targeted sample size of 50 is comparable to previous qualitative analyses of youth gambling transitions (Hing, Lole, Thorne, Rockloff et al., 2023; Hing et al., in press; Kristiansen et al., 2015; Reith & Dobbie, 2011).

2.3.3. Participant recruitment

Our original plan was to recruit interview participants from the 2024 Wave 2 survey. Of the 239 participants in the Wave 2 survey, 181 were 18 years or over and therefore potentially eligible for an interview. A question at the end of the survey invited these participants to indicate their interest in participating in an interview. Of those, 101 (55.8%) agreed to be considered for a follow-up interview. However, converting this willingness to a completed interview was more difficult than expected, even though we offered a \$80 Prezzy gift voucher per interview.

In a first round of recruitment, we invited 60 of the 'willing' and eligible Wave 2 participants to participate in an interview, selected based on their 2024 DSM-IV-MRJ scores in the survey. This included all in the problem ($n = 12$) and at-risk ($n = 5$) gambling categories. We also invited a sub-sample of those reporting non-problem gambling ($n = 27$) and non-gambling ($n = 16$), selected to obtain a diverse sample by age and gender. None of the interviewees indicated problematic *gaming*, as measured by the IGD. After a low take-up (18 interview appointments yielding 15 completed interviews), we conducted a second round of recruitment that invited a further 31 participants: 14 reporting non-problem gambling and 17 reporting non-gambling. In total, 30 interview participants were recruited from the participants to the 2024 Wave 2 survey. Only one recruit was in the problem gambling category and none in the at-risk gambling category.

With permission from the funding agency, we therefore engaged a recruitment agency (Market Metrics Data Collection) to recruit 20 participants reporting at-risk/problem gambling from the broader NSW population. Inclusion criteria matched those for participants from the Wave 2 survey: aged 18-23 years and residing in NSW, as well as screening for at-risk or problem gambling.

Table 2.2 shows the final number of interviewees by gambling risk status and recruitment source. The sample met the recruitment targets. All participants were provided with an information sheet and informed consent preamble as part of the recruitment process.

Table 2.2. Interview sample by gambling risk status and recruitment source

Source	Non-gambling	Non-problem gambling	At-risk gambling	Problem gambling	Total
2024 Wave 2 survey participants	14	15	0	1	30
Recruitment agency*	1	0	12	7	20
<i>Total</i>	<i>15</i>	<i>15</i>	<i>12</i>	<i>8</i>	<i>50</i>

*Although recruited as experiencing at-risk gambling, one participant was reassigned to the non-gambling group based on his interview as he had not done any monetary gambling.

2.3.4. Interview administration

Two members of the research team conducted the semi-structured interviews on Zoom (with a no video option if a participant preferred). Each interview lasted 40-60 minutes. They were auto-transcribed using the Zoom auto-transcribe function, checked for accuracy by the interviewer, corrected if needed, and anonymised. Participants were asked to confirm their consent at the start of the interview and to confirm on completing the interview that their transcript could be included in the analysis. None of the interviewees withdrew their consent at either stage.

2.3.5. Interview guide and approach

Appendix C contains the interview guide. The interviews collected narrative accounts of each participant's gambling and simulated gambling experiences over time, as well as key influences on their engagement in these activities. The interviews covered the participants' formative years of childhood and adolescence, the critical milestone of reaching the legal gambling age of 18, and during early adulthood.

This narrative qualitative approach was considered appropriate to elicit detailed chronicled accounts based on participants' lived experience as they have grown up. The life history method we used aimed to capture gambling transitions, along with key influences, developments and outcomes, by linking participants' experiences to their dynamic personal, parental, peer and broader environments (Silva & Padilha, 2013). This approach informed the study's research questions by allowing us to explore the interrelationships between diverse experiences, changes over time, and complex influential factors and processes (Haglund, 2004). We have effectively used this approach in prior qualitative gambling studies with young people in NSW (Hing, Lole, Thorne, Rockloff et al., 2023) and Victoria (Hing et al., in press).

2.3.6. Interview analysis

The lead researcher analysed the interview transcripts using thematic narrative analysis, which embeds prominent themes extracted from narrative accounts within the broader sequence of events (Nuske & Hing, 2013; Riessman, 2008; Rodriguez, 2016). This analytic approach has been used to effectively explore gambling transitions to reveal social learning processes, motivations, meanings, and the lived experience of participants, and to consider changes in gambling behaviour within the broader context of people's lives (Hing et al., Hing, Lole, Thorne, Rockloff et al., 2023; Kristiansen et al., 2015, 2017; Reith & Dobbie, 2011, 2013a, 2013b). It was therefore highly suited to this study, which also focused on transitions, and dynamic and interacting influences over time, in young people's gambling behaviour.

Based on the participants' life histories, we first composed a temporal sequence reflecting developmental stages and transitions in participants' gambling and simulated gambling. Second, inductive thematic analysis drew out shared and contrasting elements across the narratives that pertained to key influences on their gambling, simulated gambling and any related harm. These include personal, parental, peer, and environmental factors such as gambling products and gambling advertising, and other sources of influence that participants identified.

The thematic analysis commenced with open coding to identify all initial features of potential relevance to the research questions. An iterative process was used to add new codes, modify existing codes, and recode data as appropriate. Themes were then generated by clustering or collapsing codes that share a unifying feature, to capture meaningful patterns in the data that are relevant to the research questions. This process was initially conducted separately for each gambling risk group (at-risk/problem gambling combined, non-problem gambling and non-gambling), before the write-up combined the findings to draw out contrasting elements. Factors that enhanced credibility included gathering data directly from participants with lived experience, adherence to standard thematic analysis methods, having the interviewers review the draft analysis, and including participants' quotes to illustrate the findings (Braun & Clark, 2021). It is important to note, however, that this methodology is necessarily subjective in nature, since the findings are shaped by how the participants interpret and share their experiences and how the researchers interpret the data.

Chapter 3. Quantitative study results

Key findings

Gambling

Of the 239 participants who took part in both the 2020 and 2024 surveys, 35.6% reported past-year gambling in 2020, when all were aged under 18. In 2024, 43.4% of those who were still under 18, and 62.2% of those aged 18 years or over, reported past-year gambling.

Gambling trajectories

Some participants reported stable trajectories in their gambling behaviour – that is, being in the same category of non-gambling, gambling, or the combined category of at-risk/problem gambling (based on the DSM-IV-MR-J) in both the 2020 and 2024 surveys. Among the 239 participants:

- 37.2% reported non-gambling in both 2020 and 2024.
- 28.5% reported gambling in both 2020 and 2024, including 9.2% of the 239 participants who reported at-risk/problem gambling at both time points.
- A higher proportion of participants aged under 18 in 2024 reported non-gambling at both time points (48.2%), compared to those aged 18 years or older (31.4%).
- A higher proportion of participants aged 18 or older in 2024 reported gambling at both time points (30.8%), compared to those aged under 18 years (24.1%).

Gambling transitions

Some participants in 2024 reported they had transitioned (changed categories) since 2020 between non-gambling, gambling, or at-risk/problem gambling. Among the 239 participants:

- 27.2% moved from non-gambling in 2020 to gambling in 2024.
- 4.6% moved from non-gambling or gambling to at-risk/problem gambling (based on low numbers).
- A higher proportion of participants aged 18 or older reported transitioning to gambling (31.4%), compared to those aged under 18 years (19.3%).

Exclusive gambling trajectories and transitions

To look at risk factors associated with changing gambling behaviours, participants were divided into the following mutually exclusive groups: 1) no gambling (and no simulated gambling), 2) simulated gambling (but no gambling), 3) gambling (including some who may also engage in simulated gambling but no at-risk/problem gambling), and 4) at-risk/problem gambling. This was applied to data collected in both 2020 and 2024, meaning that 16 different behaviour changes were possible.

The most common trajectories and transitions amongst the 239 participants was those who engaged in simulated gambling only, in both 2020 and 2024 (20.1%). This was followed by those who engaged in monetary gambling only, in both 2020 and 2024 (15.1%), and those who transitioned from simulated gambling to gambling (15.1%). Nearly one-in-ten transitioned from no gambling to gambling (9.2%) or reported at-risk/problem gambling in both 2020 and 2024 (9.2%).

Nearly three-quarters (71.0%) of participants in the at-risk/problem gambling category in 2020 still reported at-risk/problem gambling in 2024.

Risk factors for gambling transitions

Three logistic regression models were run to look at the factors associated with gambling, at-risk/problem gambling, and gambling harm status in 2024.

Only one factor was significant at the p-value of 0.0006 (calculated to be appropriate for the multiple comparisons):

- At-risk/problem gambling in 2020 positively predicted at-risk/problem gambling in 2024.

We also draw some tentative observations based on p-values below 0.01. These possible effects are:

- Age positively predicted gambling participation in 2024.
- Having gambled in 2020 positively predicted gambling harm in 2024.
- More positive attitudes towards gambling advertisements in 2020 predicted gambling harm in 2024.
- At-risk/problem gambling in 2020 predicted gambling harm in 2024.

No moderating effects of 16 individual differences variables on transitions in gambling behaviour were detected. However, the analyses were based on small subsamples, constraining the power to detect significant relationships.

Limitations

- The data focuses on trajectories and transitions from adolescence to very early adulthood and so cannot provide insight into later experiences and transitions.
- About two-fifths of participants were male, so the results reflect predominantly male experiences.
- Due to the relatively small sample size, the study could do a limited number of statistical analyses. Patterns over time (between 2020 and 2024) are based on observable trends, but the inability to analyse statistical significance of changes over time limits the generalisability of results.
- The longitudinal analyses were based on small subsamples in each gambling transition, constraining the power to detect significant relationships.

3.1. Introduction

This chapter presents the results from the quantitative study. The first section summarises the sample characteristics. The descriptive results are then presented, drawing on the 2020 Wave 1 and 2024 Wave 2 surveys to identify gambling transitions between waves. The chapter then presents the descriptive results for the risk factors that were entered into the regression models to predict gambling transitions. Lastly, the chapter presents the results for all gambling transitions, using exclusive categories, and the longitudinal models examining risk factors predicting each transition.

Appendix D contains additional descriptive results from the Wave 2 survey. It provides finer details about several aspects of the participants' gambling behaviour, and potential influences from parents, peers, gambling advertising, simulated gambling and other environmental factors. While these results are too detailed and lengthy to put in the main body of the report, we provide them in an appendix for transparency.

Appendix E contains an attrition analysis that compares those who did and did not complete the 2024 survey, based on known values of key variables in 2020. There were no significant differences between those who did and did not complete the 2024 survey for most variables: gender, age bracket, location, main language, and internet gaming disorder status (i.e., gaming problems). Significant differences were observed for gambling in the last 12 months, being at-risk of gambling problems, and simulated gambling in the last 12 months. In all instances, those who completed the 2024 survey were significantly less likely to report these behaviours in 2020, compared to those who did not complete the 2024 survey.

3.2. Sample characteristics

The sample was mostly boys or men (62.3%) and about two-thirds had turned 18 since the 2020 survey. Almost all (97.9%) spoke English as their main language at home, most (81.6%) lived with their parent(s) or guardian(s), and most (91.2%) were single/ never married. Table 3.1 summarises additional sample characteristics.

Table 3.1. Sample characteristics in 2024 (N = 239)

Demographics in 2024	Level	N	%
Age	Under 18	83	34.7
Gender	Man	149	62.3
	Woman	84	35.1
	Non-binary/gender diverse	6	2.5
Main language	English	234	97.9
Parental living situation	Living together	187	78.2
	Separated or divorced	42	17.6
	Have never lived together	5	2.1
	Something else	5	2.1
Independent	Started living independently in last 4 years	40	16.7
Marital status	Single/never married	218	91.2
	Living with partner/ de facto	16	6.7
	Married	5	2.1
Living situation	Live with parent/ guardian	195	81.6
	Live alone	11	4.6
	Single parent with children	2	0.8
	Live with partner with children	6	2.5
	Live with partner without children	11	4.6
	Live in a group or share house/apartment	11	4.6
	Other	3	1.3
Work status	Work full-time	35	14.6
	Work part-time	43	18.0
	Self-employed	4	1.7
	Unemployed and looking for work	7	2.9
	Full-time school student	86	36.0
	Full-time TAFE or college student	7	2.9
	Full-time university student	46	19.2
	Sick or disability pension	3	1.3
	Other	8	3.3
Education	Year 9 or below	9	3.8
	Year 10	34	14.2
	Year 11	49	20.5
	Year 12	99	41.4
	Completed trade or technical certificate or diploma	32	13.4
	Completed a university degree	16	6.7
Aboriginal and/or Torres Strait Islander status	No	222	92.9
	Yes	16	6.7
	Prefer not to say	1	0.4

Note: Age mean = 18.5 (SD = 1.91). Other languages reported include Dari, Hazaragi, Korean, Mandarin, Spanish. Other living situations include living in the family house without parents, living with brother in another family house and sometimes with parents, and living with parents and partner. Other work statuses include combinations of the above categories (e.g., Work part-time and a full-time university student).

3.3. Descriptive results: Gambling transitions

Below, we present the descriptive results for the transitions between different gambling states, and into and out of simulated gambling and problematic gaming. We also present the descriptive results for gambling harm, which is an outcome variable in the longitudinal models presented later.

3.3.1. Transitions between no gambling and gambling

Of the 239 participants who took part in both survey waves, 85 (35.6%) reported past-year gambling in 2020, when all were aged under 18, the legal age for gambling in NSW. In 2024, amongst the 83 participants who were still under 18, 36 (43.4%) had gambled in the last 12 months. Amongst the 156 participants who were aged 18 or older in 2024, 97 (62.2%) had gambled in the last 12 months.

When considering commercial forms only, 27.2% had gambled in the last 12 months in 2020, compared to 36.1% of those under 18 in 2024 and 62.2% of those aged 18 or older in 2024.

Figures 3.1 and 3.2 show shifts between no gambling and monetary gambling from 2020 to 2024 for participants aged under 18 in 2024, and separately for those aged 18 or older in 2024.

For those under 18, there was broad behavioural consistency between waves. Most (71.4%) of those who had not gambled for money previously had not done so four years later. Most (74.1%) of those who had gambled for money in 2020 had also done so in 2024. Nonetheless, over a quarter (28.6%) of those who had not gambled in 2020 reported gambling in 2024.

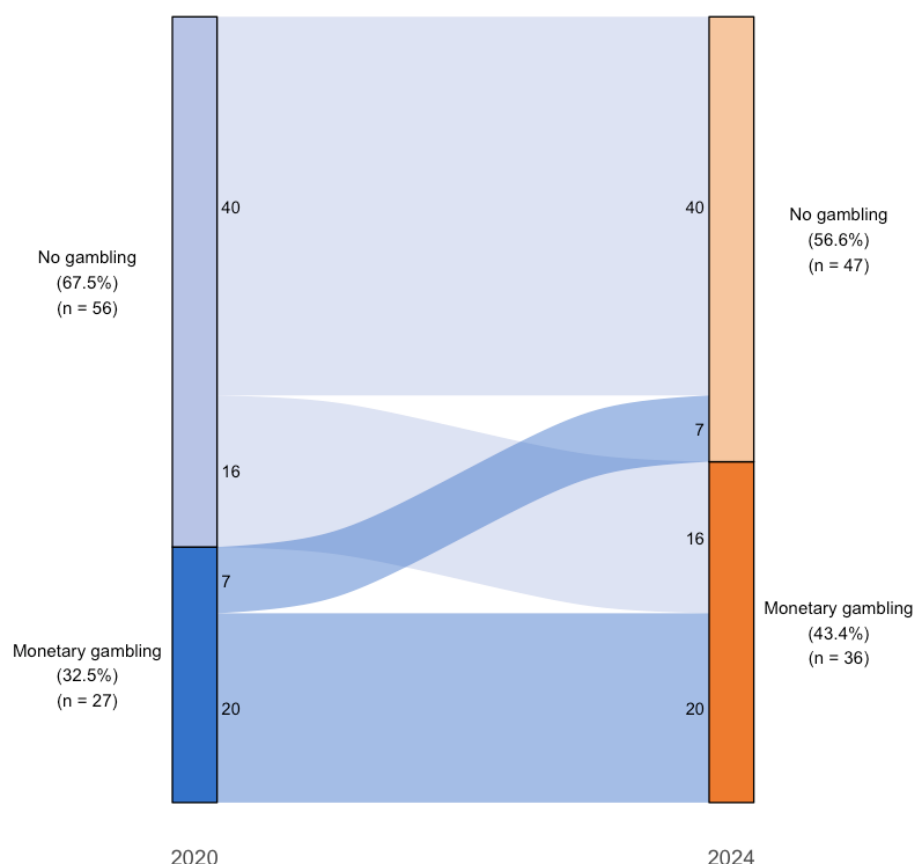
There was less behavioural consistency for those aged 18 years or over in 2024. While most (82.8%) of those who had gambled for money in 2020 had also done so in 2024, half (50.0%) of those who had not gambled for money previously did so in 2024.

Among the smaller proportions who reported change between the two waves, more participants started to gamble than stopped gambling, thus the pattern is for higher gambling participation in 2024 than 2020. This pattern is evident for those both under 18 and over 18.

Throughout this report, we show Sankey diagrams, like the ones below. The left side (blue bars) show the number of people who were not gambling in 2020 (56) and how many were gambling in 2020 (27). The right side, in orange, shows the number of people who were not gambling in 2024 (47) and who were gambling in 2024 (36). Percentages are shown for each of these.

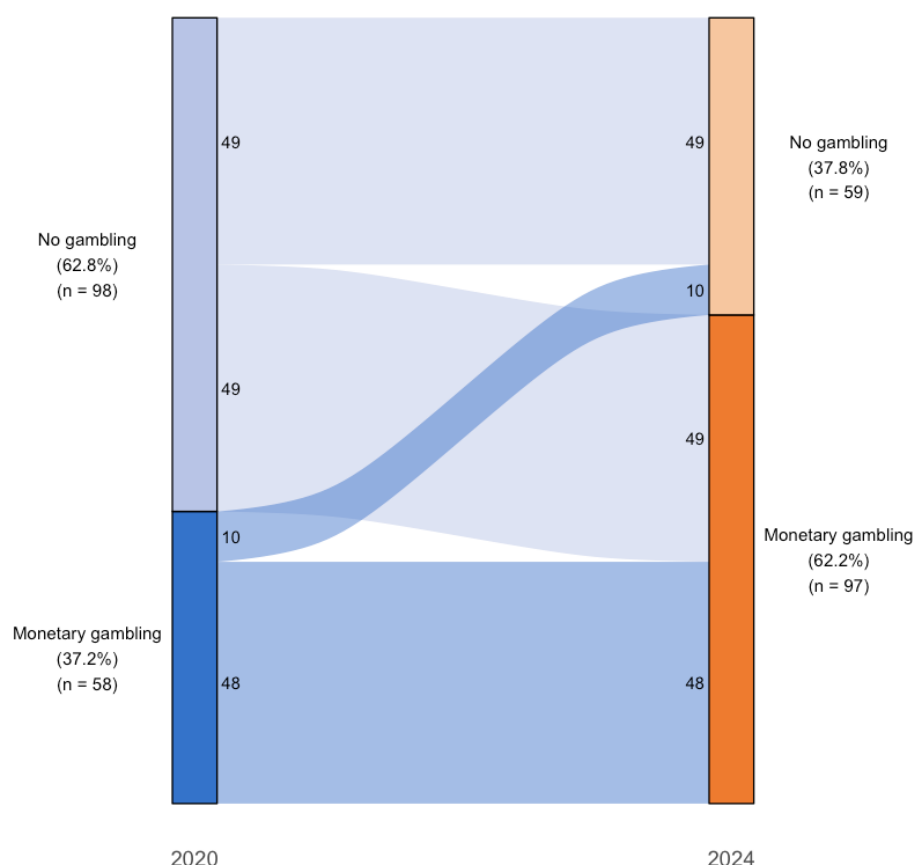
The blue ribbons between the left and right side show trajectories, including the number of people in each ribbon. For example, of the 56 people who were not gambling in 2020, 40 were not gambling in 2024, and 16 transitioned to gambling in 2024. Similarly, amongst the 27 who were gambling in 2020, 7 were not gambling in 2024 and 20 were gambling in 2024. We have included the numbers for each transition on both sides of the ribbon to help readers. The ribbons also provide visual cues to aid interpretation. The thickness of the ribbon is based on the numbers, so the ribbon for the 40 people who were not gambling in 2020 and 2024 is thicker than the ribbon for the 16 people who were not gambling in 2020 but were gambling in 2024.

Figure 3.1. Transitions between no gambling and monetary gambling from 2020 to 2024, for participants under 18 in 2024



Source: GB1a. When did YOU last spend any REAL MONEY on each of the following activities? Those who endorsed any form in the last 12 months were classified as taking part in monetary gambling.

Figure 3.2. Transitions between no gambling and monetary gambling from 2020 to 2024, for participants 18 years or older in 2024



Source: GB1a. When did YOU last spend any REAL MONEY on each of the following activities? Those who endorsed any form in the last 12 months were classified as taking part in monetary gambling.

3.3.2. Transitions between no gambling, gambling and at-risk/problem gambling

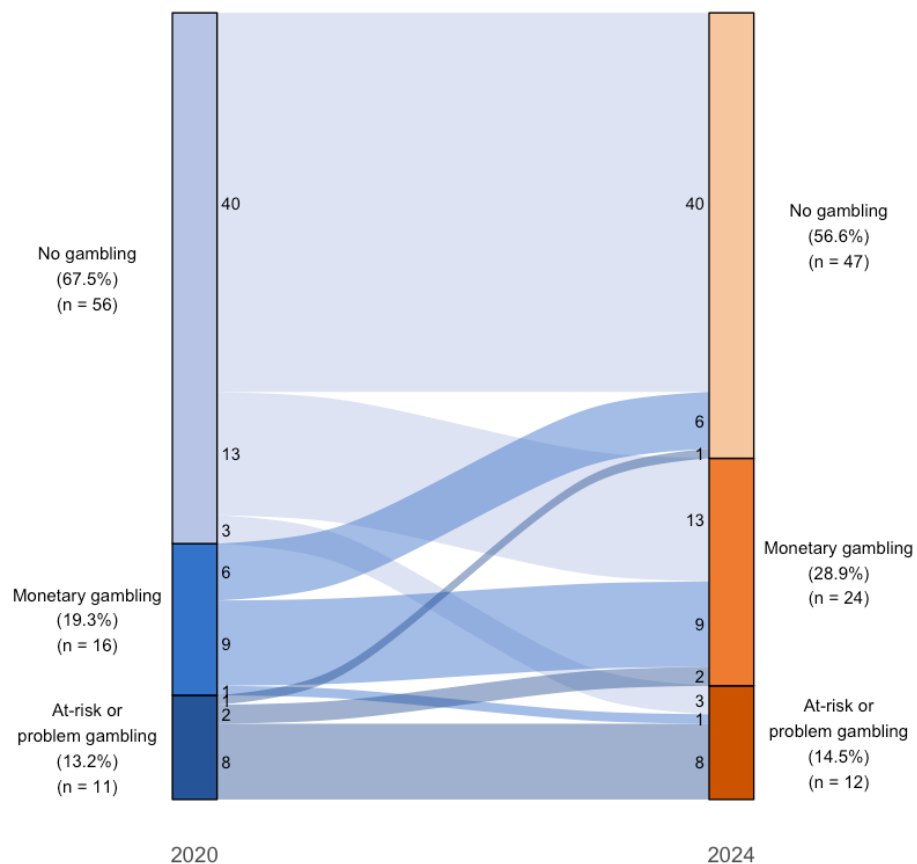
Amongst the 85 participants who gambled in 2020, 31 reported at-risk/problem gambling (13.0% of the total sample, and 36.5% of those who gambled in 2020). In 2024, 133 participants reported gambling and 33 of those reported at-risk/problem gambling (13.8% of the total sample, or 24.8% of those who gambled in 2024).

This pattern was approximately similar in 2024 for participants who were under 18 and over 18 (14.5% of all under-18s in 2024 reported at-risk/problem gambling, compared to 13.5% for those over 18). Amongst participants who gambled, at-risk/problem gambling was slightly higher for those under 18 (33.3%) compared to those who were 18 or over in 2024 (21.6%).

Figures 3.3 and 3.4 below indicate flows between no gambling, monetary gambling (without at-risk/problem gambling) and at-risk/problem gambling for participants under 18, and separately for those 18 or older in 2024. The patterns show a shift into monetary gambling in both age groups, and relative stability in the overall proportion

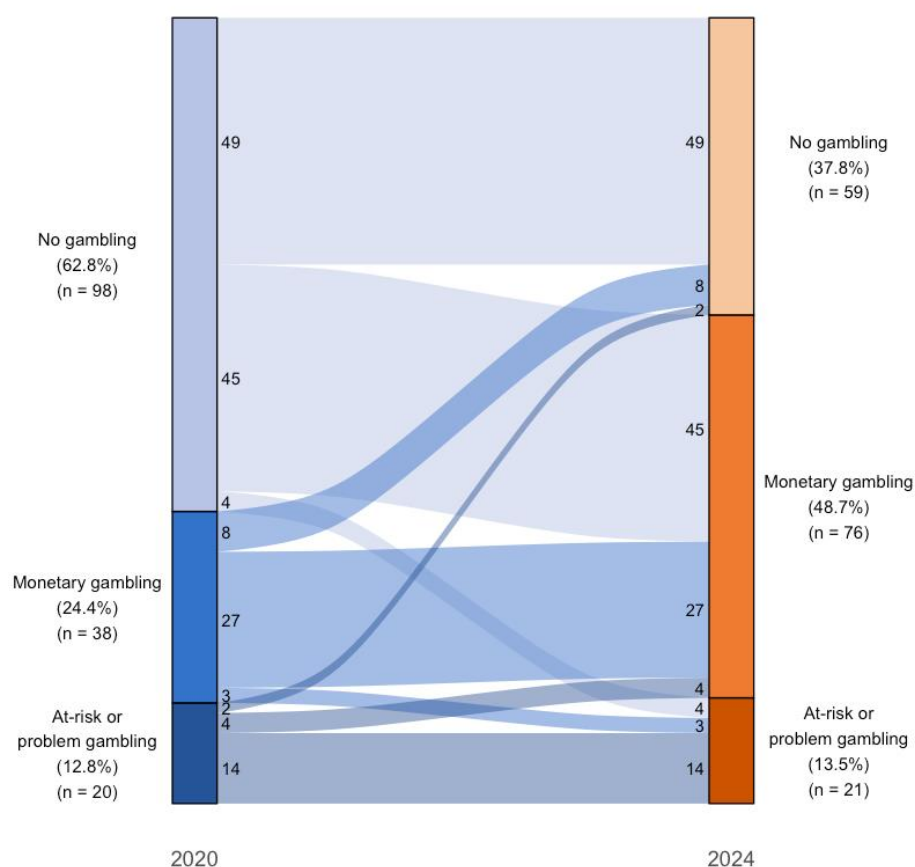
of participants in the at-risk/problem gambling category. Further, most of those in the at-risk/problem gambling category in 2020 were in the same category in 2024 (based on small numbers).

Figure 3.3. Transitions between no gambling, gambling and at-risk/problem gambling from 2020 to 2024, for participants under 18 in 2024



Note: Gambling status determined from engagement with any form in GB1a, and at-risk status determined from DSM-IV-MR-J scores.

Figure 3.4. Transitions between no gambling, gambling and at-risk/problem gambling from 2020 to 2024, for participants 18 years or older in 2024



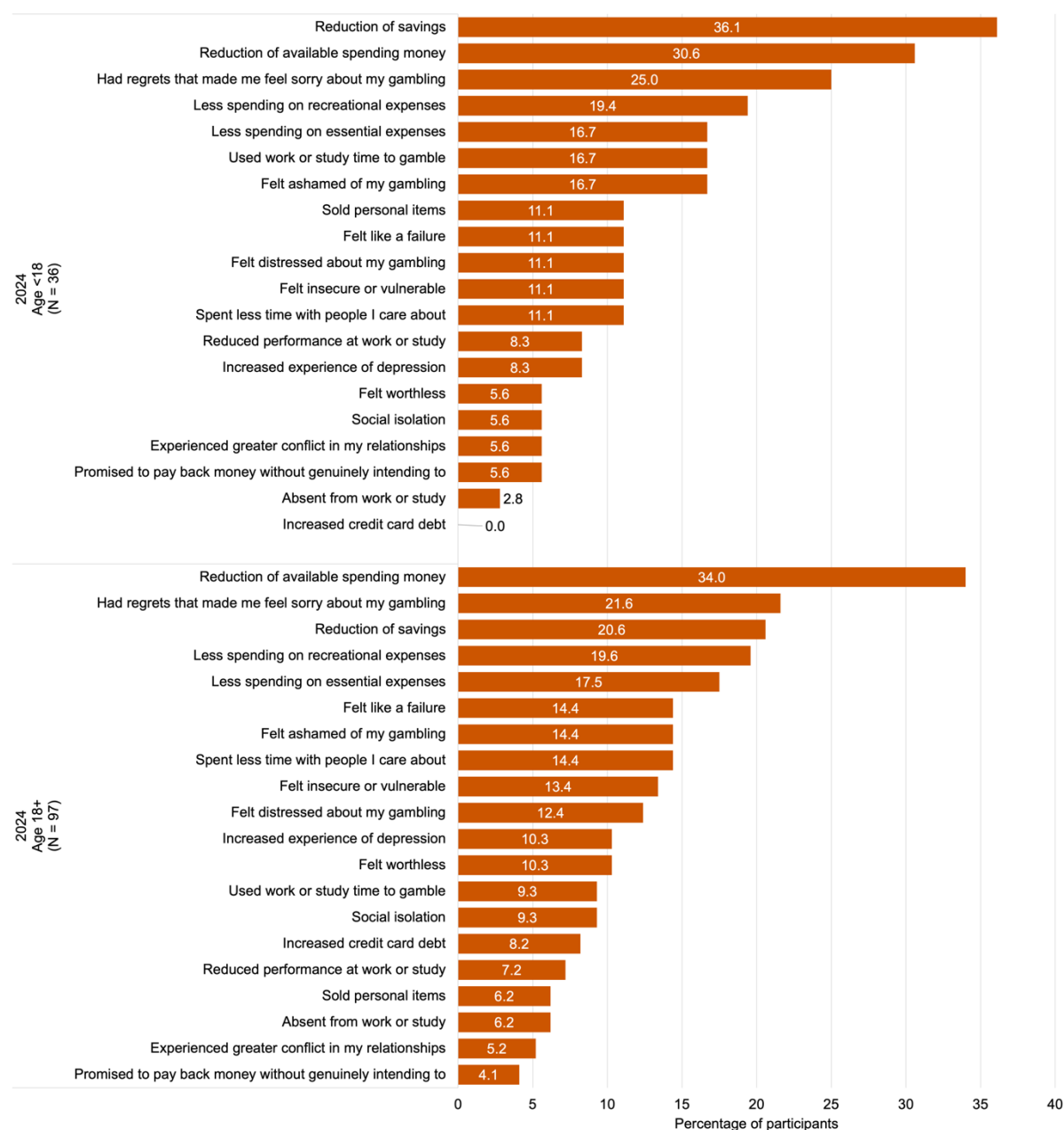
Note: Gambling status determined from engagement with any form in GB1a, and at-risk status determined from DSM-IV-MR-J scores.

3.3.3. Gambling harm

Figure 3.5 indicates that almost all gambling harm items were endorsed by at least one participant who gambled in 2024, both in the under-18 and 18 years+ age groups. The GHS-20 had not been developed in 2020, so no comparison with 2020 is possible. Amongst participants under 18 in 2024, the most commonly-reported harm was a reduction of savings, followed by reduction of available spending money, having regrets about gambling, less spending on recreational expenses, less spending on essential expenses, using work or study time to gamble, and feeling ashamed about their gambling.

For those 18 or older in 2024, the most prevalent harm was reduction of available spending money. Other common harm items were similar to those reported by the under-18 group.

Figure 3.5. Proportions of participants who gamble endorsing each harm item from the GHS-20 in 2024



Note: GHS-20 items.

Table 3.2 shows the mean (and SD) GHS-20 scores for each of the nine possible transitions from 2020 to 2024. The 2024 survey did not administer the GHS-20 to those who did not gamble, and scores of 0 are assumed for these participants. Some cells are based on very small numbers and means should be interpreted with caution.

Of note, values that are further right and further down in the table tend to be higher. Gambling harm and at-risk/problem gambling are highly correlated, explaining why

means in the right-hand column (i.e., for those in the at-risk/problem gambling category in 2024) have higher harms scores in 2024.

Table 3.2. Mean (and SD) harms score on the GHS-20 for each transition between no gambling, monetary gambling and at-risk/problem gambling

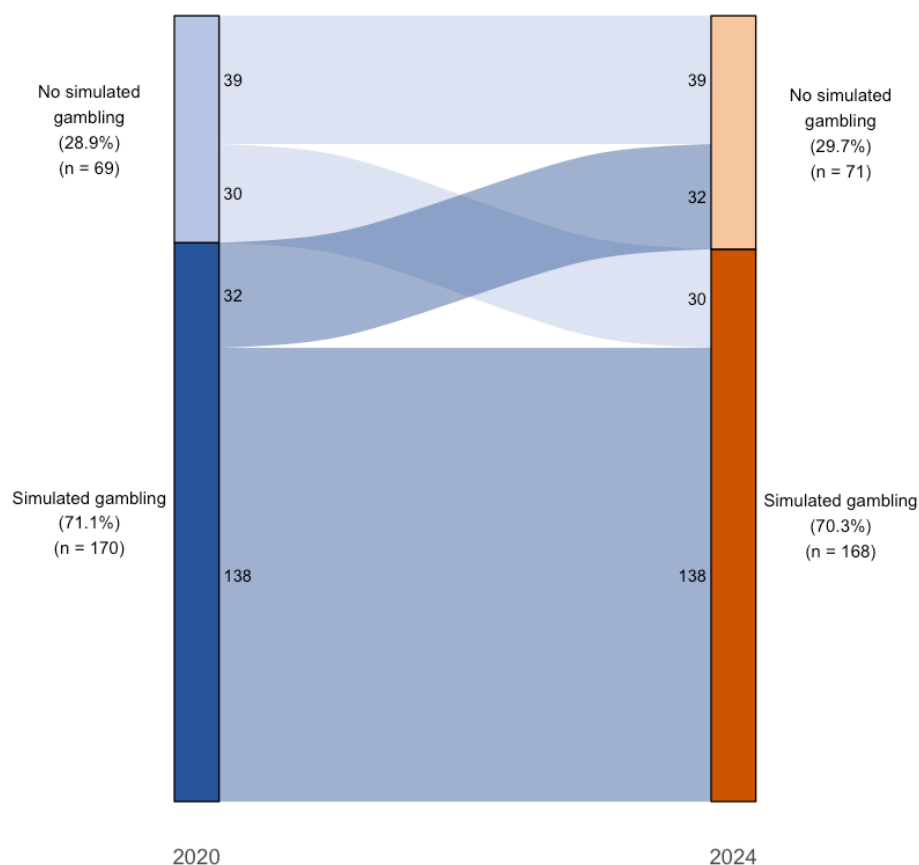
	2024 No gambling	2024 Monetary gambling (but not at-risk)	2024 At-risk/problem gambling
2020 No gambling	0 (0.0) (n = 89)	0.56 (1.30) (n = 58)	3.14 (1.86) (n = 7)
2020 Monetary gambling	0 (0.0) (n = 14)	1.14 (1.42) (n = 36)	9.75 (3.86) (n = 4)
2020 At-risk/problem gambling	0 (0.0) (n = 3)	1.83 (0.75) (n = 6)	8.95 (4.86) (n = 22)

Note: People who did not gamble in 2024 were not asked the GHS-20, and scores of 0 are assumed. Note that some cells have very small numbers (shown in grey text), and percentages are reported only in the interest of completing the table.

3.3.4. Transitions into and out of simulated gambling

Participants were classified as engaging in simulated gambling if they took part in games with simulated gambling components, purchased loot boxes, or bet with in-game items. Most participants in both years (71.1% in 2020 and 70.3% in 2024) took part in at least one form of simulated gambling. As indicated in Figure 3.6 below, most who took part in 2020 still took part in 2024. While around a third who did not take part in simulated gambling in 2020 did so in 2024, around the same number who were engaging in simulated gambling in 2020 had ceased by 2024.

Figure 3.6. Transitions into and out of simulated gambling from 2020 to 2024, all participants

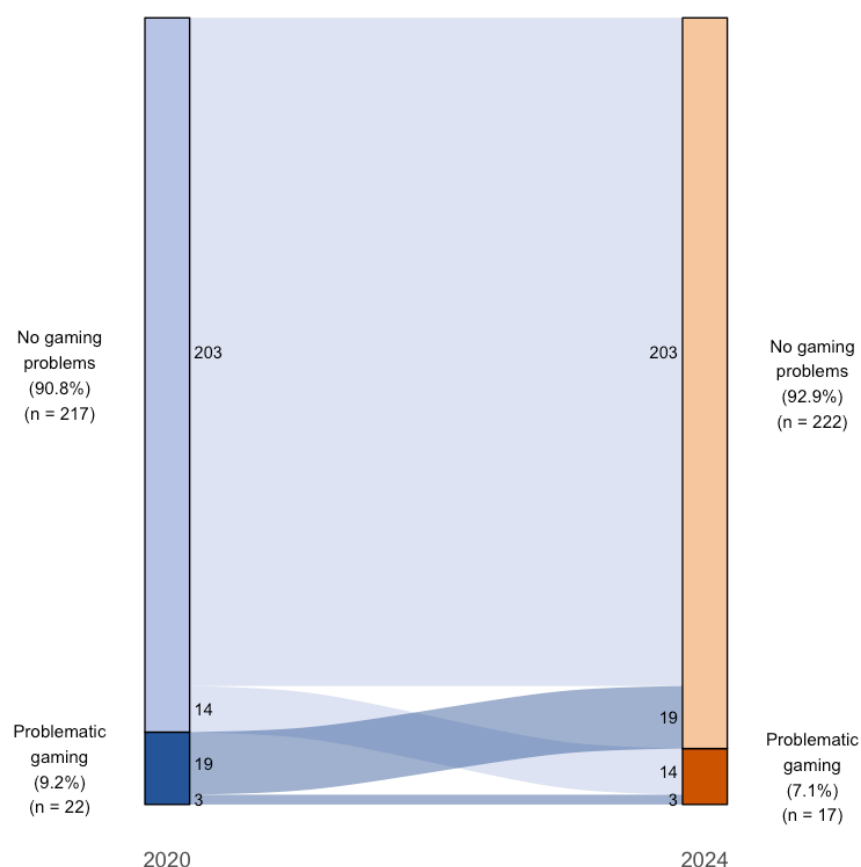


Note: Participants were classified as engaging in simulated gambling if they took part in games with simulated gambling, purchased loot boxes, or bet with in-game items.

3.3.5. Transitions into and out of problematic gaming

In 2020, 22 of the 239 participants (9.2%) reported problematic gaming. In 2024, this figure was 17 out of 239 (7.1%). As noted in Figure 3.7 below, very few participants who reported problematic gaming in 2020, still reported problematic gaming in 2024.

Figure 3.7. Transitions into and out of problematic gaming from 2020 to 2024, all participants



Note: Internet Gaming Disorder scale.

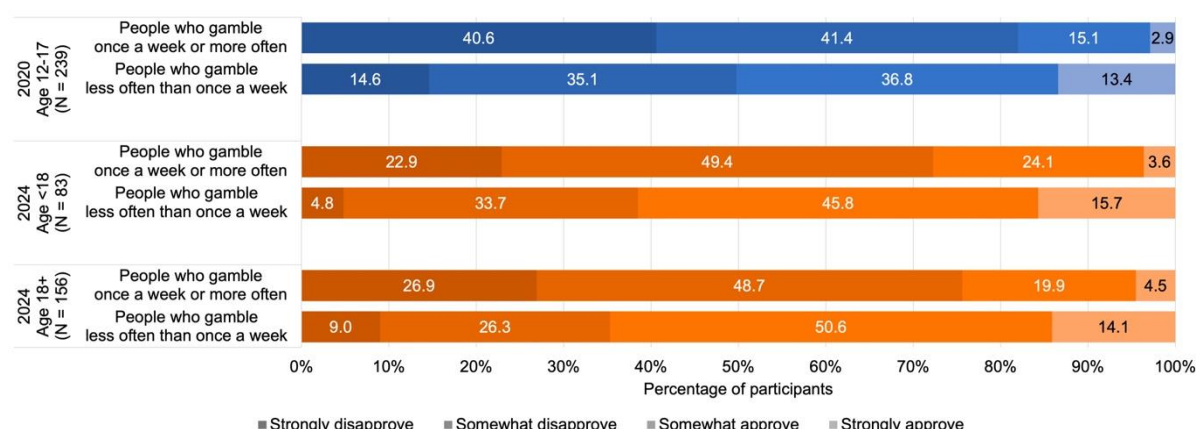
3.4. Descriptive results: Risk and protective factors

In addition to demographic factors, several risk and protective factors were examined in the longitudinal models presented later. This section presents the descriptive results for these variables.

3.4.1. Approval or disapproval of gambling

In both years, and both age groups, participants were likely to disapprove of people who gamble once a week or more often, with around three-quarters reporting 'strongly disapprove' or 'somewhat disapprove' (Figure 3.8). Participants had lower levels of disapproval for less frequent gambling. In 2020, 49.7% somewhat or strongly disapproved of people gambling less often than once a week, compared to 38.5% for under-18s in 2024 and 35.3% for those 18 or older in 2024.

Figure 3.8. Approval of people who gamble at least weekly vs less often, 2020 and 2024



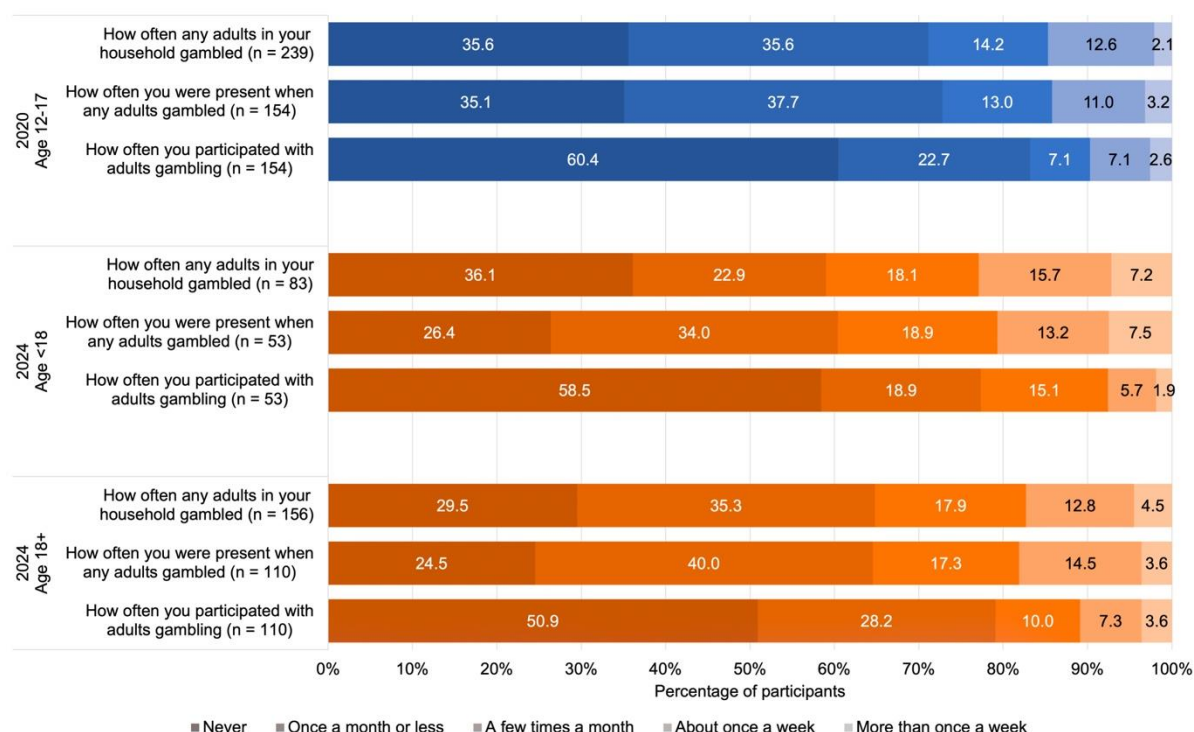
Note: GA1. Do you approve or disapprove of...

3.4.2. Exposure to adults' gambling when growing up

In 2020, around **two-thirds** of participants reported that adults in their household gambled in the last four years, but only **14.7%** reported that they did so weekly or more often (Figure 3.9). Figures were **approximately similar** in 2024, both amongst those who were over and under 18.

Amongst those who reported that adults in their household gambled, in 2020, around **a third** reported being present when this happened and **14.2%** reported this happened weekly. About **40%** reported taking part in adults' gambling, although only **9.7%** reported doing so at least weekly. Figures were approximately similar in 2024, with around **three-quarters** of those who were still under 18 years of age reporting they were present when adults gambled (around **20%** reported this happened weekly), and about **40%** participating, although only around **7-10%** did so weekly.

Figure 3.9. Exposure to adults' gambling, 2020 and 2024

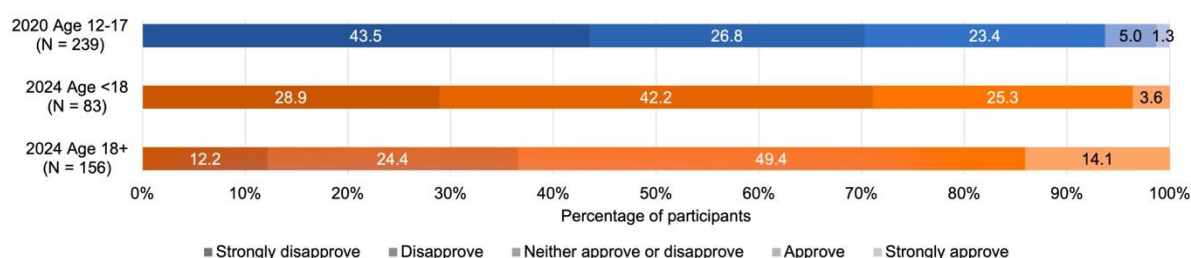


Note: CE1a and CE1b. The next few questions are about adults in any of the households you have lived in during the past four years. These adults include parents/guardians, partners and housemates you have spent time with. During the last four years.

3.4.3. Perceived parental approval of gambling

In 2020, when aged 12-17, 70.3% of participants reported that their parents would disapprove or strongly disapprove of them gambling (Figure 3.10). The figure was almost identical in 2024 for those still under 18 (71.1%), but for those 18 or older in 2024, the figure had dropped to 36.6%. In 2024, 0.0% of participants in either age group reported that their parents or guardians would strongly approve of them gambling.

Figure 3.10. Parental approval of gambling, 2020 and 2024

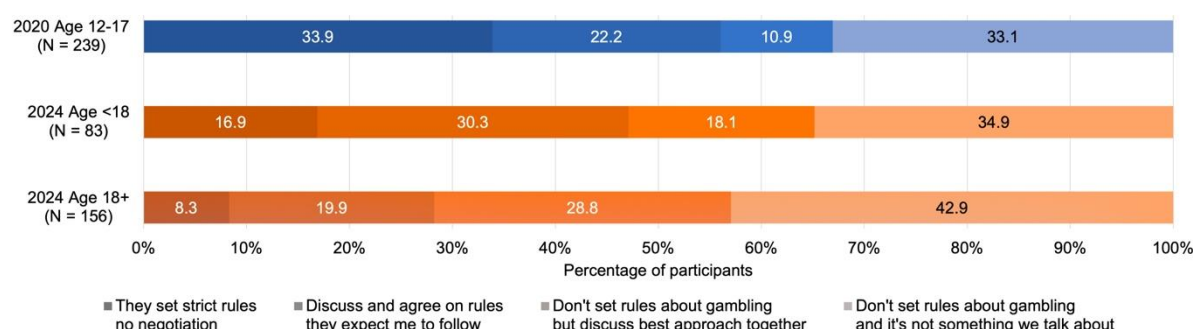


Note: CE3. How do you think your parents/guardians (or former guardians) would feel if you gambled, even once or twice, over the next 12 months?

3.4.4. Parental rule-setting for gambling

In 2020, a little more than half (56.1%) the participants reported that their parents set rules around gambling, with 33.1% reporting strict rules with no negotiation (Figure 3.11). In 2024, for those under 18, 47.2% reported that their parents set rules, but fewer reported strict rules with no negotiation (16.9%). Those over 18 in 2024 reported less parental rule-setting around gambling: 28.2% reported that their parents set rules, and 8.3% that these were strict and non-negotiable. In 2020 and for under-18s in 2024, around a third reported that their parents did not set rules, and it was not something they talked about. For those over 18, this figure was 42.9%.

Figure 3.11. Parental rules for gambling, 2020 and 2024

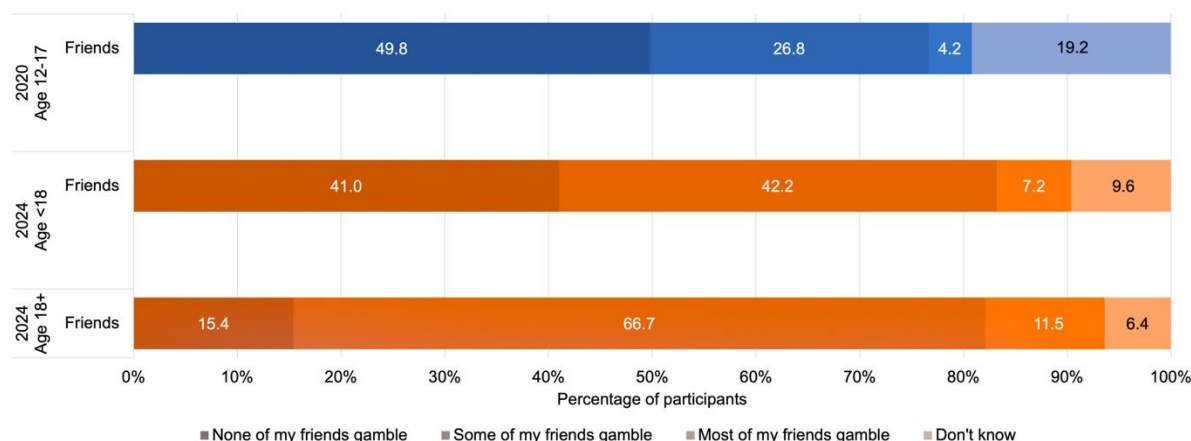


Note: CE4. Which of the following statements best describes your parents'/guardians' (or former guardians') current approach to you and gambling?

3.4.5. Peer gambling

Participants were asked how many of their friends gambled. In 2024, most of those aged 18 or older reported that some (66.7%) or all (11.5%) of their friends gambled. For those under 18 in 2024, these figures were 42.2% and 7.2% respectively, compared to 26.8% and 4.2% in 2020 (Figure 3.12).

Figure 3.12. Proportion of friends who gamble, 2020 and 2024

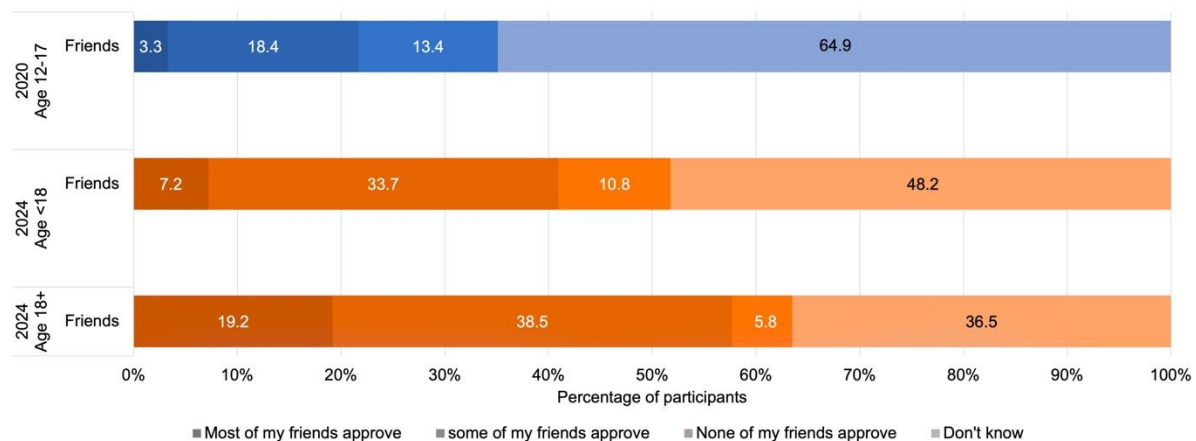


Note: PE2b. Do none, some or most of your friends gamble?

3.4.6. Peer approval of gambling

Participants were asked how many of their friends approve of gambling. Amongst those 18 or older in 2024, 36.5% did not know or did not talk to their friends about gambling, compared to 48.2% of under-18s in 2024, and 64.9% in 2020. In 2024, 5.8% of participants aged 18 or over reported that none of their friends approved of people their age gambling, compared to 10.8% of under-18s in 2024, and 13.4% in 2020 (Figure 3.13).

Figure 3.13. Friends' approval of gambling, 2020 and 2024

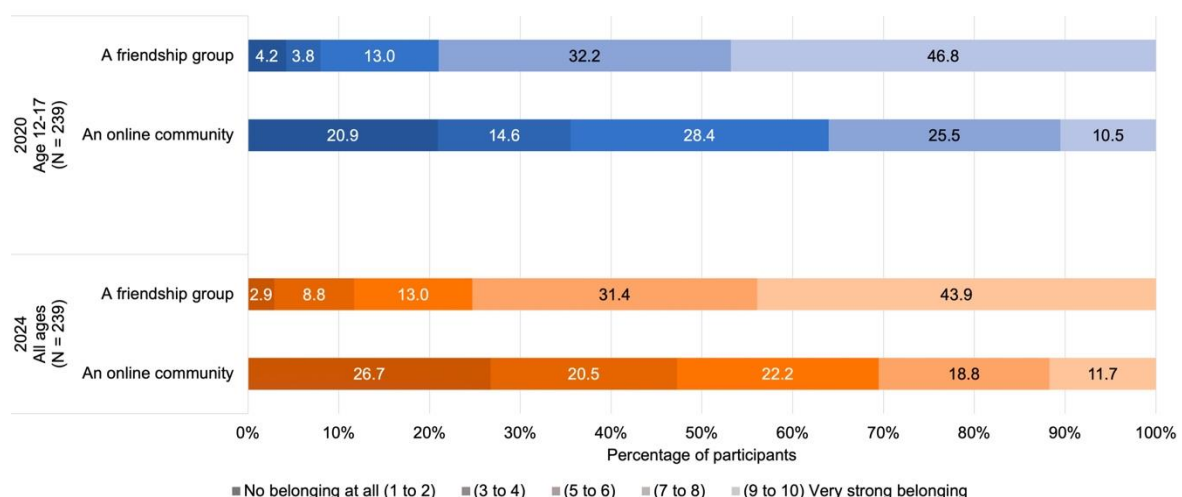


Note: PE3b. How do your friends feel about someone your age gambling?

3.4.7. Peer friendship and online groups

Participants reported a stronger sense of belonging with a friendship group compared to an online community, both in 2020 and 2024. The distribution of responses was very similar in 2020 and 2024 (Figure 3.14).

Figure 3.14. Sense of belonging to a friendship group and/or an online community, 2020 and 2024

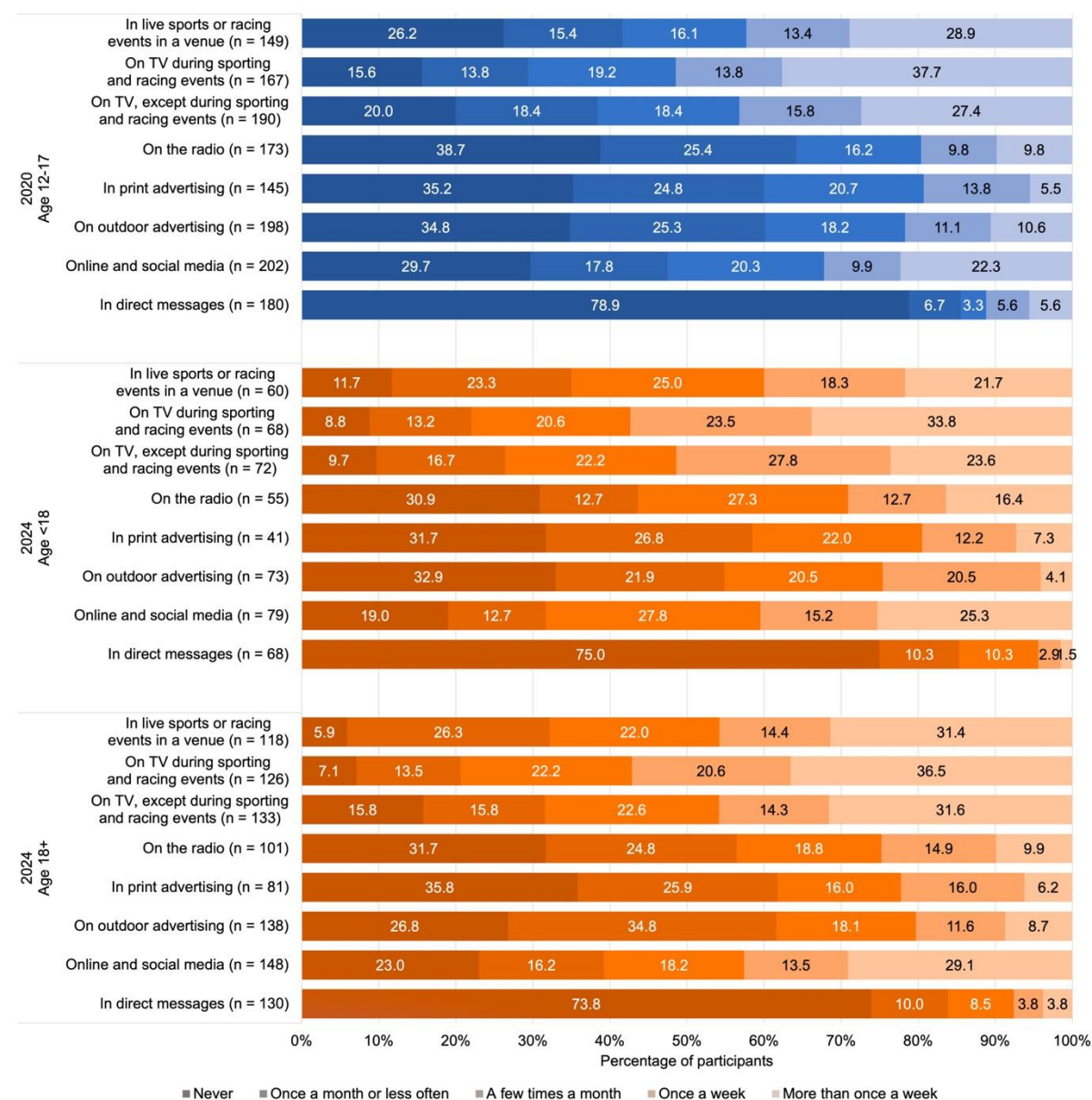


Note: PG1. How strongly do you feel you belong to the following?

3.4.8. Exposure to gambling advertisements

Most participants who used each type of media reported seeing gambling advertising, except for direct messages. Those who reported seeing gambling advertisements tended to see them frequently. The most common channels were on TV during sports and racing events, and on TV outside of sports and racing events. Online and social media and live sports or racing events at a venue were also common places to see gambling advertising. Figures were similar in 2020 and 2024 for both age groups, although there was a trend across groups indicating that slightly more participants reported seeing gambling ads in each channel in 2024 than in 2020 (Figure 3.15).

Figure 3.15. Exposure to gambling ads, 2020 and 2024



Note: GAD1. During the last 12 months how often have you NOTICED gambling adverts, messages or logos in each of the following places? People who reported not using each form of media were excluded from these percentages.

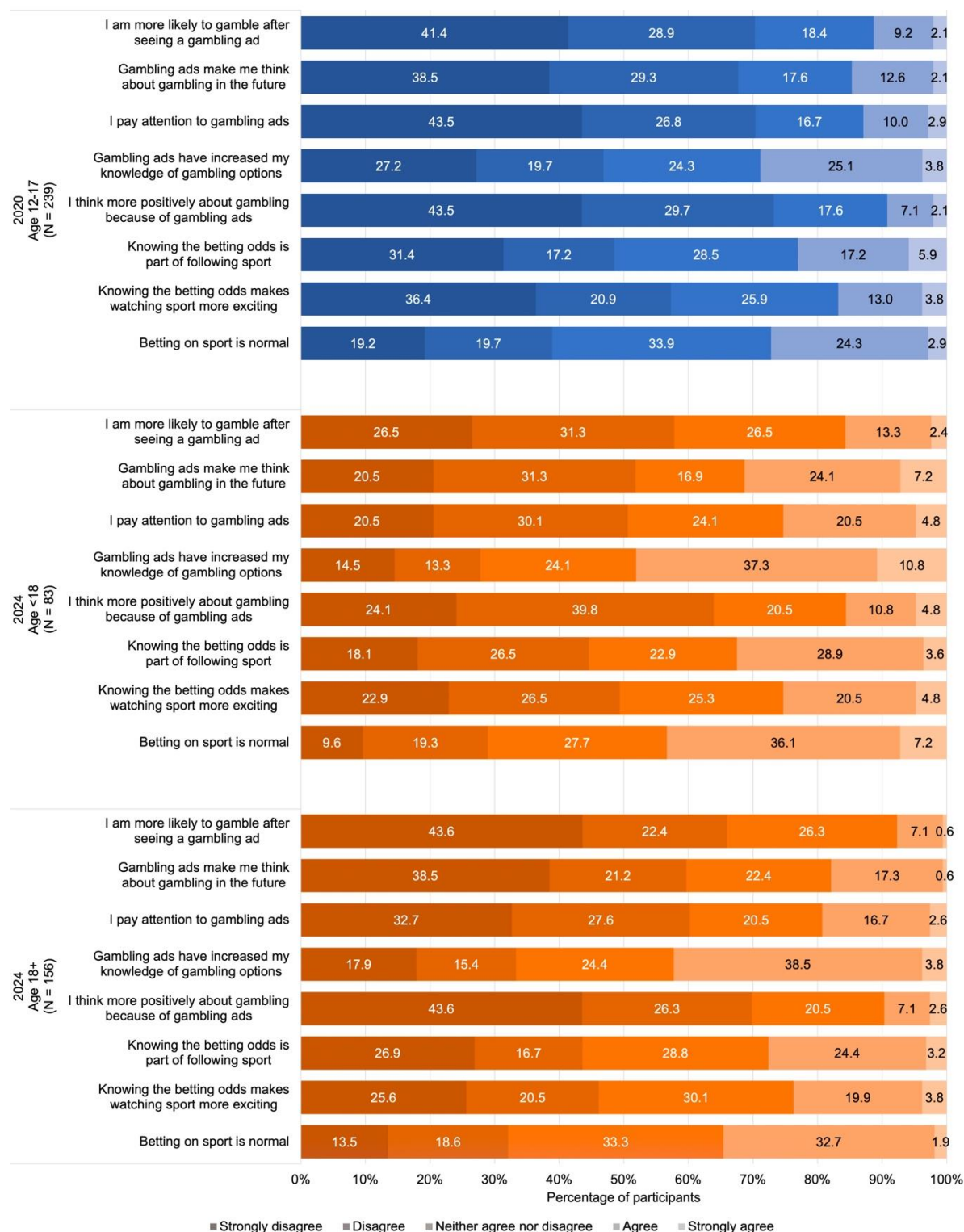
3.4.9. Reactions to gambling advertisements

Participants were asked about their reactions to gambling advertisements. In 2020, 11.3% agreed or strongly agreed that they were more likely to gamble after seeing a gambling advertisement, compared to 15.7% of under-18s in 2024 and 7.7% of those over 18. Higher proportions felt that gambling ads make them think about gambling in the future: 14.7% in 2020, almost a third of under-18s in 2024, and 17.9% of those over 18.

Up to a quarter of participants reported paying attention to gambling advertising in 2024 (25.3% under 18 and 19.3% 18 or over), compared to 12.9% in 2020. Almost half of under-18s and 42.3% of people aged 18 or over in 2024 felt that gambling advertising increased their gambling knowledge, compared to 28.9% in 2020. Very few (under 10%) thought more positively about gambling because of advertising, although this was higher in those aged under 18 in 2024 (15.6%).

Just under a quarter reported that knowing betting odds is a part of following sport in 2020, compared to 32.5% of those under 18 and 27.6% of those over 18 in 2024. In 2020, 16.8% thought knowing the odds made watching sport more exciting, compared to around a quarter of participants in 2024. In 2020, 27.2% thought betting on sport was normal, compared to 43.6% of under-18s, and 34.6% of those aged over 18 in 2024 (Figure 3.16). Overall, there appears to be an upward trend of increased gambling normalisation and impact, particularly in those aged under 18 in 2024. Those under 18 in 2024 were older, on average, than this cohort in 2020. This result may therefore reflect higher normalisation amongst older adolescents, a true increase in normalisation between 2020 and 2024, or a combination of these factors.

Figure 3.16. Reactions to gambling ads, 2020 and 2024



Note: GAD3. How strongly do you agree or disagree with each of the following statements?

3.5. Longitudinal results

This section presents the results for all gambling transitions, using exclusive categories, and the longitudinal models examining risk factors predicting each transition.

3.5.1. Gambling transitions in the whole sample

Figure 3.17 provides a visual representation of category transitions using a Sankey diagram for all 239 participants, highlighting the flows between gambling categories in 2020 and 2024.

Unlike the previous Sankey diagrams in this chapter, the gambling states shown are mutually exclusive as this is a necessary condition for the risk factor models that follow. Specifically:

- Individuals engaging in both simulated gambling and monetary gambling are classified exclusively under monetary gambling, as it represents the riskier activity.
- Similarly, participants categorised as at-risk/problem gambling (AR/PG) are also involved in monetary gambling but are exclusively classified under the higher-risk category.

This approach ensures a clear distinction between gambling categories based on escalating risk levels.

Figure 3.17. Transitions between exclusive gambling states from 2020 to 2024, all participants

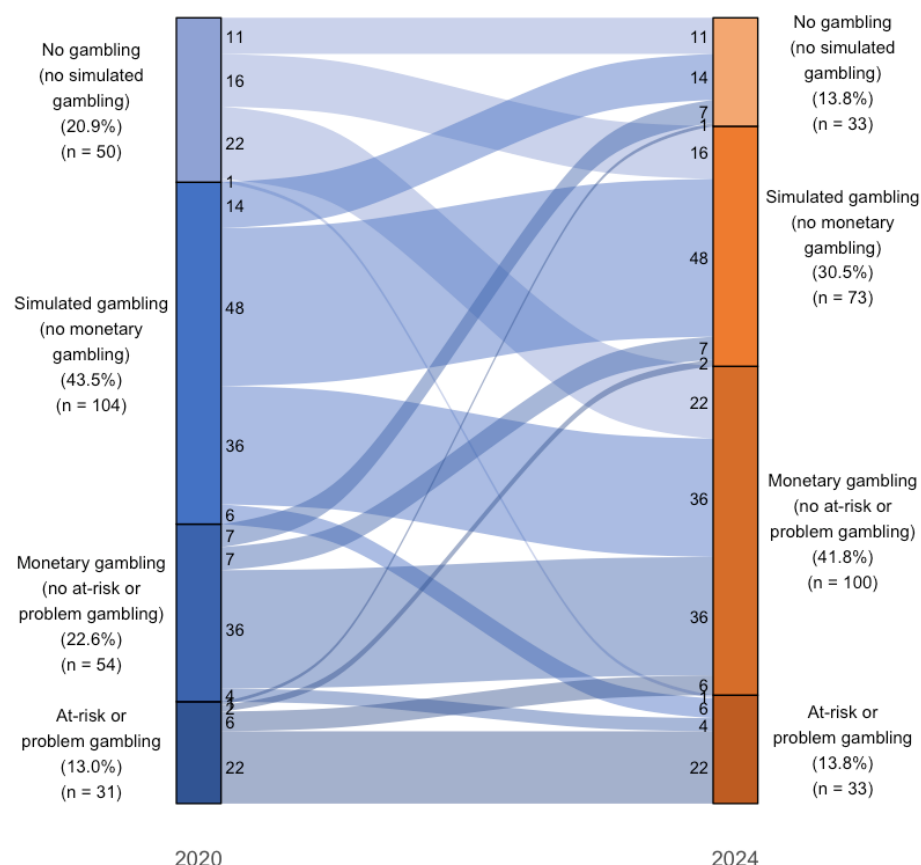


Figure 3.17 shows 16 possible transitions/trajectories between exclusive categories. Although based on low numbers, the most common patterns between 2020 and 2024 were 1) a stable trajectory of simulated gambling with no monetary gambling (20.1% of the 239 participants), 2) a stable trajectory of monetary gambling (15.1%), 3) a transition from simulated gambling to monetary gambling with no at-risk/problem gambling (15.1%), 4) a transition from no gambling to monetary gambling with no at-risk/problem gambling (9.2%), and 5) a stable pattern of at-risk/problem gambling (9.2%).

The most common transition from no gambling was to monetary gambling. Only about a fifth of participants who did not gamble on either monetary or simulated gambling in 2020 still abstained from both activities in 2024. Participants who engaged in simulated gambling (with no monetary gambling) in 2020 most often stayed in this category in 2024, although about a third transitioned into monetary gambling and a few into at-risk/problem gambling. Participants who participated in monetary gambling in 2020 (with no at-risk/problem gambling) most often stayed in this category in 2024, although a few reported no gambling, and a few had instead transitioned to at-risk/problem gambling. Nearly three-quarters of participants in the at-risk/problem gambling category in 2020 still reported at-risk/problem gambling in 2024. For clarity, Table D.2 in Appendix D presents these results in table form.

3.5.2. Risk factor models

Tables 3.3 to 3.5 present the outcome of the three forward stepwise model selection procedures predicting 2024 monetary gambling, at-risk/problem gambling, and gambling harm status. Table 2.1 in Chapter 2 shows the predictors that went into the models. For each behavioural outcome in 2024, the model included main effects for each behavioural predictor from 2020, main effects for each covariate from 2020, and interactions between each covariate and behavioural predictor from 2020. The variable selection process then reduced the models using a forward stepwise procedure so that the variables shown in the tables below are only those that survived the stepwise procedure. Our analysis plan included the intention to test problematic gaming in 2024 as a behavioural outcome, but this was not possible due to too few participants (17) in this exclusive category.

When controlling for multiple comparisons, no effects were significant at the $.05/79 = 0.0006$ level except for:

- A main effect for at-risk/problem gambling in 2020 positively predicting at-risk/problem gambling in 2024.

As discussed in Chapter 2, the Bonferroni adjustment is relatively conservative in this context, so it may be appropriate to draw tentative observations regarding effects below 0.01. However, we would still expect some false positives using this threshold. Using this guideline, there are possible effects as follows:

- Age positively predicting 2024 gambling status.
- Having gambled in 2020 positively predicting gambling harm in 2024.
- More positive attitudes towards gambling ads in 2020 predicting gambling harm in 2024.
- At-risk/problem gambling in 2020 predicting gambling harm in 2024.

No moderating effects of individual differences variables on transitions in gambling behaviour were detected.

Table 3.3. Final forward stepwise logistic regression model predicting 2024 monetary gambling status (gambling = 1, non-gambling = 0)

Predictor	B (SE)	p
Gambling	-1.287 (1.051)	.221
Attitudes towards gambling ads (More positive)	0.247 (0.230)	.283
Age	0.247 (0.092)	.008
Wellbeing	0.169 (0.084)	.045
Exposure to adults' gambling	0.651 (0.322)	.044
Gambler x Attitudes towards gambling ads	1.205 (0.485)	.014
Intercept	-6.035 (1.734)	.001*
Observations	133/239	
Log. Lik.	-131.198	

Notes: All independent variables based on 2020 reporting; p-values uncorrected for multiple comparisons; * indicates $p < \text{Bonferroni corrected threshold } p < .0006$.

Table 3.4. Final forward stepwise logistic regression model predicting 2024 at-risk/problem gambling status (DSM-IV-MR-J; at-risk = 1, not at risk = 0)

Predictor	B (SE)	p
At-risk/problem gambling	3.076 (0.591)	<.001*
Attitudes towards gambling ads (More positive)	0.642 (0.336)	.056
Gender (Female)	-0.894 (0.637)	.161
Attitudes towards gambling	-0.699 (0.321)	.030
Exposure to gambling ads	0.206 (0.113)	.067
Intercept	-1.405 (1.425)	.325
Observations	33/239	
Log. Lik.	-52.068	

Notes: All independent variables based on 2020 reporting; p-values uncorrected for multiple comparisons; * indicates $p < \text{Bonferroni corrected threshold } p < .0006$.

Table 3.5. Final forward stepwise logistic regression model predicting 2024 gambling harm status (GHS-20; any harm endorsed = 1, none = 0)

Predictor	B (SE)	p
Gambling	1.391 (0.433)	.002
Attitudes towards ads (More positive)	0.645 (0.248)	.010
At risk or problem gambling	2.483 (0.927)	.008
Gender	-0.880 (0.415)	.034
Some of my friends gamble (Yes)	0.706 (0.426)	.098
Most of my friends gamble (Yes)	-0.424 (0.719)	.556
Exposure to gambling ads	0.177 (0.090)	.050
At risk or problem gambling x Exposure to gambling ads	-0.307 (0.212)	.149
Intercept	-2.750 (0.808)	.001
Observations	67/239	
Log. Lik.	-95.471	

Notes: All independent variables based on 2020 reporting; p-values uncorrected for multiple comparisons; * indicates $p < \text{Bonferroni corrected threshold } p < .0006$

3.5.3. A closer look at participants who transitioned to a different gambling category

To better understand transition patterns, we analysed the subset of participants who changed categories between 2020 and 2024 ($n = 102$, 42.7% of the sample), using collapsed categories to address small cell sizes. Specifically, we combined 'no gambling' and 'simulated gambling' into a single 'No Monetary Gambling' category, and merged 'at-risk/problem gambling' and 'problematic gaming' into 'Problematic Gambling/Gaming'.

A Fisher-Freeman-Halton Exact Test confirmed that transitions between these three categories (No Monetary Gambling, Monetary Gambling, and Problematic Gambling/Gaming) were not random ($p < .001$). The most common transition was from No Monetary Gambling to Monetary Gambling ($n = 56$). Participants moving out of Problematic Gambling/Gaming showed similar rates of transition to No Monetary Gambling ($n = 9$) and Monetary Gambling ($n = 8$). This balanced pattern held true when examining at-risk/problem gambling and problematic gaming separately, supporting our decision to combine these categories. Among those leaving Monetary Gambling, more transitioned to No Monetary Gambling ($n = 14$) than to Problematic Gambling/Gaming ($n = 4$).

These patterns suggest that while category changes were common, participants typically moved to adjacent categories rather than making dramatic shifts in their gambling behaviour. While some individuals successfully transitioned out of Problematic Gambling/Gaming to less severe categories, they represented a small portion of the total sample.

Chapter 4. Qualitative study results

Key findings

The qualitative study analysed three gambling transitions from childhood to early adulthood based on interviews with 50 participants.

A stable trajectory of non-gambling

- This cohort reported little childhood exposure to family gambling, negative parental attitudes and cautionary advice. As children, they adopted disapproving or neutral attitudes to gambling.
- In adolescence, peer influences increased their awareness of gambling, but parents continued to warn them and rarely gambled themselves. They had increased exposure to, but little interest in, gambling advertising or simulated gambling. They attributed their negative attitudes to gambling to formative protective factors: parental discouragement; understanding the low probability of winning; seeing gambling as a waste of money; appreciating the value of money; awareness of industry tactics; and awareness of gambling risks and harm.
- Once 18, this cohort resisted increased gambling opportunities. Experiences in early adulthood consolidated their negative attitudes to gambling, including witnessing peers' gambling losses, not wanting to waste their income, and greater awareness of gambling harm and the industry's predatory practices.

A transition from non-gambling to non-problem gambling

- This cohort typically reported childhood exposure to family gambling, but also cautious parental attitudes and warnings about the risks of gambling. As children, they had diverse attitudes to gambling, ranging from moral opposition to curiosity and excitement.
- In adolescence, about half gambled with money, mostly private betting or sports betting with friends, reflecting strong peer influence and normalisation. Their parents typically gambled moderately themselves, but might caution them against underage gambling. Exposure to gambling advertising increased and about half engaged in simulated gambling. This cohort had diverse attitudes to gambling that they attributed to several formative protective factors: limited exposure to parental gambling; cautious parental attitudes to gambling; understanding the low chances of winning; seeing gambling as a waste of money; and awareness of gambling risks and harm. Several participants reported softening attitudes during adolescence and saw gambling as fun and acceptable in moderation.
- Most of this cohort experimented with gambling when they turned 18. Friends were the main encouraging influence. By early adulthood, this cohort generally approved of moderate, but not excessive, gambling.

A transition from non-gambling to gambling to at-risk/problem gambling

- This cohort recalled frequent childhood exposure to family gambling, including on poker machines and betting. Most parents did not caution them about gambling, and participants adopted their mainly positive view of gambling.
- In adolescence, about half gambled with money. Sports betting and private betting in friendship groups often became central interests. Nearly a third engaged in commercial sports betting, using fake IDs and older friends' accounts. Private

card games were also common. Prolific advertising could instil beliefs that gambling is an easy way to make money and trigger sports betting. Nearly all participants engaged in simulated gambling and spent money in games. A few regularly played social casino games. Simulated gambling was motivated by social, competitive, status, and entertainment reasons, and to win skins to sell for a profit. By later adolescence, this cohort's relatively positive inclination towards gambling ranged from mild curiosity to excitement, reflecting their formative experiences: early exposure to gambling; social influences from parents, peers and older siblings; beliefs promoted by gambling advertising; simulated gambling; and the normalisation of gambling.

- Half of this group gambled on their 18th birthday as a rite of passage, or as soon as COVID restrictions allowed. First gambling was invariably on poker machines, often facilitated and funded by their family. All participants' gambling then escalated, mainly on poker machines and sports betting. Influential factors included: ready access, poker machine features that encourage persistence, gambling being embedded in peer group activities, and targeted advertising that triggered betting. Most participants reduced their simulated gambling due to declining time and interest, and because they could now gamble for money.
- This cohort described mainly emotional and financial harm from their gambling. Most were not attempting to reduce their gambling at the time of their interview. In contrast, about a third reported that experiencing harm prompted them to moderate their gambling in their early 20s. However, they were in the early stages of change and some continued to struggle to resist gambling urges.

Limitations

- Nearly two-thirds of participants were male, so the results reflect predominantly male experiences.
- The at-risk/problem gambling group may be skewed towards participants trying to reduce their gambling.
- The results should be interpreted as insights into the participants' lived experiences and not necessarily representative of all young people in NSW.

4.1. Introduction

This chapter presents the findings from the qualitative interviews with 50 participants. Table 4.1 shows the number of interviewees by gender and age group. Non-gambling participants tended to be in the younger age group. All those in the problem gambling group were male, as were most of the at-risk group.

Table 4.1. Interview sample by gender, age and gambling risk group

Gambling risk group	Gender			Age group		Total
	Male	Female	Non-binary	18-20 yrs	21-23 yrs	
Non-gambling	8	6	1	12	3	15
Non-problem gambling	7	8	0	8	7	15
At-risk gambling	9	3	0	4	8	12
Problem gambling	8	0	0	2	6	8
<i>Total</i>	32	17	1	26	24	50

The findings are arranged according to the three main gambling transitions they reported experiencing, from their childhood through to early adulthood – 1) a stable trajectory of non-gambling, 2) a transition from non-gambling to non-problem gambling, and 3) a transition from non-gambling to gambling to at-risk/problem gambling. Consistent with the quantitative longitudinal analysis in Chapter 3, these transitions are mutually exclusive (each participant is in only one transition cohort). This approach enables the analysis to explore the nature of each transition, risk and protective factors, and any associated harm, which are the key focus of the study's research questions.

The research questions also focus on transitions from simulated gambling to monetary gambling and at-risk/problem gambling. Because these transitions are not exclusive of patterns of monetary gambling, simulated gambling is considered in this chapter within the context of the three gambling transitions identified above. Chapter 5 compares the transition cohorts in their involvement in simulated gambling as they matured.

As explained in Chapter 2, thematic narrative analysis was used. Table 4.2 summarises the themes extracted from this analysis that are then discussed in this chapter. The participants' quotes have been lightly edited for clarity and conciseness, and are tagged by:

- Participant ID: #
- Past-year gambling risk status when recruited: non-gambling (NG), non-problem gambling (NPG), at-risk gambling (AR), and problem gambling (PG)
- Age when recruited: (in years)
- Reported gender: male (M), female (F), and non-binary/gender-diverse (NB).

Table 4.2. Themes extracted from the qualitative analysis

	A stable trajectory of non-gambling	A transition from non-gambling to non-problem gambling	A transition from non-gambling to gambling to at-risk/problem gambling
Childhood (up to 12 years of age)	Limited exposure to family gambling	Most were exposed to family gambling	Most had frequent exposure to family gambling, including on high-risk activities
	Negative parental attitudes and cautionary advice	Cautious parental attitudes along with warnings and advice	Most parents did not talk to them about gambling
	Disapproving or neutral attitudes towards gambling	Diverse attitudes to gambling	Mainly positive attitudes to gambling
Adolescence (12-17 years of age)	Peer influences that increased awareness, exposure and knowledge about gambling	Peer influences that increased awareness of gambling and involvement for some	Peer influences that increased awareness of gambling and involvement for many
	Continued parental role modelling and cautions about gambling	Parental acceptance of moderate gambling but some continued cautions about gambling	Few had conversations with parents about gambling but some continued cautions
	Increased exposure to gambling advertising but little interest	Increased exposure to gambling advertising, especially in social media	Increased exposure to and interest in gambling advertising, especially in social media
	Limited interest in and scepticism about simulated gambling	Varying interest in simulated gambling	Strong interest and involvement in simulated gambling
	Continued negative attitudes towards gambling attributed to a range of protective factors	Diverse attitudes towards gambling attributed to a range of risk and protective factors	Attitudes towards gambling attributed to a range of risk and protective factors
Early adulthood (18-23 years of age)	Turning 18 and resisting increased opportunities and encouragement to gamble	Most participants experimented with gambling when they turned 18	Gambling as a rite of passage on their 18 th birthday or shortly after
	Continued negative attitudes towards gambling that were consolidated by further experiences	Divergent gambling trajectories after first experimentation in the context of increased opportunities and encouragement	Escalation of gambling after first experimentation in the context of increased opportunities and encouragement
		Attitudes accepting of moderate gambling but opposing excessive gambling consolidated by further experiences	Experiences of gambling harm
			Some moderated their gambling in their 20s, shaped by their direct experiences with gambling harm

4.2. A stable trajectory of non-gambling

Fifteen interview participants reported a stable trajectory of non-gambling from their childhood through to early adulthood. Several themes capture the nature of their experiences as they matured, along with protective factors associated with their trajectory.

4.2.1. Childhood: Limited exposure to family gambling

All non-gambling participants recalled being exposed to aspects of gambling from early childhood, often from five or six years old. Sources of this exposure could include their parents, other family members, gambling venues, advertising and the media.

All non-gambling participants reported that their parents did not gamble or engaged only in occasional low stakes activities, such as buying lotto, scratch or keno tickets, or placing a yearly bet on the signature Melbourne Cup horse race. Consequently, the participants had limited childhood involvement in parental gambling, although a few recalled choosing numbers or horses for their parents' bets, watching lotto draws, and scratching instant lottery tickets (scratchies).

Occasionally there was a bit of fun with keno at the pub. A couple of times I was allowed to write numbers on the keno cards, but I don't recall any money being put into it. (#8, NG, 19, M)

Some non-gambling participants recalled occasional involvement in the gambling activities of other family members: 'Like auntie or grandparent gives a scratchie to everybody in the family as a new year gift, good luck gifts in Chinese culture' (#10, NG, 20, M).

My auntie and others would have game nights where everyone came over and played card games with money ... sometimes if someone needed to go to the bathroom, they'd ask me to play for them, or I'd do the numbers at bingo. (#1, NG, 19, F)

Given their limited exposure from within the family, many non-gambling participants had their early encounters with gambling elsewhere. Clubs and pubs were frequently mentioned, where participants saw and heard about poker machines and other types of gambling during family visits for meals: 'Seeing the pokies at the local RSL club during a family dinner when I was about five' (#37, NG, 21, M).

My first memory of it would be at pubs with my family, maybe for special dinners or birthdays. I remember seeing keno and sometimes hearing conversations about horse racing, though I wasn't really aware of what it all meant back then. (#2, NG, 19, M)

Advertisements were another source that expanded awareness about gambling for some, but not all, participants. Those whose family watched sport recalled seeing sports betting advertisements, and several participants remembered seeing lottery advertisements: 'Watching sport games and seeing the gambling advertisements alongside that ... also for the lottery and instant scratches' (#4, NG, 18, M), and 'Oh, there's super jackpot, this much money' (#11, NG, 22, NB). While one participant recalled being 'wowed' by the large lottery jackpots advertised, the participants overwhelmingly reported little interest in the gambling advertising they saw as children. They found the advertisements 'boring' (#7, NG, 18, F), 'I didn't really relate

to them' (#4, NG, 18, M), or felt 'annoyed because I didn't even know what they were' (#9, NG, 18, M).

Some participants recalled gambling-related advertisements when gaming: 'Watching ads for a chance to spin a roulette-type thing where I could get one of six possible prizes' (#8, NG, 19, M), and 'It'd be loot boxes or something, like a chance factor' (#13, NG, 21, M). However, while a few participants reported some excitement from these simulated gambling elements, mostly they were not interested or did not connect them with real-money gambling: 'Unless you're actually looking for the similarities, you wouldn't pick up on it' (#3, NG, 18, F).

I would just watch an ad to spin something and I'd get rewards in the game. I don't think I thought of it as anything close to gambling at the time. (#2, NG, 19, M)

TV shows and movies were another source that created some participants' awareness about gambling, such as James Bond movies, 'a whole Simpsons episode where Mr. Burns opens a casino' (#12, NG, 18, F), and 'where Fred Flintstone loses all of his money. I'm like, "that doesn't look great. I don't think I'm gonna do that"' (#11, NG, 22, NB). Two participants reported seeing lotteries advertised in newsagents.

In contrast, some participants did not recall seeing any gambling advertising during childhood, particularly those whose TV viewing was restricted to children's programs, whose family did not watch sport, or who did not play digital games.

4.2.2. Childhood: Negative parental attitudes and cautionary advice

A prominent theme in the non-gambling participants' accounts was that their parents held negative attitudes to gambling, which they might communicate directly through cautionary advice such as 'don't even go there at all' (#9, NG, 18, M) or 'whatever you put in, don't expect to get it back' (#8, NG, 19, M). Other participants were told specific stories of gambling harm: 'It wasn't a good thing because you hear about people getting addicted to it. My auntie's ex-boyfriend. They broke up because he was so addicted' (#1, NG, 19, F). Some participants recalled that their parents instead conveyed their disapproval implicitly through their general values and expectations, religious and cultural beliefs, an 'anti-gambling mindset' (#10, NG, 20, M), or just their own avoidance of gambling.

Within my family, we weren't explicitly taught that gambling is bad, but it was insinuated. There's a cultural and religious element to it because I'm Muslim, so it's prohibited. (#14, NG, 19, F)

My dad did talk to us sometimes about the dangers of gambling because his dad had a gambling addiction and he lost tens of thousands of dollars ... people from his work who would, instead of saving their paycheque, would bet it all on the pokies ... 'Try not to go too crazy with gambling when you're older' I knew that gambling was risky. (#12, NG, 18, F)

This parental advice was sometimes connected to 'teachable moments' during a participant's childhood. For example, one participant recalled 'going into pubs and clubs, encountering pokie machines, and my parents being like, "Oh stay away, you can't go there"' (#9, NG, 18, M).

4.2.3. Childhood: Disapproving or neutral attitudes towards gambling

All non-gambling participants recalled their own childhood attitudes to gambling as neutral, uninterested or anti-gambling, which they attributed to their family's limited participation in or disapproval of gambling, while a few recalled media stories about gambling harm. Their views included disapproval, such as 'definitely an overall negative outlook on gambling' (#13, NG, 21, M), and 'just not interested at all' (#1, NG, 19, F). Other participants' attitudes were neutral or naive: 'Pretty neutral ... Vaguely knew of it. Really did not care' (#11, NG, 22, NB). No participants reported having positive attitudes to gambling during childhood.

4.2.4. Adolescence: Peer influences that increased awareness, exposure and knowledge about gambling

Nearly all non-gambling participants reported that, during adolescence, they became increasingly aware of a wider range of gambling activities, particularly those they were less exposed to in childhood, including sports betting and casino gambling. This awareness increased most in later adolescence and was mainly conveyed through peer discussions and, sometimes, peer gambling. Nonetheless, the participants reported maintaining their low interest in gambling.

Around 16, I started to notice sports betting more. Some guys at school would talk about betting on games, and I'd hear about it a bit from friends, but I wasn't involved. (#2, NG, 19, M)

A few participants recalled having friendship groups with an interest in gambling. Four participants experimented with playing private casino-style card games with friends, but for no stakes or for non-monetary stakes.

In Year 12, they'd play poker at lunchtime. No money was involved; they just wanted to do some poker and blackjack. I joined in a couple of times, but I didn't find it too interesting. (#7, NG, 18, F)

Some participants had older friends who gambled when they turned 18. However, their friends' experiences could deter the participant from gambling through advice and a realisation that people tended to lose.

The kids who turned 18 before me, they placed small bets on sports and stuff and they all lost their money. They were like, 'Don't do it!' I didn't see the point of putting money on a low probability ... I figured it out based on pretty much everyone I knew going and losing their money. I don't know anyone who's actually made anything. (#7, NG, 18, F)

In contrast, several participants reported little exposure to gambling from their peers because their friendship groups were not interested in gambling; 'It wasn't something that my peers were doing' (#13, NG, 21, M), and 'my friends had similar cultural values, so there wasn't much influence' (#14, NG, 19, F).

4.2.5. Adolescence: Continued parental role modelling and cautions about gambling

All participants recalled that their parents continued to avoid or limit their own gambling and to view gambling negatively, with some cautioning them about gambling.

They'd occasionally buy a scratchie for fun, but they still had a mostly negative view on gambling overall. They'd talk about how it's not worth it and that it's just a way to lose money. (#2, NG, 19, M).

Parental advice might also be in response to questions the participant asked: When I'd be curious, "Oh, why do people do that?" And then they'd explain how it's addictive, and that sort of thing' (#6, NG, 18, F).

My friends were like, 'Do you want to go to the pokies once we reach 18?' I talked to my parents, 'Do you think it's a good idea?' They were like, 'You can go once – just for the experience – but we don't recommend going multiple times'. They did tell me it's not something great to get into ... their reason was that our family has really bad problems with gambling, so they were afraid I might get into that pattern. (#7, NG, 18, F)

Overall, these parents were consistent in modelling no or low gambling involvement throughout the participant's childhood and adolescence, with many continuing to provide cautionary advice.

4.2.6. Adolescence: Increased exposure to gambling advertising but little interest

Most participants recalled increased exposure to gambling advertising during their adolescence. The amount of advertising participants saw was said to increase with watching sport and engaging in social media: 'On YouTube, it felt like every few ads were for sports betting apps. They were everywhere' (#2, NG, 19, M).

Once I got more into social media, I definitely saw more ads. Even just for poker machine-type games you can get on your phone. And as I watched more sport, I saw more sports betting ads. (#1, NG, 19, F)

None of the participants reported that gambling advertisements aroused their interest, mainly because they were too young to legally gamble. Further, several recalled that the advertising turned them off gambling even more: 'Obnoxious, taking advantage of people and shoving these ads down everyone's throats' (#11, NG, 22, NB), and 'It had the opposite effect. The constant ads made me dislike it more. It was being pushed too hard ... so repetitive ... annoying and in your face' (#2, NG, 19, M). A few participants tried to block online gambling advertising.

Definitely more advertising. On YouTube, there were a lot of gambling ads, particularly for sports betting apps. I was trying to figure out how to stop them because every three or four ads seemed to be about gambling, and I was getting sick of them. The amount I was seeing put me off even more than I already was. (#8, NG, 19, M)

Another participant explained her lack of interest in gambling advertisements was because she did not relate to the images and behaviours they portrayed: 'They're very male oriented. I don't watch sport anyway. So, it didn't interest me' (#6, NG, 18, F).

4.2.7. Adolescence: Limited interest in and scepticism about simulated gambling

About half the participants recalled playing digital games during adolescence, with many games having simulated gambling elements, including loot boxes and wheel spins: 'Every new game coming out just had loot boxes, loot boxes, loot boxes' (#4,

NG, 18, M). Despite their prevalence, participants reported that loot boxes were not a central focus of their game-playing interest: 'More of an afterthought for me, not the main focus' (#8, NG, 19, M), and 'The loot boxes were just a bonus, not something I'd spend money on' (#2, NG, 19, M). Only two non-gambling participants reported spending money on microtransactions in digital games.

A few participants described becoming sceptical about the underlying gambling mechanics in simulated gambling that are designed to encourage monetary expenditure in the hope of obtaining valuable in-game items.

I noticed how many mobile games are so centred around microtransactions and they often have features like spinning wheels or gacha systems. They try to tempt you with 'Oh if you pay 99 cents or \$5 you can have another go.' I was aware these mechanics were present in almost every single online game ... always trying to squeeze every last dollar out of you. (#12, NG, 18, F)

This same participant described a gaming app she used which pushed simulated gambling games like Coin Master, which she said was 'basically just a gambling simulator'. She recognised how immersed she was becoming in the game and expressed concern about its potential to foster gambling addiction.

I noticed how quickly I got sucked into it. It's basically just slot machine after slot machine after slot machine. And once you run out of spins they say, 'Oh you can pay more to get more spins.' It's so addicting. At a certain point I realised, 'Wait, I don't even care about this game. I'm just doing this for the points. Why do I care so much?' ... These child-friendly versions of gambling are predatory. These companies are grooming kids to become gambling addicts when they're older. (#12, NG, 18, F)

Similarly, another participant described the temptation to spend money in social casino games, which she resisted because she did not have money to spend when in high school.

I've been close to falling for it, especially with games that let you win and cash out. Those games give you a casino gambling experience, even if they aren't exactly gambling. I've never paid for anything in games. However, I do recall getting very close to doing that. (#14, NG, 19, F)

Overall, the non-gambling participants either did not engage in simulated gambling games when they were teenagers, had little interest in their gambling-like elements, or appeared to be aware of their tactics and temptations.

4.2.8. Adolescence: Continued negative attitudes towards gambling attributed to a range of protective factors

During their adolescence, the participants retained the neutral or anti-gambling stance they reported during childhood, and none engaged in monetary gambling themselves. Some participants hardened their attitude: 'My perception of it definitely moved towards the negative, rather than just being indifferent towards it like I was' (#4, NG, 18, M). In contrast, others reported that their earlier attitude softened as their friends engaged in gambling as they neared or entered adulthood: 'A bit less negative, but still very much negative. I never wanted to get involved, but if my friends were playing, I'd be like, "whatever"' (#1, NG, 19, F).

Participants attributed their lack of interest in or opposition to gambling to numerous factors. Many participants commented that gambling was a waste of money. This view was based on a logical understanding of the low probability of winning or noticing that people usually lose.

I thought it was a huge waste of money. By middle to late high school, I was pretty aware of the statistics and return on investment ... Mostly the fact that it's a guaranteed way to lose money. The chances of making a profit are so small ... just the luck involved was a huge turn off. (#8, NG, 19, M)

A few participants noted that they had learnt about probability in high school maths using gambling examples to illustrate the chances of winning and the house edge: 'I remember doing stuff in maths about gambling. And I did not like gambling 'cause the maths proved that it was not a good thing to be doing' (#3, NG, 18, F) and 'The house always wins' (#4, NG, 18, M).

Participants also reported an appreciation of the value of money and saving for specific goals, which they usually attributed to their upbringing: 'Being taught not to waste money' (#10, NG, 20, M).

My parents have definitely instilled in me the value of money, like saving your money, being careful with it. I've had a job all through high school, but I've always saved that and invested it, and don't want to waste it. And 'cause I'm thinking of moving out next year as well. (#6, NG, 18, F)

Another key reason participants identified for avoiding gambling was their awareness of gambling risks and harm and not wanting 'to go down that slippery slope' (#37, NG, 21, M). Two participants had received a lesson in high school that covered topics like: 'Harmful effects ... some of the statistics ... the addictiveness of gambling' (#4, NG, 18, M). More often, their parents, witnessing or hearing stories of harmful gambling, and media reports had raised this awareness.

Mainly my parents talking about our family history and saying, 'You shouldn't do it' and I respect their opinion. My friends losing money, and a lot of Netflix shows. They showed people losing everything and becoming abusive because of the addiction. I don't want to be that person hurting others because I want more money that I'm not gonna make. (#7, NG, 18, F)

One participant noted he hardened his attitude to gambling as he became more aware of the industry tactics used to encourage persistence.

Definitely more negative because ... I picked up on the tactics that the house uses to get you to keep playing ... to get you to stay there. It is kind of scummy. (#4, NG, 18, M)

As they approached 18, most participants did not intend to gamble once of legal age and instead reiterated their opposition or lack of interest: 'I saw it as a waste of money. I knew the odds weren't good, so it never seemed like a smart choice. I wasn't interested in trying it' (#2, NG, 19, M). In contrast, a few participants left open the possibility of trying certain gambling activities, although their intentions did not appear to be strong.

I'm open to what my dad talks about, where you go to horse races a bit ... very small amounts of money, just for fun, but not for the purpose of trying to gain anything. (#6, NG, 18, F)

Maybe the casinos. That'd be something I'd be interested in. The other things like sports betting and lottery tickets, the interactions that I've had with it through childhood have been it's not worth it. Not that I'm not looking forward to it. I just wouldn't care. (#9, NG, 18, M)

4.2.9. Early adulthood: Turning 18 and resisting increased opportunities and encouragement to gamble

This cohort continued to avoid gambling once they turned 18, even though they had increased opportunities to gamble. These opportunities arose from being of legal age, but also because some went to gambling venues with friends or were invited to do so. Others had a job and could now afford to gamble.

We'd go out, and they'd be like, 'Oh my God, we can gamble now', but I was never interested. I'd just stand there while my friends gambled. (#1, NG, 19, F)

I've had a fairly substantial income since I turned 18. I have my own phone now for accessing apps and websites, but most of the time I never think about gambling unless someone else brings it up. So, despite having more access, it's less on my mind. (#8, NG, 19, M)

Most gambling opportunities arose from interactions with friends: 'I've sat in the pokies area with people because otherwise I'm sitting by myself outside' (#13, NG, 21, M), and 'I have definitely since I turned 18 been offered to go out to pubs and clubs to play the pokies. And especially sports betting' (#9, NG, 18, M). However, these participants resisted any peer pressure to gamble: 'I've always had strong opinions and haven't been swayed by peer pressure, but I can see how others would be. I just never had an interest' (#1, NG, 19, F). In contrast, several participants had friendship groups who were not interested in gambling: 'Once we all turned 18, not many of my friends became gamblers' (#4, NG, 18, M).

Encouragement to gamble once participants turned 18 also came from prolific advertising in a wide range of media.

On TV, the radio, and the posted signs outside the post office. The only new ones that have popped up since turning 18 were on social media, mainly Instagram. On the billboards, it's the lottery. On TV, I've only seen sports betting, and the radio is also sports betting. (#7, NG, 18, F)

Many participants noted that this advertising increased once they turned 18: 'It's definitely the most ads I've seen out of my life' (#4, NG, 18, M), and 'I've gotten more ads since turning 18, mostly sports betting ads on TV' (#1, NG, 19, F). Participants also reported increased advertising on social media: 'It's definitely increased a lot in recent times. YouTube have the ads before you watch a video and a lot of the time it'll be Sportsbet' (#5, NG, 20, M). Some participants referred to being targeted: 'On YouTube, you put in your date of birth. It's probably targeted more now that I'm over 18' (#5, NG, 20, M).

Participants reported that gambling advertising did not influence them to gamble, although one participant described the tussle between being tempted and his beliefs. Nonetheless, like the other participants, negative attitudes to gambling overrode any temptation.

They're on to me now with the advertising. Especially in the last 12 months, I have just been hounded with advertising about sports betting. Some of the ads, the bets you can do ... look like something where there's skill involved. And that makes me go, 'Maybe this is not as chance-based anymore. Maybe I could actually do this successfully'. On the other side, there's that belief system that's built up just going, 'No'. (#13, NG, 21, M)

One exception was Participant #11 who bought two scratch tickets when aged 20 or 21 after seeing people live streaming themselves scratching them.

There's been this trend on TikTok of people bulk-buying scratchie tickets and then doing them on-stream, and then adding up the amount. Last year, I had bought two scratchie tickets, but that's the only scratchie tickets I bought in my entire life. I guess that was prompted by watching that. (#11, NG, 22, NB)

Participants who played digital games also saw embedded gambling advertising. Overall, however, very few participants played digital games with gambling elements and most participants had reduced or ceased their gaming since turning 18.

4.2.10. Early adulthood: Continued negative attitudes towards gambling that were consolidated by further experiences

All participants nominated multiple protective factors that had shaped their views of gambling and their decision to avoid it in early adulthood. They all reiterated formative experiences when growing up that had consolidated their attitudes by later adolescence. As discussed earlier, these included parental discouragement of gambling; understanding the low probability of winning; seeing gambling as a waste of money along with appreciating the value of money; awareness of industry tactics to encourage persistence; and awareness of gambling risks and harm.

Additional experiences during early adulthood were said to further strengthen the participants' views and confirm their reasons for not gambling. A few participants had hardened their attitude after seeing friends' experiences with gambling.

I've noticed some new friends who want to do it quite often, and I feel like that's not a great personality trait. So, I'm still neutral, but leaning more toward not liking it ... Probably seeing all my friends lose their money. (#7, NG, 18, F)

In contrast, some participants had become more tolerant of people who gamble, mainly because so many of their friends did so and it had become a normalised activity in their age group.

In childhood I just frowned upon it. But now, I just don't really care to a degree. Probably just having so many people, especially within my friend group. In one specific group, literally every single one of them that's turned 18 is gambling. Even at school on lunch breaks ... It's normalised. (#9, NG, 18, M)

Some participants discussed that entry into adulthood led them to recognise they could now decide their own actions, and that gambling could undermine their potential to have a good life.

It's realising that I actually have to take responsibility for things. Once you turn 18, you realise you have to take care of yourself. I just don't feel I have the time for gambling and I'd rather be the responsible friend. (#7, NG, 18, F)

Other priorities and goals. I've always been relatively goal driven. Having other passions and interests. Building up a life that you find meaningful and then you don't want to risk that. (#13, NG, 21, M)

By the time the participants had turned 18, they understood that gambling presents low odds of winning. Having a job encouraged them to value their income, which they did not want to waste on gambling: 'Especially with working, it makes you realise, 'Oh, \$10! That's half an hour or an hour at my job. That's not worth throwing away' (#6, NG, 18, F).

Now I've got my own source of income, it's gonna disgust me even more because I don't want to spend it on something that has a chance to just come up. It's, 'Let's put money in the bin' essentially. I try to spend on something I actually enjoy or get some use out of, put it aside and save it rather than gamble. (#4, NG, 18, M)

While most participants reported being aware of the risks and harms associated with gambling before they turned 18, additional experiences in early adulthood strengthened their understanding. For example, one participant reported that a former boyfriend had a gambling problem, which further deterred her from gambling herself.

It just set in stone what I already thought and gave me an example of someone I know being affected. Actually being around it has made me not want to do it, more than it has made me want to. (#1, NG, 19, F)

In addition to personal experiences, other sources could amplify the participants' awareness of gambling harm. One participant mentioned the gambling harm taglines at the end of gambling advertisements were an ongoing reminder (#7, NG, 18, F), while another discussed his training in RSG (responsible service of gambling): 'When I turned 18, I got my RSG. So that was another aspect of awareness' (#4, NG, 18, M).

A few participants noted that they became more aware of the predatory tactics used by the gambling industry as they became older. However, as one participant noted: 'By that point, I wouldn't have considered gambling in the first place. It was more just extra examples of why it's a bad idea' (#8, NG, 19, M). Another participant explained that her greater awareness of the industry's exploitative practices was a key reason that she continued to abstain from gambling.

I've become more aware of predatory versions of gambling ... A lot of companies understand how addictive certain vices are and are trying to get people hooked ... When you know how corrupt these companies are, you don't feel good about supporting them ... I've become more aware of how gambling companies try and target vulnerable demographics like children, people with mental health conditions, and people in poverty. (#12, NG, 18, F)

4.3. The transition from non-gambling to non-problem gambling

Fifteen interview participants transitioned from non-gambling to non-problem gambling as they grew up. Several themes capture the nature of their experiences, and the risk and protective factors potentially associated with this pathway.

4.3.1. Childhood: Most NPGs were exposed to family gambling

All participants in this cohort recalled exposure to gambling activities during their childhood, including from parents, other family members, gambling venues, and advertising.

A few participants recalled from their childhood that their parents abstained from gambling. However, most participants noted that their parents gambled, but only occasionally and on low stakes activities including lotto, scratchies, keno and Melbourne Cup sweeps: 'One lotto ticket each once a year' (#28, NPG, 18, F), and 'They're not big gamblers, but Melbourne Cup was a standard in my family' (#19, NPG, 18, F). No participants recalled their parents being highly involved in gambling.

As children, some participants were involved in their family's gambling activities, including witnessing it, hearing about it, and participating themselves. One participant remembered playing keno and bingo with her parents once or twice a week from age six (#22, NPG, 21, F). However, other participants recalled more limited involvement.

Sometimes mum would stop at the lottery store to buy a ticket or a scratchie. She'd let me scratch it sometimes. I didn't think too much about the gambling aspect ... I had more fun with the scratching itself rather than seeing the numbers. (#27, NPG, 21, F)

One participant, whose grandparents looked after him while his parents worked, recalled regular involvement in their card games where he was allowed to keep any winnings, as well as yearly gambling games with extended family.

They like to play card games. I kept watching them play and then slowly, they included me. I'm around eight years old. They usually say, 'Okay, whoever wins the round gets 50 cents'. My grandma usually will pay for me if I lose, but if I win it becomes my pocket money ... And custom is Chinese New Year, everybody will gather and play blackjack ... when we can openly gamble and our parents will not tell us off. (#15, NPG, 22, M)

A few participants recalled receiving scratchies as birthday or Christmas presents. One participant described her anticipation of winning so she could get more tickets to extend her enjoyment: 'I wouldn't want the money, I'd want more scratchies because I loved playing them' (#22, NPG, 21, F). Another participant recalled her frustration at 'near-misses'.

If you scratch and you get four of some icon, you get this much money. There were lots of instances of \$10,000. And if I got three [icons] being, 'I was so close. If I if only I had one more, I could have got it.' (#19, NPG, 18, F)

Participants could also be involved in keno gambling during visits to gambling venues. One participant recalled that her first memory of gambling was playing keno with her parents and that she would benefit from any wins.

[Keno tickets] used to be on each table. I used to love grabbing the pencils out, the numbers, and then looking on the screen to see when they came out, and then my parents were like, 'Okay, we'll go put one on. Hopefully it wins' ... When we'd win, I'd get to go play the cool machines. So, I had that concept of, if my numbers come out, I get money and I get to spend money. (#22, NPG, 21, F)

Even if their parents did not gamble, participants were exposed to gambling if their family visited pubs and clubs. Several participants recalled seeing the keno screens:

'My eyes would be glued. I had no interest in the outcome. I was just curious about the flashing numbers' (#24, NPG, 20, M). Several participants recalled being intrigued by the poker machine areas they could see into.

You can't help but look in and see all the flashing lights and want to go in there, especially because you're told you can't. So that gave me more of a curiosity of, 'Oh, what's going on?' (#19, NPG, 18, F)

Advertising was an additional source of childhood exposure to gambling. Lottery advertising was often recalled: 'The big Powerball. The "Wouldn't it be nice?" [advertisements]' (#25, NPG, 21, M). Those who watched sport were more likely to recall seeing gambling advertising: 'Mainly sports betting ads on TV during the sport' (#18, NPG, 20, F). However, nearly all participants said they did not engage with the gambling advertisements they saw because they did not understand them or found them irrelevant: 'They'd talk about odds and such and I'd be like, "I don't know what you're talking about"' (#17, NPG, 19, F). However, one participant recalled that lottery advertising led him to daydream about winning.

I'm off to school and they'd have all the signs for it. 'Wouldn't it be nice?' It gets in your head. 'What would an 8-year-old do with millions of dollars?' It's hard not to be interested in the whole 'I can make \$5 into \$100' sort of situation. (#25, NPG, 21, M)

Most participants played digital games during childhood, and many reported seeing gambling-related advertising in gaming apps and online and social media: 'I definitely saw pokies apps with slots ads all the time' (#20, NPG, 21, F). While the participants recalled that most digital games they played had simulated gambling elements, such as wheel spins and loot boxes, they did not consider these features as central to their enjoyment: 'I played the games for what they were, not for the spinning wheels or bonuses' (#17, NPG, 19, F). Participants generally reported that, at the time, they did not connect these simulated gambling elements with monetary gambling. Few participants reported spending any money in games and some participants' parents did not allow them to play digital games at all.

4.3.2. Childhood: Cautious parental attitudes along with warnings and advice

Even though most participants had childhood memories of parental gambling, they recalled that their parents conveyed cautious attitudes about gambling, although some were neutral and 'not judgmental' (#20, NPG, 21, F). Only a few participants recalled their parents having strongly negative attitudes: 'Very against gambling' (#16, NPG, 23, M). Instead, most participants felt that their parents had more moderate attitudes: 'They didn't strongly discourage it but it was more like "You're better off doing other things"' (#24, NPG, 20, M).

While the strength of parents' opposition or caution about gambling appeared to vary, many participants clearly recalled their parents providing some warnings and advice to them as children. This included parental stories about the harmful consequences of gambling, which made an impression on this participant.

They always try to educate through examples of these people who gamble and, 'Look at them'. It always to me seemed this never-ending void, you just keep going and going for more and more, chasing. But a lot of people lose a lot of money ... have, like, in-flux living arrangements. All the money is being diverted to gambling. (#16, NPG, 23, M)

However, more so than focusing on harmful consequences, parental advice was said to usually convey that one should expect to lose at gambling and to not waste money on it: 'Their attitudes, like, "Oh, it's basically throwing money away", gave me the view that gambling is kind of pointless' (#21, NPG, 21, M). Other participants also appeared to take this advice on board.

She [mum] always said to me that if you want to gamble, that's okay. But you have to be prepared, whatever money you put in, to lose it. I've always had that in my mind when I see her or my grandparents gambling. That's been really helpful. (#19, NPG, 18, F)

Some parental advice was linked to 'teachable moments' that arose during the participant's childhood: 'We'd see ads and they would talk about how people lose so much money on gambling' (#17, NPG, 19, F).

I'd hear offhand comments. If a news story came up where someone had been affected by gambling, they'd make a remark like, 'They gambled their life away'. (#29, NPG, 20, M)

A game that I used to play on the computer was a poker game that I've never spent money on. Mum found me playing it and she blew up at me. 'Why are you doing this? This will lead to this, this and that. You don't want to be addicted to this sort of thing, and do you like so much trouble?' And that was eye opening. (#25, NPG, 21, M)

4.3.3. Childhood: Diverse attitudes to gambling

A feature of this cohort was the diversity of attitudes to gambling they reported from their childhood. A few participants appeared to take on their parents' moral opposition to gambling. For example, one participant who described his parents as, 'very against gambling. They're very conservative people', said he adopted a childhood view that gambling was 'really, really morally negative' (#16, NPG, 23, M). Some other participants recalled having negative attitudes to only some forms of gambling. They did not consider the activities their parents typically engaged in, such as lotteries, as gambling or think they could cause harm.

It was definitely as anti-gambling as you could get. But I didn't really see the lotto or anything like that as gambling. I saw that as a chance to win. I had separated those two things entirely. (#25, NPG, 21, M)

In my head, gambling was going to a casino because of the experience I had with a family member. He was doing that actively every day and it caused a lot of financial damage to their family. So that's what gambling was in my eyes. I didn't see a lottery ticket as gambling so I didn't think it was harmful. (#27, NPG, 21, F)

Many participants recalled having ambivalent attitudes to gambling when they were children, typically because they did not know much about it: 'I don't think I had much awareness' (#19, NPG, 18, F). In contrast, five participants expressed positive childhood attitudes to gambling. These ranged from mild intrigue, such as being 'interested or at least curious' (#20, NPG, 21, F), to excitement and anticipation. The following participants referred to their experiences of others' gambling as a reason for their eagerness.

Probably exciting. I'd think, 'Okay, when I turn 18, I can do this'. I knew I would do it because everyone did it. My parents would go out [gambling] with their friends, and I thought it would be exciting for me too. (#18, NPG, 20, F)

I thought it was fun. Something different. I was excited and I wanted to win. Watching other people win and their excitement, I wanted to feel that. I wanna be a winner. (#22, NPG, 21, F)

4.3.4. Adolescence: Peer influences that increased awareness of gambling and involvement for some

Nearly all participants recalled gaining increased awareness of gambling during their adolescence, including on a wider variety of gambling activities: 'By the time you're 13, I would have heard of, at least, all types' (#16, NPG, 23, M). Exposure to gambling tended to increase most in later adolescence, often due to peer discussions and peer engagement: 'It would be more my friends, definitely, that that exposure came through. Some would be involved in it a lot more heavily' (#25, NPG, 21, M).

A little over half the participants did not gamble at all before they turned 18. Some had friendship groups with no interest in gambling or resisted any peer pressure: 'None of my friends gambled. So, it wasn't an issue I faced directly' (#21, NPG, 21, M). However, nearly half experimented with some gambling during high school. This included buying the occasional lottery ticket, and one participant 'tried to make my own keno account when I was 14. I've now been banned for life. I can never have a keno account' (#22, NPG, 21, F).

More commonly, those who gambled engaged in private betting or sports betting with friends. Private betting was usually on casino-style card games, mainly poker and blackjack. Even when played for non-monetary stakes, these experiences could extend participants' knowledge about gambling: 'They [friends] would show us a new card game. It's more through them that I learned' (#26, NPG, 20, M). Two participants recalled playing card games for money: 'Around 16 or 17, my friends and I used to play poker at their houses. We'd bet a few dollars, maybe \$10, or play with fake money' (#20, NPG, 21, F). The following participant recalled spending 'at most, 20 bucks' on poker games.

They increased going from not happening at all in primary school, to somewhat happening in middle high school, and then about once a month in late high school. But we didn't get together just to play poker. It was just something some of us did when we were hanging out. (#24, NPG, 20, M)

Somewhat more common than private betting were sports betting-related activities with peers from age 15 or 16, notably amongst those with an interest in professional sport. Peer interest in sports betting was said to increase these participants' knowledge about betting products, normalise betting, foster a shared interest in watching and discussing sport, and be a way to gain group acceptance. One participant described participating in football tipping competitions with friends: 'The earlier years, it was just for fun. In later years, we'd all put money in' (#25, NPG, 21, M). A few participants placed sports bets through friends or with bookmakers: 'Online you could make fake accounts. They don't really make you prove an awful lot that you are 18 years old' (#25, NPG, 21, M).

We started watching sports and then some of my friends who bet on sports ask me, 'Would you want to play?'. So, I was involved with soccer betting. Watch English Premiere League. Then we started betting on things that we don't even watch. 'Oh, there's this match between this and this, you have 50-50 chance. Why not?' A few of us,

at the beginning, have not much understanding, but for the sake of joining, we just join. Later, we learn more about it and slowly be more involved. Friends' part is a thing, because, if you don't join, you have nothing in common to talk to them about, and then you'll be excluded. Basically, you want to be included. (#15, NPG, 22, M)

Some participants who did not gamble during adolescence recalled being tempted when they heard about their peers' gambling experiences, especially their wins. One participant also discussed being tempted to bet on esports when his friends were competing: 'Some of my friends were gaming competitively. I felt slightly inclined to bet for them to win but I didn't. That was a bit of a nudge though' (#24, NPG, 20, M).

A few friends that looked over 18 would gamble underage. And then tell you, 'I put 10 bucks through, took a couple 100 bucks out of the pokies'. That's hard not to excite your interest, especially when you don't have lots of money as a teenager. I remember thinking, 'Oh, I wish I could turn this pocket change into a lot more. How could I make the most of it? Gamble it'. (#25, NPG, 21, M)

Towards the end of high school, some participants' classmates had turned 18 and commenced gambling, which they might discuss with their younger friends: 'I was one of the last to turn 18 so I'd hear about my friends going to play the pokies and it sounded cool' (#17, NPG, 19, F). This participant recalled that some 18-year-old students checked their bets on computers during school.

Most people had turned 18 before I had. That's when you started to hear it more, talking about the State of Origin, sports betting, big tournaments around the world. They would be on their computers in class, checking their bets. (#19, NPG, 18, F)

For many, but not all, participants, gambling had become increasingly normalised by the end of their high school years: 'I don't know anyone who had a strong opposing view against it' (#20, NPG, 21, F).

4.3.5. Adolescence: Parental acceptance of moderate gambling but some continued cautions about gambling

Most participants recalled from their adolescence that their parents continued to occasionally gamble on low-stakes forms or refrain from gambling. Parental attitudes, as recalled by participants, tended to be accepting of gambling in moderation rather than anti-gambling: 'Mum wasn't really too concerned about me gambling' (#20, NPG, 21, F), and 'They weren't totally against it but they had the same attitude that there were better things to do' (#24, NPG, 20, M).

A few participants remembered that their parents continued to caution them about gambling and its potential consequences. One recalled that her parents' conversations expanded from advice that gambling usually results in losses, to its harmful effects.

Mum definitely reiterated that message of, 'You should be expecting to lose every cent you put into gambling', which was probably the biggest thing. We also moved into some more conversations about the effects of gambling. Some people lose their families, it's an addiction, and it tears families apart in some cases, puts people on the streets. (#19, NPG, 18, F)

In contrast, most participants said their parents did not discuss gambling with them but might be careful not to encourage it: 'We never had a sit down talk about it. It

was more just assumed' (#26, NPG, 20, M), and 'My mom never made a big deal if she ever won anything and only played occasionally. Same with my Nan. So, there wasn't a lot of encouragement to gamble' (#21, NPG, 21, M). One participant noted that these conversations lessened during his adolescence: 'Maybe they just thought they'd said enough' (#25, NPG, 21, M).

Another participant shared how her brother's gambling prompted parental conversations in response to the situation. Her parents were very against his online gambling but appeared to endorse other activities like keno and bingo that they played themselves. This participant appeared to adopt this distinction and tried to open a keno account for herself when aged 14.

It was definitely a household conversation at the time. My parents weren't big gamblers and they never online gambled. There were a lot of arguments, 'You're wasting all your money. You can move out if you don't do this', which then made me realise, 'Oh, maybe it's not a good thing'. But no one pulled me up on keno, so that must be fine ... I remember bingo being, 'That's okay 'cause that's low stakes, it's fun, and it's a social event'. (#22, NPG, 21, F)

4.3.6. Adolescence: Increased exposure to gambling advertising, especially in social media

Most of this cohort reported increased exposure to gambling advertising during their adolescence. Sports and race betting advertising was said to be ubiquitous, especially on social media: 'You get sports betting ad after sports betting ad after betting ad after betting ad' (#19, NPG, 18, F).

Social media is a big driver of betting ads. You'd see them anywhere, anytime, on pretty much any app or website. You'd get ads on YouTube, Instagram or Facebook, mostly for the big ones like Sportsbet. I'd constantly hear about them. Different betting agencies would encourage you to place a bet. (#21, NPG, 21, M)

Participants who were interested in sport reported being particularly exposed and attentive to sports betting advertising, which some felt targeted them: 'I follow the NRL [National Rugby League]. I think it was only getting to me because I was a footy fan' (#22, NPG, 21, F).

Watching footy, there were a lot more ads and when you go to a game there are big banners everywhere with betting companies as sponsors. It's a lot more in your face as you get older, especially in the footy scene. (#17, NPG, 19, F)

The level of exposure to gambling advertising also depended on the participant's social media use, which typically increased during adolescence while TV viewing declined. Participants frequently mentioned gambling advertisements that preceded videos on YouTube.

YouTube has a lot of gambling ads, no matter what content you're watching. You can't skip them. You have to sit there and watch the ad to get to the video you wanted to see. (#27, NPG, 21, F)

Participants also recalled seeing online streamers promoting easy wins on casino card games and slots. This advertising could broaden participants' knowledge about different games: 'All the streamers showed us a lot of games, like blackjack and different card gambling games and roulette' (#16, NPG, 23, M). However, some

participants recognised that streamers were sponsored and were therefore sceptical about the veracity of their wins.

I see it on TikTok. Sometimes a big streamer is playing. But it's obvious they're sponsored, being paid millions by these gambling companies. It's rigged for them to win. The gambling company is like, 'Look, it's so easy to make money'. (#16, NPG, 23, M)

Regardless of whether they used social media, participants might also see gambling advertising online, including when using school computers: 'A lot of Sportsbet. That would come up even at school when we researched things, on the sides of the screens. Even pokie machine games' (#22, NPG, 21, F).

I definitely did notice more ads. It was actually on school computer games that we could play and there would be ads that come up with slot machines. They would always come up. (#28, NPG, 18, F)

This cohort had varying responses to the gambling advertising they saw during adolescence. Many participants reported they ignored it or did not find it tempting, mainly because they were not legally able to gamble. However, a few participants remarked that this advertising had longer-term normalising effects and downplayed associated harms.

The main point of influence, except for friends or family, it'd be advertising. Like TV commercial ads, usually for sports gambling. It certainly makes it seem more normal, like a viable option, because it's just ubiquitous. You see it and it's just like part of everyday life. (#16, NPG, 23, M)

At 17, 18, I got into Formula One. 'Oh, it's a global sport. They have the advertising. It's not frowned upon. It's looked upon as something good, and encouraged'. So, I never was like, 'Oh, that's annoying'. If they advertise it, then it's not as bad or threatening as it is. (#26, NPG, 20, M)

4.3.7. Adolescence: Varying interest in simulated gambling

About half the participants recalled playing digital games during adolescence, which they said increasingly contained simulated gambling elements such as loot boxes, chance-based player packs and wheel spins. Three participants mentioned spending real money on microtransactions in games.

Even though they were the same games that I played when I was younger, those games evolved to have more gambling components. They were appearing more often, and they were in everything ... Initially, it was more exciting. (#19, NPG, 18, F)

GTA [Grand Theft Auto] got pretty popular in my friend group and ended up having a casino game in it, which was just pure gambling. And Call of Duty started having those loot boxes which I did a few times ... the casino was a way to get a lot more in-game money. (#25, NPG, 21, M)

Those who engaged in simulated gambling had differing opinions about its connections to monetary gambling and the appeal of simulated gambling elements. One participant recalled: 'I wasn't thinking, "What if this was real money? Or, what if this was gambling for something else, other than just skins?"' (#26, NPG, 20, M). In contrast, the following participant clearly recalled being excited by the simulated gambling elements and actively sought out games that had them.

I was like, 'Imagine if this was real money that I was winning?' There were a few where you match the different values of money to win different ones in the game. I used to love those. And the wheels that you spin. And the one where you pull the pokie lever, and it comes down with all sevens and things. Some farm games I wouldn't play because they didn't have a spin option. I definitely liked the element of having fun things, like the wheels and the mystery boxes, rather than not having them. (#22, NPG, 21, F)

4.3.8. Adolescence: Diverse attitudes towards gambling attributed to a range of risk and protective factors

By adolescence, this cohort had varying attitudes to gambling. A little over half recalled having negative or cautious views, which they attributed to their family's influence when growing up and their own realisation of the risks involved: 'I had my mum's voice in the back of my head, "You need to be prepared to lose everything you put in"' (#19, NPG, 18, F).

There's family influence ... But also all the stories, and you see that it's like this bottomless pit. You never want to start in the first place. Sometimes as I'm watching basketball, I'm like, 'Okay, what if I was to gamble here? Would I have lost or won?' And sports is a most random thing. Even the best NBA team ever has lost nine games. It's a lot of risk. (#16, NPG, 23, M)

A key reason for wanting to avoid gambling was considering it a waste of money. Again, some participants attributed this attitude to their upbringing where they were taught to value money and spend it wisely: 'Definitely the fear of losing money. I was raised like that, and I hold on to my money really tightly' (#27, NPG, 21, F). This participant noted that not wanting to lose money became his main deterrent from gambling.

Before high school it was more like, 'This thing could really harm you'. But when I got into high school, it shifted towards, 'This thing is really bad for your wallet. This thing's gonna consistently lose you money'. So, I shifted the reason I'm not a big fan to, 'It's bad for money'. (#23, NPG, 19, M)

Another stated reason for wanting to avoid gambling was having more enjoyable things to do: 'I thought "What's the point? There are more fun things to do". If I had been more bored maybe I would have done it, but I didn't' (#24, NPG, 20, M).

Other participants expressed a more nuanced attitude, such as this participant who had a negative view of gambling when it takes over other priorities in life.

It's fun to do when you want to, but when it starts overtaking other priorities in life, like spending a big chunk of your paycheque on gambling, then it becomes a problem. If you're getting together with mates solely for gambling, that's not great either. It takes over the social aspect. It's about actually having friends as friends not just people to gamble with. (#24, NPG, 20, M)

Six participants explained that their attitude to gambling softened during adolescence. This was attributed to their experiences with friends or family who gambled, distinguishing between different forms of gambling, and its overall normalisation where they could not avoid being exposed to it: 'As you grow up, your friends are doing it. It becomes a regular thing. I'm like, "Stuff it really. You're getting involved anyway"' (#16, NPG, 23, M).

Late in high school, my girlfriend's parents used the pokies. I still had a cautious view, but it was more relaxed. I thought it was okay if someone did it occasionally for fun. My brother gave it a go on his 18th birthday. I look up to my brother a lot, so that also made me relax a little about it. (#29, NPG, 20, M)

At one point I was really against it. I thought it was a waste of money and just not a good thing. It didn't support a good cause. It went to people making more money at the expense and exploitation of others. I remember learning that pokies were rigged, or that the algorithm was designed so that your chances of winning a decent sum were so slim. I remember thinking, 'What is the point?' I don't feel that way anymore. My thinking's progressed a little. There are other forms that are more reciprocal or predictable. (#21, NPG, 21, M)

Not surprisingly, these softening attitudes were most apparent among participants who already gambled or who had formed intentions to gamble. Being attracted by the chance to win money could lead to more acceptance: 'Definitely less anti-gambling. I didn't associate it with this massive negative, that it could potentially destroy lives. I started seeing, "I could make some money here"' (#25, NPG, 21, M). Other participants were more drawn to gambling because they had their own discretionary income, and because gambling was considered 'cool'.

It definitely changed, knowing that it was my own money. This amount on my paycheque is guaranteed. Whatever's left goes into a birthday fund, a Christmas fund, or a holiday fund. Then I'd have \$100 or \$2 left for food or things that harm you. It's my money that I've set aside just for me. So, I feel more comfortable spending it like that. (#26, NPG, 20, M)

Between 16 to 17, I was already starting to gamble, play pokies with my brother. My parents started gambling too. My friends would have videos. It's perceived as cool to have it on your Instagram story or your Snapchat story of you playing the pokies and blackjack, cards or poker. Having the chips in front of you was definitely perceived as cool. And it was talked about a lot more at the 16, 17 age. (#22, NPG, 21, F)

Reflecting their varying attitudes, participants who were not already gambling recalled mixed intentions to start gambling when older. These ranged from strong intentions to never gamble: 'At that age I thought I would never do it' (#27, NPG, 21, F), to 'something I'd be excited to do when I could' (#18, NPG, 20, F). This participant described wanting to partake in the 'rite of passage' of gambling on his 18th birthday.

I definitely couldn't wait to try the pokies, to say, 'I've done it'. It's a rite of passage as an Australian, turn 18, go to the pokies, lose your money that first day. But I wasn't ever like, 'I can't wait to put a multi on'. (#25, NPG, 21, M)

4.3.9. Early adulthood: Most participants experimented with gambling when they turned 18

Most of this cohort reported experimenting with gambling as soon as they turned 18 or shortly after. Some participants gambled on their 18th birthday to mark their entry into adulthood: 'You wanted to do it once for your 18th' (#28, NPG, 18, F). COVID lockdowns delayed this rite of passage for a few participants. Gambling on their birthday was usually on poker machines, although one participant bet on sports.

On my 18th birthday or shortly after, my girlfriend's parents gave me \$20 to go play the pokies. It was fun, especially because it felt like a rite of passage. Even if I wasn't

particularly interested in gambling, it was something I could do now that I was 18. (#29, NPG, 20, M)

When I turned 18 it was mid-COVID. So, I went to online gambling. I downloaded a few sports apps to see what it was like, 'cause my brother was like, 'Oh, you should now you're 18' ... [Once lockdown ended] I went to the casino and started playing table games. I was like, 'Oh, I want to try everything there is'. (#22, NPG, 21, F)

Even if they did not gamble on their 18th birthday, some participants were curious to try it soon after: 'I wanted to see what it [pokies] was about' (#17, NPG, 19, F). While many participants had drunk alcohol before turning 18, accessing gambling venues was more difficult, so playing the pokies was typically an adult activity they had not yet tried.

I was on a bit of a tirade to do all the things that you could do when you were 18. Not that I had that much new stuff to try, because I wasn't exactly the most well-behaved teenager. But pokies was one of the things that you don't have access to, unless someone sneaks you in, or the club or pub you're at isn't very good with managing who's going into those areas. (#21, NPG, 21, M)

First experiences of gambling once of legal age were nearly invariably with friends. Friends could encourage gambling and teach the participant how to gamble on different activities: 'I've gone in [a pokie venue] when I first turned 18. My friends showed me what you do' (#28, NPG, 18, F), and 'The first time I went, I put \$50 in and got up to \$200. I was with a group of friends, and they encouraged me to keep going. I got back down to \$50' (#25, NPG, 21, M).

Comments from friends like, 'Oh, now that you're 18, you need to try a casino' and, 'Oh, you haven't been to the pokies yet. You need to have your first try'. (#19, NPG, 18, F)

In contrast, a few participants recalled that they avoided gambling for some time after they turned 18 because they were not interested: 'It didn't cross my mind for a couple of years. I wasn't really hanging out to try it' (#20, NPG, 21, F).

4.3.10. Early adulthood: Divergent gambling trajectories after first experimentation in the context of increased opportunities and encouragement

After their first experimentation with gambling, some participants gambled only occasionally and on a limited range of activities. Their reasons for not continuing with some activities, such as the pokies, included that they had now had this novel experience, they did not find it interesting, or because they had lost.

I spent some money on the pokies once. I can't remember if I won or lost but I thought it was just so stupid. I did it once for the experience. (#24, NPG, 20, M)

The first time I used a poker machine I was 18 and I won about \$300 which was very exciting. That made me a bit more attracted to it, but the next time I didn't win anything and I immediately went back to how I was before – no interest. The effect of a loss affects my mindset a lot more than a win. (#27, NPG, 21, F)

Nearly all participants who continued to gamble on higher-risk activities, including poker machines and sports betting, reported that their friends were the main influence for this. In fact, several participants pointed out that they never gambled alone:

I've never gone to the pokies by myself. I've never bet on a sports game by myself. It's when you're out with your mates, 'Let's do this. It'll be fun'. (#25, NPG, 21, M)

Gambling with friends usually occurred when visiting pubs and clubs. Gambling was not the main purpose of going to the venue, but they engaged in it once they were there. A few noted that drinking alcohol when at venues with friends decreased their inhibitions about gambling.

It was never, 'Oh, I'm gonna on purpose go out and start' ... It's more a situation of if we were there. It's not what I would go out for, planning it, or anything like that. (#26, NPG, 20, M)

Participants discussed gambling because their friends were doing so, for the fun, camaraderie and to fit in: 'You want to join in with what your friends are doing. Not peer pressure, but fear of missing out' (#23, NPG, 19, M). Gambling was said to be a highly normalised aspect of going to a licensed venue with friends and a frequent topic of conversation.

Going to the pub with friends they'll say, 'Let's go have a slap' because it's just part of the experience. Since turning 18, I've done a lot of gambling that I wouldn't have been interested in before, just because it's what you do with friends. There's always talk about it, especially when you're having a drink. I gamble because my friends are doing it. Without them I probably wouldn't gamble as much. (#17, NPG, 19, F)

Other participants had little inherent interest in playing poker machines, but they did so anyway when out with friends who gamble, despite knowing they are likely to lose.

If I'm in a group where everyone's doing it, I'm probably gonna put in \$10 and do it myself. But I also know how silly it is and how there's really no point. (#28, NPG, 18, F)

Participants could also be encouraged to gamble regularly by friends who went out specifically to gamble. For example, when she turned 18, a friend introduced this participant to the pokies and they continued to play them together once a fortnight: 'My close friend loves it, so she encourages me to go all the time' (#18, NPG, 20, F).

After first commencing gambling, their range of gambling activities could expand as participants learnt from friends or family. These experiences could be one-time occurrences: 'Going with my ex-partner and his family to the casino, I found out about blackjack through them, and I tried that once' (#27, NPG, 21, F), and 'I've only recently tried sports betting. My boyfriend showed me how to put on a multi during the State of Origin and it made the game more fun' (#17, NPG, 19, F). Other participants had a more sustained pattern of increased gambling. For example, this participant bet on sports during high school, but then discovered he could bet online and on a broader variety of activities after turning 18.

Instead of playing in person or through the bookie, you can do it yourself online via the phone or computer. It's convenient. There's much more things to bet on nowadays that before I didn't know of. The only things I knew of betting was sports. But now they have elections, esports, even gaming. I'm into esports, so that increased my interest. (#15, NPG, 22, M)

In contrast, some participants related how they had decreased their gambling over time due to changing circumstances, such as their work situation.

I worked at a pizza shop and got paid in cash. My friends and I would go to the club after work and put money on the pokies, but I don't work there anymore so I don't gamble as much. (#17, NPG, 19, F)

A few participants talked about 'aging out' of gambling, gaining new and longer-term priorities. Some also changed their relationship with certain friendship groups as they sought to distance themselves from those who gambled frequently and had perhaps influenced them in the past.

My friend group in my first couple of years of uni was much more into going out, playing the pokies, visiting casinos. But I, as a person, have changed over time, and I'm not so much of that person anymore. (#21, NPG, 21, M)

There's definitely two parts of our friendship group. One, we all want to save and travel, and then the other half is stuck in that 18, 19 era. They very much just want to go to the pub, go nightclubbing and gambling. When we go out with them, they're putting \$500 on the pokies, they're still trying to chase, they're still getting more money out. And it's like, 'Oh, I don't really want to be around you anymore'. It's hard ... because you don't want to lose friends over it. (#22, NPG, 21, F)

Encouragement to gamble once participants turned 18 also came from advertising in a wide range of media. Participants typically noted that this advertising had increased in their early adulthood, especially for sports betting: 'You can't get away from it. Everywhere you look, it is screaming in your face, "Come, gamble"' (#25, NPG, 21, M). While participants noted that sports betting advertising is ubiquitous on TV, they also mentioned frequently seeing gambling advertising online and in social media, as well as 'so many text messages' (#22, NPG, 21, F). Online streamers, including some participants' peers, encouraged gambling by posting videos of their wins.

People take photos of their pokie wins and post them on Instagram or Snapchat stories. Some people I know have gone to casinos and won \$500, \$1,000, and they posted it online for everyone to see. I think that's a psychological encouragement. I'm like, 'That's not cool. That's not a good thing to promote'. (#21, NPG, 21, M)

However, most of this cohort felt that gambling advertising did not influence them: 'A sports betting ad might intrigue me for a moment, but it doesn't have a huge impact' (#29, NPG, 20, M). However, a few participants said that advertising could remind them about betting, or an advertised bonus could trigger their betting: 'The incentives draw me in ... Get the \$50 bonus' (#15, NPG, 22, M).

It is just a reminder, 'Oh, this is still an option'. [When] I'm not thinking about gambling whatsoever, an ad would come on and then it's in your head. (#25, NPG, 21, M)

Participants who played digital games also saw the embedded gambling advertising. However, most participants had reduced or ceased their gaming since turning 18 due to declining time and interest, and: 'There is not much point when you could do the real thing' (#25, NPG, 21, M). However, one participant described playing a game connected to her local club.

You spin this wheel and you get coins and then you play the pokies on the app. Then you redeem the virtual money for prizes within the club, like drink vouchers, bingo cards, things like that ... it's definitely a fun game ... it gets you hooked (#22, NPG, 21, F)

4.3.11. Early adulthood: Attitudes accepting of moderate gambling but opposing excessive gambling consolidated by further experiences

This cohort mostly expressed attitudes that were accepting of gambling in moderation. While one participant was now: 'against gambling, quite heavily' (#21, NPG, 21, M), and a few participants held relatively neutral attitudes, a more common view was that gambling was fun in moderation, but a problem when done to excess: 'For some people it's unhealthy the way they do it, but for me, I enjoy it as a fun thing to do' (#18, NPG, 20, F).

It's fun when you can control yourself – have a little go, win or lose. It's not a devilish thing. But some people get stuck in the pokies for years, and I hate that side of it. (#20, NPG, 21, F)

Participants often described the importance of keeping their gambling fun and affordable, and of not chasing their losses.

It's fun because it's exciting, and I take it as entertainment. I won't consider myself as a gambler, because every time before I start playing, I have plan to stop myself from going further than my budget ... I define people who gamble as emotion takes over them, and then when they lose, they will keep betting more and more, and get themselves hooked. If I lose up to the amount that I set for myself, I'll stop right away. Self-control is important. (#15, NPG, 22, M)

One participant described how his attitude to gambling had softened since engaging in it himself, but that he was still very against excessive gambling.

I relaxed a bit in the sense of judging someone my age for going to the pokies. Maybe that was a way for me to accept myself gambling a little bit ... [But] one of my best mates, he's fully addicted to gambling and I do judge that. We're all, 'Stop it, stop that'. (#25, NPG, 21, M)

This cohort considered that several protective factors during their childhood and adolescence had deterred them from over-involvement in gambling once they were adults. As discussed earlier, these factors included limited exposure to parental gambling; cautious parental attitudes to gambling; understanding the low chances of winning; seeing gambling as a waste of money; and awareness of gambling risks and harm. In addition to these formative influences, experiences during early adulthood continued to shape or consolidate their views.

Witnessing their friends' gambling losses and valuing the income they now earned could further impress on participants that gambling was a waste of money: 'Hearing about people losing lots of money. I've had friends spend \$300 in one night. That's stopped me from wanting to do it as well' (#18, NPG, 20, F).

Why waste money on something that's not guaranteed? ... now, working and knowing the value of money, it's like, 'Is this is worthy of your time?' You really start focusing on those different priorities for your money. (#16, NPG, 23, M)

Linked to valuing money was a desire to spend it on worthwhile pursuits and interests: 'I'm a big traveller and I'd rather put my money towards that. I get more satisfaction from receiving a package in the mail than from a betting slip' (#17, NPG, 19, F), and 'There's things that I'm more interested in, and I want to hold on to my money' (#23, NPG, 19, M).

As young adults, many participants discussed having first-hand experiences of witnessing gambling harm, beyond the more abstract understanding they had gained when younger. These experiences included their own or their peers' gambling losses, and concerns about their friends' attraction to poker machines.

A guy who we knew was in such debt because of gambling, so I was also exposed to experience where it's gone wrong. That's instilled in me that it's important not to keep pushing. And I suppose sometimes you've got to have those losses and feel them to know what it's all about. (#26, NPG, 20, M)

She [a friend] was playing the pokies. She said, 'I just love the pokies. I love the noises and the flashing colours'. And I remember thinking, 'Oh my God, that's terrible. That's literally why you're being sucked in'. She fed \$100 into the machine and just sat there tapping, and I thought, 'This is incredibly depressing. I hope you're not still doing this in 20 years'. (#21, NPG, 21, M)

Two participants worked in gambling venues and had become more aware of gambling risks and harm through their training: 'Hearing horror stories during my RCG course made me realise how damaging gambling can be. People can lose everything, and I don't know many people who win' (#17, NPG, 19, F).

Since I know how the machines work and the chances of winning big are low, I'm more realistic about it ... You see the ones who come in, say they're leaving, and then an hour later, they're still there. It's hard to ignore when you see how excessive it can get. But even so, I still have a neutral view. I have no problem going out and having a few slaps. (#20, NPG, 21, F)

The harm and exploitative practices of the gambling industry could also conflict with participants' values. These two participants described how they developed a moral opposition to gambling as they learnt more about how the industry operates.

Since knowing about betting and gambling as a big business, and that they hire psychologists to manufacture their games to keep people continually putting money in, it's just incredibly unethical and very exploitative of people who are vulnerable. It destroys families, relationships and friendships. I don't want to be a part of facilitating that ... It morally feels wrong to put money on real people, like in sports games, and animal racing I'm against. Not just for the betting aspect, but because it's exploitative for the animals. (#21, NPG, 21, M)

My personal faith as a Christian is a big one. I've taken that more seriously and thought, 'That's [gambling's] not a worthwhile pursuit in life'. There are other things I'd rather dedicate myself to ... We don't need it and the only people benefiting are those profiting off others' losses. (#24, NPG, 20, M)

Early adulthood could also be accompanied by less desire to gamble because it was no longer forbidden. A few participants discussed that they now found the prospect of gambling less seductive than when they were underage, because they could now do it legally.

Once you turn 18, everything you couldn't do, you can do now, so there's less of that urge ... When you're told you can't do something, it makes you more curious. The teenage brain works like that, I think. (#20, NPG, 21, F)

4.4. The transition from non-gambling to gambling to at-risk/problem gambling

Twenty interview participants transitioned from non-gambling to gambling and then to at-risk/problem gambling as they grew up. Of these participants, eight reported past-year problem gambling (PG) and 12 reported past-year at-risk gambling (AR) when recruited. Several themes capture the nature of their experiences, potential risk and protective factors associated with this transition, and the harm from gambling they experienced.

4.4.1. Childhood: Most had frequent exposure to family gambling, including on high-risk activities

All participants recalled being exposed to gambling activities during their childhood, including from parents, other family members, gambling venues, and advertising.

Nearly all in this cohort had childhood memories of their parents' gambling. This typically included low-stakes forms, such as scratch cards, lotteries, lotto and keno which their parents sometimes involved them in: 'keno, picking numbers' (#47, PG, 22, M), and 'My parents and their friends always buying scratchies. We'd scratch and see if we'd win a few bucks' (#43, PG, 20, M).

Numerous participants also had clear memories of their parents' gambling on high-risk activities, including poker machines, sports betting and race betting. Some were aware that their parents played poker machines when the family went to venues, even if they did not directly witness them gambling.

One of my parents would play the poker machines whenever we went to the club. My dad would stay with us and my mom would go have a quick slap, or it would be vice versa. (#46, PG, 23, M)

Parental gambling was often tied to sports watching, which could be a family activity that involved the participant in selecting bets. This involvement could expose participants to betting-related conversations and sometimes result in memorable wins.

We always went to the games. My dad would place a few bets. I remember once he told me to pick one of the players for the first try. I picked my favourite player, and he ended up scoring the first try and winning me 200 bucks. (#45, PG, 21, M)

We grew up watching rugby league. I have older siblings and I grew up hearing them say, 'Oh, this team's tipped to win' or 'What are the odds of this team?' Those are my first memories [of gambling]. (#46, PG, 23, M)

A few participants described their parents' frequent involvement in race betting, beyond the yearly bets that many parents were said to place on the Melbourne Cup: 'Dad had a punters club among his work colleagues or friends' (#32, AR, 23, M). The following participant recalled regular betting-related outings when family members would sometimes give him money and bet for him on his selection.

Mum's side [of the family] is very heavily into trotters. Whenever we used to go to town to the clubs or trots, there was always big betting. They give you a few dollars, and you say the horses you like. They put it on one of them. (#47, PG, 22, M)

During their childhood, some participants were involved in casino-style card games with family and friends. These games could be played for money or fake chips. Regardless, they were said to teach them how to play and about the concept of gambling.

We'd visit my grandparents a lot and often play poker. They taught me how to play. It wasn't necessarily betting with money. But the idea of gambling, taking a bet, taking a risk to earn more, was definitely there from age 10 ... You go from being a kid and playing card games at dinner for purely enjoyment, to being an adult and playing card games to win money. (#30, AR, 22, M)

My first clearly defined memory [of gambling] is my dad teaching me how to play blackjack. I think he gave me some money ... We [also] did card games with some of dad's friends. (#32, AR, 23, M)

Numerous participants recalled regular visits to pubs and clubs where they would see gambling activities, even if their parents did not gamble on them. They considered this exposure to be a normal and noticeable part of going to these venues for meals.

Going to pubs and sports clubs, where they have the keno on all the family tables, that's probably where it's most prominent. Noticing in venues, keno, animal racing or sports betting on screens. It's just thrown at you whenever you go. (#46, PG, 23, M)

When you'd go into a club and you walk past the pokies and you can smell the smoke or see the people going in. Under 10, you'd notice keno, you can see the screens and the numbers coming up. You get that exposure early on, just going for lunch. (#49, PG, 21, M)

Advertising was another source that could raise participants' awareness of gambling. While several participants were not sure whether they saw gambling advertising as a child, many clearly remembered advertising for lottery products: 'Lots and lots and lots of memories of the Powerball, the lotto' (#44, PG, 21, M), and 'big advertisements outside of your newsagency' (#43, PG, 20, M). Some participants who watched sport also recalled seeing sports betting advertising: 'When I watched NRL, there were always Sportbet ads' (#42, AR, 21, F). However, participants reported little interest in gambling advertising when they were children: 'I didn't really understand it. Something that I never tuned into, I always zoned out' (#33, AR, 20, M).

As children, most participants played digital games, many with simulated gambling elements, which they said included loot boxes, daily spins, spinning wheels, player packs, battle passes, mock casino games, and slot machines. All participants who played these games said they did not link these activities with monetary gambling when they were a child. However, many realised later that they were a further source of exposure to gambling-like activities and their embedded gambling advertising.

Overall, this cohort predominantly recalled that parents and family members were their main source of gambling exposure during childhood.

4.4.2. Childhood: Most parents did not talk to them about gambling

About two-thirds of this cohort could not recall their parents talking about gambling to them when they were a child. These included participants who said that their parents

never or rarely gambled: 'I was never made aware of any of it' (#44, PG, 21, M), and 'It wasn't something that came up. It was just something that was there' (#48, PG, 21, M).

Many participants whose parents gambled also said they did not talk to them about gambling during their childhood. Some of them pointed out that this could tacitly endorse gambling as a positive activity because they knew their parents gambled.

We've never discussed it. Definitely I would say the biggest influence I gained from them [parents] was that I thought gambling was okay. My parents do it. You look up to them. It's fine. (#43, PG, 20, M)

I don't think there was much discouraging it. No one ever said not to do it. It wasn't something we talked about much. I never got the sense that it was bad. (#45, PG, 21, M)

Some parents who gambled appeared to focus more on discouraging their child from gambling when underage, rather than advising they take a cautious approach as adults. Participants intimated that they gained mixed messages from parental cautions about gambling when their parents gambled themselves: 'I kind of questioned them. They would say, "Oh, when you're old enough and have the money, then go ahead and try it"' (#50, PG, 18, M).

Mum would tell you that playing a claw machine was like gambling and not to spend money. So, she knew it was naughty, but obviously she gambled as well. I would ask mum or dad for \$2 for the claw machine whenever we went to the club. It was only then that they said, 'Oh, I don't like you playing that'. I have faint memories of them having a conversation with other adults saying, 'Oh, it's gambling for kids'. (#46, PG, 23, M)

In contrast, nearly a third of participants recalled that their parents conveyed stronger opposition to and concerns about the potential consequences of gambling, often drawn from their own experiences with friends and family members. As children, these participants might pick up on these views from direct advice or from conversations among adults.

My parents have always been pretty anti-gambling. From a reasonably young age, I would have known that. Like, 'I have heard of friends that lost a lot of money through gambling', or 'he or she lost their house gambling'. (#30, AR, 22, M)

My grandma was intense about her dislike for it because there was a family history there. The big one was she didn't like the horses or the dog racing, because there would be the trauma there for her, and then also the animal cruelty. She was very informative of what goes on. (#35, AR, 21, M)

4.4.3. Childhood: Mainly positive attitudes to gambling

Of the eight participants who reported past-year problem gambling, none recalled having negative attitudes to gambling when they were a child. About half noted mildly positive attitudes, considering gambling to be 'benign' (#49, PG, 21, M) or 'okay' (#43, PG, 20, M). The remainder expressed more positive childhood attitudes, particularly because they were intrigued by what they saw in gambling venues but were unaware that people lost money on gambling.

I was interested by the poker machines, or the bright colours and crazy games. That young, under 12, you'd always get a little glimpse of it. As a kid, what you love is bright coloured lights and games and stuff. Also, helping my family, 'Oh, what's your favourite

number?' I'd say my number, and they'd use that for the keno. So, they made it fun for me. I didn't know that people are losing money. (#46, PG, 23, M)

Similarly, most participants who reported at-risk gambling recalled having positive childhood attitudes to gambling, that it was 'fun' (#32, AR, 23, M), and 'interesting, I liked it' (#41, AR, 18, F).

I just knew it was something you do when you're over 18. I always thought I would eventually do it, something I was excited to do when I was old enough. Not just to win, the social aspect of it. (#42, AR, 21, F)

In contrast, only a few participants in the at-risk group recalled having a negative or cautious view of gambling, which they attributed to their upbringing and advertising.

Probably negative connotations from my parents, but also advertising. They'll always go, 'Gamble responsibly. Always know what you can lose', or something like that. Growing up, instead of anti-gambling, I'd say [I was] probably cautious of gambling. (#30, AR, 22, M)

4.4.4. Adolescence: Peer influences that increased awareness of gambling and involvement for many

All participants recalled gaining increased awareness of gambling as they progressed through high school. During this time, about half of them gambled with money on commercial or private activities, nearly always with friends. Those who abstained cited lack of interest, limited money, little interest amongst their friends, and being below the legal gambling age as their main deterrents.

While the participants identified numerous sources that stimulated their awareness of gambling, including parents, social media, advertising and simulated gambling, friends and older siblings appeared to be the main source of influence. They could foster awareness, knowledge and excitement about gambling and sometimes provide encouragement and opportunities to gamble.

In this cohort, sport betting was the most prominent gambling interest that could become a central topic of conversation and learning within friendship groups.

My friends and I, we would have a few older brothers that would tell them, and then they would tell the rest of the group, what a multi was, when you're betting you've got a few legs going, and stuff like that. We had no idea what any of that meant, but we were slowly learning together. I knew of them putting a few bets onto sports because we would always talk about it. (#44, PG, 21, M)

This interest in sports betting could extend to private betting among friends. For example, this participant recalled his first bets with friends when aged 16 and the competitive element and bragging rights that accompanied it: 'If someone's got a disagreement about the outcome of a game, you just bet on it. You get to prove to the other person that you're right' (#31, AR, 23, M). This same participant recalled how betting started in his friendship group.

I remember in 2019, everyone had a bet on the basketball, the NBA. People put 5 bucks on it and I won the bet. So, I quite liked it. I watched basketball as a kid, I followed it. As a teen, you think you know a little bit more, know a bit more stats. You think, 'That's for certain, you're gonna win this'. And I think the other person's thinking the same thing.

You're not losing a life changing amount of money. The experience is positive. (#31, AR, 23, M)

Nearly a third of participants engaged in sports betting with commercial operators when underage. This betting could be done through fake accounts: 'The first night I had a sports bet I would have been 15, with a fake account' (#35, AR, 21, M). More commonly, sports betting was facilitated by older siblings but could also be through parents' accounts: 'People would use their parents' accounts or log into other people's accounts. Sometimes, I'd just tell my friends to place a bet for me. Probably monthly' (#41, AR, 18, F). The first participant below described private sports betting between friends when he was 15, that then progressed to betting with commercial operators. The second participant said he was influenced to place his first bet by his older brother, and they continued to bet together every one or two months.

One of my mates in high school, his brother was 18. By the time we were 15, we used his account to bet. It was all our money. We all had certain teams that we'd go for and if those teams were playing, we'd place a bet on the team. But obviously, if a grand final came up, or semi-finals, we'd do the whole finals. (#33, AR, 20, M)

My brother was into sports. Footy, everything, all you spoke about. The first bet I've made was influenced by my brother. He told me to pick someone who's gonna win a fight. He put the bet on for me and sent me the money that won. (#38, AR, 20, M)

Private betting on cards or other games was also relatively common during adolescence and discussed by about a quarter of this cohort. These activities could involve non-monetary bets, such as food, on who would win a competitive activity: 'Most of my gambling at that age would have been between mates around who can beat someone in a race or any dumb activity' (#35, AR, 21, M). More often, however, participants played casino-style card games with friends for money. These involved small amounts, typically \$5 or \$10, and were described as a social activity every month or so: 'Just a way for us to hang out' (#45, PG, 21, M).

You've got seven people playing poker and everyone is putting in \$5. Just a normal thing amongst a group of friends. Sometimes, one on one with other people, I'd play blackjack. Also, Monopoly or chess – placing wagers on outcomes of certain games, 'If I win this, I win the \$5'. (#49, PG, 21, M)

Several participants discussed having more exposure to poker machines during their adolescence, typically through going to venues with older friends or siblings or hearing about their experiences and wins: 'My brother ... he'd win 30 or 40 bucks on the pokies and the next day tell me about it' (#30, AR, 22, M).

When I was 17 and my friends were all turning 18, they would go to the pub and jump on the pokies, or go to the casino. They would tell me about it, or I'd have friends with fake IDs, and they'd go out and do the same thing. That definitely increased my understanding of it. (#30, AR, 22, M)

Two participants said they gambled on poker machines before turning 18. One participant recalled a one-off event, while another described playing the machines about monthly after having two initial big wins, using a fake ID to gain access.

I might have gone into a pub with a mate before I was 18 and he was just rinsing away his money and he said to me, 'Oh, have a slap'. I didn't know what I was doing and I just put in \$5 and it was quickly gone and then I wasn't very interested. (#49, PG, 21, M)

The first time I gambled, when I was around 16, I won a lot of money. About \$700. I went back the next week and won \$500. My first two experiences felt like I was getting free money, but I knew that wasn't sustainable. You see those little cards in pokies rooms that say, 'What is gambling really costing you?' And you see people who look depressed, losing all their money. [After that but still aged under 18] probably monthly with friends. If I was drinking and my friends were playing the pokies, I'd be more inclined to join them. I used the casino once with a friend before I turned 18. (#41, AR, 18, F)

One participant discussed gambling using skins on games of chance, such as coin flips and wheel spins. Because skins have monetary value, they can be used for gambling. Any winnings can then be further gambled or withdrawn as crypto or real money.

With the skins, you could take them to third-party websites and then trade them in for a balance on that. And then, if you use that balance, it would just be put into that website. It would be like an actual online casino. Then you could choose to withdraw it in the form of different skins that would then be sent to your game account. Or you could withdraw it as crypto or bank transfer. (#40, AR, 23, M)

Another participant described dabbling in cryptocurrency during high school, before starting to invest in shares instead. He considered these activities to be forms of gambling.

You can gamble on anything really, but some feel more like games, whereas some feel more like investments. And some perform better over the long term, whereas some are just like an instant win. (#32, AR, 23, M)

4.4.5. Adolescence: Few had conversations with parents about gambling but some continued cautions

About two-thirds of this cohort noted that, during their adolescence, their parents had not raised any cautions with them about gambling: 'From the ages of 12 to 17, I haven't spoken to them about gambling. Not at any point' (#31, AR, 23, M).

The remaining participants recalled some parental advice. This could include occasional guidance: 'No conversation telling me not to do it, just not to waste my money' (#36, AR, 18, F), and 'Every time my brothers would play pokies, mum would tell me, "Don't go play them"' (#38, AR, 20, M). In contrast, one participant recalled that his parents conveyed strong anti-gambling sentiments.

My parents had a pretty strong stance against it. They didn't want us drinking before we were 18. They didn't want us betting. Even getting a scratch ticket for my 16th birthday, my parents frowned upon. (#44, PG, 21, M)

The following participant recalled that his parents occasionally warned him against gambling, even though they gambled themselves. However, he said he became aware of the harmful consequences of gambling only when his siblings experienced difficulties.

Not a massive in-depth talk. Just a 5-second side comment. When we go to a club, 'Oh, make sure you never gamble'. But then they'd go and do it. They never said, 'This is the effect of gambling. This is how much you can lose' ... From 15, 16 years old, I started to notice what issues can arise. My siblings were visible examples of what gambling can do. (#46, PG, 23, M)

In contrast, family influences could send positive messages about gambling, including by example: 'All the family are heavily into it. Betting on sports, going to the casino. Other family members are platinum members at the casino' (#36, AR, 18, F). Family could also encourage the participant's interest and engagement in gambling.

My extended family all love sports ... When I wanted to do sports betting, I would talk to them usually about how it is, what it's like, the stakes, the ins and outs, the do's and don'ts. (#50, PG, 18, M)

Card games with my dad and his friends continued for 10 or 20 times total over a couple of years. I was part of the punters club for a little while, but that was more my dad wanting me to try. (#32, AR, 23, M)

4.4.6. Adolescence: Increased exposure to and interest in gambling advertising, especially in social media

Nearly all participants commented on the prolific gambling advertising they saw during their adolescence: 'Through television, social media, YouTube, word of mouth, posters ... It came mainly during my teenage years when I was in high school' (#50, PG, 18, M).

Sports and race betting advertising was said to be particularly pervasive, especially on TV and social media. As teenagers, several participants followed professional sport and recalled the concentration of betting advertising during live and broadcast events.

Watching the footy was the big one. Every time there was a try or a break in play, there'd be betting ads. I remember seeing TAB and Sportsbet ads all the time during the games. (#45, PG, 21, M)

In high school is when I think most of the ads were coming in, before games or in the middle of footy games. Basically, give you a rundown of the odds of each team, an example of what bets you could put on. That's where I first got really exposed to the advertising side of it. Sportsbet and others. (#46, PG, 23, M)

Sports betting advertising was also prolific on social media, which this cohort increasingly used in adolescence. Having their own smartphone was also said to increase exposure to betting advertising.

Sports betting was the main thing I started hearing about. I'd see people talking about it on Facebook and Instagram. Having my own phone gave me easier access to betting agencies and their ads too. (#45, PG, 21, M)

Participants also discussed posts they saw on social media by friends who promoted their gambling wins. In addition, participants might see gambling wins promoted by sponsored content creators and influencers, and betting companies promoted by affiliate marketers in return for a commission: 'A lot of people are getting sponsored by betting websites' (#31, AR, 23, M).

My social media usage went up a lot as you turn 13, 15. You come into Facebook, Instagram, Snapchat. Especially when I was 17, people were 18, going out and putting, 'I won \$300 on the pokies'. That's not directly advertising, but it almost works as advertising. (#30, AR, 22, M)

One participant relayed a story about his best friend when he was 16, who ended up becoming highly involved in sports betting. The participant recalled his friend being immediately targeted by social media when he started betting, which further entrenched him in betting through persuasive and personalised messaging.

He started with the app and a lot of social media. It targets it pretty quick. I would even notice it when I hung out with him. I'd come back and then all my social media would be ads for gambling because of what we were talking about. It almost trapped him into it. Social media was definitely more effective messaging, because it would talk very specifically and it wouldn't come across as an ad. It would come across as someone who does it, like that's their hobby. It was more Instagram. They are more invasive with the algorithm. (#35, AR, 21, M)

This cohort recalled having varying responses to gambling advertising when they were adolescents. Some participants ignored the advertising: 'I wasn't really interested. It was just part of everyday life, but it didn't pull me in' (#48, PG, 21, M). Being under the legal gambling age could also limit any immediate effect of seeing the advertising.

It piqued my interest because it seemed like an easy way to make money. But I didn't realise how easy it was to lose money at the time ... I didn't pay much attention to them back then since I couldn't actually gamble. (#45, PG, 21, M)

In contrast, a few participants were drawn in by the promoted returns from betting. They identified certain advertising messages that pushed betting as an easy way to make money.

They would show how much you could win per whatever dollar you put on. I was starting casual work. You're starting to earn money. Now this guy on the TV is saying to put \$5 on this multibet. It was definitely clicking a lot more. (#46, PG, 23, M)

I was curious about it to the point where I actually wanted to participate in sports betting. I reckon the marketing and how it persuades the audience, knowing that it's the easiest way to make money potentially. It was what they show, the offers. (#50, PG, 18, M)

The advertising could trigger participants who were already betting on sport to bet: 'I have placed a bet in response to ads. I can't remember a specific occasion, but around that COVID time' (#35, AR, 21, M).

Overall, however, participants reported few immediate responses to the advertising they saw during their adolescence, but some intimated that it shaped their thinking around gambling at this time.

4.4.7. Adolescence: Strong interest and involvement in simulated gambling

A notable characteristic of this cohort was that nearly all participants (except two) reported engaging in simulated gambling during their adolescence. Chance-based rewards mechanisms included loot boxes, battle passes, player packs, dice rolls and wheel spins. Grand Theft Auto, which had a virtual casino, was a popular game, and a few participants reported regularly playing social casino games.

Through year 10 and upwards, a group of the boys I was with used to jump on the casino apps on their phones. I'd play as much as I could. There was no money involved. You're just going through the game, daily spins, or whatever on a wheel. (#47, PG, 22, M)

When I was about 15, I played a poker machine game on my phone for 20 or 30 minutes a day. It wasn't for real money. It was just the thought of spending or winning money, even though it wasn't real. (#41, AR, 18, F)

Another feature of this cohort was that nearly all participants spent real money in digital games. This expenditure could be modest, but some participants reported spending relatively substantial amounts.

From 12 to 16, I was very heavily involved, and a lot more money was spent because I had a part-time job. When I was working four days a week, I'd probably spend half my paycheque. As a 14-year-old, we're only getting a 150 bucks. So, 75 to 100 bucks a week could be spent on skins or trying to get things. (#33, AR, 20, M)

Reported motivations for playing simulated gambling games included for social, competitive, status, and entertainment reasons, which could stimulate extended play every day.

Your friends are on this game and you'll want to have the best items. And to get the best-looking items, you can play this, and the more you play it the better chance you get. When you add that competition aspect to gambling, and with the bright colours and game mechanics and being able to talk about it at school the next day – what they got or what you got – it really adds fuel to the fire. (#46, PG, 23, M)

We became obsessed. We'd get on after school every day, play for a few hours, have dinner, and then get back on until bedtime. It was a typical boys' competition of who had the coolest skins. (#45, PG, 21, M)

Participants also discussed playing simulated gambling games in the hope of making money by selling the skins they acquired, often from loot box crates in the games: 'You could get all these skins or different things and then resell them for a profit' (#49, PG, 21, M).

You would pay to open it up, get a skin, and then there was a chance that skin could earn you few \$100 if you were to sell that skin. Once I discovered that feature, it was like, 'Oh, every week I'll put aside a few dollars to open a few crates'. Sometimes that'd be \$20. (#43, PG, 20, M)

Social media influencers promoted the excitement and apparent ease of acquiring valuable skins from loot boxes. Players may be unaware that these influencers are sponsored by the game company and that their wins are manipulated.

A lot of YouTubers who play that game would always taunt that there's certain skins out there that they have. They also make videos of them spending \$3,000 on opening cases. You'll feel excited to see that they're opening these cases and that they actually do win these prizes. (#43, PG, 20, M)

The following participant explained how new devices and technologies also facilitated the uptake of simulated gambling when they were adolescents, including multiplayer activities such as casino-style card games.

Between my ages 5 and 15, games absolutely took off and they progressed quickly. An iPad started coming out and then the iPhone 4. You could start playing all the casino games on your phone but pretend that you were playing something else. Absolutely appealing. Because that's when multiplayer were becoming a really big thing. All my mates would join up and we would all play blackjack together. Wonderful. We would also Skype when we'd all play the same game. (#44, PG, 21, M)

As noted by the participant above, having a personal device enabled young people to engage in simulated gambling in privacy which likely hindered adults' oversight of their online activities. Nonetheless, this same participant reported that his father intervened in his use of simulated gambling games. However, he was the only participant in this cohort who recalled any parental intervention.

I was about 14 when my dad told me to stop playing a certain game on my phone. You had a town and you'd need coins to rebuild the town. But to get coins, you'd have to spend coins on a poker machine on the game. There was a place where you could buy in-game currency, using real money. (#44, PG, 21, M)

While most participants were clearly attracted to the gambling mechanics in simulated gambling games, such as the chance-based rewards and the prospect of making a profit from skins, very few participants recalled linking these activities with monetary gambling at the time: 'Definitely not. It never really crossed my mind that they'd be similar' (#36, AR, 18, F). However, one participant commented how the games increased his exposure to and acceptance of risk-based games of chance.

I'm not sure it made me interested, but maybe made me more open to gambling or more exposed to it, more open to being willing to take on risk and to accept risk. (#49, PG, 21, M)

4.4.8. Adolescence: Attitudes towards gambling attributed to a range of risk and protective factors

During their adolescence, about half of the at-risk/problem gambling group reported gambling with money. This reflects the positive inclination towards gambling that most of this cohort expressed, including many who did not gamble when underage. Attitudes ranged from mild curiosity, to seeing gambling as an easy way to make money, to excitement about gambling. Only one participant recalled having a strongly negative attitude to gambling as an adolescent: 'Yeah, definitely negative' (#36, AR, 18, F).

Numerous factors were said to spark curiosity about gambling, including advertising and seeing gambling activities in venues and digital games, but particularly social influences from friends and siblings who had turned 18 and had commenced gambling.

Interested, definitely open to the idea, definitely more curious. Especially coming up to those 16 years. My friends turning 18. My brother was turning 18. You go to a friend's place to watch an NRL game, and a few of them would have a bet. And you'd know if they would be winning. (#30, AR, 22, M)

Hiding the poker machines in rooms. There was definitely the curiosity of, 'Oh, where's my brother?' We'd be having dinner and one of them would disappear. And it was just always a quick comment, 'Oh, he's in the pokies'. So, it was always some mystery. That made me curious. (#46, PG, 23, M)

Some participants saw gambling as an easy way to make money. Reinforced by gambling advertising, this view could be based on a belief that sports knowledge gave them an advantage when betting, or because they had already experienced early gambling wins.

I thought it was an easy way to make money. I was excited because I only saw the positive side of it. I figured that since I watched every game of footy, I could pick a try scorer or two and do well with it. I thought I'd be good at it. (#45, PG, 21, M)

A few participants described their softening attitude to gambling as they progressed through adolescence: 'More positive in my later teens' (#33, AR, 20, M). Greater exposure to gambling, social influences, and even a shift in mindset due to experiences during the COVID pandemic could lead to more tolerant attitudes towards gambling.

It was less negative. That was more exposure to it, it became definitely more of a social thing. Also going through those COVID years, and kind of feeling that carelessness towards a lot of stuff like, 'Alright, I'll give it a crack'. (#35, AR, 21, M)

In contrast, one participant described how his attitude toughened with media exposure to the potential harmful consequences of gambling. He also had savings goals and wanted to avoid wasting money. Another had been strongly cautioned by his grandmother who had been harmed by her father's gambling.

Gambling can be fine, except when it's hooking people into it so that it's uncontrollable. Seeing the harms, I don't think you see that as a kid. But when a news story talks about a specific person, how they've been affected, you can empathise and relate to that. Then it's like, 'Oh, this is why I've gotta be careful'. Because, if I feel that rush, you don't wanna waste away all these things you've been working for. I've been a saver, even as a teenager. I have goals, and I try and have strategies against wasting money. (#32, AR, 23, M)

A lot of this comes from my gran. Her father was an obsessive gambler. They were doing well and he was a highly educated man. But then he went down a slippery slide real quick. Every time I put a bet on, I was thinking, all that can happen that fast. (#35, AR, 21, M)

Reflecting the variation in the participants' attitudes to gambling, those who were not already gambling had mixed intentions to start gambling when older. Some expressed mild interest: 'I was interested, but not desperate' (#32, AR, 23, M). Others indicated anticipation and excitement about being able to gamble once 18.

Years 10 to 12, you realise it's only a couple of years before you can try things. So, then you get more intrigued, that rush of actually wanting to experience it. You're able to drink and gamble whenever you want. Because you're allowed to, you want to do it. (#47, PG, 22, M)

Several factors appeared to contribute to developing positive attitudes to gambling by adolescence. As implicated above, these risk factors reflected participants' formative experiences, including exposure to gambling when growing up, social influences from peers and older siblings, gambling advertising, experiences with simulated gambling, and the general normalisation of gambling: 'It's very normalised in Australia. There's a big gambling culture here, and people mostly talk about their wins, not their losses' (#41, AR, 18, F). The following participant discussed how avoiding these types of risk factors would have better protected her against gambling involvement during adolescence and her later experiences of gambling harm.

Not being so exposed to it – seeing less of it at home and school, and seeing more about the risks. And even ads and VIP lounge signs that are flashy and colourful. (#41, AR, 18, F)

4.4.9. Early adulthood: Gambling as a rite of passage on their 18th birthday or shortly after

Eight of the 20 participants in the at-risk/problem gambling group reported gambling on their 18th birthday, while another two did so as soon as COVID restrictions were lifted after they turned 18. This rite of passage involved initiation into playing poker machines, most often facilitated and funded by their immediate family. These participants and their family members appeared to see playing poker machines as a normalised and expected activity on reaching adulthood.

Day of my 18th birthday, went down to the pub, had dinner with my family, and then they threw some money at me, and I've got to go play the machines. Unfortunately, it was an extremely positive experience. I walked away with about \$800. (#44, PG, 21, M)

As soon as I turned 18, of course we went to the pub. It's this tradition in a lot of Aussie families. So, I had my first beer in a pub. I get free drinks all day by my family. Then my brothers took me into the pokie room. I won a couple of \$100. (#46, PG, 23, M)

My 18th birthday. Day of. Totally down to the pub straight away for lunch. Dad gave us 50 bucks each to go slap on the pokies for the first time. That was all we basically did that day. (#47, PG, 22, M)

Friends could also help mark a participant's 18th birthday by accompanying and encouraging them to play poker machines for the first time, even if the participant had not planned to do so. Friends could enhance the experience by celebrating wins or offering consolation for losses.

Pokies was the first thing I've ever did when I turned 18. I won that whole day. I still remember that. I was with all my friends and they were like 'bro, you're lucky because it's your birthday'. (#50, PG, 18, M)

The second I turned 18. Loved it. It was such a nice social thing to do with your friends. Everyone was excited to be there. If you win, it's absolutely mad. If you lose, you know, 'Try again another day'. (#44, PG, 21, M)

During their first experiences of gambling, some participants described how friends could be instrumental in teaching them how to gamble: 'They explained what all the buttons did, how many lines there were, how much to bet' (#45, PG, 21, M), and 'When I first got into it, a friend told me how to do the tickets for betting on horses' (#49, PG, 21, M). In contrast, friendship groups could also influence a participant to delay their commencement of gambling if it was not part of their group culture: 'It wasn't something that happened immediately after turning 18. That wasn't yet in my friend group. I don't think that was the culture of it' (#40, AR, 23, M).

Several participants recalled having early wins on the poker machines, which they said encouraged them to play them again. These participants described the following responses to these early wins and losses.

I think when people first turn 18, if they win they can be more prone to get hooked, but if they lose they're less prone to get hooked. I won on my first time. So, I definitely wanted to do it again. (#46, PG, 23, M)

When I turned 18, I started betting on footy, cricket, and anything really. Then you play the pokies once and they drag you in. Once you get that one big win, it hooks you in for a while. (#45, PG, 21, M)

In contrast, early losses could deter participants from further gambling for some time or gambling again on that activity.

The first casino trip I was super excited about. I remember going with my mates. Getting out \$100. And I'd say, 'Oh, it's gonna be awesome!' Then I lost it within 10 minutes. I was like 'I'm not doing this again, that sucked. I feel terrible. I want my money back'. (#35, AR, 21, M)

Participants typically played poker machines and sometimes casino games, before any sports and race betting. However, one participant who bet on sports when underage reported downloading a betting app on his 18th birthday and then betting regularly with his siblings, cousins and friends: 'As soon as I turned 18 and started a bit more, that's when I got a little bit more hooked' (#38, AR, 20, M). Another participant described his first form of gambling as: 'Crypto. I made an account pretty much as I turned 18' (#43, PG, 20, M). The tendency to first try poker machines was said to be due to their easier access in venues that participants went to, compared to other forms of gambling.

It becomes accessible. It's all legal. Pubs are almost dangerous for it in that it's there, it's flashy, and it's bright. Some big sounds, and it's right next to where you'll be. Whereas I think sports betting and horse racing, unless you actively seek it out, you don't stumble into it as much with the pokies. (#30, AR, 22, M)

4.4.10. Early adulthood: Escalation of gambling after first experimentation in the context of increased opportunities and encouragement

Participants in this cohort invariably recalled that their gambling escalated in the year or so after they turned 18: 'I'm legal age now so there were more things I could try. The explore stage where you're just seeing what's out there' (#43, PG, 20, M). This escalation could involve increased frequency and expenditure, as well as engaging in a wider variety of gambling activities: 'My first time was the pokies, then the casino and then sports betting' (#50, PG, 18, M).

Poker machines and sports betting were the two main activities that participants increasingly gambled on: '18, 19 was a pretty big poker machine time for me. And the occasional sports bet. And the occasional scratchie ticket' (#44, PG, 21, M).

In my first year of apprenticeship, when I was 18, I would've been spending between \$400 and \$500 a week on the pokies. I'd get paid on a Friday and my mates and I would go straight to the pub. By Saturday morning, I'd almost be broke. That went on for about 18 months. Most weeks, I'd spend the majority of my pay on the pokies and beers over the weekend. (#45, PG, 21, M)

It became more frequent because it was more accessible. Probably fortnightly, or even weekly. Mostly online sports betting, betting on horses, things like that. (#41, AR, 18, F)

The participants discussed several factors that acted to heighten their gambling. Naturally, being of legal age was a key factor, but several also commented on the ready accessibility of gambling: 'At the pub, where you order the food is right next to

the entrance to the pokie machines. So, as a curious 18-year-old, with \$20 in your pocket ...' (#30, AR, 22, M).

Once you turn 18, it becomes legal, and you can do what you want. It's very accessible. You can do it on your phone or computer, and most places you go have it available. (#48, PG, 21, M)

Participants who regularly played poker machines commented on their product features that drew them in and encouraged persistence. One participant identified the continuous games, instant results and proliferation as key factors that encouraged his gambling and the powerful effect of a big win. Another emphasised the audio-visuals, social endorsement, and adrenaline rush that poker machine gambling provides.

With pokies, if I win 200 bucks, there are 50 other machines right next to me, and I can keep going. It's more instant gratification with pokies and you can keep going. But with sports, there's usually just one game or event, and you have to wait for the outcome. On my 19th birthday, I won about four grand, and that's what really hooked me. (#45, PG, 21, M)

Pokies is my is my kryptonite. The flashing lights, the nice little noises. You've got people looking your way, and they're walking past and 'Good job', and it makes you feel good. It's getting high without getting high. It's from the adrenaline rush. You feel good when you're doing it. (#44, PG, 21, M)

Friends were said to be a key influence on many participants' gambling, particularly when they first started. Gambling with friends could add to the excitement and camaraderie when watching sports together: 'The social aspect and watching sports. It makes it more entertaining when you've got a stake in the game' (#41, AR, 18, F). Some participants only bet on sports if they were with friends who also bet: 'It depends on the friend group. During the State of Origin, everyone would gather up. Then I go, "I may as well put a bet on"' (#31, AR, 23, M).

Playing poker machines could also be influenced by friends. Participants sometimes gambled when they went out because their friends did so, particularly if they were drinking together: 'We would go out to the city and then my friends would play so I would do it as well. It's more like if I'm drinking' (#42, AR, 21, F). Similarly, another participant recalled playing the machines during his first year at university, even though he did not enjoy it.

If you go out with your college mates, you go to a pub. And then all the boys go to the pokies, and I tried that. And that was so horrible. Dead boring. You're just staying there. You're like 'I'm not a fan of this', but you just take part in it. (#35, AR, 21, M)

Other participants discussed how gambling became embedded in their group culture as a regular activity they would do together. Some intimated that gambling with people who spent a lot of money on gambling heightened their own expenditure.

When I turned 18, I think mainly it was socially. Every weekend I'll go sports with my brother. After work go to bars, and then maybe on the weekend, my cousins will wanna go out to the pub again. My cousins and mates are pretty big gamblers. (#38, AR, 20, M)

When I was 18, I was making about the same amount as them [my friendship group]. We were all spending the same amount. Kind of an ego thing where we're like 'Oh, it doesn't

matter if I get more money out'. On up till 'I'll get more than you' sort of thing. (#44, PG, 21, M)

Several participants reported they also started to gamble alone: 'Playing pokies started off social and got to the point where I was going solo a couple of times a week' (#44, PG, 21, M). One participant discussed that he gambled socially for entertainment, but his solo gambling was driven by wanting to make money, including by betting his wins.

When I'm doing it socially, it's definitely a form of entertainment. But when I'm doing it solo, it's a little bit more, ideally, to make money. Lots of sports, NRL, multis, but also a horse race or a dog race. I bet more if I have disposable money in my sports betting account after winning. (#30, AR, 22, M)

Advertisements were a further source of encouragement to gamble once participants turned 18. They typically noticed increased advertising, especially for sports betting and in a wide range of media: 'Any social media or broadcast thing you watch pretty much always has some sort of advertisement for it. It's always sports betting' (#40, AR, 23, M). Participants particularly noticed the inundation of sports betting advertising in social media: 'It's massively increased. Sometimes I've clicked on one ad, and then it's like an explosion, you'll get like 50 more in your feed' (#32, AR, 23, M). Participants felt intensely targeted by this advertising.

They can target their ads to age groups. Once you turn 18, you can be targeted by gambling ads on Facebook, Google. That's one I definitely picked up on after turning 18. (#46, PG, 23, M)

The biggest one is Instagram reels. For that first year, I would get videos that would explain people's system, with spreadsheets and how they win every time. It gets very targeted towards you and what sport you are looking at. (#35, AR, 21, M)

The reported influence of gambling advertising varied, with some participants saying it had little effect on them: 'They don't really influence me' (#48, PG, 21, M), and 'I don't really pay attention' (#47, PG, 22, M). Unsurprisingly, participants who bet on sports reported the most influence. They recalled placing bets in response to reminders and triggers to bet, inducements to bet, and advertising that promoted a good chance of winning: 'It's a reminder every time you see them. It's a cue, and if you're not strong enough to look past it ...' (#46, PG, 23, M), and 'If I get a message and I wasn't going to bet on the game that day, but I got the bonus bet, I'll put the bet on' (#31, AR, 23, M).

I get a lot of texts with odds, deals, and money-back guarantees from different agencies. Absolutely it encourages me to bet. If I'm at home or at work, gambling is the last thing on my mind, but when I get a text saying, 'This team is paying \$4 to win', I'll place a bet. As soon as it's in front of me, I think about it. Watching the footy is when I see the most ads, especially for Sportsbet. They show you the odds and stats, like how many tries a player has scored in recent games. It's hard to say no when they give you those stats. They make it seem like you've got a good chance of winning. (#45, PG, 21, M)

Participants also reflected on the longer-term effects of gambling advertising, such as online influencers promoting an affluent and glamorous lifestyle built on gambling.

When I was 19 to now, there's a lot of the idea, all from social media, that if you teach yourself gambling, you could then become one of those influencers that became rich via gambling. Therefore, you want to do it as well. (#43, PG, 20, M)

Participants who played digital games also saw embedded gambling advertising and simulated gambling features during their early adulthood. However, most participants had reduced or ceased their gaming since turning 18 due to declining time and interest: 'All my close friends are doing the same as me. We're no longer as fixated on playing video games' (#44, PG, 21, M). In addition, digital games were less appealing now that participants could engage in monetary gambling: 'I'd rather gamble on something where I can win money. So, that's when I veered more onto sports, poker machines or horse racing' (#46, PG, 23, M).

4.4.11. Early adulthood: Experiences of gambling harm

This cohort described short- and longer-term harms from their gambling across several life domains. These impacts varied in severity but could compound over time.

4.4.11.1. Emotional harm

Emotional repercussions of gambling were commonly mentioned, including feelings of regret, guilt, shame, low self-esteem, and stress. Immediate disappointment and anger were typical after losses: 'When my multi doesn't hit, like my bet gets so close, I get a bit sad throughout the day and then a bit angry' (#31, AR, 23, M), and 'If I lose, I'm in a bad mood. I get anxious, thinking, "Why did I do that?"' (#41, AR, 18, F).

Anger and tension could also build over the longer-term, compounded by feelings of guilt and stress about the decisions they were making and how to recoup losses.

More just general anger from it. It wasn't looking at the wins or losses. It was just being on edge. There's a bit of a guilty conscious all the time. (#35, AR, 21, M)

I would definitely feel a lot of guilt. But I would still play pokies and casino activities. Then, you feel there's ambiguity. You don't really know what you're doing anymore. You don't really know how you can get that money back. (#43, PG, 20, M)

These emotions could result in participants feeling ashamed and disappointed in themselves as they repeatedly gambled away their money. They intimated that this shame arose from not being able to control their gambling, despite promising themselves they would cease. This shame could compound with continued failed attempts to stop, cause distress, and erode their self-esteem over time.

I'd spend most of my money on gambling. When I woke up the next morning with next to nothing, it was awful. Realising I'd done it again was a horrible feeling. I was disappointed in myself, but I'd still go and do it all over again. (#45, PG, 21, M)

You feel like you've cheated on yourself, your rational self. You've lied to yourself because you said you weren't gonna do it. You just get tired when you've been doing it for so many years. I've said to myself, maybe 200 times, that I'm not going to gamble anymore. But I still to this day gamble. So, each time you return, it gets that bit harder to manage those emotions. It feels a lot worse than when you said you weren't gonna do it the first time and came back again. (#46, PG, 23, M)

Shame could also result in embarrassment and guilt about being unable to afford activities with friends and family but not wanting to admit that gambling was the reason. A few participants discussed that these stressful emotions became tiring and eventually prompted them to change.

I'll definitely have guilt about it. You realise how much you've spent. And then you realise that you're going away with family and you don't have the money because of how much you put through. (#47, PG, 22, M)

Honestly, it just got embarrassing. There'd be times where I couldn't even afford to go out to dinner with my friends because I'd spent all my money. I didn't want to admit I was broke, but I was working full-time, and there was no reason I shouldn't have been able to afford a simple dinner. I got tired of always having to check if I had enough money to buy something small, like a pie from the servo. That's what really pushed me to stop. I got tired of not being able to do anything during the week. (#45, PG, 21, M)

4.4.11.2. Financial harm

Participants frequently highlighted financial issues caused by their gambling. These impacts mainly accumulated from regular incremental spending, rather than occasional substantial losses.

It was always in \$5, \$10 increments. But if you double it, all of a sudden, it's the rent ... it's more than I thought I had spent. It was a little bit of a shock. (#30, AR, 22, M)

Not realising how much gambling was costing them at the time, some participants later realised they could have allocated these funds to more meaningful activities or to achieving longer-term goals.

When I first started, I didn't understand how quick you can lose your money and how often you are not getting back in the black. So, it has impacted through that. You realise how much you could be spending on something else, or saving for something else. (#47, PG, 22, M)

Most commonly, gambling expenditure undermined participants' ability to spend money on other purchases and to save. Instead: 'That went straight down the drain' (#46, PG, 23, M), and 'Back and forth from the ATM. You know that you've spent too much money and that now, instead of having \$1,500 for the fortnight, I've got \$500' (#44, PG, 21, M).

I've put in more than I've actually won. I'd put more on throughout the day, just keep adding more into the [sports betting] account. It's affected my ability to save money. (#41, AR, 18, F)

A few participants recalled times they needed to borrow money from family or friends because of their gambling expenditure.

One night I lost \$1,000 and I went home and I told them, 'Oh, I need money for petrol in the car'. 'Didn't you get paid yesterday?' 'Yeah, I just lost the majority of my paycheque'. (#44, PG, 21, M)

Overall, however, financial losses from gambling appear to have caused relatively short-term stresses and sacrifices for this cohort. This reflects their young age, and that some still lived with their parents and had few financial responsibilities. In

addition, some participants had moderated their gambling expenditure once it started to escalate.

I never spent enough money that it was a harm, but it easily could have been if I kept on going. Because it's not linear. It's not like 5-10-15-20-\$25. It's like \$5, \$50, \$500, \$5,000. I feel like it goes up like that. (#32, AR, 23, M)

4.4.11.3. Work and study harm

Most participants were engaged in work or study and some reflected on how gambling had interfered with their responsibilities. A few participants recalled using work time to bet or being distracted by betting during study time: 'Watching races and putting money on, so it's taken away from your study time' (#47, PG, 22, M). None indicated any more serious vocational effects of gambling, such as losing a job.

There's a few times where I was at work but I just had to put on that quick bet. Or just being distracted. Your team's playing tonight and you want to quickly put on the bet. (#46, PG, 23, M)

4.4.11.4. Relationship harm

Gambling occasionally caused difficulties in participants' relationships. For those in romantic partnerships, arguments could arise over broken promises, prioritising gambling, or financial constraints: 'It affected my relationship with one of my girlfriends' (#44, PG, 21, M).

Relationships with friends and family were also affected. Some participants could not afford to socialise with friends on activities that cost money or were too distracted by gambling to fully engage in family outings. They might also hide the extent of their gambling from family and friends.

I had a close group of friends and we'd hang out together on the weekends. But I'd have to say no whenever they wanted to do something that involved spending money. That was the biggest impact – it limited what I could do with them. It was pretty hidden. My friends knew I played the pokies, but no one knew the extent of it. I kept it to myself. (#45, PG, 21, M)

Being at a club. Everyone's having dinner. And where are you? In the poker machine room. So, now you're prioritising that domain over sitting at a table with your family. You trade in family time. Then you sneak off and you're just attached to this screen. (#46, PG, 23, M)

4.4.11.5. Physical health harm

Most participants reported little impact on their physical health, although the harmful combination of gambling, alcohol consumption, and sedentary behaviour was noted. Gambling when affected by alcohol could reduce inhibitions and increase gambling expenditure: 'If I am gambling, I will drink. If I'm at a pub, there's that pressure where you have to, and as you start drinking, you start gambling as well' (#47, PG, 22, M).

Most of the time, whenever I gamble, I'm either bored or I'm drinking. So, it's always paired with alcohol or with me being lazy and not exercising or doing physical things – it's just paired with unhealthy behaviours. (#46, PG, 23, M)

4.4.12. Early adulthood: Some moderated their gambling in their 20s, shaped by their direct experiences with gambling harm

At the time of their interview, about a third of this cohort, all in the older age group of 21-23 years, reported they had moderated their gambling over the past year to reduce the harm they were experiencing. For example, one participant who played poker machines about three times a week when he was 18 and 19, reported: 'This year, I've only played the poker machines twice' (#44, PG, 21, M). Another participant, who previously spent \$400-\$500 per week on poker machines, said: 'I'd be surprised if I've spent \$100 on the pokies this year. I still bet on the footy and the horses, but the amount I spend has gone down drastically' (#45, PG, 21, M).

This changed behaviour was attributed to several factors arising from participants' direct experiences with gambling harm. Changing priorities as they matured could become incompatible with their gambling habits. This view could be reinforced by other people, including friends and partners.

Definitely, the maturity level. Definitely the friend circle, us all maturing together. We're now looking at, 'How we can better ourselves?' I have other priorities. I've got lots of work to do, I've got a girlfriend. Disapproval from them, and the realisation on my part that yes, that money could be going towards something else. (#44, PG, 21, M)

Increased financial responsibilities after moving out of home also needed to take priority over gambling.

It's mostly my responsibilities. When I first turned 18, I had no bills, nothing to pay off. The money just didn't matter to me back then, but now I've got a car loan, health insurance, phone bills, rent. I can't afford to be spending \$500 a week on pokies and other gambling anymore. (#45, PG, 21, M)

Changing priorities could include more emphasis on using their time well, focusing on their health, and planning for the future: 'Even thinking about the amount of time it takes, I'd rather focus on my career than think about what horse I should bet on' (#49, PG, 21, M), and 'I started focusing more on fitness, so I wasn't going out as much. If I wasn't out, I wasn't gambling. My priorities changed and that really helped' (#45, PG, 21, M).

I really wanna save for some big things in the future, whereas [before], if I had money left at the end of the week, it'd be like, 'Oh, why not?' Especially if you have a chance of winning. (#32, AR, 23, M)

Participants had directly experienced accumulating gambling losses, which raised their awareness of the financial cost of gambling: 'It gets way too expensive. You lose way too much' (#47, PG, 22, M), and 'The longer I'm there [gambling], the more money I'll lose' (#31, AR, 23, M). Some participants also noted that their increased income meant they now had more money to lose if their gambling was uncontrolled: 'Instead of potentially losing \$50, we can now lose \$500' (#44, PG, 21, M).

Several participants commented that some friends had lost control over their gambling and suffered severe harms. Witnessing these experiences had emphasised the harmful consequences of gambling and the need to avoid a gambling addiction: 'The fear of losing, or losing a significant amount of income, or getting addicted, because I know what it can do' (#40, AR, 23, M). This same participant stopped playing poker machines after learning that his father was

currently struggling with them: 'Pokies, recently, I just cut that off, because I know now what my dad had been doing. I didn't want any part of it' (#40, AR, 23, M).

One guy I know was really bad. He'd borrow money to place bets, lose that, and then borrow more. It spiralled out of control for him. Seeing that made me realise I don't want to get to that point. I don't want to give myself the opportunity to lose control. (#45, PG, 21, M)

I had a friend who went down the gambling path, way too hard. I saw the impact from that. I also had a cousin very hooked on poker machines and some of my siblings as well. So, I've seen the effects of hardcore gambling. That has definitely had an impact on how I treat it. (#46, PG, 23, M)

After witnessing their friends' harmful experiences, some participants changed the activities they did with friends or found new friendship groups who did not gamble as much: 'When I was 18, I was with a separate friend group, and [since] then I found another friend group' (#44, PG, 21, M). Another participant reported he now rarely goes to gambling venues with friends and that, over time, this had lessened his urges to gamble.

I'm trying to stay away from the venues that have it. My friends go to the pub. I just won't go with them a lot of the time. And after you stay away long enough, then it doesn't feel like a compulsion anymore. (#32, AR, 23, M)

Some other participants decreased their gambling after realising they were not enjoying the emotions it aroused in them. These emotions could include tension, anger and remorse.

I'd be taking my girlfriend out and watching those sports games and having a bet on it. I'd be getting pissed off. I remember feeling a rage, and I was like, 'This is horrible'. (#35, AR, 21, M)

Participants had already begun to experience the addictive effects of gambling, such as irrational thoughts, loss of control, denial of its harmful consequences, and the rush of excitement. Becoming more aware of these symptoms prompted some participants to take steps to better control it.

When you gamble, another part of your brain takes over, the rewards part. As soon as you enter one of those rooms or you start betting on sports, you lose all sense of being rational and thinking of what you can lose. When you start getting that adrenaline and the emotions and your friends are doing it, and your team is playing, another part of your brain completely hijacks your thinking brain. It's like every smoker. Smoking's bad for them, but they still smoke. (#46, PG, 23, M)

A few participants reported decreasing interest in gambling as they became aware of and sceptical about the exploitative tactics the industry uses.

The way it's been by industry to supersize everything made it really unappealing. Doing everything they possibly could and being really unethical. It's become something that's not nice anymore. And even if you did used to like it, now it's like, 'I don't really wanna support that so much'. (#32, AR, 23, M)

Pokies are basically 100% rigged against you. They make machines so that it keeps you interested enough and gives you just a good amount of money back, but still takes money away from you. So, I just lost interest. (#49, PG, 21, M)

While the participants attempting change used a range of strategies to help moderate their gambling, including budgeting, limiting their access to cash, taking up new hobbies, and avoiding gambling venues, they were still in the early stages of behavioural change. Some of these participants still struggled to resist gambling urges. Further, most participants in the at-risk/problem gambling group were not attempting to reduce their gambling at the time of their interview.

Chapter 5. Discussion and conclusions

Key findings

1. What is the nature and extent of youth gambling transitions?

- Youth gambling patterns are dynamic, with transitions and trajectories varying between non-gambling, non-problematic gambling, and at-risk/problem gambling.
- By early adulthood, some young people show a stable trajectory of non-gambling since childhood, others have transitioned to monetary gambling at non-problematic levels, and a minority have transitioned to at-risk/problem gambling.
- The transition to monetary gambling is typically unidirectional, and at-risk/problem gambling in adolescence often persists into early adulthood.

2. What harm is associated with these transitions?

- Gambling harm in youth is primarily emotional and financial, although it may also affect relationships, work, and study.
- Gambling harm is predicted by prior at-risk/problem gambling, and underage gambling even at non-problematic levels.
- While some young people may moderate their gambling due to this harm and age out of intense gambling, harmful patterns may persist into early adulthood.
- Gambling harm may also impact their future wellbeing, since early adulthood is a critical foundation period for finances, mental health, relationships, and careers.

3. What are the protective and risk factors that impact these transitions and associated harm?

- Young people experiencing different transitions report widely varying influences, including from parents, peers, advertising, simulated gambling, and other environmental features, suggesting these operate as risk and protective factors.
- These social processes and commercial determinants can enhance gambling knowledge and skills, foster positive attitudes, provide social benefits, and normalise gambling.
- This generation of very young adults is the first to grow up with pervasive advertising that embeds pro-gambling influences in their media, peer groups, sporting interests, and digital games.
- Conversely, protection from parental, peer and environmental risk factors can cultivate negative attitudes to gambling, raise awareness of gambling harm, and deter young people from gambling.

Conclusions

- Gambling problems and harm do not suddenly emerge in early adulthood. Rather, they develop over time, often beginning in childhood or adolescence.
- Young people experiencing gambling harm in 2024 were more likely to report gambling or at-risk/problem gambling when underage, and positive attitudes to gambling advertising.
- Parental influence, peer pressure, advertising, and other environmental features in childhood and adolescence lay the groundwork for gambling harm later in life.
- Preventive measures are needed from childhood, through adolescence, and into early adulthood to reduce gambling harm in young people in NSW.

5.1. Introduction

This chapter summarises and discusses the study's findings to address the research questions. It also highlights the study's implications, strengths and weaknesses.

5.2. RQ1. What is the nature and extent of youth gambling transitions?

The study highlights the varied patterns of gambling amongst young people in NSW, as found in other youth gambling studies (Hing et al., 2024a; Kristiansen et al., 2017; Vitaro et al., 2004). These patterns include both stable trajectories (the same gambling state in 2020 and 2024) and transitions to different gambling states (movements from one gambling state in 2020 to another in 2024).

More of the survey participants moved into gambling than moved away from it between 2020 and 2024. In 2020, 36% reported gambling, increasing to 56% by 2024 (and 62% among those who were 18 or over in 2024). This increase reflects that many participants had reached the legal gambling age by 2024, but also that gambling is a highly normative behaviour among young people, both before and after they turn 18.

In both the 2020 and 2024 surveys, about 13% of participants reported at-risk/problem gambling. Further, about 70% of participants who reported at-risk/problem gambling in 2020 also reported it in 2024, indicating the enduring nature of their behaviour. This result contrasts with Williams & Williams' (2025) review of longitudinal gambling studies which concluded that most people with early problems reduce their subsequent involvement. The young age of our cohort may explain the persistence of their problem, since young people tend to have higher impulsivity and social groups who regularly gamble, which are two risk factors that are strongly associated with the incidence of problem gambling (Williams & Williams, 2025).

A little over a third (37%) of participants reported no gambling at both time points. Very few participants (7.1%) gambled in 2020 but then had stopped by 2024.

Below we discuss the nature and extent of the four youth gambling trajectories and transitions that were most apparent in the study.

5.2.1. A stable trajectory of non-gambling

As noted above, 37% of participants reported no gambling in both 2020 and 2024. This sustained abstinence was more common amongst those who were still under 18 in 2024 (48% compared to 31% of those aged 18 years or over), reflecting that reaching the legal gambling age prompts many young people take up gambling (Botella-Guijarro et al., 2020; Delfabbro et al., 2014; Hollén et al., 2020; Sakata & Jenkinson, 2022).

In the qualitative analysis, a cohort of young people reported abstaining from gambling from their childhood to early adulthood. While a few were indirectly involved in family gambling activities when children, such as picking their keno numbers, they did not engage in any gambling during their adolescence and early adulthood, despite greater awareness of and opportunities to gamble. As young

adults, some of this cohort accompanied friends while they gambled, but did not participate themselves. Risk and protective factors associated with this trajectory are discussed later in this chapter.

5.2.2. A transition from non-gambling to gambling

A little over a third (36%) of participants gambled in adolescence when surveyed in 2020. By 2024, an additional 27% had commenced gambling, while only a few had stopped. The transition into gambling was more common amongst those aged 18 years or over in 2024 (31% compared to 19% of under-18s in 2024). Overall, nearly two-thirds (62%) of participants aged 18 years or over reported gambling in 2024, compared to two-fifths (43%) of those under 18. Young people have greater uptake of gambling once they reach the legal gambling age (Botella-Guijarro et al., 2020; Delfabbro et al., 2014; Hollén et al., 2020; Sakata & Jenkinson, 2022), but gambling when underage is still common (Hing et al., 2021).

The qualitative analysis provides further insights into this transition. Participants who transitioned from non-gambling to gambling (but not to at-risk/problem gambling) reported variable involvement in gambling as they grew up. As children, some participated in gambling activities, such as picking keno numbers for their parents, as well as gambling on family card games and scratchies received as presents. During adolescence, particularly in later high school, about half gambled with money, mostly private betting on casino-style card games or sports betting with friends who shared an interest in professional sport. These activities included betting on football competitions for money, having private sports bets with friends, and placing sports bets with operators using fake IDs or through older friends' accounts, as they responded to the extensive gambling advertising they saw.

Most of this cohort experimented with gambling when they turned 18, sometimes on their 18th birthday. First gambling experiences as an adult were usually on poker machines. Many continued to gamble at least occasionally, particularly on poker machines and sports betting. Gambling was a normalised activity when going to licensed venues with friends, a frequent topic of peer conversations, and advertised relentlessly in the media they used. This cohort typically viewed gambling as fun in moderation, but a problem when done to excess. Participants often described the importance of keeping their gambling affordable and not chasing losses.

The survey results highlight similar changes in gambling products as young people mature and gain access to a wider range of activities. The most common gambling activities amongst under-18s in 2020 and 2024 were private betting, scratchies/lotteries and keno. In contrast, those aged 18 or older in 2024 mainly gambled on poker machines, followed by scratchies/lotteries, race betting, keno and sports betting

5.2.3. A transition from gambling to at-risk/problem gambling

As noted above, 13% of participants reported at-risk/problem gambling in their adolescence when surveyed in 2020, with most (70%) still reporting this problem in 2024. A few participants had newly shifted into at-risk/problem gambling by 2024 and about the same number shifted out. The overall at-risk/problem gambling rates were therefore similar in 2020 and 2024.

In the qualitative study, participants who transitioned to at-risk/problem gambling recalled being frequently involved in gambling when underage. As children, many participated in their family's regular gambling activities, such as selecting keno numbers, sports and race bets, and sometimes playing card games for money. Some were given winnings from their betting selections. Even as children, most participants recalled having positive attitudes to gambling, ranging from benign to intrigued.

During adolescence, about half of this cohort gambled with money, mostly with friends. Sports betting often became a core interest and activity in peer groups as this cohort was exposed to prolific advertising. Nearly a third engaged in commercial sports betting when underage, using fake IDs and older friends' accounts. Regular private card games for money were also common. Two participants gambled on poker machines and one at a casino when underage. Nearly all this cohort recalled having positive attitudes to gambling, ranging from mild curiosity, to seeing gambling as easy way to make money, to excitement about being able to legally gamble once they were 18.

Half of this cohort gambled on their 18th birthday or as soon as COVID restrictions allowed. This invariably involved gambling on poker machines as a rite of passage and normalised tradition on reaching adulthood. All participants' gambling escalated after they turned 18, mainly on poker machines and sports betting, and was often a regular social activity embedded in their friendship group culture. Accompanying their increased gambling, participants described experiencing gambling harm across several life domains, which prompted about a third to moderate their gambling in their early 20s. However, at the time of their interview, they were in an early stage of change and some continued to struggle to resist gambling urges. Most participants in this cohort were not attempting to reduce their gambling.

As noted above, the survey data also indicated increased popularity of poker machines, sports betting and race betting amongst older participants. These higher-risk gambling products are strongly associated with gambling problems (Binde et al., 2023; Browne, Delfabbro et al., 2023; Delfabbro et al., 2020; Hing, Russell et al., 2022; Mazar et al., 2020), consistent with their uptake by the interview participants experiencing at-risk/problem gambling.

5.2.4. Transitions from simulated gambling to monetary gambling and to at-risk/problem gambling

Nearly half (44%) of participants engaged in simulated gambling only (no monetary gambling) in 2020 when they were adolescents. By 2024, two-fifths (40%) of these participants had transitioned to monetary gambling, including 6% who had moved into at-risk/problem gambling (based on low numbers).

Our multivariate models examined whether simulated gambling in 2020 is a risk factor for gambling, gambling problems and gambling harm in 2024. No significant relationships were observed. This finding may indicate that simulated gambling has no effect on subsequent gambling status, that any effects are overridden by stronger predictors, or that the models are underpowered. Given the small subsamples, lack of statistical power cannot be discounted.

Given these constraints, we provide some qualitative insights by comparing the reported involvement in simulated gambling among the three transition cohorts – non-gambling, non-problem gambling, and at-risk/problem gambling. These groups reported quite different experiences with simulated gambling from their childhood to early adulthood, although these findings cannot demonstrate causal effects.

Only a few participants in the non-gambling cohort reported childhood memories of playing games with simulated gambling. During adolescence, about half played games with loot boxes, but recalled that loot boxes were not of central interest in their game-play. Only two participants reported spending real money in games. A few participants recalled becoming sceptical about the gambling mechanics in simulated gambling that encourage spending and the potential of these games to foster gambling addiction. Overall, this cohort either did not engage in simulated gambling, had little interest in their gambling elements, or were aware of their tactics and temptations. In early adulthood, very few participants played games with gambling elements and most ceased or reduced their gaming.

Many participants who transitioned from non-gambling to non-problem gambling played digital games as they were growing up, which they recalled as increasingly containing simulated gambling elements such as loot boxes, chance-based player packs, and wheel spins. Three participants mentioned spending real money in games. Those who engaged in simulated gambling had differing opinions about its appeal and connections to monetary gambling. These views ranged from making no connections with monetary gambling, to excitement about the simulated gambling features, purposefully seeking them out, and imagining what they would win if they were playing for real money. In early adulthood, most curtailed their gaming due to declining time and interest, and because they could now gamble for monetary prizes.

Most participants who transitioned to at-risk/problem gambling played digital games when they were children and recalled simulated gambling elements including loot boxes, daily spins, spinning wheels, player packs, battle passes, mock casino games, and slot machines. During adolescence, nearly all in this cohort (except two) engaged in simulated gambling, including virtual casinos, and a few regularly played social casino games. Nearly all participants spent real money in games. Their reported motivations for simulated gambling included for social, competitive, status, and entertainment reasons, and to acquire skins they could sell or brag about to friends. Several participants said they played these games for many hours every day. Most participants were clearly attracted to their gambling mechanics, but very few linked them with monetary gambling. Many realised later, however, that simulated gambling further exposed them to gambling-like activities and gambling advertising. Most of this cohort reduced their gaming after turning 18 due to declining time and interest, and because they preferred to gamble for money instead.

In summary, the three gambling transition groups differed quite markedly in their engagement in simulated gambling as they matured. While causal relationships are unclear, their experiences align with previous research showing a relationship between engagement in simulated gambling and increased likelihood of later gambling and gambling problems (Dussault et al., 2017; Hayer et al., 2018; Hing, Lole, Thorne, Sproston, et al., 2023; Russell et al., 2023; Sakata & Jenkinson, 2022). However, these studies also indicate that numerous other factors are likely to moderate this relationship. Clearly, not all young people who engage in simulated

gambling later engage in monetary or problematic gambling. As indicated by our multivariate models, other factors may be more influential.

5.2.5. A transition from problematic gaming to at-risk/problem gambling

In the surveys, 22 of the 239 participants (9%) reported problematic gaming in 2020. Due to this small subsample, the study was unable to statistically examine a transition to at-risk/problem gambling in 2024. We were also unable to recruit any participants who reported problematic gaming in 2020 and at-risk/problem gambling in 2024 for the qualitative interviews.

5.3. RQ2. What harm is associated with these transitions?

Young people disproportionately bear the burden of harm from gambling in NSW (Browne et al., 2019), so it is important to understand how they experience this harm. The Wave 2 survey found that the most reported gambling-related harms in 2024 were reduced savings, a reduction of available spending money, having regrets about their gambling, less spending on recreational expenses, and less spending on essential expenses. Not surprisingly, the mean number of harms was highest among young people reporting at-risk/problem gambling in 2024, although some harm was also reported by the non-problem gambling group.

In interviews, only the at-risk/problem gambling group discussed their experiences of gambling harm. They most commonly reported emotional and financial harm, while only a few reported harm to their work, study or relationships. Harm to their physical health was rarely reported so is not discussed further.

5.3.1. Emotional harm

In the interviews with the at-risk/problem gambling cohort, the emotional toll of gambling was a common theme, including feelings of regret, guilt, shame, low self-worth, and stress. After losses, participants typically experienced immediate disappointment and anger, but these feelings could intensify over time, exacerbated by guilt and anxiety about their choices and loss-chasing. Many participants expressed shame at being unable to control their gambling, which compounded with repeated failures to quit, and led to distress and eroded self-esteem. Shame also arose when gambling caused financial strain, such as being unable to afford social activities. For some, emotional exhaustion from this cycle eventually motivated efforts to change.

These emotional harms are broadly consistent with findings from the Wave 2 survey. Amongst the participants aged 18 years or over who gambled in 2024, about a fifth reported regret about their gambling (22%) and about one-in-seven reported feeling like a failure (14%), feeling ashamed (14%), and feeling insecure or vulnerable (13%) due to their gambling. Approximately one-in-ten reported increased experiences of depression (10%) and feeling worthless (10%) because of their gambling. These proportions were similar amongst the under-18s who gambled.

5.3.2. Financial harm

The interviewees frequently identified financial difficulties caused by gambling, primarily stemming from regular, small expenditures rather than occasional large losses. Many participants only realised later how much they had spent and that they could have used the money for more meaningful pursuits or longer-term goals. Gambling expenses often limited their ability to make other purchases or save money. A few participants recalled borrowing from friends or family due to gambling-related financial shortfalls. However, their young age, limited financial responsibilities, and in some cases, parental support, helped to limit the financial consequences of gambling. Some participants also reduced their gambling spending once it became problematic.

These findings generally align with those from the Wave 2 survey. Amongst the participants aged 18 years or over who gambled in 2024, about a third reported a reduction in their available spending money (34%), and about one-in five reported reduced savings (21%), less spending on recreational expenses (20%), and less spending on essential expenses (18%). Smaller proportions noted financial harms that were not raised by the interview participants: increased credit card debt (8%), selling personal items (6%), and promising to pay back money without genuinely intending to (4%). These proportions were similar amongst the under-18s who gambled, although these younger participants were slightly more likely to report reduced savings due to their gambling (36%), rather than reduced spending money (31%). None of the younger participants reported increased credit card debt.

5.3.3. Work and study harm

Most interviewees were employed or studying, but only a few described that gambling interfered with these commitments. A few admitted to gambling during work hours or being distracted by betting while studying. However, no participants reported more severe effects, such as job loss, due to gambling.

Relatively small proportions of those of aged 18 years or over in Wave 2 reported work and study harm due to their gambling, including using work or study time to gamble (9% of those who gambled), reduced performance (7%), and being absent (6%). The younger survey cohort more frequently reported using work or study time to gamble (17% of those who gambled), but this result is based on small numbers.

5.3.4. Relationship harm

In the interviews, gambling was said to occasionally cause tension in personal relationships. Conflicts in romantic partnerships could arise over broken promises, prioritising gambling over other responsibilities, or financial strain. Relationships with family and friends were also affected. Some participants were unable to afford social outings or were too preoccupied with gambling to engage fully in family activities. In some cases, they concealed the extent of their gambling from loved ones.

Findings from Wave 2 generally reflect these types of relationship harm. Amongst participants aged 18 years or over who gambled in 2024, the most reported relationship harm was spending less time with people they care about (14%), followed by social isolation (9%), and greater conflict in their relationships (5%). Fewer than four of the younger survey participants reported each of these harms.

5.3.5. Efforts to reduce gambling harm

Around a third of the interviewees who had transitioned to at-risk/problem gambling, reported making efforts in the past year to reduce their gambling. These participants were all aged 21–23 years. These changes were prompted by their experiences of gambling harm and evolving priorities as they matured. Catalysts for change included greater financial responsibilities, wanting to use their time more productively, more focus on health, and planning for the future. Witnessing friends suffer severe gambling harm could highlight potential consequences and motivate change. Some participants changed their social activities or sought out friends who gambled less. Others reduced gambling after recognising the negative emotions it triggered, such as stress, anger, and regret. Participants also reported noticing gambling's addictive effects, including irrational thinking, loss of control, denial of harm, and the desire for increased risk-taking. A few expressed disillusionment with the exploitative tactics of the gambling industry, which further reduced their interest.

To moderate their gambling, participants employed strategies including budgeting, limiting access to cash, setting deposit limits on betting accounts, adopting new hobbies, and avoiding gambling venues. However, most were still in the early stages of behavioural change, with many continuing to struggle with gambling urges. Notably, most participants in the at-risk/problem gambling cohort were not actively trying to reduce their gambling at the time of their interview.

Overall, the types of harm reported align with earlier findings that financial and emotional harm are the most prevalent negative consequences of gambling (Paterson et al., 2021; Rockloff et al., 2020; Salonen et al., 2018; Stevens et al., 2019). The findings also illuminate the varied ways young people experience and respond to gambling harm. Interviewees in the at-risk/problem gambling cohort reported changing patterns of harm at different times in their early adulthood, including escalation, reduction, and persistence. Harm appeared to escalate and persist in the years immediately after turning 18, as found in longitudinal research (Edgerton et al., 2015b; Emond et al., 2022; Sagoe et al., 2017; Sakata & Jenkinson, 2022; Slutske et al., 2003). A subset of participants, all in the older age group (21–23 years), then reported moderating their gambling, appearing to age out of intense gambling. Longitudinal studies have also found that the probability of gambling problems reduces from the early to late twenties, although problems may persist for some people (Carbonneau et al., 2015a; Edgerton et al., 2015b; Sagoe et al., 2017; Slutske et al., 2003).

Importantly, this study explored young people's experiences of harm only until early adulthood. Since young adulthood is a critical period for building foundations in finances, relationships, mental health, and careers, gambling harm may have legacy effects that impact on young people's future wellbeing (Rockloff et al., 2022a, 2022b).

5.4. RQ3. What are the protective and risk factors that impact these transitions and associated harm?

The quantitative longitudinal research identified risk factors in 2020, when participants were aged 12–17, that predicted gambling outcomes four years later (gambling participation, at-risk/problem gambling, and gambling harm). However, these analyses were constrained by small sample sizes that likely impeded the

ability to detect all true effects. The qualitative findings illuminate the social processes involved in these influences over a longer timeframe – from childhood to early adulthood. They highlight notable differences between the three gambling transition groups we examined but cannot establish causal relationships.

While this study does not claim to reveal all possible factors that may influence a young person's gambling, the findings encompass a broad spectrum of personal, behavioural, parental, peer and environmental drivers. This diversity reflects public health models that emphasise the interplay of biopsychosocial influences, environments, products, and exposure on people's gambling involvement (Hilbrecht et al., 2020).

5.4.1. Personal factors

In the longitudinal analysis, age was the only individual difference variable from 2020 that predicted gambling status in 2024, with older participants more likely to gamble. Between 2020 and 2024, the proportion of under-18s who gambled increased from 33% to 43%. This increase was more pronounced in those of legal gambling age in 2024 – from 37% to 62%. Prior longitudinal research has also found that gambling participation tends to increase slowly in early adolescence and sharply at the legal age (Botella-Guijarro et al., 2020; Delfabbro et al., 2014; Hollén et al., 2020; Sakata & Jenkinson, 2022).

5.4.2. Gambling behaviour

In the longitudinal analysis, participants who reported at-risk/problem gambling in 2020 were more likely to report at-risk/problem gambling and gambling harm in 2024. Having gambled in 2020 also positively predicted gambling harm in 2024. Previous longitudinal studies have also found that prior at-risk gambling predicts gambling problems in young people (Wanner et al., 2009; Winters et al., 2002). Because gambling harm is strongly correlated with at-risk/problem gambling (Browne et al., 2016; Browne, Newall et al., 2023), it is not surprising that participants who reported gambling problems in 2020 were also at greater risk of gambling harm in 2024. Further, gambling harm can extend to those who gamble at lower risk (Browne et al., 2016; Browne, Newall et al., 2023). This may explain why those who gambled in 2020 were more likely to report gambling harm (but not at-risk/problem gambling) in 2024. No other longitudinal studies have examined gambling harm as an outcome variable to enable comparisons.

5.4.3. Parental factors

In the qualitative analysis, one substantial difference between the three gambling transition groups was their exposure to parental gambling over time. The non-gambling cohort all reported that their parents consistently abstained from gambling or engaged only in occasional low stakes activities. In contrast, the cohorts who transitioned to gambling and to at-risk/problem gambling frequently recalled exposure to and some involvement in their parents' gambling during childhood and adolescence. Further, the at-risk/problem gambling group often reported that their parents gambled regularly on high-risk activities such as poker machines, sports betting and race betting. About half this cohort recalled that, on their 18th birthday, their parents initiated their first experience of poker machine gambling as a rite of passage into adulthood.

The three groups also reported contrasting parental attitudes and advice about gambling. Most non-gambling participants noted that their parents were opposed to gambling, which they conveyed through ongoing cautions about gambling harm or their general values and expectations. This cohort often attributed their own negative attitudes to gambling to similar views expressed by their parents. Those in the non-problem gambling group typically recalled that their parents did not oppose gambling in moderation. These parents were said to mainly convey cautious attitudes about gambling to their children, and advice to not waste money on it. About two-thirds of the at-risk/problem gambling cohort could not recall their parents cautioning them about gambling at all when they were growing up. Of those who did, parents were said to discourage their child from underage gambling, rather than advise they take a cautious approach as adults. Participants intimated that they gained mixed messages from parental advice when their parents gambled themselves.

The participants themselves pointed to parental role modelling and guidance as ongoing risk and protective factors influencing their attitudes to gambling and subsequent gambling involvement. Life course studies have found that early exposure can facilitate learning about gambling, provide opportunities to gamble, and build positive associations and attitudes (Hing et al., 2024a; Kristiansen et al., 2017; Reith & Dobbie, 2011). In longitudinal studies, a strong risk factor for gambling is parental gambling and gambling problems (Dowling et al., 2017; Hollén et al., 2020; Kristiansen et al., 2017; Kristiansen & Trabjerg, 2017; Winters et al., 2002). Our qualitative findings align with these results. In contrast, our quantitative analysis observed no significant relationship between participants' gambling status in 2024 and parental approval of gambling or childhood exposure to parental gambling in 2020. The constraints of the sample size may explain this inconsistency, and it is important to note that lack of statistical significance does not indicate absence of a relationship between variables.

5.4.4. Peer factors

In the qualitative analysis, peer influences varied notably between the gambling transition groups and were most apparent during adolescence and early adulthood. The non-gambling cohort typically reported that their friends did not gamble or warned them against gambling. Some non-gambling participants' friends gambled once they turned 18, but these participants resisted any peer pressure to join in due to their already-established negative view of gambling.

Conversely, about half the participants in the other two cohorts gambled when underage, nearly invariably with friends. Friends (and older siblings) could foster knowledge and excitement about gambling and provide gambling opportunities, most commonly on private card games and sports betting. Friendship groups interested in professional sport were particularly drawn to sports betting. This peer group culture could cultivate participants' familiarity with betting products, normalise betting, and encourage friendly rivalry and peer acceptance through betting. Participants who transitioned to at-risk/problem gambling particularly reported betting with bookmakers and playing private card games for money with friends, and a few played poker machines and casino games when underage. This engagement in commercial gambling was usually facilitated by older friends and siblings with a keen interest in gambling.

Once they turned 18, those who gambled nearly always did so with friends, who might introduce them to and teach them how to gamble on different activities. Gambling, particularly on poker machines, became a normalised feature of going to licensed venues with friends, motivated by a desire for fun, camaraderie and to fit in. The at-risk/problem gambling group particularly discussed how gambling became embedded in their group culture as a regular shared activity, including gambling on poker machines, sports, and private card games for money. Those who later moderated their gambling often noted changing friendship groups as instrumental to their behavioural change.

The findings above align with prior research suggesting that gambling behaviours are shaped by the normalisation, promotion, and encouragement of gambling within social circles. Young people with gambling peers are more likely to gamble themselves (Castren et al., 2015; Sarti & Triventi, 2017). However, research has not established whether young people adopt gambling behaviours through peer socialisation or seek out peers with similar interests. In the current longitudinal analysis, no significant relationship was found between gambling status in 2024 and potential peer influences in 2020, including the proportion of friends who gamble and friends' approval of gambling. Nonetheless, life course research highlights that gambling often begins in social contexts, such as private bets with friends, and can then develop into a normalised group activity (Hing et al., 2024a). Shifts in social groups can lead to either an increase or decrease in gambling activity, as individuals tend to mirror the behaviours of their peers (Kristiansen et al., 2017; Kristiansen & Trabjerg, 2017; Russell et al., 2018).

5.4.5. Advertising and normalisation

In the qualitative analysis, all gambling transition groups reported copious exposure to gambling advertising as they matured, particularly with increased social media use, gaming, and sports-watching. These activities exposed them mainly to sports betting ads, but also to online influencers promoting easy wins on online slots and casino games, and gambling-themed ads when playing digital games. However, the non-problem gambling group showed little interest in gambling advertising, and some were further deterred because it was so relentless. Once aged 18, their established negative attitude to gambling was said to override any temptation this advertising might pose.

The non-problem gambling cohort had varied responses to gambling advertising. Many participants said they ignored or were not tempted by it, especially while underage. However, some remarked that it had longer-term normalising effects and downplayed gambling harm. In early adulthood, those who followed sport were increasingly targeted by betting advertising, which could sometimes trigger their betting.

Participants who transitioned to at-risk/problem gambling also recalled prolific gambling advertising as an industry tactic to increase gambling. In adolescence, sports betting ads could prompt bets amongst those who were already betting. Some who did not bet while underage, internalised marketing messages that betting is an easy way to make money. In early adulthood, those with an interest in sport were intensely targeted by sports betting advertising and recalled placing bets in direct response to frequent reminders and inducements to bet, and advertising that promoted a good chance of winning. Participants also reflected on the longer-term

effects of gambling advertising messages, for example that gambling is a normal activity in friendship groups and can lead to an affluent and successful lifestyle.

The findings above suggest that attitudes towards gambling advertising may be more salient than just exposure in shaping young people's gambling behaviour. Consistently, our longitudinal analysis found that more positive attitudes towards gambling advertising in 2020, but not exposure, predicted gambling harm in 2024. Little other longitudinal research has examined the effects of gambling advertising on youth gambling and harmful gambling. However, a life course study with adolescents in NSW (Hing et al., 2024a) found that those who gambled frequently internalised advertising messages that framed sports betting as a normalised activity that is integral to friendships, sports fandom, and demonstrating expertise. Further, those experiencing at-risk/problem gambling reported purposefully attending to these ads to improve their betting knowledge. In contrast, non-gambling participants' negative views on gambling and limited interest in sport shielded them from this advertising influence. Numerous qualitative studies on gambling industry tactics and the commercial determinants of gambling harm have noted the normalising effects of gambling advertising in youth (Hing et al., 2023; Nyemcsok et al., 2021; Pitt et al., 2016). Overall, our findings are consistent with previous research into advertising as a potential risk factor for gambling and gambling problems amongst youth. This risk may be due to both its immediate effects in triggering gambling and its normalising effects over time.

5.4.6. Product access and features

Children and adolescents can be deterred from accessing gambling because they are below the legal gambling age (Hing et al., 2024b). Some interview participants who gambled when underage, avoided gambling illegally on commercial forms and bet only on private activities, such as card games and sports bets between friends. This was most apparent in the non-problem gambling group. In contrast, the at-risk/problem gambling group indicated greater participation in sports betting with commercial bookmakers, and a few accessed poker machines and casinos. Reaching the legal gambling age was a turning point for these two cohorts in their gambling uptake. The at-risk/problem gambling group, in particular, reported gambling as a rite of passage to mark their legal access to adult activities.

Also, in relation to access, the co-location of gambling in licensed venues was said to normalise gambling as a part of social outings to pubs and clubs. Both cohorts who gambled described gambling as initially an unplanned activity they did because it was available in the venues they patronised and to fit in with friends, especially when they were drinking alcohol together. Easy and immediate access to online betting, mainly through their smartphone, also facilitated access and engagement. The at-risk/problem gambling cohort discussed several product features that encouraged their persistence, especially on poker machines.

The influence of access on gambling behaviour, as reported by the interviewees, is consistent with prior longitudinal findings that accessibility is a factor in the onset and maintenance of youth gambling (Botella-Guijarro et al., 2020), and a commercial determinant of gambling harm. The availability of gambling, both online and in venues, impacts how often and in what ways young people gamble. Unsurprisingly, increased access facilitates higher participation rates and vice versa (Kristiansen et al., 2017; Kristiansen & Trabjerg, 2017).

5.4.7. Simulated gambling

Simulated gambling can be a further risk factor for gambling and gambling problems in youth and was discussed earlier in relation to RQ1.

5.5. Strengths and limitations of the study

This study is the first longitudinal analysis of gambling transitions in young people in NSW, and the first to examine the critical period of reaching the legal gambling age. It provides new information about the nature of these transitions and how entry into adulthood can combine with formative experiences, and risk and protective factors, to catalyse changes in gambling and gambling harm.

The study's findings should be interpreted with several limitations in mind. The data is limited to a focus on experiences, trajectories and transitions from adolescence to very early adulthood and so cannot provide insight into later experiences and transitions.

The surveys relied on self-reported data that may be subject to recall, social desirability, and other biases. The Wave 2 sample may not be representative of the population of young people in NSW and may be affected by selection biases. About three-fifths of the sample were male, so the results reflect predominantly male experiences. The quantitative study was only able to conduct a limited number of statistical analyses due to the fairly small sample size and large number of measures. Instead, descriptions of patterns over time (between 2020 and 2024) were provided based on observable trends in the figures and graphs presented. This approach provides important information on the transitions observed, but the inability to analyse statistical significance of changes over time must be noted as a limitation in terms of generalisability of results. The longitudinal analyses were based on small subsamples in each gambling transition, constraining the power to detect significant relationships. A larger baseline sample and a shorter interval between survey waves to reduce attrition would have enabled more rigorous analyses.

In the qualitative study, nearly two-thirds of participants were male, so the results reflect predominantly male experiences. The extent to which female experiences diverge or converge with the experiences reported here is unclear. Further, the at-risk/problem gambling group may be skewed towards participants trying to reduce their gambling. The results should be interpreted as insights into the participants' lived experiences and not necessarily representative of all young people in NSW. Nonetheless, data saturation was reached, with no new themes emerging in the later interviews, so the results should be indicative. The findings are also subject to social desirability and recall bias, although how young people recall events likely influences their gambling attitudes and behaviours. The study focused on experiences up to early adulthood. Research is needed into later gambling trajectories and legacy effects over the life course.

5.6. Conclusions and implications

This study examined three main aspects of youth gambling – transitions and trajectories, harm, and risk and protective factors. Together, these have implications for preventive measures to reduce gambling harm in NSW.

5.6.1. Transitions and trajectories

Gambling patterns amongst young people are diverse and dynamic, variously showing stability and change in gambling status over time. By late adolescence and early adulthood, some young people show a stable trajectory of non-gambling since childhood, others have transitioned to monetary gambling at non-problematic levels, and a minority have transitioned to at-risk/problem gambling. A transition to gambling is mostly unidirectional. Once adolescents take up gambling, they are likely to continue to gamble as they approach and enter adulthood. More concerningly, once young people develop at-risk/problem gambling, this appears likely to endure for several years.

5.6.2. Gambling harm

Not surprisingly, gambling harm in young people is predicted by prior at-risk/problem gambling. However, it is also predicted by underage engagement in monetary gambling, even at non-problematic levels. This harm is experienced mainly in emotional and financial domains, but may also include negative impacts on relationships, work and study. While some young people may moderate their gambling in response to this harm and age out of intense gambling, patterns of harmful gambling can persist in others. While gambling harm impacts the current wellbeing of young people, it may also affect their future wellbeing, given that early adulthood is a critical foundation period for finances, relationships, mental health, and careers. Research is needed to track gambling harm after early adulthood and legacy harms that may endure.

5.6.3. Risk and protective factors

Young people experiencing the different gambling transitions report widely varying influences, including from parents, peers, and commercial determinants of gambling harm such as advertising, simulated gambling, and other environmental factors. These influences can normalise gambling, foster positive attitudes, and provide social benefits. The current generation of very young adults has been uniquely exposed to pervasive gambling advertising for their entire lives that has embedded gambling in their media, sports interests, and digital games. Conversely, protective factors, like parental guidance and counter-messaging, can raise awareness of harm and deter gambling.

5.6.4. Implications of the findings

The NSW Gambling Survey 2024 (Browne et al., 2024) indicates that young adults aged 18-24 who gamble have the highest rate of moderate risk/problem gambling in NSW. Therefore, reducing gambling harm among young adults should be a critical focus.

Importantly, however, gambling problems and harm do not suddenly emerge in early adulthood. Rather, they develop over time, often beginning in childhood or

adolescence. Longitudinal analysis reveals that the most significant predictor of at-risk/problem gambling in young adults is the presence of at-risk/problem gambling during adolescence. Notably, two-thirds of participants who reported at-risk or problem gambling in 2024 also reported this in 2020 when they were aged 12-17. Additionally, individuals experiencing gambling harm in 2024 were more likely to report gambling or at-risk/problem gambling when underage, as well as positive attitudes to gambling advertising. Qualitative insights further highlight how factors such as parental influence, peer pressure, advertising, and other environmental features during childhood and adolescence lay the groundwork for gambling problems and harm later in life. These findings indicate the importance of preventive measures from childhood, through adolescence, and into early adulthood to reduce gambling harm in young people in NSW.

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Appendix A. Longitudinal studies of youth gambling

Table A1. Longitudinal studies of youth gambling

Paper	Detailed method	Sample size	Gender (baseline)	Time between waves	Age (baseline)	Country	Data	Representative	Aim	Key findings	Transition focus
Winters et al. (1995)	2 waves	W1 = 702, W2 = 532	49.3% female	18 months	15-18 years	USA	-	Yes	Investigate factors of onset of gambling participation and development of gambling problems.	Overall prevalence of gambling participation and problem gambling stayed stable across waves. There were significant increases in gambling frequency on formal gambling (compared to informal and unregulated gambling) at legal gambling age.	Transitions in gambling behaviour around legal gambling age.
Vitaro et al. (1997)	2 waves	Total = 754	100% male	4 years	13 years	Canada	-	Yes	Examine the relationship between impulsivity in early adolescence and gambling in late adolescence.	Problem gambling in late adolescence was associated with high impulsivity in early adolescence, at-risk gambling had lower levels of impulsivity, followed by recreational gambling and then non-gambling participants.	Transitions around problem gambling.
Barnes et al. (1999)	3 waves	Study 1 (699), Study 2 (W1 625, W2 597, W3 625)	Study 1 unstated, Study 2 = 100% males	18 months	16-19 years	USA	-	Yes	Two studies. 1. examine the predictors of gambling among adolescents. 2. investigate the relationship between substance use, delinquency, and gambling behaviours among young males.	Gambling predictors include impulsivity, delinquent behaviour and moral disengagement. Risk factors include being male or of a particular racial background, and lower socioeconomic status. Peer influence, particularly from delinquent peers, is also a substantial risk factor. Protective factors include higher levels of parental monitoring, associated with reduced gambling and positive socialisation, which mitigates the influence of risk factors like peer delinquency.	-
Vitaro et al. (1999)	2 waves	Total = 168	100% male	4 years	13 years	Canada	-	No	Examine the relationship between impulsivity and subsequent problem gambling.	Impulsiveness at 13-14 predicted gambling problems at 17 (after controlling for early gambling behaviours, socio-demographic and personality factors).	-
Vitaro et al. (2001)	3 waves	Total = 717	100% male	2 years	13-14 years	Canada	-	No	Investigate the relationship between gambling, substance use and delinquency in mid-adolescence.	Gambling frequency at age 17 was significantly linked with gambling frequency, and drug/alcohol use at age 16 and impulsivity and friend's deviancy at age 13-14. Gambling problems at age 17 were linked with gambling frequency, gambling problems and drug/alcohol use at age 16 and impulsivity and friend's deviancy at age 13-14. Gambling frequency or problems at age 16 were not significantly related to delinquency or drug/alcohol use at age 17.	-

Winters et al. (2002)	3 waves	Total = 305	49% female	2-3 years	16 years	USA	-	No	Describe the trends and risk factors in gambling involvement and gambling problem severity from adolescence to young adulthood.	Gambling behaviours remained consistently high throughout the study; around 80% for gambling participation, under 20% for regularly gambling, and around 2.3-4.3% for problem gambling. However, involvement in legal gambling and at-risk gambling increased in young adulthood. Problem gambling was predicted by being male, poor school performance, substance abuse, parental gambling history, and prior at-risk gambling.	-
Slutske et al. (2003)	4 waves	W1 = 468, W2 = 453, W3 = 438, W4 = 393	54% female	3-4 years	18-19 years	USA	-	No	Examine prevalence and trajectories of problem gambling over 11 years across early adulthood.	Most participants (95%) had gambled. Overall prevalence of gambling problems over the past year remained stable throughout. Future gambling was more strongly predicted by recent problem gambling (rather than more distant problem gambling). There was significant individual variation in trajectories. Most participants who were problem gambling only did so for a single period. Multiple waves of gambling problems were rarer and almost always consecutive.	Transitions around problem gambling.
Vitaro et al. (2004)	Multiple waves	Total = 903	100% males	1 year	11 years	Canada	-	No	Identify and validate different trajectories of gambling behaviour among adolescents	Three groups were identified. <i>Early-onset high-level chronic</i> group (started gambling early and maintained high levels of involvement); <i>late-onset high-level</i> group (began gambling later but also engaged in high levels of gambling); <i>Low gambler</i> group (minimal gambling involvement). Both high chronic and late onset groups were at greater risk of developing gambling problems. Risk factors included impulsivity, disinhibition, early gambling onset. Protective factors, anxiety and inhibition and low gambling involvement.	Transitions around gambling behaviour in adolescence.
Barnes et al. (2005)	Multiple waves (2 data sources)	Study 1 = 552; Study 2 = 597	Study 1 = 53.6% female; Study 2, 100% male	various	Study 1 13-16 years; Study 2 16-19 years	USA	-	No	Understand the predictive factors common to gambling, alcohol/drug use, and delinquency.	Predictors of gambling were moral disengagement for males, and peer delinquency for females.	-
Slutske et al. (2005)	2 waves	Total = 939	49.4% female	3 years	18 years	New Zealand	Dunedin Multidisciplinary Health and Development Study	Yes	Identify personality correlates of problem gambling in young adults.	Negative emotionality and lower behavioural constraint at age 18 were significantly associated with problem gambling at age 21.	-

Winters et al. (2005)	3 waves	Total = 305	49% female	2-3 years	16 years	USA	-	No	Understand developmental problem gambling groups from adolescence to young adulthood	Identified 4 trajectories. Most common was no level of gambling problem at any timepoint (<i>resistance</i>), followed by <i>new incidence</i> (non-problem gambling followed by at-risk or problem gambling), <i>desistance</i> (at-risk or problem gambling followed by non-problem gambling), and <i>persistence</i> , a group which experienced at-risk or problem gambling across all three waves.	Transitions around problem gambling severity.
Feigelman et al. (2006)	3 waves	W1 = 20,756, W2 = 14,738, W3 = 15,197	-	1 and 6 years	adolescent	USA	National Longitudinal Survey of Adolescent Health	Yes	Understand changes in gambling behaviours, depression, and suicidality from adolescence into young adulthood	Females categorised as at-risk gambling exhibited significantly more suicidal thoughts and attempts compared to their non-gambling counterparts. There was no difference in male non-gambling / at-risk gambling in relation to suicidal thoughts or behaviours.	-
Wanner et al. (2006)	Multiple waves	Total = 903	100% male	11 - 16 years	10 years	Canada	-	No	Identify adolescent groups based on their clusters of gambling, alcohol, and drug use, and how these patterns relate to problems in adulthood.	Low and high-risk addictive behaviour clusters were identified. Early initiation of at least one of the behaviours (gambling, alcohol or drug use) was associated with problems in early adulthood.	-
Breyer et al. (2009)	2 waves	Total = 235	23.8% female	11 years	7-11 years	USA	Minnesota Competence Enhancement Program	No	Examine the relationship between ADHD in childhood and gambling participation and gambling problems in young adults.	There was no difference in gambling participation in young adulthood between participants with ADHD diagnoses and those without. However, participants with persistent ADHD (diagnosis at age 7-11 continuing into early adulthood) were more likely to report problem gambling in early adulthood.	-
Delfabbro et al. (2009)	4 waves	Total = 578	69.2% female	1 year	15 years	Australia	-	Yes	Examine trajectories of gambling behaviour from adolescence into early adulthood.	Participation rates increased year by year. Over a quarter (27%) of participants gambled consistently from age 15 onwards (over 4 years), a further 24% gambled for three years. Around 17-18% gambled for one or two years, and 13% never gambled. Gambling behaviours at age 16-17 were better predictors of early adult gambling behaviours than gambling behaviours at age 15.	Transitions around gambling participation around legal gambling age.
Goudriaan et al. (2009)	4 waves	W1 = 2,450, W2 = 2,482, W3 = 2357, W4 = 2250	54% female	1 year	Mean - 18 years	USA	Intensive Multivariate Prospective Alcohol College Transitions Study	No	Identify clusters of gambling activity type, and their association with problem gambling in young adults.	Identified four clusters. <i>Low-gambling</i> and <i>card gambling</i> clusters often transitioned into the <i>casino/slots gambling</i> cluster, especially as they reached the legal gambling age (21). A small percentage of students (<i>extensive gambling</i>) consistently engaged in a wide range of gambling activities. More frequent and diverse gambling activities were associated with the development of gambling problems.	Transitions around gambling behaviour in early adults.

Pagani et al. (2009)	2 waves	W1 = 181, W2 = 163	47% female	7 years	5.5 years	Canada	Montreal Longitudinal Preschool Study	Yes	Examine the relationship between early impulsive behaviour and gambling.	Teacher-rated impulsive behaviour at 5.5 years old, was associated with an increase in gambling involvement at age 11.5 years.	-
Wanner et al. (2009)	Multiple waves (2 data sources)	Sample 1 = 502; Sample 2 = 663	100% male	7 years	16 years	Canada	-	Yes	Examine the relationship between gambling, substance use, theft and violence from age 16 to age 23.	Gambling participation at age 23 was predicted by gambling participation and gambling problems at age 16. Gambling problems at age 23 were predicted by gambling problems at age 16. No other variables significantly predicted gambling or gambling problems at age 23.	-
Auger et al. (2010)	Multiple waves	Total = 628	55.4% female	3-months	12.6 years	Canada	Nicotine Dependence in Teens	No	Investigate the relationship between impulsivity, socioeconomic status and onset age of gambling participation.	Impulsivity was related to gambling onset, particularly among low SES youth and those with non-university education parents.	-
McNamara and Willoughby (2010)	2 waves	Total = 614	50% female	2 years	9-10 years	Canada	-	No	Understand learning disabilities in participation in risky activities (including gambling).	Both groups (learning difficulties and no learning difficulties) showed similar increases in gambling behaviours from ages 9-10 to 11-12. However, adolescents with learning disabilities were more likely to gamble than those without learning disabilities.	-
Pagani et al. (2010)	2 waves	Total = 163	-	6 years	5-6 years	Canada	Montreal Longitudinal Preschool Study	No	Examine the relationship between early childhood distress and gambling participation in children.	Gambling behaviours at age 10-11 were predicted by teacher-rated emotional distress at ages 5-6. However, this relationship was completely explained by the presence of early impulsivity.	-
Dussault et al. (2011)	3 waves	Total = 1,004	100% male	3 / 6 years	14 years	Canada	-	No	Examine the relationship between depressive symptoms and gambling problems.	Impulsivity at age 14 predicted gambling problems and depressive symptoms at age 17. Gambling problems at age 17 predicted an increase in depressive symptoms from 17 to 23 years and vice versa.	-
Lee et al. (2011)	Multiple waves	Total = 678	47% female	6-9 years	11 years	USA	Johns Hopkins University Second Generation Intervention Trial	No	Examine the combined effects of impulsivity and depression in early adolescence on late adolescent gambling behaviours.	Early depressive symptoms increased the odds of problem gambling by four times compared to non-gambling or social gambling. Among highly depressed individuals, increased impulsivity reduced the odds of problem gambling, while for highly impulsive individuals, increased depressive symptoms lowered the likelihood of problem gambling.	-

Vitaro and Wanner (2011)	4 waves	Total = 1,125	48.8% female	1 year	Mean 6.1 years	Canada	Quebec Longitudinal Study of Child Development	Yes	Investigate the relationship between inhibition (low anxiety) and early gambling behaviours in children, beyond impulsivity.	Gambling behaviours at age 10 were predicted by teacher-rated impulsivity between 6 and 8 and parental gambling participation. In males only, gambling behaviours were also predicted by low anxiety.	-
Betancourt et al. (2012)	3 waves	Total = 387	51% female	1 year	Mean 11.4 years	USA	-	No	Examine the relationship between executive cognitive function and gambling behaviour in adolescents.	Two trajectories were identified - <i>early gambling</i> (29% of sample) who reported some gambling in early adolescence and <i>late gambling</i> , who reported no gambling behaviours during at least the first two of the three assessment periods. The early gambling group were more likely to be male, be impulsive, have more active coping and have friends who gamble. They were more likely to report problem behaviours and drug use.	Transitions around gambling behaviour in adolescence.
Shenassa et al. (2012)	2 waves	Total = 958	-	32 years	7 years	USA	Collaborative Perinatal Project	Yes	Investigate the relationship between impulsive behaviour at age 7 and gambling problems in adulthood (39 years).	Children with impulsive behaviours at age 7 had three times the risk of problem gambling as adults than others.	-
Slutske et al. (2012)	3 waves	W1 = 1,023, W2 = 939, W3 = 959	-	18 years	3 years	New Zealand	Dunedin Multidisciplinary Health and Development Study	Yes	Investigate if childhood temperament at age 3 predicted gambling problems as adults.	Compared to <i>well-adjusted children</i> , those showing signs of <i>under controlled temperament</i> (restless, wilful, impulsive, impersistent, etc) at age 3, had twice the risk of having gambling problems at age 21 and 32 (after controlling for socioeconomic factors and IQ).	-
Harvanko et al. (2013)	2 waves	Total = 58	29.3% female	1 year	18-29 years	USA	-	No	Examine the relationship between impulsivity and gambling problems in early adulthood.	Neither <i>low-risk</i> nor <i>high-risk</i> decision makers (Cambridge Gambling Task) predicted subsequent gambling participation (frequency) or pathological gambling.	-
Liu et al. (2013)	Multiple waves	Total = 310	100% male	4-7 years	11-15 years	USA	Johns Hopkins University Second Generation Intervention Trial	No	Examine the relationship between impulsivity in adolescence and young adult gambling and gambling problems.	Males with higher teacher-rated impulsivity from ages 11 to 15 were more likely to develop gambling problems at age 19. Two impulsivity trajectories were identified: <i>high impulsivity</i> (41% of participants) and <i>low impulsivity</i> (59%). Being in the high impulsivity group significantly increased the risk of gambling problems. Compared to the low impulsivity group, those in the high impulsivity group were twice as likely to experience at-risk or problem gambling and nearly three times more likely to develop problem gambling.	Transitions around gambling behaviour and gambling problems.

Delfabbro et al. (2014)	4 waves	W1 = 684, W2 = 386, W3 = 299, W4 = 256, total used 256	50.0% female	1 year	16-19 years	Australia	-	No	Examine the transition between adolescent and adult gambling	Results showed little stability in gambling behaviours. Gambling participation on early scratch-ticket and racing gambling at 15-16 years predicted similar behaviours at 20-21. Otherwise, younger gambling behaviours were not associated with early adult gambling behaviours. Gambling problems were preceded by earlier transitions into gambling behaviours and a large win. Gambling problem symptoms were usually limited to a single year.	Transitions around gambling behaviour and gambling problems around legal gambling age.
Faigin et al. (2014)	2 waves	Total = 90	-	5 weeks	18-19 years	USA	-	No	Investigate spirituality as a risk factor for developing addictions including gambling in college students.	Higher scores relating to spiritual struggles at time 1 were not significantly associated with greater symptoms of gambling addiction at time 2.	-
Kretschmer et al. (2014)	Multiple waves	Total = 7,218	48% female	5 - 14 years	4-13	UK	Avon Longitudinal Study of Parents and Children (ALSPAC)	Yes	Understand if conduct problems in early childhood (between 4 and 13 years) predicted a range of issues (including gambling) in late adolescence (18 years)	Relatively weak evidence of an association between conduct problems and gambling problems compared to other outcomes, such as consuming tobacco or engaging in risky sexual behaviour, which the authors attribute to access.	-
Lee et al. (2014)	Multiple waves	Total = 514	47% female	1 year	11-14 years	USA	John Hopkins - Second Generation Intervention Trial	No	Examine the relationship between parental monitoring and subsequent problem gambling.	Declining levels of parental monitoring from ages 11 through to 14 were associated with greater odds (1.57 adjusted) of problem gambling between 16 and 22 years.	-
Scholes-Balog et al. (2014)	2 waves	Total = 2,328		6 years (average)	14-16 years	Australia	International Youth Development Study (Australian Participants)	Yes	Identify risk factors of problem gambling in young adulthood	Multiple factors in adolescence (family conflict and antisocial behaviour, low academic commitment and academic failure, antisocial peer behaviour, individual factors such as being male, alcohol use) predicted young adult gambling problems. When controlling for all factors, being female was protective against gambling problems, and parental acknowledgement of pro-social behaviours moderated the relationship between adolescent alcohol use and young adult problem gambling.	-
Carbonneau et al. (2015a)	3 waves	W1 = 1,882, W2 = 1,785, W3 = 1,358	51.3% female	7 years	15 years	Canada	Québec Longitudinal Study of Kindergarten Children	Yes	Identify and validate problem gambling trajectories from age 15 to 30.	Identified two trajectories. One group showed no signs of gambling problems over a 15-year period. The other (7.4% of participants, mostly male) were likely to report at least one indicator of gambling problem over the preceding 12 months at age 15, 22 and 30. They tended to participate in multiple types of gambling and report drug and alcohol misuse.	Transitions around gambling problems.

Carbonneau et al. (2015b)	3 waves	W1 = 1,882, W2 = 1,785, W3 = 1,358	59.8% - 50.2% female	7 years	15 years	Canada	Québec Longitudinal Study of Kindergarten Children	Yes	Identify and examine trajectories of gambling activity through mid-adolescence (15 years), early adulthood (22 years) and young adulthood (30 years).	Three trajectories were identified: <i>Early-onset low trajectory</i> , <i>late-onset low trajectory</i> , both having generally low levels of gambling participation. <i>High trajectory</i> participated in the highest number of gambling activities and were relatively stable across time. Participants in this group were more likely to be male, and more likely to experience gambling problems at age 30, compared to the low trajectories.	Transitions around gambling behaviours.
Edgerton et al. (2015a)	4 waves			1 year	18-20 years	Canada	Manitoba Longitudinal Study of Young Adults	Yes	Examine patterns of trajectories of problem gambling severity and their predictors.	Identified four distinct trajectories: Non problems diminishing, low risk stable, marginal/non-gambler diminishing, moderate risk increasing. Participants more likely to be in the at-risk trajectory classes were those who were male, scored higher on alcohol dependence and using an escape-avoidance coping style.	Transitions around gambling problems.
Edgerton et al. (2015b)	4 waves	W1 = 679, W4 = 517	51.8% female	1 year	18-20 years	Canada	Manitoba Longitudinal Study of Young Adults	Yes	Examine trajectories of problem gambling severity over time and their predictors in the transition between youth and adulthood.	Found a trend of decreasing problem gambling severity over the study period (even in those with high impulsivity). Impulsivity was a predictor of gambling problems. Findings suggest that exposure to legal gambling may lead to initial increases in gambling participation and problems, but over time, this reduces again.	Transitions around gambling problems.
Froberg et al. (2015)	2 waves	Total = 2,241	-	2 years	16 years	Sweden	Swedish Longitudinal Gambling Stud	Yes	Investigate the relationship between school grades at age 16 and problem gambling in late adolescent/early adulthood.	School performance was linked to problem gambling after controlling for sociodemographic factors, psychological distress, and alcohol use. Lower grades increased the risk of mild and moderate/severe gambling problems, with adolescent males showing higher risk for mild problems and young adult males (20-25 years) exhibiting high rates of moderate/severe gambling problems and unemployment. Females had a strong relationship between low grades and moderate/severe gambling problems, despite lower overall gambling participation.	-
Scholes-Balog et al. (2015)	2 waves	Total = 2880	55% female	2 years	17-24 years	Australia	International Youth Development Study (Yes	Investigate the relationship between gambling problems and anxiety and depressive symptoms in young adults.	The study did not find any longitudinal relationship between problem gambling and depression/anxiety. No measured protective factors significantly predicted problem gambling.	-
Uecker et al. (2015)	2 waves	Total = 13,980	49.1% female	7 years	12-18 years	USA	National Longitudinal Study of Adolescent to Adult Health	Yes	Investigate the relationship between religious beliefs and practices in adolescence and young adult gambling behaviour.	Young adults brought up in some religious groups (i.e. Protestants, Mormons, Jehovah's Witnesses) or those who regularly attended religious services (weekly) were less likely to have ever gambled. For young adults who did gamble, gambling problems were more likely in those who attended religious services regularly, compared to those who never attended.	-

Yucel et al (2015)	3 waves	Total = 156 sample	51.3% female	3 - 4 years	Mean - 12.5 years	Australia	Orygen Adolescent Development Study	No	Identify the predictors of risky gambling behaviours in late adolescence.	Risky gambling behaviours were preceded by increased frustration, decreases in attention and greater involvement in other risky behaviours. There were also gender differences, with higher aggression in females predicting risky gambling.	-
Chinneck et al. (2016)	4 waves	W1 = 679, W2 = 624, W3 = 578, W4 = 530	51.8% female	12-18 months	18 to 20 years	Canada	-	No	Understand the relationship between depressive symptoms and problem gambling amongst young adults.	Depressive and problem gambling symptoms were positively correlated across Waves, 1, 2 and 4. However, the study could not find any evidence of a causal relationship, or that one was a risk factor for the other. Co-occurrence may be explained by an underlying factor.	-
Dussault et al. (2016)	4 waves	Total = 878 sample	100% males	3 - 6 years	14 years	Canada	-	Yes	Understand the relationship between depressive symptoms and problem gambling in late adolescence to young adulthood.	Two main gambling problem trajectories were identified: a <i>low</i> trajectory (96.8%) and an <i>increasing/chronic</i> trajectory, with a prevalence of around 3.2%. Gambling problems increased between ages 17 and 23 years, then remained steady until age 30. There was commonly a joint trajectory of gambling problems and depressive symptoms, with most young males experiencing high levels of gambling problems also showing high depressive symptoms.	Transitions around gambling problems.
Mackinnon et al. (2016)	4 waves	Total = 679 sample	51.8% female	12-18 months	Mean - 18.9 years	Canada	Manitoba Longitudinal Study of Young Adults	Yes	Understand the relationship between personality domains and gambling motives in emerging adults.	Changes in personality traits were linked to different gambling motives. An increase in neuroticism was associated with a higher likelihood of gambling to cope with worries. Increased extraversion correlated with gambling for excitement and social reasons. Higher agreeableness was linked to a reduced likelihood of gambling for social reasons or to cope with problems. Changes in conscientiousness and openness showed no significant relationships with gambling motives. The strongest connections were observed between extraversion and agreeableness.	-
Pallesen et al. (2016)	2 waves	Total = 1,239	58.4% female	1 year	17.5 years	Norway	-	No	Investigate changes and predictive factors in attitudes towards gambling during the transition from 17.5 to 18.5 years.	Attitudes towards gambling became more accepting over time. Predictive factors were being male, having close others who gambled, and having lower levels of neuroticism. More accepting attitudes were associated with continued or increased participation.	-

Scholes-Balog et al. (2016)	2 waves	Total = 2,261	56% female	2 years	17-24 years	Australia	International Youth Development Study (Australian Participants)	Yes	Examine changes in young adult gambling behaviours, particularly the prevalence of sub-groups, risk and protective factors and behavioural outcomes.	The study identified four patterns of problem gambling over time: <i>resistors</i> (91.69%) who never experienced gambling problems, <i>new incidence</i> (3.62%) who developed problems during the study, <i>resistors</i> (2.63%) who stopped having problems, and <i>persisters</i> (2.07%) who had consistent problems across both waves. Being female was a protective factor against all problem gambling patterns. Civic activism was associated with a reduced risk of new gambling problems. Alcohol use and antisocial peers predicted being in the persisters group. Desistors did not show an escalation in other behavioural issues after stopping problem gambling, suggesting that quitting gambling didn't lead to negative outcomes in other areas of their lives.	Transitions around gambling problems.
Secades-Villa et al. (2016)	2 waves	W1 = 1,249, W2 = 874	43.9% female	2 years	14-17 years	Spain	-	Yes	Examine the relationship between impulsivity and gambling problem severity	Gambling problems (at risk or problem gambling) were preceded by high scores on the Zuckerman-Kuhlman Personality Questionnaire (but not the Barratt Impulsiveness Scale).	-
Temche et al. (2016)	2 waves	W1 = 523, W2 = 501		1 year	6 - 10 years	Canada	National Longitudinal Survey of Children and Youth	Yes	Examine the relationship between conduct problems and gambling participation in children (pre-adolescents)	Initiation into gambling participation was preceded by conduct problems and gender (being male) after controlling for factors including age, poverty, lack of parental supervision and parental antisocial behaviour and substance use.	-
Allami et al. (2017)	4 waves	Total = 198	11.7% female	2 years / 2 years / 7 years	12 years	Canada	-	Mixed	Identify different groups of young adolescents based on their personal traits like impulsiveness, anxiety, and behaviour problems, before they started gambling.	Four profiles of young problem gamblers: <i>behaviourally conditioned</i> , <i>emotionally vulnerable</i> , <i>biologically vulnerable</i> , and a <i>mixed</i> biologically and emotionally vulnerable group. The behaviourally conditioned group gambled for excitement and social reasons, often with fewer problems and quitting as adults. The emotionally vulnerable group showed higher levels of depression and anxiety linked to their gambling. The biologically vulnerable group had higher impulsivity, hyperactivity, and drug problems in early adolescence and a higher risk of gambling problems at age 23 compared to the other groups. There was no difference between groups regarding the age of gambling onset.	Pathways model

Dussault et al. (2017)	2 waves	Total = 1220	62.1% female	1 year	14 years	Canada	-	No	Understand transitions between simulated gambling and monetary gambling	Older age, higher impulsivity, more frequent alcohol and cannabis use, and previous experience with simulated gambling games all increased the likelihood of gambling with real money. Males were more likely to gamble with real money than females. Different factors predicted specific types of gambling, with gender and age playing varying roles across activities. Girls and older participants were more likely to play scratch games, while males who had played simulated poker games were more likely to gamble on real poker. For sports betting, males and younger participants showed a higher likelihood of gambling with real money.	Transitions from simulated to monetary gambling.
Kristiansen and Trabjerg (2017)	Qualitative 3 waves	W1 = 51, W2 = 50, W3 = 48	20.8% female	10- 12 months	12 to 20 years	Denmark	-	No	Explore how young people in Denmark experience and react to changing gambling opportunities, focusing on the effects of increased legal gambling availability. Understand what influences youth gambling behaviours, looking at new laws, social factors, and advances in technology.	Four key themes were identified. Changes in legislation regulated online gambling for underage users but also increased gambling opportunities and advertising. Age restrictions were often poorly enforced, except in casinos, which became a rite of passage for 18-year-olds. The proximity of gambling venues, especially near schools, significantly influenced gambling behaviour. Technology made gambling more accessible, increasing frequency and making spending control more difficult for some participants. Free online gambling games were popular among youth, potentially leading to addictive behaviours.	-
Kristiansen et al. (2017)	Qualitative 3 waves	W1 = 51, W2 = 50, W3 = 48	20.8% female	10-12 months	12 to 20 years	Denmark	-	No	Identify different types of gambling pathways among young people, as well as factors that contribute to these transitions.	The study found youth gambling behaviour is highly dynamic, with multiple transitions rather than a linear pathway. The study identified distinct key pathways: <i>progression</i> , <i>reduction</i> , <i>consistency</i> and <i>non-linearity</i> (relatively common). Factors influencing transitions include their social network, availability of money to gamble, gambling opportunities, personal interests, parental influence and major life events.	Transitions around gambling behaviour.
Sagoe et al. (2017)	3 waves	W1 = 2,055, W2 = 1,334, W3 = 1,277)	61.7% female	1 year	17 years	Norway	-	Yes	Examine the relationship between mental health and gambling behaviours between the ages of 17 to 19.	The highest prevalence of problem gambling was at 18 years (compared to 17 or 19 years). They identified three distinct groups, <i>consistent non-gambling</i> , <i>consistent non-risk gambling</i> , and <i>risky and problem gambling</i> . Risk factors for being in the risky and problem gambling group were being male, having higher aggression, more symptoms of depression and having lower levels of loneliness.	Transitions around gambling behaviour and gambling problems.

Allami et al. (2018)	Multiple waves	Total = 3,142	42% female	2 years / 2 years / 7 years	12 years	Canada	Quebec Longitudinal Study of Kindergarten Children	Mixed	Identify at-risk profiles for problem gambling and explore the protective factors associated with these profiles during adolescence and early adulthood.	Four different groups were identified based on their risk for gambling problems. The <i>well-adjusted</i> group (69%) had low levels of issues like anxiety and impulsivity, making them less likely to gamble or face problems. The <i>internalizing</i> group (9%) struggled with anxiety and depression but didn't show other risky behaviours. The <i>externalizing</i> group (16%) had high levels of impulsivity and aggression, which put them at a greater risk for gambling issues. The <i>comorbid</i> group (6%) faced multiple challenges, showing high levels of all risk factors. The study identified protective factors, including strong parental support and positive peer relationships.	-
Bristow et al. (2018)	2 waves	Total = 108	18.5% female	30 days	Mean - 21.67 years	Canada	-	No	Examine whether solitary gambling explains the relationship between anxiety sensitivity and excessive gambling in young adults over a 30-day period.	Young adults with higher anxiety sensitivity at the start of the study were more likely to engage in solitary gambling over the following 30 days. This solitary gambling, in turn, predicted more time spent gambling during the same period. These findings suggest that solitary gambling acts as a link between anxiety sensitivity and excessive gambling behaviour in young adults.	-
Edgerton et al. (2018)	4 waves	Total = 679	-	4 waves over 5 years	18-20 years	Canada	Manitoba Longitudinal Study of Young Adults	Yes	Examine how gambling problems and depression develop together in young adults aged 18-20 over a five-year period.	There was no evidence that increases in gambling led to increases in depression, or vice versa. People in the problem gambling group (without depression) were more likely to use gambling as a way to cope with negative emotions.	-
Hayer et al. (2018)	2 waves	Total = 1178	52.5% female	1 year	11-19 years	Germany	-	Yes	Examine whether simulated gambling increases the likelihood of monetary gambling in adolescents.	12% of adolescents started gambling with real money during the one-year study period. Playing free gambling games on social networks at home and high exposure to gambling advertising increased the likelihood of transitioning to real-money gambling. However, the extent of involvement in simulated gambling, motives for playing simulated gambling games, or whether they made small purchases in these games, did not predict their move to monetary gambling.	Transitions from simulated to monetary gambling.
Sleczka et al. (2018)	3 waves	Total = 173	100% male	12 months	Mean - 22.2 years	Germany	-	No	Identify risk and protective factors for gambling problems in at-risk young adult males.	Young adult men who perceived their family as sharing similar values were less likely to experience gambling problems, both initially and over time. Effective family problem-solving was linked to fewer gambling problems through shared family values.	-

Vadlin et al. (2018)	2 waves	W2 = 1,576	58% female	3 years	13-15 years	Sweden	Survey of Adolescent Life in Västmanl	Yes	Examine the relationship between problematic gaming and problem gambling.	Problematic gaming at ages 13-15 was weakly associated with increased probability of problem gambling three years later.	Transitions from problematic gaming to problem gambling.
Vitaro et al. (2018)	2 waves	Total = 766	49.4% female	3 years	14 years	Canada	-	Yes	Understand the link between gambling participation and low academic performance in adolescence.	Adolescents who gambled showed slightly lower academic performance at both age 14 and 17. Gambling at age 14 predicted poorer academic performance at age 17. This relationship remained even after accounting for earlier impulsivity, social and family difficulties, and current substance use. The study suggests that gambling during adolescence may negatively affect later academic achievement, regardless of other common risk factors.	-
Jun et al. (2019)	2 waves	W3 = 15,197, W4 = 15,701 (8282)	-		18-29 years	USA	-	Yes	Examined gender differences in how depression, antisocial behaviour, and alcohol use during early emerging adulthood affect gambling behaviours in later emerging adulthood.	Antisocial behaviour was linked to increased alcohol use. Heavy drinking in early emerging adulthood predicted increased gambling later, while depression slightly decreased the likelihood of gambling. For men, the relationship between alcohol use and heavy drinking was stronger than for women. Early binge drinking in women increased the risk of later gambling problems, but the opposite was found in men.	-
Bilevicius et al. (2020)	4 waves	Total = 679	52% female	1 year	18-20 years	Canada	Manitoba Longitudinal Study of Young Adults	Yes	Identify gambling subtypes based on patterns of gambling activities and test the stability of these groups over time.	Three groups, based on gambling involvement, were identified - <i>low</i> , <i>moderate</i> and <i>high</i> . The moderate gambling group was associated with high levels of alcohol dependence, drug use, impulsivity and experiencing gambling problems. This was the most stable over the four years (91.1% probability of remaining in the group 4 years later). The high gambling group had lowest stability, with more than half transitioning to the low or moderate groups. High gambling was associated with impulsivity.	Transitions around gambling behaviour.

Botella-Guijarro et al. (2020)	2 waves	Total = 1074	55.9% female	1 year	14-19 years	Spain	-	No	Establish the prevalence of gambling among adolescents, identify factors associated with gambling behaviour over a one-year period, and develop a model to predict gambling behaviour.	Males were 2.7 times more likely to gamble than females, with the highest percentages of gambling onset occurring between 13 and 14 years old. Factors associated with gambling onset and maintenance included gender, age, sensation-seeking, risk perception, self-efficacy for not gambling, parents' attitudes towards gambling, peer pressure, subjective norms, exposure to advertising, accessibility, normative perception, previous gambling behaviour, and parents' gambling behaviour. In adjusted logistic regression models, gender, previous gambling behaviour, and risk perception were significant predictors of gambling onset and maintenance across all models, with sensation seeking, peer pressure, and accessibility also emerging as significant predictors in different models.	Transitions around gambling onset and maintenance.
Brosowski et al. (2020)	2 waves	Total = 1,178	52.5% female	12 months	13.6 years mean	Germany	-	Yes	Examine the relationship between simulated gambling and monetary gambling and gambling problems.	The impact of simulated gambling on problem gambling was primarily via indirect effects of gambling frequency, irrational cognitions and problematic gaming.	Transitions from simulated to monetary gambling.
Dowd et al. (2020)	2 waves	Total = 566		1 year	18-20 years	Canada	Manitoba Longitudinal Study of Young Adults	Yes	Understand if a three-class model of the Pathways Model remains stable in early adulthood.	The three-class model remained. <i>Non problem gamblers</i> , tended to remain in that group. <i>Emotionally vulnerable</i> gamblers were most likely to transition into non problem gamblers. <i>Impulsive</i> gamblers were likely to transition into either the emotionally vulnerable or non-problem group.	Pathways model
Hollén et al. (2020)	3 waves	W1 = 3,566, W2 = 3,940, W3 = 3,841		3-4 years	17 years	UK	Avon Longitudinal Study of Parents and Children (ALSPAC)	Yes	Investigate gambling behaviour and explore the antecedents of regular gambling	Gambling participation and regular (weekly) gambling among young men increased between ages 18 and 20, then stabilised between 20 and 24 years. Longitudinal predictors of regular gambling were being male, having high sensation-seeking, a low IQ, and an external locus of control, parental gambling behaviour and maternal educational background.	Transitions around gambling behaviour.
Levy et al. (2020)	4 waves	W1 = 1,100, W4 = 726		5-13 years	12 years	USA	Boricua Youth Study	Yes	Investigate the relationship between childhood/adolescent sensation seeking trajectories and gambling behaviours in early adulthood among individuals of Puerto Rican origin	Individuals with high sensation-seeking tendencies were less likely to gamble in the past year compared to those with average sensation-seeking levels. No difference was found for the low and accelerated sensation-seeking groups. No connection between sensation-seeking patterns and gambling problems.	-

Pisarska and Ostaszewski (2020)	2 waves	Total = 511	42.5% female	2 years	15-16 years	Poland	-	No	Examine psychosocial and behavioural risk factors of gambling in adolescents.	About half of the students had gambled at least once in their life. Around 3-4% of teenagers showed signs of more serious gambling involvement. Most students (about 82%) did not gamble in either wave of the study. Among those who changed their behaviour, about 8% stopped or reduced their gambling, 6.5% started or increased their gambling, and 3.5% continued gambling at the same level between the two time points. Risk factors for gambling involvement were being male, having gambled before, sensation seeking, delinquent behaviour, and cyberbullying. Protective factors were having good relationships with parents and taking part in meaningful activities.	Transitions around gambling behaviour.
Forrest et al. (2021)	2 waves	Total = 1,058		14 years	6 years	UK	Avon Longitudinal Study of Parents and Children (ALSPAC)	Yes	Investigate the link between parental gambling at age 6, and problem gambling at age 20.	Parental problem gambling when children were aged 6 predicted offspring problem gambling at age 20, but only in cross-gender relationships (fathers influencing daughters and mothers influencing sons). Parental gambling participation alone was not predictive.	-
Jun et al. (2021)	3 waves	Wave I = 20,745, Wave III = 15,197, Wave IV = 15,701		7 years (Wave I - III), 3 years (Wave III - IV)	13-18 years	USA	National Longitudinal Study of Adolescent to Adult Health	Yes	Examine the relationships between adolescent risk factors (specifically depressive symptoms, antisocial behaviours, and alcohol use) and gambling behaviours in emerging adulthood (ages 18-29).	Antisocial behaviours and gambling behaviours increased the risk of later gambling participation and problem gambling in emerging adults (ages 18-29). Past-year alcohol use and heavy drinking were associated with increased risk of gambling participation, but not problem gambling. Among those who showed antisocial behaviours, early symptoms of depression decreased the risk of later gambling participation.	-
Merkouris et al. (2021)	Multiple waves	Total = 1365	54.0% female	6 years	13-18 years	Australia	-	Yes	Examine the links between mental health and substance use problems in adolescents and young adults and the development of gambling problems in adulthood.	Persistent binge drinking, tobacco use, and cannabis use from adolescence to young adulthood predicted gambling problems at age 31-32 years. Binge drinking and tobacco use in young adulthood alone were associated with gambling issues in later life. Prior mental health symptoms were not linked to adult gambling problems. The study found no differences in these risk relationships between males and females.	-
Bellringer et al. (2022)	2 waves	Total = 1,063	49.3% female	6 years	9 years	New Zealand	Pacific Islands Families (PIF) study	Yes	Examine whether gang involvement at age 9 was associated with gambling at age 14.	Pacific youth who had gang involvement at age 9 were 2.25 times more likely to participate in gambling at age 14. Protective factors for gambling participation were having a mother with a partner, and being of Cook Islands ethnicity.	-

Duggan and Mohan (2023)	2 waves	Total = 4,571	49.9% female	3 years	17 years	Ireland	Growing Up in Ireland (GUI) Study	Yes	Understand prevalence of regular gambling and online gambling at ages 17/18 and 20. Examine if exposure to team sports in late adolescence is associated with greater engagement in gambling.	Online gambling participation increased fourfold (from 2.6% to 9.3%) between 17 and 20 years. For males, the increase was from 4 to 16%. For males, but not females, there was a significant association between playing team sports and regular gambling and online gambling. A longer period of association with team sports was associated with a higher likelihood of gambling engagement (dose-response effect).	-
Emond et al. (2022)	2 waves	W1 = 2624, W2 = 1921		4 years	20 years	UK	Avon Longitudinal Study of Parents and Children (ALSPAC)	Yes	Examine the stability of gambling problems from age 20 to 24, identify risk and protective factors, and assess resultant harms	The frequency of moderate risk/problem gambling remained relatively stable between 20 and 24, with scratch cards, online betting, and gambling as the most common activities. Problem gambling behaviours appeared to be established by age 20, particularly among males. Moderate risk/problem gambling at age 20 was linked to other addictive behaviours at age 24, including regular cigarette smoking, high levels of illicit drug use, and problematic alcohol use. Risk factors were a history of hyperactivity and conduct problems in adolescence, high sensation seeking, an external locus of control, and higher social media usage. Problem gamblers at age 20 were more likely to have mothers with gambling problems and to report less parental supervision.	Transitions around problem gambling severity.
McAnally et al. (2022)	Multiple waves	Total = 1,018		Various	5-15 years	New Zealand	Dunedin Multidisciplinary Health and Development Study	Yes	Examine whether excessive TV viewing in childhood is associated with adult gambling problems.	This study found a significant association between higher television viewing times and an increased likelihood of developing disordered gambling. Even after adjusting for childhood socioeconomic status and self-control, the relationship remained significant. Specifically, for each additional hour of daily television viewing, the odds of experiencing disordered gambling increased by 33%.	-
Richard et al. (2022)	Multiple waves	Total = 744	46.8% female	7 years	8.3 years (mean)	Canada	-	No	Investigate how externalising and internalising problems in childhood are associated with gambling participation in mid-adolescence.	Gambling participation was predicted by more externalising problems (e.g. aggressive behaviours and conduct problems) and fewer internalising problems (anxiety and depression) at baseline, as well as a lack of significant decrease in externalising problems over time.	-

Sakata and Jenkinson (2022)	Multiple waves	Total = 2,202 to 2,222	-	1-2 years	16-17 years	Australia	Longitudinal Study of Australian Children (LSAC)	Yes	Examine the links between daily video gaming and simulated gambling games on real money gambling, and the risk factors associated with gambling.	No significant link was found between video gaming at age 16-17 and gambling (18-19 years). However, those who played simulated gambling games at 16-17 were more likely to participate in real money gambling at age 18-19. Risk factors associated with young adult gambling were parental gambling and high levels of alcohol use. The prevalence of experiencing some level of gambling problem increased from 2% at age 16-17 to 9% two years later.	Transitions from simulated to monetary gambling.
Slutske et al. (2022)	Multiple waves	W1 = 836, W2 = 939, W3 = 977	48% female	3-5 years	18	New Zealand	Dunedin Multidisciplinary Health and Development Study	Yes	Understand transitions in gambling from 18 to 45 and risk and protective factors from childhood.	Problem gambling commonly occurred at one time-period only, with recurrence uncommon. Lower childhood social class, general intelligence, and self-control were significant predictors of lifetime disordered gambling in adulthood. Children with a lower IQ and those from socioeconomically disadvantaged families were more likely to develop disordered gambling later in life. Disordered gambling also predicted occupational, educational, and financial problems in adulthood. Low self-control in childhood was the strongest predictor of adult disordered gambling and criminal convictions.	Transitions around gambling problems.
Spychala et al. (2022)	Multiple waves	Total = 4,729		3-4 years	17- 24 years	UK	Avon Longitudinal Study of Parents and Children (ALSPAC)	Yes	Investigate the influence of genetic factors, particularly Big 5 personality traits, and disordered gambling across adolescence and young adulthood.	The study found low agreeableness and high neuroticism significantly predict disordered gambling, particularly from adolescence to young adulthood.	-
Hing et al. (2023)	Qualitative (life course)	Total = 89	51% female	N/A	12 - 17	Australia	-	No	Understand the experiences of simulated and monetary gambling across the life course	Participation in simulated gambling and activities closer to monetary gambling increases as children get older. It becomes normalised before they become aware of the harm it can bring. There appeared to be an association between simulated gambling and harmful gaming, but the relationship was not as clear for simulated gambling and harmful monetary gambling.	-
Wardle et al. (2023)	2 waves	Total = 1,941	61% female	1 year	16-24 years	Great Britain	Emerging Adults Gambling Survey	No	Examine the relationship between problem gambling and suicide attempts in young adults.	Young adults who experienced increase in PGSI score over the period of the study had a 2.7 times higher risk of a suicide attempt in wave 2.	-

Hing et al. (2024)	Qualitative (life course)	Total = 89	51% female	N/A	12 - 17	Australia	-	No	Understand gambling trajectories and influences of those trajectories in children and adolescents	Knowledge about gambling was transferred from parents, peers, sports, advertising and simulated gambling. At risk/problem gambling adolescents were more likely to report a parent with gambling problems, and positive early memories of gambling. Gambling is normalised within their friendship groups; they practice betting and gain knowledge and participate in skin gambling. Non gamblers had little exposure to parental or peer gambling and reported less interest in sport.	-
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Appendix B. 2024 Wave 2 survey instrument

Youth video gaming and gambling survey 2024



NSW YOUTH VIDEO GAMING AND GAMBLING SURVEY

INFORMATION SHEET

In 2020, you participated in the NSW Youth Video Gaming and Gambling Survey – thank you! Your participation helped the NSW Office of Responsible Gambling to design and develop its youth-focused education and awareness initiatives and gambling support services. You can access the 2020 research report by CQUniversity [here](#).

The NSW Office of Responsible Gambling has again engaged CQUniversity to conduct this follow-up survey in 2024. By participating, you can help us to learn more about video gaming and gambling as young people grow up. We want to understand why some young people engage in these activities, and why others don't.

We want to hear from as many young people as possible who participated in the 2020 survey. In 2020, you kindly gave us your contact details so we could invite you to this 2024 survey.

Responses from **all of you** are helpful, even if you do not play video games or gamble.

To participate in this survey you need to:

- have received this invitation directly from us – please do not share this invitation with anyone else,
- agree to participate, and
- have permission from your parent/guardian if you are under 18 years of age.

The survey will take only 15-20 minutes to complete. It asks about any video gaming and gambling you may have done, as well as some questions about you. Your responses are completely anonymous.

To thank you for your time, we will send you a **\$40 Prezzy e-gift card** that can be redeemed with over 400 brands (<https://www.prezzy.com.au>). Participants should seek financial advice as to whether the incentive offered should be considered as assessable income.

The online survey can be completed only once on any device. Please use a different device for extra people in your household who have also been invited to the 2024 survey.

If you have any questions, please contact the research team at n.hing@cqu.edu.au.

CQUniversity Ethics Approval number: 24880.

Important – please read

We would like to be able to compare your survey responses in the 2024 survey to those you provided in the 2020 survey. If you agree, here's how this would work.

In 2020, you answered some questions so we could create a unique code for you. We securely and anonymously stored your 2020 survey responses with this unique code. This code is linked in a separate secure file to the email address or phone number you provided in 2020 and which we used to contact you now. If you agree, this same code will be automatically linked to your survey responses in the 2024 survey.

This will enable us to compare your responses between the two surveys. We will then combine them with the hundreds of other people who complete both surveys so no one will know your individual answers. Neither of the two surveys asks for your name, so your responses will be completely anonymous.

Do you wish to participate in the 2024 survey, and consent to us using your unique code to compare your responses between the 2020 and 2024 surveys?

- Yes, I would like to take part in the 2024 survey and consent to the use of my unique code
- No, I would not like to take part in the 2024 study, or do not wish you to use my unique code (Survey ends if you select this response) (screen out message: Thank you for considering this survey.)

Would you like to see more details about the study?

- Yes (goes to next page)
- No (skipped to consent form)



NSW YOUTH VIDEO GAMING AND GAMBLING SURVEY 2024

ADDITIONAL INFORMATION

How your confidentiality will be protected

The survey does not ask for your name, so your responses will be completely anonymous. They will be combined with hundreds of other responses so no one will know your individual answers.

The anonymous data will be stored securely and indefinitely by CQUniversity and the NSW Office of Responsible Gambling.

Participation is voluntary

Participation in this study is completely voluntary. You can withdraw at any time before you submit your responses. After that, your anonymous responses cannot be withdrawn. If you withdraw before completing the survey, we will not use any of your responses.

How you will receive feedback

The research results will be made available through the NSW Office of Responsible Gambling website: <https://www.gambleaware.nsw.gov.au>

Where you can get further information

If you want further information or have any questions, please contact Professor Nerilee Hing: n.hing@cqu.edu.au. If you have any concerns about the research, you can contact the Ethics Coordinator at CQUniversity's Office of Research: 07 4923 2603.

If you experience discomfort at any point during the survey, you can contact the **GambleAware Helpline on 1800 858 858** or www.gamblinghelponline.org.au or **Kids Helpline on 1800 551 800** or www.kidshelpline.com.au. These are free and confidential telephone/online help services that operate 24 hours a day, 7 days a week.

Participation

Please complete the consent form on the next screen. If you consent, you can then take part in our online survey.

Project team

Professor Nerilee Hing (Chief Investigator), Professor Matthew Rockloff, Professor Matthew Browne, A/Professor Alex Russell, Dr Lisa Lole, Georgia Dellosa and Dr Cathie Tulloch. Qualtrics was engaged to host the online survey.

Consent

I consent to participate in this research project and agree that:

- I have read and understood the Information Sheet that describes this study.
 - Any questions I had about the study were answered by either the Information Sheet, my parent/guardian, or the researchers.
 - I understand I have the right to withdraw from the survey at any time before I submit my responses. However, once my responses are submitted, they cannot be withdrawn due to the anonymous nature of the survey.
 - The research findings, which will not identify me, will be included in the researchers' publications on the study which will include the research report to the NSW Office of Responsible Gambling, and may include conference presentations and research articles.
 - To protect my privacy, my name will not be recorded or used in publication(s).
 - I have my parent/guardian's permission to participate in this study OR I am aged 18 years or over.
 - I am providing my consent to participate in this study
-
- Yes, I consent to take part (continue to next question)
 - No, I do not consent to take part (survey ends if you select this option) (screened out) (Screen out message: Thank you for considering this survey. However, we can only include people who provide their consent to participate)

SURVEY

SCREENING QUESTIONS

IMPORTANT – this survey includes attention checks that you must answer correctly to continue with the survey. Please read each question carefully.

S1. How old are you? (Please enter numbers only below)

(Text box, validation 0-100)

- Screen out if under 14, or older than 22

S2. What is your gender? (Please select one response)

- Male
- Female
- Other

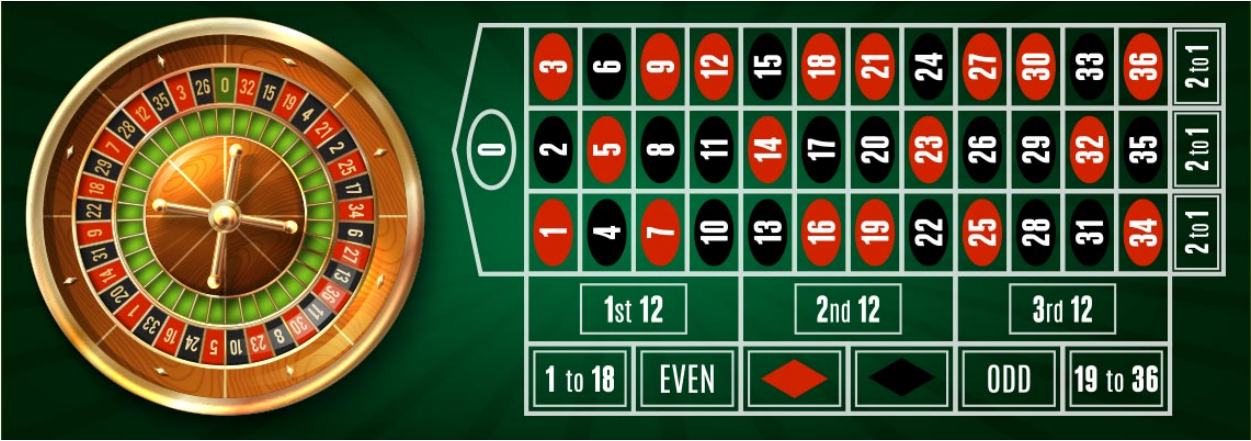
S3. Where do you mainly live? (Please select one response below)

- NSW
- Victoria
- Queensland
- South Australia
- Western Australia
- Tasmania
- Australian Capital Territory
- Northern Territory
- Elsewhere (e.g. overseas)

GAMBLING BEHAVIOUR

The first section of this survey asks about any gambling you may have done **FOR REAL MONEY**. Gambling includes playing the following activities for real money: buying lottery, lotto, pools tickets or scratchies; private betting with family or friends; playing pokies, poker or casino table games; betting on sports, racing, esports or fantasy sports; or betting on bingo or keno.





Participation in gambling

(Ask all)

GB1a. When did YOU last spend any REAL MONEY on each of the following activities?

(Please select one response on each line).

Note: If you don't know what one of these activities is, select "Never" for that activity. This does NOT include gambling-like activities in games, for example, Diamond Casino & Resort in the video game Grand Theft Auto V or spinning wheels in Candy Crush.

CODE	ITEM	In the last 7 days	In the last 4 weeks	In the last 12 months	More than 12 months ago	Never
1	Played pokies or poker machines FOR REAL MONEY					
2	Formally bet on horse or greyhound races, NOT including private betting with friends or family, FOR REAL MONEY					
3	Bought scratchies, lottery, lotto or pools tickets for your own use FOR REAL MONEY					
4	Played keno FOR REAL MONEY					
5	Played bingo or housie FOR REAL MONEY					
6	Played poker online or in a pub, club or casino FOR REAL MONEY					
7	Played casino table games such as Blackjack or Roulette (but NOT including poker) FOR REAL MONEY					
8	Bet on sporting events FOR REAL MONEY (but NOT sweeps, fantasy sports, or esports)					
9	Bet on esports events FOR REAL MONEY, like CS-GO, League of Legends or DOTA2					
10	Bet on Fantasy sports games, for example, NFL Fantasy Football FOR REAL MONEY such as Draftstars					
11	Informal private betting FOR REAL MONEY like betting on card or dice games, or betting on sports with family or friends.					

Frequency of gambling

(Don't ask if all responses to GB1a = "Never" or "More than 12 months ago")

Gb1b. During the last 12 months, which activity did you gamble on most frequently using REAL MONEY?

(display from GB1a all activities where respondent answered "In the last 7 days", "In the last 4 weeks", or "In the last 12 months")

Gb1c. During the last 12 months, how often did you gamble using REAL MONEY on this activity?

[insert activity identified in GB1b]?

- More than once a week
- About once a week
- A few times a month
- Once a month or less often

Age first gambled on each activity

(Don't ask if all responses to GB1a = Never)

GB2. How old were you when you first spent REAL MONEY on each activity? If you're unsure, please provide your best guess. (Please insert one response on each line)

(Display only responses from GB1a where respondent answered "In the last 7 days", "In the last 4 weeks", "In the last 12 months", "More than 12 months ago")

CODE	ITEM	____ years old
1	Played pokies or poker machines FOR REAL MONEY	
2	Bet on horse or greyhound races FOR REAL MONEY	
3	Bought scratchies, lottery, lotto or pools tickets for your own use FOR REAL MONEY	
4	Played keno FOR REAL MONEY	
5	Played bingo or housie FOR REAL MONEY	
6	Played poker online or in a pub, club or casino FOR REAL MONEY	
7	Played casino table games such as Blackjack or Roulette (but NOT including poker) FOR REAL MONEY	
8	Bet on sporting events FOR REAL MONEY (but NOT sweeps, fantasy sports, or esports)	
9	Bet on esports events FOR REAL MONEY, like CS-GO, League of Legends or DOTA2	
10	Bet on Fantasy sports games FOR REAL MONEY such as Draftstars	
11	Informal private betting FOR REAL MONEY like betting on card or dice games, or betting on sports with family or friends.	

Mode of gambling for each activity

(Ask only if responses from GB1a include “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months” to any item)

GB3. During the last 12 months, did you spend REAL MONEY on these activities in a venue (such as a pub, club, casino, TAB or newsagent), online (using a smartphone, computer, tablet or gaming console), or both?

(Please select one response on each line)

(Display only items from GB1a where respondent answered “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months”)

CODE	ITEM	Venue (pub, club, casino, TAB, newsagent)	Online	Both
1	Played pokies or poker machines FOR REAL MONEY			
2	Bet on horse or greyhound races FOR REAL MONEY			
3	Bought scratchies, lottery, lotto or pools tickets for your own use FOR REAL MONEY			
4	Played keno FOR REAL MONEY			
5	Played bingo or housie FOR REAL MONEY			
6	Played poker online or in a pub, club or casino FOR REAL MONEY			
7	Played casino table games such as Blackjack or Roulette (but NOT including poker) FOR REAL MONEY			
8	Bet on sporting events FOR REAL MONEY (but NOT sweeps, fantasy sports, or esports)			
9	Bet on esports events FOR REAL MONEY, like CS-GO, League of Legends or DOTA2			
10	Bet on Fantasy sports games FOR REAL MONEY such as Draftstars			

[Display only if respondent answered at GB1a “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months” for Informal private betting]

GB3a. During the last 12 months, where did you bet FOR REAL MONEY on informal private betting, like betting on card or dice games, or betting on sports with family or friends? (select all that apply)

- At your own or a friend’s or family member’s house
- At school or TAFE or university
- At work
- Online or through apps
- At a pub or club
- At a sports ground
- Other

Gambling expenditure for each activity

(Ask only if responses from GB1a include “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months” to any item)

GB4. During the last 12 months, about how much money did you spend in total on each of these activities? If you’re unsure, please provide your best guess. (Please insert one response on each line)

(Display only items from GB1a where respondent answered “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months”)

CODE	ITEM	\$ ____
1	Played pokies or poker machines FOR REAL MONEY	
2	Bet on horse or greyhound races FOR REAL MONEY	
3	Bought scratchies, lottery, lotto or pools tickets for your own use FOR REAL MONEY	
4	Played keno FOR REAL MONEY	
5	Played bingo or housie FOR REAL MONEY	
6	Played poker online or in a pub, club or casino FOR REAL MONEY	
7	Played casino table games such as Blackjack or Roulette (but NOT including poker) FOR REAL MONEY	
8	Bet on sporting events FOR REAL MONEY (but NOT sweeps, fantasy sports, or esports)	
9	Bet on esports events FOR REAL MONEY, like CS-GO, League of Legends or DOTA2	
10	Bet on Fantasy sports games FOR REAL MONEY such as Draftstars	
11	Informal private betting FOR REAL MONEY like betting on card or dice games, or betting on sports with family or friends.	

Sources of money for gambling

(Ask only if responses from GB1a include “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months” to any item)

GB5. Have you used money from any of the following sources for gambling? If you don’t have this source of money tick “No” to the question (Please select no or yes on each line)

	No	Yes
Money you earned from a job/part-time job		
Your pocket money or allowance		
Money you received as a present (such as for your birthday or Christmas)		
Money given to you by your parents, guardians or relatives that was intended to buy something else (such as lunch money, transport money)		
Money given to you by your parents, guardians or relatives specifically for gambling		

Money from selling any of your belongings		
Money you borrowed from someone else with their permission		
Money or items you took from somewhere else without permission		
Money that you borrowed from a financial institution such as credit, a loan or an overdraft		
Other, please specify INSERT TEXT BOX		

Who you usually gamble with

(Ask only if responses from GB1a include “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months” to any item)

GB6. Who do you usually gamble or bet with FOR REAL MONEY? (Please select all that apply)

Remember, gambling includes playing the following activities [FOR REAL MONEY](#): buying lottery, lotto, pools tickets or scratchies; private betting with family or friends; playing pokies, poker or casino table games; betting on sports, racing, esports or fantasy sports; or betting on bingo or keno.

Parents or guardians		
Grandparents		
Brother, sister or other relatives aged 18 or over		
Brother, sister or other relatives aged 17 or younger		
Girlfriend, boyfriend or partner aged 18 or over		
Girlfriend, boyfriend or partner aged 17 or younger		
Friends aged 18 or over		
Friends aged 17 or younger		
Work colleagues		
Other [Insert open text box]		
None of the above, I usually gamble alone EXCLUSIVE		

Attention check

(Ask all)

This question is an attention check. Please select the number “seven” to continue.

(List numbers 1-10)

Stopped from gambling

(Ask all) GB7. Have you ever TRIED to gamble FOR REAL MONEY and been stopped because you were too young (under 18 years of age)? (Please select one response)

Remember, gambling includes playing the following activities FOR REAL MONEY: buying lottery, lotto, pools tickets or scratchies; private betting with family or friends; playing pokies, poker or casino table games; betting on sports, racing, esports or fantasy sports; or betting on bingo or keno.

1. Yes, I have been stopped
2. No, I haven't been stopped
3. I never tried to gamble for money when I was under 18 years of age

Access to online gambling account(s)

(Ask all those who answer ONLINE or BOTH to any item in GB3)

GB8. Please read all the sentences below and select one response on each line.

	Yes, currently	Yes, but not anymore	Never
I have gambled online using my parents' / guardians' gambling account with their permission			
I have gambled online using my parents' / guardians' gambling account without their permission			
I have gambled online using another person's gambling account with their permission			
I have gambled online using another person's gambling account without their permission			
I have gambled online using a gambling account I set up myself while I was under 18 years of age			
I have gambled online using a gambling account I set up myself after I turned 18 years of age (Only shown to those 18+)			
I have gambled online another way (please specify)			

ATTITUDES ABOUT GAMBLING

Approval of gambling

(Ask all)

GA1. Do you approve or disapprove of...? (Please select one response on each line)

	Strongly disapprove	Somewhat disapprove	Somewhat approve	Strongly approve
People who gamble once a week or more often				
People who gamble less often than once a week				

Perception of the harmfulness of gambling

(Ask all)

GA2. How much do you think people risk harming themselves (physically, mentally, financially or in other ways) if they gamble? (Please select one response on each line)

	No risk	Minor risk	Moderate risk	Great risk
People who gamble once a week or more often				
People who gamble less often than once a week				

PROBLEMATIC GAMBLING

This section is about your behaviour related to gambling in the last 12 months.

Note: 'Remember, gambling includes playing the following activities FOR REAL MONEY: buying lottery, lotto, pools tickets or scratchies; private betting with family or friends; playing pokies, poker or casino table games; betting on sports, racing, esports or fantasy sports; or betting on bingo or keno.'

DSM-IV-MR-J

(Ask all)

DSM1. During the last 12 months, how often have you found yourself thinking about gambling or planning to gamble? (Please select one response)

Never

Once or twice

Sometimes

Often

(Ask rest of DSM-IV-MR-J items only if responses from GB1a include "In the last 7 days", "In the last 4 weeks" or "In the last 12 months" to any item)

DSM2. During the last 12 months, have you needed to gamble with more and more money to get the amount of excitement you want? (Please select one response)

Yes

No

DSM3. During the last 12 months, have you ever spent much more than you planned to on gambling? (Please select one response)

Never

Once or twice

Sometimes

Often

DSM4. During the last 12 months, have you felt bad or fed up when trying to cut down or stop gambling? (Please select one response)

Never

Once or twice

Sometimes

Often

Never tried to cut down

DSM5. During the last 12 months, how often have you gambled to help you to escape from problems or when you are feeling bad? (Please select one response)

Never

Once or twice

Sometimes

Often

DSM6. During the last 12 months, after losing money gambling, have you returned another day to try and win back money you lost? (Please select one response)

Never

Less than half the time

More than half the time

Every time

DSM7. During the last 12 months, has your gambling ever led to lies to your family? (Please select one response)

Never

Once or twice

Sometimes

Often

DSM8. During the last 12 months, have you ever taken money from the following without permission to spend on gambling? If you don't have each source of money below select "Never" for that item

DSM8a. Lunch, dinner or fare money? (Please select one response)

Never

Once or twice

Sometimes

Often

DSM8b. Money from your family? (Please select one response)

Never

Once or twice

Sometimes

Often

DSM8c. Money from outside the family? (Please select one response)

Never

Once or twice

Sometimes

Often

DSM9a. During the last 12 months, has your gambling ever led to arguments with family or friends or others? (Please select one response)

Never

Once or twice

Sometimes

Often

DSM9b. During the last 12 months, has your gambling ever led to missing school, university, TAFE or work? (Please select one response)

Never

Once or twice
Sometimes
Often

* If you experience discomfort at any point during the survey, you can contact **Gambling Help on 1800 858 858** or www.gamblinghelponline.org.au or **Lifeline on 13 11 14** or www.lifeline.org.au or **Kids Helpline on 1800 551 800** or www.kidshelpline.com.au. These are free and confidential telephone/online help services that operate 24 hours a day, 7 days a week.

GAMBLING HARM (GHS-20)

(Ask only if responses from GB1a include “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months” to any item)

GHS-20 During the last 12 months, did any of these issues occur as a result of **your gambling**?

(Randomise)

Item	No	Yes
1. Reduction of my available spending money		
2. Less spending on recreational expenses such as eating out, going to movies or other entertainment		
3. Reduction of my savings		
4. Sold personal items		
5. Increased credit card debt		
6. Less spending on essential expenses such as medications, healthcare and food		
7. Used my work or study time to gamble		
8. Reduced performance at work or study (i.e. due to tiredness or distraction)		
9. Was absent from work or study		
10. Increased experience of depression		
11. Had regrets that made me feel sorry about my gambling		
12. Felt like a failure		
13. Felt ashamed of my gambling		
14. Felt distressed about my gambling		
15. Felt insecure or vulnerable		
16. Felt worthless		
17. Spent less time with people I care about		
18. Social isolation (felt excluded or shut-off from others)		
19. Experienced greater conflict in my relationships (arguing, fighting, ultimatums)		
20. Promised to pay back money without genuinely intending to do so		

* If you experience discomfort at any point during the survey, you can contact **Gambling Help on 1800 858 858** or www.gamblinghelponline.org.au or **Lifeline on 13 11 14** or www.lifeline.org.au or **Kids Helpline on 1800 551 800** or www.kidshelpline.com.au. These are free and confidential telephone/online help services that operate 24 hours a day, 7 days a week.

HOUSEHOLD GAMBLING

Exposure to adult gambling

(Ask all)

CE1. The next few questions are about adults in any of the households you have lived in during the past four years. These adults include parents/guardians, partners and housemates you have spent time with.

During the last four years... (Please select one response on each line)

	More than once a week	About once a week	A few times a month	Once a month or less often	Never
How often did any of the adults in any of these households gamble?					
(do not ask if previous option = never) How often were you present when any adults in these households gambled?					
(do not ask if first option = never) How often did you PARTICIPATE in gambling with any adults in these households?					

Adult gambling problems in the household

Do not ask if first option at CE1 = never

CE2. During the last four years, did any of the adults in the households you have lived in experience problems with their gambling? This means spending too much money or time on gambling which causes problems for themselves or other people). (Please select one response)

1. No gambling problems
2. Minor gambling problems
3. Moderate gambling problems
4. Serious gambling problems

Parental permissiveness towards gambling

(Ask all)

CE3. How do you think your parents/guardians (or former guardians) would feel if you gambled, even once or twice, over the next 12 months? (Please select one response)

1. Strongly disapprove
2. Disapprove
3. Neither approve or disapprove (they wouldn't care or would ignore it)
4. Approve
5. Strongly approve

Parental rules about gambling

(Ask all)

CE4. Which of the following statements best describes your parents'/guardians' (or former guardians') current approach to you and gambling? (Please select one response)

1. They set strict rules about gambling with no negotiation
2. We discuss and agree rules about gambling which they expect me to follow
3. They don't set rules about gambling, but we discuss the best approach together
4. They don't set rules about gambling and it's not something we talk about

PEER GAMBLING

Peers norms for gambling

(Ask all)

PE2a. Does your girlfriend, boyfriend or partner gamble? (Please select one response)

Remember, gambling includes playing the following activities FOR REAL MONEY: buying lottery, lotto, pools tickets or scratchies; private betting with family or friends; playing pokies, poker or casino table games; betting on sports, racing, esports or fantasy sports; or betting on bingo or keno.

1. No
2. Yes, they sometimes gamble
3. Yes, they frequently gamble
4. Don't know
5. I don't have a girlfriend, boyfriend or partner

PE2b. Do none, some, or most of your friends gamble? (Please select one response)

1. None of my friends gamble
2. Some of my friends gamble
3. Most of my friends gamble
4. Don't know

Peer approval of gambling

(Do not ask if PE2a = 5)

PE3a. How does your girlfriend, boyfriend or partner feel about someone your age gambling? (Please select one response)

1. They mostly approve
2. They somewhat approve
3. They disapprove
4. Don't know / We don't talk about it

(Ask all)

PE3b. How do your friends feel about someone your age gambling? (Please select one response)

1. Most of my friends approve
2. Some of my friends approve
3. None of my friends approve
4. Don't know / We don't talk about it

Do not ask if PE3b=3.

PE4. Do you have any close friends who strongly approve of gambling? (Please select one response)

1. Yes
2. No
3. Don't know / We don't talk about it

GAMBLING ADVERTISING

Exposure to gambling advertising

(Ask all)

GAD1. During the last 12 months how often have you NOTICED gambling adverts, messages or logos in each of the following places? (Please select one response on each line)

	More than once a week	Once a week	A few times a month	Once a month or less often	Never	I don't view this media
In live sports or racing events in a venue (e.g. at football stadiums or on players' shirts or around the grounds)						
On TV during sporting and racing events						
On television, except during sporting and racing events						
On the radio						
In print advertising (e.g. newspapers, magazines)						
On outdoor advertising (e.g. billboards, signage, public transport)						
On online and social media (e.g. websites, Youtube, Facebook, Twitter/X, TikTok)						
In direct messages (e.g. personal emails, SMSs, phone calls from operators)						

Perceived influence of gambling advertising

(Ask all)

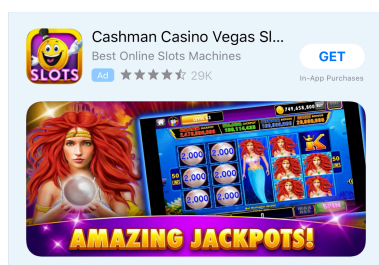
GAD3. How strongly do you agree or disagree with each of the following statements?

	Strongly disagree	Disagree	Neither agree or disagree'	Agree	Strongly Agree
1. I am more likely to gamble after seeing a gambling advertisement					
2. Gambling advertisements make me think about gambling in the future					
3. I pay attention to gambling advertisements					
4. Gambling advertisements have increased my knowledge of gambling options					

	Strongly disagree	Disagree	Neither agree or disagree'	Agree	Strongly Agree
5. I think more positively about gambling because of gambling advertisements					
6. Knowing the betting odds is part of following sport					
7. Knowing the betting odds makes watching sport more exciting					
8. Betting on sport is normal					

GAMES WITH GAMBLING COMPONENTS

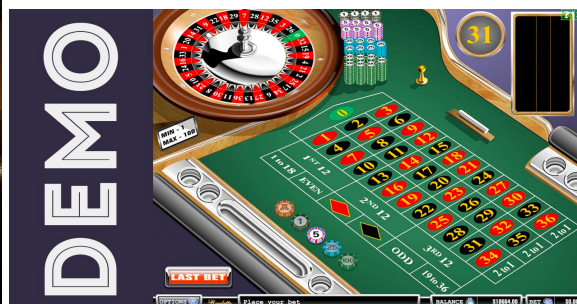
Games have gambling components, which look and play like normal gambling games – for example roulette, poker, pokies and bingo – such as those shown below. They may be free to play, or you may pay to play, but you cannot win real money.



Google
Lightning Link Casino Slots - Apps on Google Play
Lightning Link Casino, featuring Vegas-style slot machine games for free by Aristocrat! Come and play virtual slots an...



Google
Slots: Heart of Vegas Casino - Apps on Google Play
Heart of Vegas Slots invites you to play the world's favorite free social casino games...



(Ask all)

GSG1. When, if ever, did you last play any of these games with gambling components? (Please select one response on each line)

	In the last 7 days	In the last 4 weeks	In the last 12 months	More than 12 months ago	Never
Games with gambling components on social networking websites (such as Zynga games on Facebook)					
Video games with gambling components (such as Diamond Casino & Resort in the video game Grand Theft Auto V)					
Free demo or practice games on real gambling websites or apps, for example, Mobile Casinos’.					
Gambling-themed apps from an app store (such as bingo, poker, pokies/slots, or roulette that you play on your phone, tablet or computer)					

(Ask if answered “In the last 7 days”, “In the last 4 weeks”, “In the last 12 months” or “More than 12 months ago” to any item in GSG1)

GSG3. Have you ever played any of the following gambling components in games? (Please select no or yes on each line)

	No	Yes
Pokies/slot machines where you cannot win real money		
Poker where you cannot win real money		
Casino games (like Roulette or Blackjack) where you cannot win real money		
Bingo where you cannot win real money		
Keno where you cannot win real money		
Scratchies or lottery games where you cannot win real money		
Wheel spinning where you cannot win real money		
Other gambling where you cannot win real money, specify		

(Ask if answered “In the last 7 days”, “In the last 4 weeks”, “In the last 12 months” or “More than 12 months ago” to any item in GSG1)

GSG4. At what age did you first play a game with gambling components? If you’re unsure, provide your best guess. (Please enter numbers only below)

Age ____ years old

(Ask if answered “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months” to any item in GSG1)

GSG6. In general, about how many hours per week OR per month do you usually spend playing games with gambling components? (Please enter only numbers below)


_____ hours per week OR _____ hours per month

Many video games offer loot boxes. Loot boxes are in-game items which can be purchased with real money, in-game currency, or awarded for free. When opened, loot boxes contain a random selection of virtual items (e.g., weapons, cosmetic items known as skins, or in-game currency).

Bind Cube

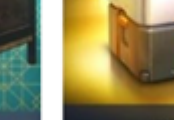
x1	x5	x10
100 CERA	450 CERA	850 CERA

Heka Chest
MYSTERY ITEM



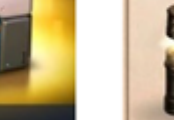
Contains one random weapon or shield. Opens automatically on purchase.

BUY FOR 3000




50 LOOT BOXES


ELDER CHEST



750




ITEM OF THE MONTH JUNE Kaleido Box
JUN 1 - JUL 1

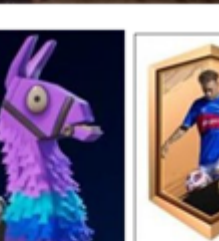


Reins upholds the rule of your epic item grade! Well, we're upgrading it special this month! Don't miss out on this character and item in your battle royale!

(Your item grade will be upgraded to your current max level when you open the Kaleido Box. 100% chance.)

Kaleido Box 10	Kaleido Box 100
99,000 Gold	300 Cera





4 left

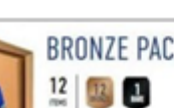
RANGED WEAPON LLAMA

8 hrs, 1 min

Get V-bucks 350


BRONZE PACK

12 / 1940



Great value for increasing club depth. A mix of 12 Bronze items including players and consumables, 1 Rare.

400 COINS




BASE SHIPMENT

CONTAINS:

- 1 VANITY ITEM
- 1 PART TOKEN
- 1 BANK TOKEN

OPEN



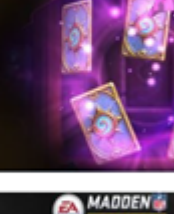
OLYMPIAN GIFT

Contains one Epic to Legendary item to equip on your character or your ship, including items from the Store.

VALUE 200

EA MADDEN REWARDS

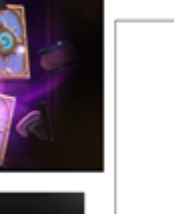
PRO	ALL-PRO	LEGENDARY
60 PACKS OPENED BY JUL 1, 2020	250 PACKS OPENED BY JUL 1, 2020	1,000 PACKS OPENED BY JUL 1, 2020



SILVER

Silver REQ Packs include Common to Rare single REQs. Two permanent REQs will also be unlocked available.

BUY NOW



(Ask all)

LB1. When, if ever, did you last obtain a loot box in the following ways? (Please select one response on each line)

ITEM	In the last 7 days	In the last 4 weeks	In the last 12 months	More than 12 months ago	Never
Opened a free loot box during a game					
Paid real money to get a loot box or key					
Used virtual currency that was purchased with real money to get a loot box					

(Ask if answered “In the last 7 days”, “In the last 4 weeks”, “In the last 12 months” or “More than 12 months ago” to any item in LB1)

LB2. At what age did you first open loot boxes/crates/packs? If you’re unsure, provide your best guess. (Please insert only numbers below)

Age ____ years old

Expenditure on in-game purchases

(Ask if answered “In the last 7 days”, “In the last 4 weeks”, or “In the last 12 months” to item 2 or 3 in LB1)

EIG1. In a typical month, about how much do you spend on **loot boxes** in games, either directly with money or with in-game currency purchased with money? If you’re unsure, please provide your best guess. (Please insert only numbers below)

Note: Do not include free or game-earned loot boxes, regardless of whether you initially paid for the game.

\$ _____ per month

(Ask if answered “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months” to any item in GSG1)

EIG2. In a typical month, about how much do you spend on **microtransactions, such as to get virtual credits**, in games with gambling components (not including loot boxes)? If you’re unsure, please provide your best guess. (Please insert only numbers below)

Note: Do not include free or game-earned loot boxes, regardless of whether you initially paid for the game.

\$ _____ per month

BETTING WITH IN-GAME ITEMS

Video games come with a number of in-game items which can be traded or used as virtual currency.

(Ask all)

IGI1. When, if ever, did you last use in-game items for betting in the following ways? (Please select one response on each line)

ITEM	In the last 7 days	In the last 4 weeks	In the last 12 months	More than 12 months ago	Never
IGI_1 Bet with in-game items on the outcome of a competitive video gaming contest (esports betting)					
IGI_3 Bet on another site with in-game items ("skin betting") on a game of chance or skill (e.g., roulette, coin flip, jackpot)					
IGI_2 Bet with in-game items on the outcome of other competitive events or sports (excluding esports)					
IGI_4 Used in-game items to bet privately with friends					

(Ask if answered "In the last 7 days", "In the last 4 weeks", "In the last 12 months" or "More than 12 months ago" to any item in IGI1)

IGI2. At what age did you first bet with in-game items? If you're unsure, provide your best guess. (Please insert only numbers below)

Age ____ years old

PARTICIPATION IN OTHER GAMING

(Ask all)

POG1. When, if ever, did you last do any of the following activities? (Please select one response on each line)

Note: If you don't know what one of them is, select "Never " for that item.

ITEM	In the last 7 days	In the last 4 weeks	In the last 12 months	More than 12 months ago	Never
POG1_2 Played an esports video game (a video game that can be played in professional competitions)					
POG1_1 Played a video game (excluding esports)					
POG1_3 Watched an esports event (online or in person)					
POG1_4 Competed in a professional esports competition yourself					

POG1_5 Entered into a <u>free</u> fantasy sports or daily fantasy sports competition (one with no entry fee), for example, NFL Fantasy Football’.					
---	--	--	--	--	--

(Ask if “In the last 7 days”, “In the last 4 weeks” or “In the last 12 months” to POG1)

POG2. About how many hours per week OR per month do you usually spend on gaming? (Please insert only numbers below)

_____ hours per week OR _____ hours per month

PROBLEMATIC GAMING

Internet Gaming Disorder

(Ask if answered “in the last 7 days”, “In the last 4 weeks” or “In the last 12 months” to Item 1 and 2 in POG1)

IGD1. These questions will ask you about your gaming activity during the past 12 months. They refer to all types of gaming that you do, not just games with gambling components. (Please select one response on each line)

During the last 12 months:

	No	Yes
Did you spend a lot of time thinking about games even when you were not playing, or planning when you could play next?		
Did you feel restless, irritable, moody, angry, anxious or sad when attempting to cut down or stop gaming, or when you were unable to play?		
Did you feel the need to play for increasing amounts of time, play more exciting games, or use more powerful equipment to get the same amount of excitement you used to get?		
Did you feel that you should play less, but were unable to cut back on the amount of time you spent playing games?		
Did you lose interest in or reduce participation in other recreational activities (hobbies, meetings with friends) due to gaming?		
Did you continue to play games even though you were aware of negative consequences, such as not getting enough sleep, being late to school/work, spending too much money, having arguments with others, or neglecting important duties?		
Did you lie to family, friends or others about how much you game, or try to keep your family or friends from knowing how much you game?		
Did you game to escape from or forget about personal problems, or to relieve uncomfortable feelings such as guilt, anxiety, helplessness or depression?		
Did you risk or lose significant relationships, or job, educational or career opportunities because of gaming?		

PEER FACTORS

Peer group belonging

(Ask all)

PG1. How strongly do you feel you belong to the following? (Please select one response)

1. A friendship group
2. An online community

scale ranging from 1 (*no belonging at all*) to 10 (*very strong belonging*).

MEDIA DEVICES AND USAGE

Access to devices

(Ask all)

MD1. Which of these devices are available for you to use within your household? (Please select no or yes on each line)

	No	Yes
Desktop computer		
Laptop computer		
Smartphone		
Games console		
iPad or tablet		

Parental regulation of media usage

(Ask all)

MD4. When you were growing up, did your parents or guardians talk to you about being safe online (cybersafety)? (Please select one response)

1. Yes
2. No

MD5. When you were growing up, how often did your parents or guardians set rules and limits for online content? (Please select one response on each line)

1. Never
2. Rarely
3. Sometimes
4. Most of the time
5. Always

PSYCHOLOGICAL CHARACTERISTICS

Wellbeing

(Ask all)

W1. How happy are you with your life as a whole?

Scale 0-10. End points: 0 - Very sad; 5 - Not happy or sad; 10 - Very happy

* If you experience discomfort at any point during the survey, you can contact **Gambling Help on 1800 858 858** or www.gamblinghelponline.org.au or **Lifeline on 13 11 14** or www.lifeline.org.au or **Kids Helpline on 1800 551 800** or www.kidshelpline.com.au. These are free and confidential telephone/online help services that operate 24 hours a day, 7 days a week.

Impulsivity

(Ask all)

BIS. For each of the following statements, select the response which indicates how well it describes you. (Please select one response on each line)

	Rarely/ never	Occasionally	Often	Always
I plan tasks carefully				
I do things without thinking				
I don't "pay attention"				
I am self-controlled				
I concentrate easily				
I am a careful thinker				
I say things without thinking				
I do things with little planning (e.g. I act on the spur of the moment)				

DEMOGRAPHICS

D1. What is the main language that you speak at home? (Please select one response)

1. English
2. A language other than English (please specify)

D3. Which of these best describes your parents' or guardians' living situation? (Please select one response)

1. Living together
2. Separated or divorced
3. Have never lived together
4. Something else

D3b. In the last four years, have you started living independently or moved out of the family home?

1. No
2. Yes

D4. Which of the following best describes your current marital status? (Please select one response)

1. Single/never married
2. Living with partner/de facto
3. Married
4. Divorced or separated
5. Widowed

D5. Which of the following best describes your current living situation? (Please select one response)

1. You live with a parent/guardian
2. You live alone
3. You live as a single parent with children
4. You live with your partner with children
5. You live with your partner without children
6. You live in a group or share house/apartment
7. Other (please specify - text box)

D6. Which of the following best describes you? (Please select one response)

1. Work full-time
2. Work part-time or casual

3. Self-employed
4. Unemployed and looking for work
5. Full-time school student
6. Full-time TAFE or college student
7. Full-time university student
8. Full-time home duties
9. Retired
10. Sick or disability pension
11. Other (please specify)

D7. What is the highest level of education that you have completed? (Please select one response)

1. Year 5 or less
2. Year 6
3. Year 7
4. Year 8
5. Year 9
6. Year 10
7. Year 11
8. Year 12
9. Completed trade or technical certificate or diploma
10. Completed a university degree

CLAIM YOUR GIFT CARD

Thank you for completing this survey. We greatly appreciate it!

(For all)

We can email you a \$40 gift card as a thank you for taking part in the survey. Gift cards will be sent from Prezzy and can be used at your choice of retailer. Note that only one gift card can be sent to each email address. Please note that the gift card may take up to two weeks to be delivered after you complete the survey.

Would you like to receive a gift card?

- Yes, please send me a gift card
- No, thank you. I would NOT like to receive a gift card

ARE YOU WILLING TO TAKE PART IN AN INTERVIEW?

(For those who are appropriate for the interviews, i.e., 18+)

In a second stage of this study, we would like to interview young people to explore how reaching the legal gambling age impacts on decisions to gamble or not gamble. Would you be interested in taking part in an interview?

If you are selected and participate in an interview, we will compensate you with a **\$80 Prezzy gift card**.

- Yes, please, I would like to be considered for an interview later this year
- No, thank you. I'm not interested in an interview.

Thank you for your interest in an interview. Please note that we can't interview everyone. We will be in contact via email if you are selected to take part.

SUBMIT YOUR SURVEY RESPONSES

Please SUBMIT your survey responses here.

If you require any further information or have any questions about participation, please contact Nerilee Hing: n.hing@cqu.edu.au.

If you experience discomfort at any point during the survey, you can contact the **GambleAware Helpline on 1800 858 858** or www.gamblinghelponline.org.au or **Kids Helpline on 1800 551 800** or www.kidshelpline.com.au. These are free and confidential telephone/online help services that operate 24 hours a day, 7 days a week.

Please click SUBMIT

Appendix C. Interview Guide

NSW Youth Gambling Qualitative Study

Interview Discussion Guide

Note for interviewers: Study aims

The study aims to provide rich insights into four interrelated topics:

1. The nature and extent of youth gambling transitions: from non-gambling to gambling; from gambling to problem gambling; from simulated gambling to monetary gambling; from simulated gambling to moderate risk or problem gambling; and from problematic gaming to problematic gambling.
2. Harm associated with these transitions: first experiences of this harm, changing patterns in the nature and extent of harm over time, contributors to this harm, its impacts on self and others, and how attempts to manage and address this harm have changed during the gambling transitions of participants.
3. Protective and risk factors that impact these transitions and associated harm: e.g., personal, parental, peer and environmental factors, including advertising and gambling products, critical change points and influences in the participants' transitions towards and away from gambling harm over time.
4. We are particularly interested in any changes or transitions that take place once participants turn 18.

Note for interviewers: Interview approach

- The interviews will be semi-structured and take a narrative approach to encourage participants to discuss their “gambling journey”, as well as related elements of their life histories, commencing in early childhood through to the present time.
- It is important to **probe for details** during the interviews, so we collect rich experiential data. This might include asking things like: “Could you please tell me more about that?”, “Can you remember a specific occasion when that happened?”, “What makes you think that way?”, “Could you give me some examples?”, “How do you feel about that?”, “What are some of your reasons for doing/not doing that?”
- A flexible approach to asking about the interview topics below will be needed, based on the participant's responses and experiences. Please adapt the suggested questions accordingly.

Interview topics: ask in relation to all relevant time periods

- First experiences
- Childhood (up to 11 years old)
- Adolescence (12-17 years old)
- Turning 18 and early adulthood (18 years +)

Introduction

- Hello, my name is _____ and I'm calling from CQUniversity about an interview relating to youth gambling that we arranged with you. We expect the interview to take 45 minutes to an hour. Is now still a good time for you?
- We're conducting research on behalf of the NSW Office of Responsible Gambling.
- I'd like to let you know that this call will be auto-transcribed only for the purposes of helping collect and write-up the information. We'll only use your first name to make sure all information collected is private and confidential. Your name will not be used in any reports. Or would you prefer to use a pseudonym?
- Can I please confirm you've seen the Information Sheet, and consent to participate?
- Thank you very much for making yourself available. We're interviewing you today for a research project about gambling and young people. We're interested in the experiences of young people when they are growing up and enter adulthood that influence their gambling attitudes and behaviours, particularly once they turn 18. These influences might come from parents, other family, friends, advertising, and even from playing video games with features that are similar to gambling.
- So, in this interview, I'd like to take you through different times in your life and ask you about these influences. There are no right or wrong answers. It would be great if you can share as much as you remember and be as honest as you can. It's okay if there are things you can't remember or prefer not to talk about. Your participation in this interview is voluntary and you can withdraw at any time during the interview. We'll ask you at the end whether you still consent to your interview being included in the research. After that, we won't be able to separate your data from that of other participants.
- By gambling, we mean activities that people **spend money** on where they have a **chance to win money**. This includes things like lotteries, lotto, pokies, keno, casino games, betting on sports and races, and gambling amongst family and friends such as on card games at home or school. It also includes betting with skins or other in-game items, such as on games of chance or esports.
- Do you have any questions before we start?

FIRST EXPERIENCES AND MEMORIES OF GAMBLING

1. I know this might be stretching the memory a bit, but thinking back to when you were young, what are your first memories of **gambling**? When did you first become aware that gambling exists? What was the first type of gambling you became aware of? How do you think you first become aware of gambling (e.g., parents, friends, advertising, video games)?

CHILDHOOD (up to about 11 years old)

The next questions are about when you were aged 11 years or younger. You would have been in primary school then, and probably turned 11 towards the end of primary school.

2. **Awareness of gambling.** Thinking back to your early years when you were 11 or younger and in primary school, what type of gambling were you most aware of? What other types of gambling were you aware of?
3. **Parents' behaviours and attitudes to gambling.** When you were 11 or younger, did your parents gamble? Did they ever talk about gambling or gamble in front of you? Or involve you in gambling? Please tell me what you remember.
4. **Others' behaviours and attitudes to gambling.** When you were 11 or younger, did any other people around you gamble, e.g., friends, other family members? Did they ever talk about gambling or gamble in front of you? Or involve you in gambling? Please tell me what you remember.
5. **Exposure to gambling advertising.** When you were 11 or younger, do you recall seeing any gambling advertising? Please tell me what you remember. Did it make you interested in gambling? Why/why not?
6. **Exposure to games with gambling components.** Some video games have gambling components, that look and play like normal gambling games, but you cannot win real money. These can include 1) games with 'mini' gambling activities in them (e.g., wheel spinning, slots), 2) social casino games in apps and social media (like Zynga games on Facebook and poker, slots and bingo apps from an app store), 3) demo or practice games on real gambling websites, and 4) loot boxes. When you were 10 or younger, did you play any games with these types of gambling components? Please tell me what you remember about this, e.g., types of gambling components in games, how often you played them, if you spent money on them, what you thought of them. Did they make you interested in gambling for money? Why/why not?
7. **Own attitudes to gambling.** When you were 11 or younger, what did you think of gambling? Did you think it was a good thing, perhaps exciting, or perhaps boring or a bad thing? Why did you feel this way?
8. **Own participation in gambling.** When you were 11 or younger, did you ever gamble yourself? Please tell me what you remember about this, e.g., what did you gamble on, how often, did you spend much money, did you do this alone or with other people, who? What were your main reasons for gambling/not gambling?
9. **Changes in own gambling.** When you were 11 or younger, did your gambling change at all e.g., started gambling, increased, decreased, stayed the same. Please tell me more about this. What do you think were the main reasons for this?

ADOLESCENCE (12-17 years old)

Now I'd like to ask you about when you were aged between 12 and 17 years. You would probably have been in high school, so around Grades 6 to 12, or you may have left school or started a trade or job after Grade 10.

10. **Awareness of gambling.** Thinking back to your teenage years when you were 12 to 17 years old, what type of gambling were you most aware of? What other types of gambling were you aware of?
11. **Parents' behaviours and attitudes to gambling.** When you were 12 to 17 years old, did your parents gamble? Did they ever talk about gambling or gamble in front of you? Or involve you in gambling? Please tell me what you remember.
12. **Others' behaviours and attitudes to gambling.** When you were 12 to 17 years old, did any other people around you gamble, e.g., friends, other family members? Did they ever talk about gambling or gamble in front of you? Or involve you in gambling? Please tell me what you remember.
13. **Exposure to gambling advertising.** When you were 12 to 17 years old, do you recall seeing any gambling advertising? Please tell me what you remember. Did it make you interested in gambling? Why/why not?
14. **Exposure to games with gambling components.** Earlier, we talked about games with gambling components. These are games that look and play like normal gambling games, but you cannot win real money. When you were 12 to 17 years old, did you play any of these games? Please tell me what you remember about this, e.g., types of gambling components in games, how often you played them, if you spent money on them, what you thought of them. Did they make you interested in gambling for money? Why/why not?
15. **Own attitudes to gambling.** When you were 12 to 17 years old, what did you think of gambling? Did you think it was a good thing, perhaps exciting, or perhaps boring or a bad thing? Why did you feel this way?
16. **Own participation in gambling.** When you were 12 to 17 years old, did you ever gamble yourself? Please tell me what you remember about this, e.g., what did you gamble on, how often, did you spend much money, did you do this alone or with other people, who? What were your main reasons for gambling/not gambling?
17. **Opportunities to gamble.** When you were 12 to 17 years old, would you have been able to gamble if you wanted to? Did you have access to any gambling, any money to spend on gambling, or opportunities to gamble with others?
18. **Gambling facilitators:** When you were 12 to 17 years old, did some things encourage you to gamble, e.g. your friends' attitudes or behaviour, your parents approval, or a keen personal interest?
19. **Barriers to gambling.** When you were 12 to 17 years old, did some things discourage you from gambling, e.g., parental rules, parental disapproval, awareness of gambling harm, lack of interest?
20. **Changes in own gambling.** When you were 12 to 17 years old, did your gambling change at all e.g., started gambling, increased, decreased, stayed the

same. Please tell me more about this. What do you think were the main reasons for this?

EARLY ADULTHOOD (18 years and over)

Now I'd like to ask you about when you turned 18 years and in your early adulthood.

21. **Awareness of gambling.** Since you've turned 18, what type of gambling do you most commonly think about? What other types of gambling do you think about?
22. **Own attitudes to gambling.** Once you turned 18, what did you think of gambling? Did you think it was a good thing, perhaps exciting, or perhaps boring or a bad thing? Why did you feel this way?
23. **Changes in own gambling.** Once you turned 18, did your gambling change at all e.g., started gambling, increased, decreased, stayed the same. Please tell me more about this. What do you think were the main reasons for this?
24. **Own participation in gambling (ask only those who gamble).** Since you've turned 18, you said you have gambled yourself. Please tell me what you remember about this, e.g., what do you gamble on, how often, do you spend much money, do you do this alone or with other people, who? What are your main reasons for gambling/not gambling?
25. **Opportunities to gamble.** Since you've turned 18, have you been able to gamble if you wanted to? Do you have easy access to any gambling, any money to spend on gambling, or opportunities to gamble with others?
26. **Gambling facilitators:** Since you've turned 18, do some things encourage you to gamble, e.g., friends, parents, personal interest, boredom?
27. **Barriers to gambling.** Since you've turned 18, do some things discourage you from gambling, e.g., parental rules, parental disapproval, friends, awareness of gambling harm, lack of interest?
28. **Parents' behaviours and attitudes to gambling.** Since you've turned 18, do your parents gamble? Do they ever talk about gambling or gamble in front of you? Or involve you in gambling? Please tell me what you remember.
29. **Others' behaviours and attitudes to gambling.** Since you've turned 18, do any other people around you gamble, e.g., friends, other family members? Do they ever talk about gambling or gamble in front of you? Or involve you in gambling? Please tell me what you remember.
30. **Exposure to gambling advertising.** Since you've turned 18, do you recall seeing any gambling advertising? Please tell me what you remember. Does it make you interested in gambling? Why/why not? Has it impacted the way you view gambling? Has it led to changes in your gambling behaviour?
31. **Exposure to games with gambling components.** Earlier, we talked about games with gambling components. These are games that look and play like normal gambling games, but you cannot win real money. Since you've turned 18, do you play any of these games? Please tell me what you remember about this, e.g., types of gambling components in games, how often you play them, if you

spend money on them, what you think of them. Do they make you interested in gambling for money? Why/why not?

32. (ASK ONLY THOSE WHO HAVE GAMOLED) HARMS FROM GAMBLING

I'd like to now discuss any bad things that may have arisen from your gambling that may have caused harm to yourself or others. I'm interested in hearing about the nature of any harm, how this may have changed over time, and things you might have done to manage these harms.

Financial domain

- Has gambling impacted on your finances? How?
- Prompts: What you thought about the money you were spending on gambling; how you felt about the money you were spending.
- Any limits / budget set? If yes – any instances of over-spending? What were the subsequent impacts?
- Prompts: Impacts on savings, ability to pay for essentials, ability to buy/do other things, increased credit card debt
- Have these harms changed over time? How have they impacted you and others close to you?

Relationship domain

- Has gambling impacted on your relationships? How?
- Prompts: How aware were others of your gambling; Has anyone commented on your gambling; Anyone been impacted due to your gambling, how?
- Prompts: Impacts on time spent with others, less socialising with those who don't gamble, more time with those who do, arguments or conflict.
- Have these harms changed over time? How have they impacted you and others close to you?

Emotional/Psychological domain

- Has gambling impacted on your emotional wellbeing? How?
- Prompts: Feelings when gambling; any regrets or guilt; feelings when winning; feelings when losing; urges.
- Have these harms changed over time? How have they impacted you and others close to you?

Health domain

- Has gambling impacted on your health? How?
- Prompts: Sleep quality/quantity; stress; eating; alcohol/tobacco.
- Have these harms changed over time? How have they impacted you and others close to you?

Work/Study domain

- Has gambling impacted on your work or study? How?

- Prompts: Being late; using work/study time to gamble; reduced performance.
- Have these harms changed over time? How have they impacted you and others close to you?

Managing these harms

- Any harm minimisation practices implemented (e.g., settling limits, not taking credit card, etc.)?
- Anything else you've done to reduce your betting or the harms it might cause?
- Any experience of seeking help from professional services?
- Happy with current gambling behaviour or anything that you'd like to change about it?

(IF LITTLE HARM FROM GAMBLING OR NON-GAMBLERS) PROTECTIVE FACTORS

33. What do you think have been the main things that have protected you against any harm from gambling and simulated gambling?

Prompts: Parents, peers, awareness and education about gambling, seeing others harmed by gambling, having other priorities and goals.

ANYTHING ELSE

34. Finally, is there anything else that may have influenced your attitudes and behaviours towards gambling when you were growing up that you'd like to tell me about?

CLOSE

That's the end of the interview – thank you. Are you still happy for your interview transcript to be included in this research? Advise how they will receive compensation. Ask if they would like the details of free and confidential help services, available 24/7:

GambleAware Helpline on 1800 858 858 or www.gamblinghelponline.org.au

Lifeline on 13 11 14 or <https://www.lifeline.org.au>

Appendix D. Additional quantitative results

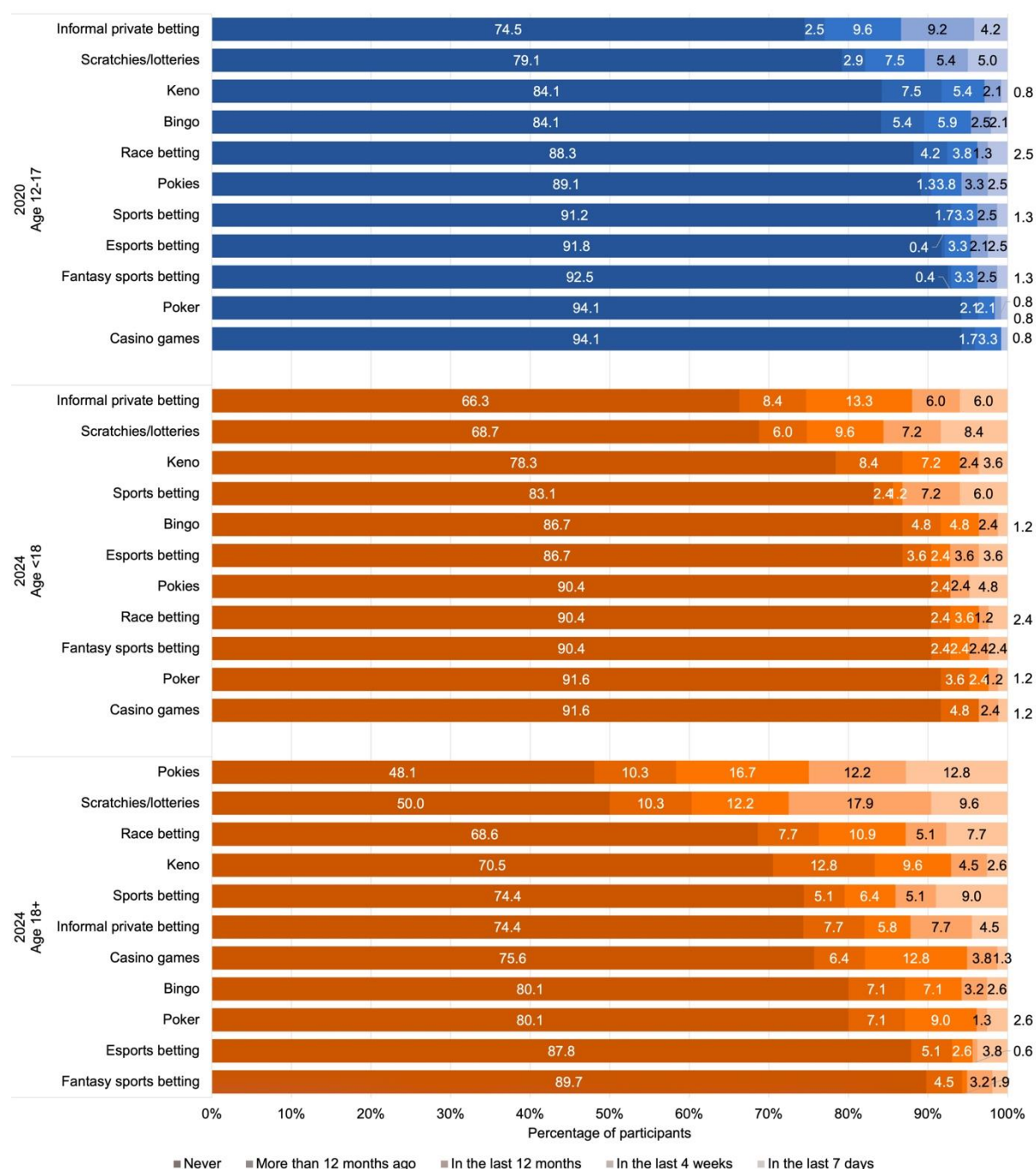
This appendix contains additional descriptive results from the Wave 2 survey. It provides finer details about several aspects of the participants' gambling behaviour, and potential influences from parents, peers, gambling advertising, simulated gambling and other environmental factors. While these results are too detailed and lengthy to put in the main body of the report, we provide them here for transparency.

D.1. Gambling

3.1.1. Gambling participation in the last 12 months, by form

Figure D.1 shows participation in each gambling form. The most popular forms in 2020, when all participants were under 18, were informal private betting, followed by scratchies/lotteries, keno and bingo. In 2024, there was a similar pattern for those who were still under 18, with informal private betting and scratchies/lotteries being the most common, followed by keno. However, in 2024 amongst those now aged 18 or older, pokies were the most common form, followed by scratchies/lotteries, race betting, keno and sports betting.

Figure D.1. Engagement in individual gambling forms, 2020 and 2024



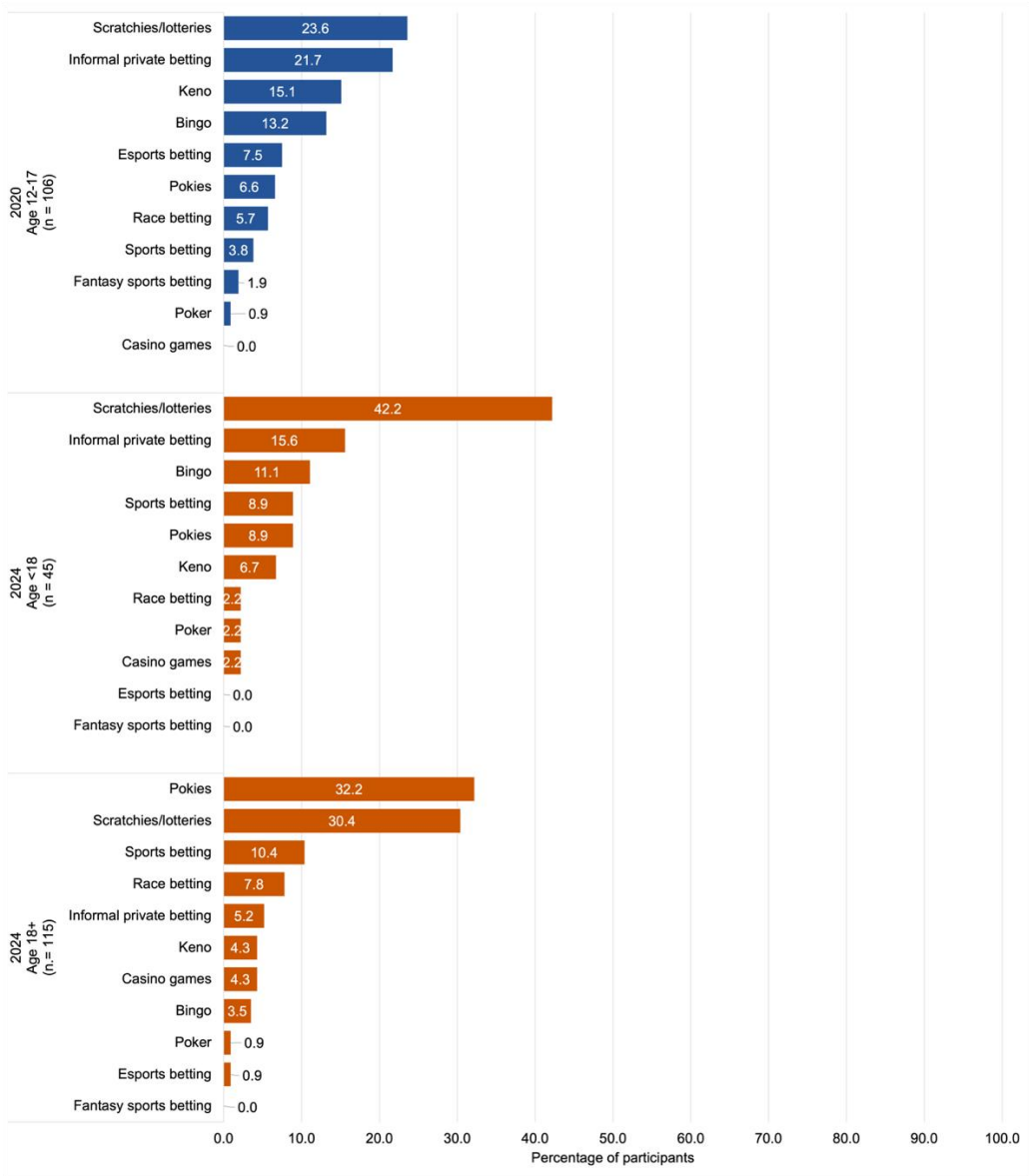
Note: GB1a. When did YOU last spend any REAL MONEY on each of the following activities?

3.1.2. Gambling frequency in the last 12 months, by form

In 2020 the most frequently played forms were scratchies/lotteries (23.6%) and informal private betting (21.7%). In 2024, amongst participants under 18, these were still the two most frequently played activities (42.2% for scratchies/lotteries, 15.6% for informal private betting). In contrast, participants 18 or older most frequently played pokies (32.2%), followed by scratchies/lotteries (30.4%), and sports betting (10.4%, up from 3.8% in 2020).

Around half the participants reported engaging in their most frequently played form a few times a month or more often (50.5% for those over 18, 58.3% for those under 18 in 2024), similar to 52.9% in 2020. In 2024, 29.9% of those over 18 and 30.5% of those under 18 reported engaging in their most frequent form at-least weekly, similar to 30.6% in 2020.

Figure D.2. Most frequently played gambling form, 2020 and 2024



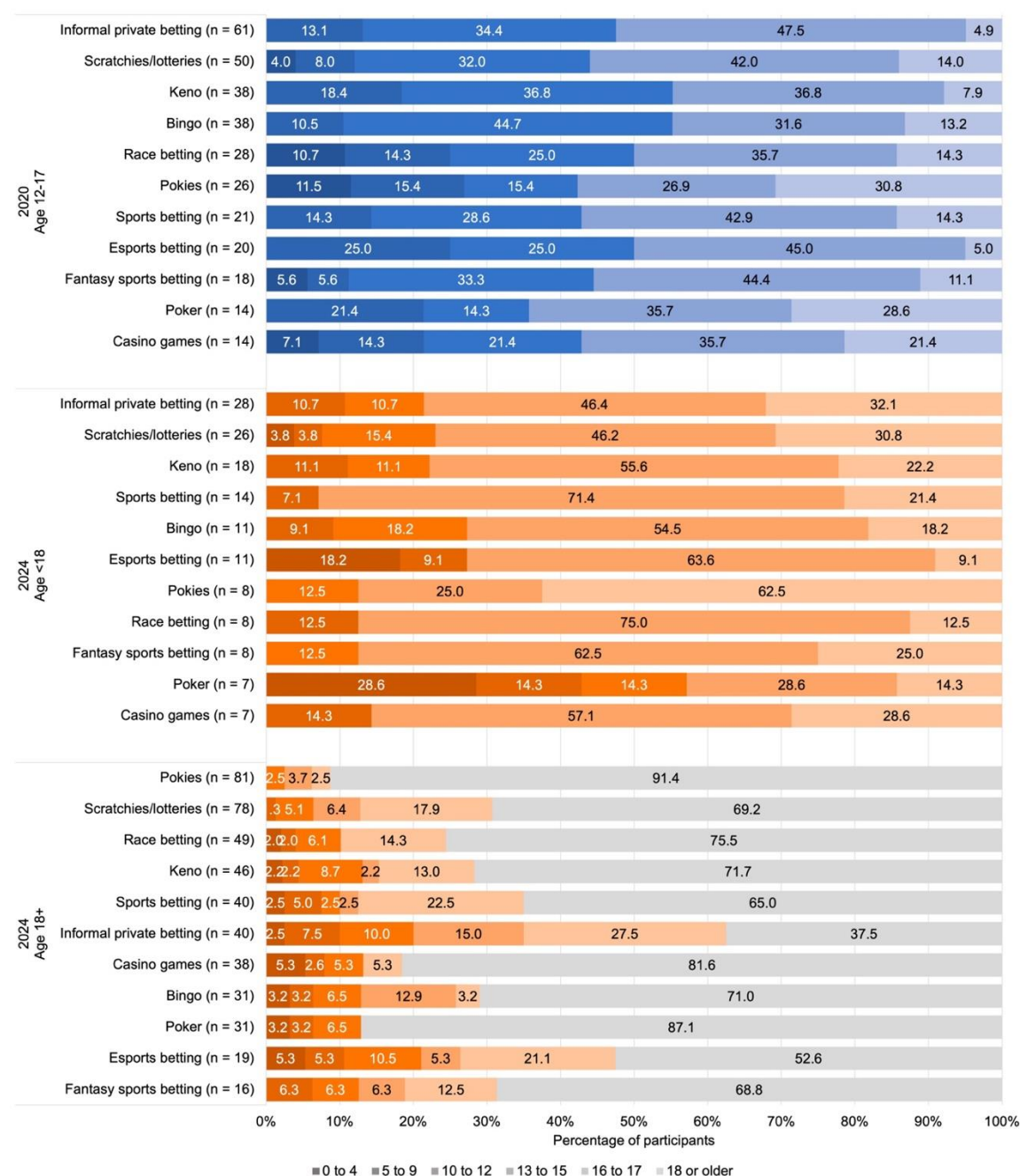
Note: GB1b. During the last 12 months, which activity did you gamble on most frequently using REAL MONEY? Participants who gambled on only one form were not asked this question, but their only form was then coded into the data for these analyses.

3.1.3. Age of first gambling on each form

Figure D.3 shows the age at which participants first gambled on each form, as reported in 2020 and 2024. Many forms have relatively few participants, and those with low numbers (below ~30) are displayed for information only; results should be interpreted with caution.

In 2020, around half the participants who took gambled on each form reported first doing so when aged between 13 and 15. In 2024, a higher proportion of under-18s reported first taking part when aged between 13 to 15 or older (around three-quarters for most forms). Higher proportions of those who were 18 or older in 2024 reported taking part in all forms, and around three-quarters reported first taking part after turning 18. First uptake after turning 18 was higher for activities that are only available in land-based venues, including pokies (91.4%), poker (87.1%) and casino games (81.6%). For forms that are available online (but also in land-based venues), including sports betting, race betting and esports betting, around two-thirds to three-quarters reported first taking part after turning 18.

Figure D.3. Age of first gambling by form, 2020 and 2024

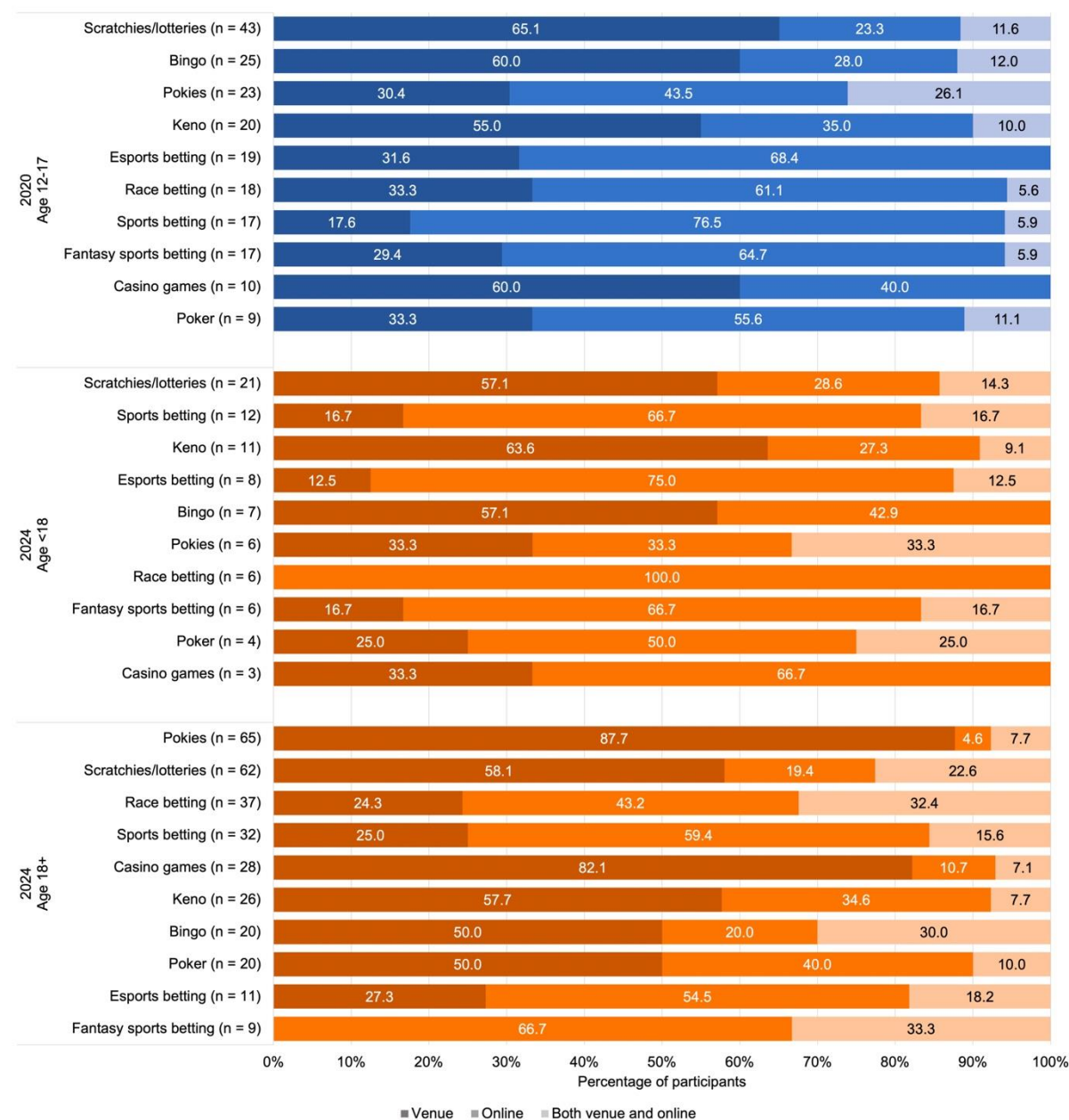


Note: GB2. How old were you when you first spent REAL MONEY on each activity?

3.1.4. Mode/location of each activity

Figure D.4 shows where participants gambled on each form. Most results are based on low numbers, especially in 2020 and amongst those under 18 in 2024. Pokies were predominantly played in venues by those who were 18 or older in 2024, but more online in 2020 and by under-18s in 2024. Betting was mostly accessed online, or both online and in venues.

Figure D.4. Online vs venue-based gambling by form, 2020 and 2024

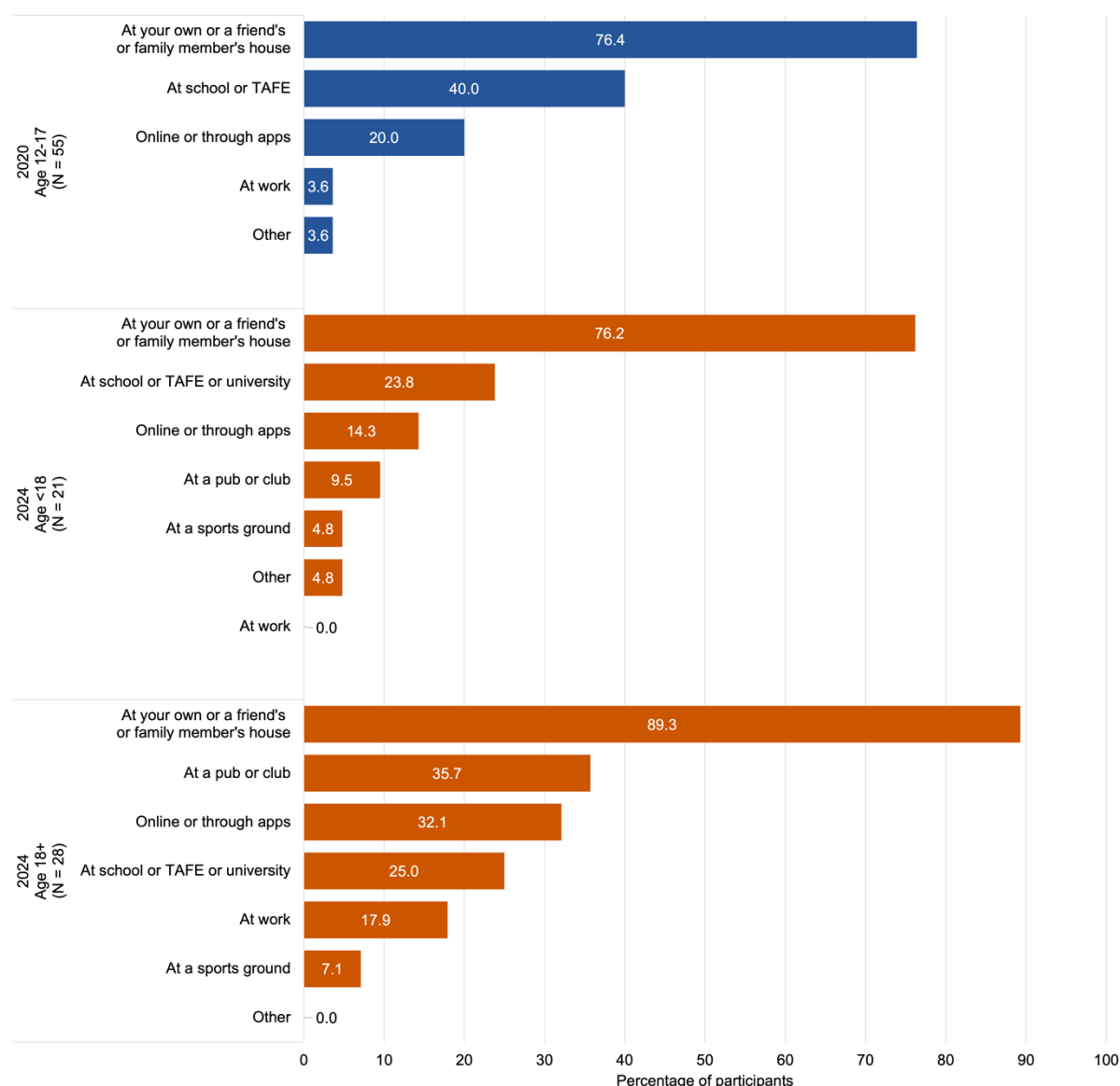


Note: GB3. During the last 12 months, did you spend REAL MONEY on these activities in a venue (such as a pub, club, casino, TAB or newsagent), online (using a smartphone, computer, tablet or gaming console), or both?

3.1.5. Mode/location of informal private betting

Participants mostly accessed informal private betting at their own house or the house of a friend or family member. School or TAFE was also a relatively common location amongst those who gambled in 2020, and by under-18s in 2024. Amongst those who were 18 or older in 2024, school, TAFE or university was still a common location, but pubs or clubs and online were slightly more common.

Figure D.5. How participants access informal private betting, 2020 and 2024



Note: GB3a. During the last 12 months, where did you bet FOR REAL MONEY on informal private betting, like betting on card or dice games, or betting on sports with family or friends?

3.1.6. Reported expenditure on each gambling form, last 12 months

Table D.1 reports median, mean (Std Dev) and maximum expenditure, by gambling form. Many forms had relatively low numbers of participants. Their values are shown in grey text to indicate that they should be interpreted with caution.

Of the forms with 30 or more participants, those 18 or over in 2024 reported the highest median spend on pokies (\$100 in the past 12 months), followed by sports betting (\$70), and race betting and scratchies/lotteries (both \$50). However, maximum reported spend was \$30,000 for race betting, \$10,000 for sports betting and \$5,000 for pokies, which results in substantially higher means than the medians. It is unclear whether these maximum values are accurate, so the means should be interpreted with caution. Median values may provide a more reliable estimate of relative spend across the forms. We caution, however, that reported gambling expenditure is often highly inaccurate.

While based on small numbers, expenditure on most forms reportedly increased since 2020 for those aged 18 or older in 2024, and on some forms for under-18s in 2024 (pokies, race betting, sports betting, scratchies/lotteries), evident in the medians as well as means and maximum spend.

Table D.1. Reported annual expenditure amongst those who participated in each gambling form in the last 12 months, 2020 and 2024

Form	n			Median (AU\$)			Mean (SD) (AU\$)			Maximum (AU\$)		
	2020 Age 12-17	2024 Age <18	2024 Age 18+	2020 Age 12-17	2024 Age <18	2024 Age 18+	2020 Age 12-17	2024 Age <18	2024 Age 18+	2020 Age 12-17	2024 Age <18	2024 Age 18+
Pokies	23	6	65	50	112.5	100	110.74 (220.08)	447.57 (772.77)	340.31 (709.25)	1,000	2,000	5,000
Race betting	18	6	37	45	100	50	113.67 (160.27)	110.83 (86.63)	968.24 (4,913.08)	500	260	30,000
Scratchies/ lotteries	43	21	62	20	50	50	66.47 (109.80)	131.24 (257.79)	131.27 (166.91)	500	1,200	1,000
Keno	20	11	26	50	40	26.50	97.50 (134.98)	46.18 (34.59)	89.50 (194.59)	500	120	1,000
Bingo	25	7	20	30	30	77	129.96 (169.70)	58.43 (71.74)	181.90 (241.12)	500	212	1,000
Poker	9	4	20	50	47.5	100	112.11 (158.28)	61.00 (52.22)	190.15 (236.36)	500	129	1,000
Casino games	10	3	28	30	30	75	68.40 (78.47)	33.33 (15.28)	147.93 (206.13)	200	50	1,000
Sports betting	17	12	32	50	70	70	93.94 (123.37)	78.42 (54.93)	672.31 (1,939.39)	500	200	10,000
Esports betting	19	8	11	50	55	96	117.42 (201.92)	106.50 (144.97)	187.73 (295.36)	900	452	1,000
Fantasy sports betting	17	6	9	50	50	10	160.35 (244.60)	56.67 (28.75)	178.11 (326.68)	1,000	100	1,000
Informal private betting	55	21	28	20	30	65	60.77 (110.07)	57.24 (72.27)	160.07 (216.26)	600	300	1,000

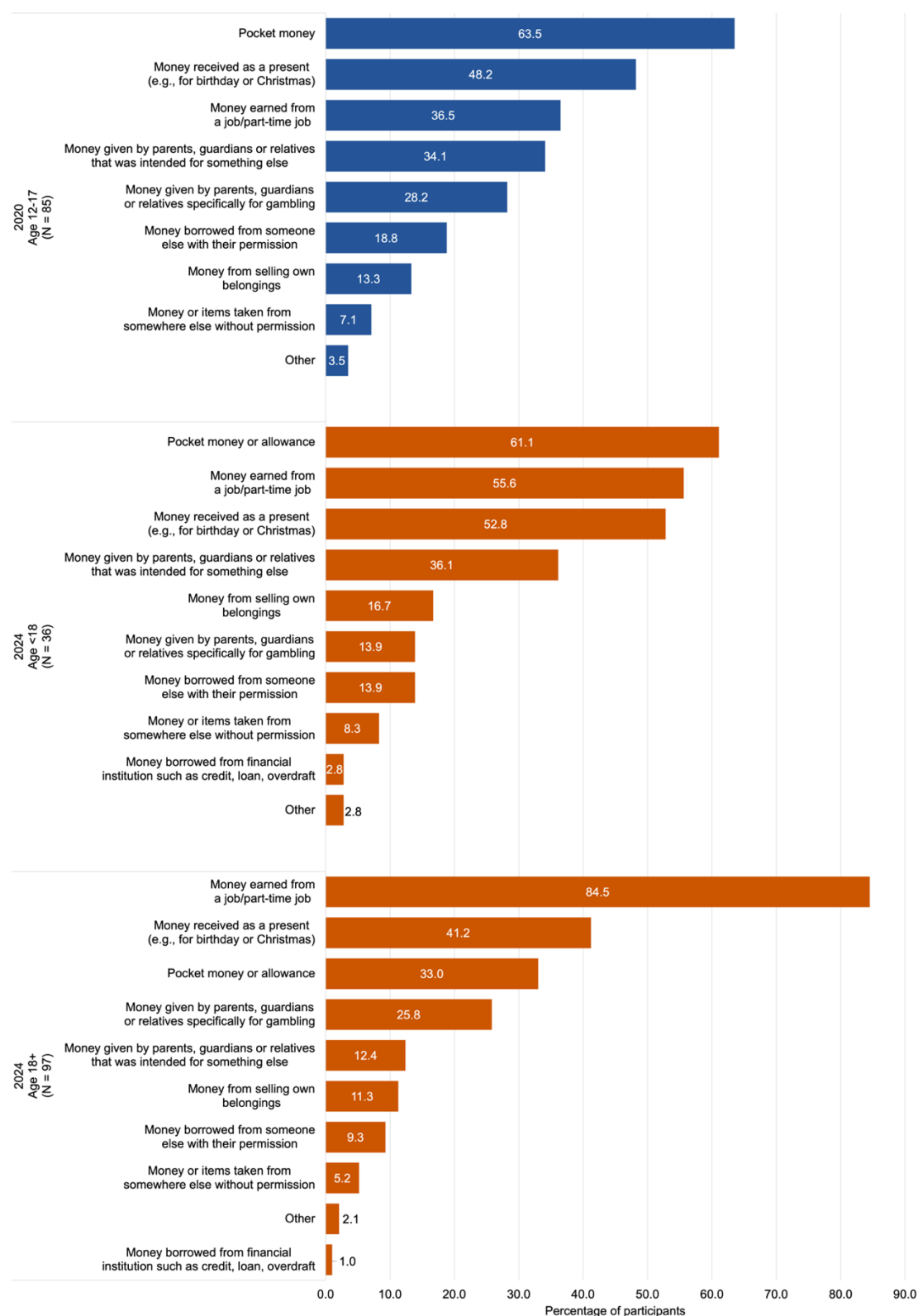
Note: GB4. During the last 12 months, about how much money did you spend in total on each of these activities? Values based on fewer than 30 cases are shown in grey text and should be treated with caution.

3.1.7. Sources of money for gambling

In 2020, and amongst the under-18s in 2024, the most common source of money for gambling was pocket money or an allowance (more than 60%), followed by money received as a present and money earned from a job. In 2024, amongst those aged 18 or older, money earned from a job was the more common source (84.5%), with fewer reporting using money received as a present or pocket money.

‘Other’ responses included ‘money found on the ground’ for a person under 18 in 2024, and for people aged 18 or older, ‘money given by friend at a casino out of their winnings’ and ‘pension’.

Figure D.6. Sources of gambling money, 2020 and 2024

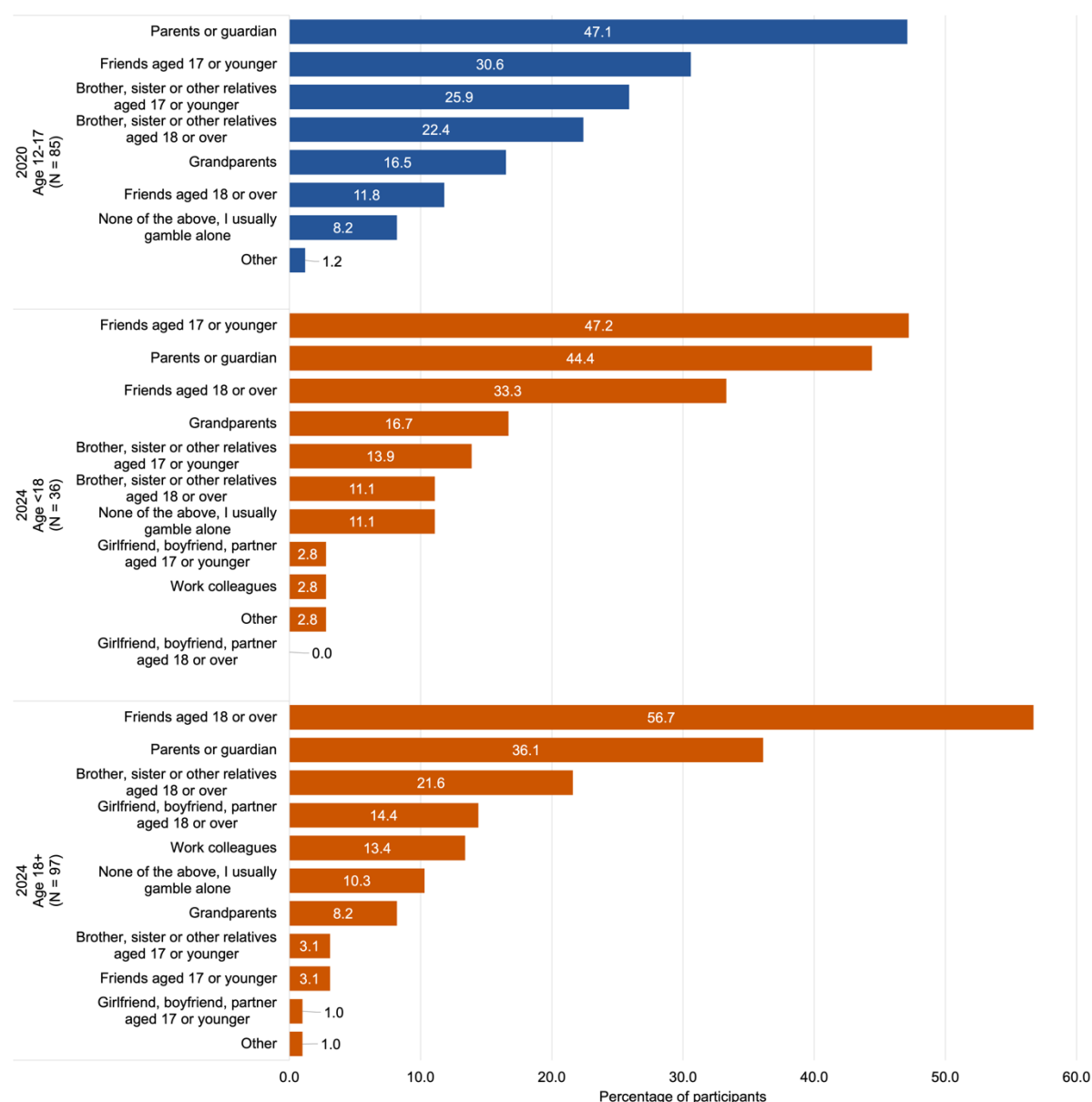


Note: GB5. Have you used money from any of the following sources for gambling?

3.1.8. Who participants gambled with

In 2020, the most common response when participants were asked who they gambled with was parents or guardians (47.1%), followed by friends or other relatives under the age of 18, and relatives over the age of 18. In 2024, around the same proportion reported gambling with their parents (44.4% under-18s, and 36.1% 18 or over), but the most common response in 2024 was with friends their own age (17 or younger for under-18s in 2024, 47.2%; friends 18 or over for participants aged 18+ in 2024; 56.7%). Only around 10% reported gambling alone, whether under 18 or 18 or older in 2024, similar to the figure in 2020 (8.2%).

Figure D.7. Who participants gamble with, 2020 and 2024

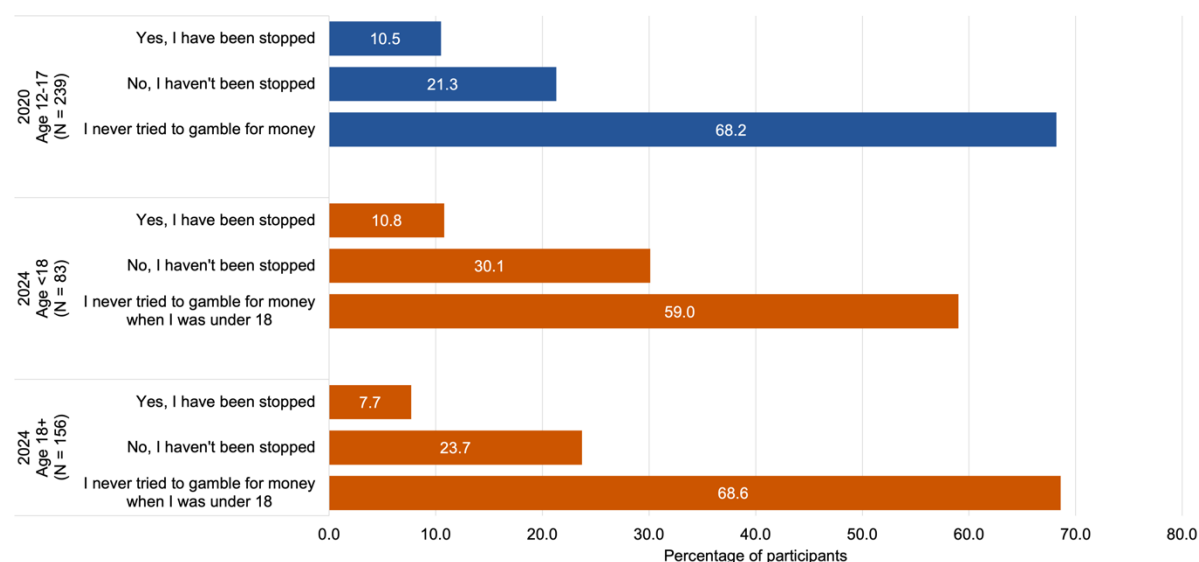


Note: GB6. Who do you usually gamble or bet with FOR REAL MONEY?

3.1.9. Whether participants have been stopped when trying to gamble

Amongst those who had gambled for money, only **around a third to a quarter** reported being stopped when they were under 18. This figure was similar in 2020, and for both those under and over 18 in 2024.

Figure D.8. Whether participants have ever been stopped gambling, 2020 and 2024



Note: GB7. Have you ever *TRIED* to gamble *FOR REAL MONEY* and been stopped because you were too young (under 18 years of age)?

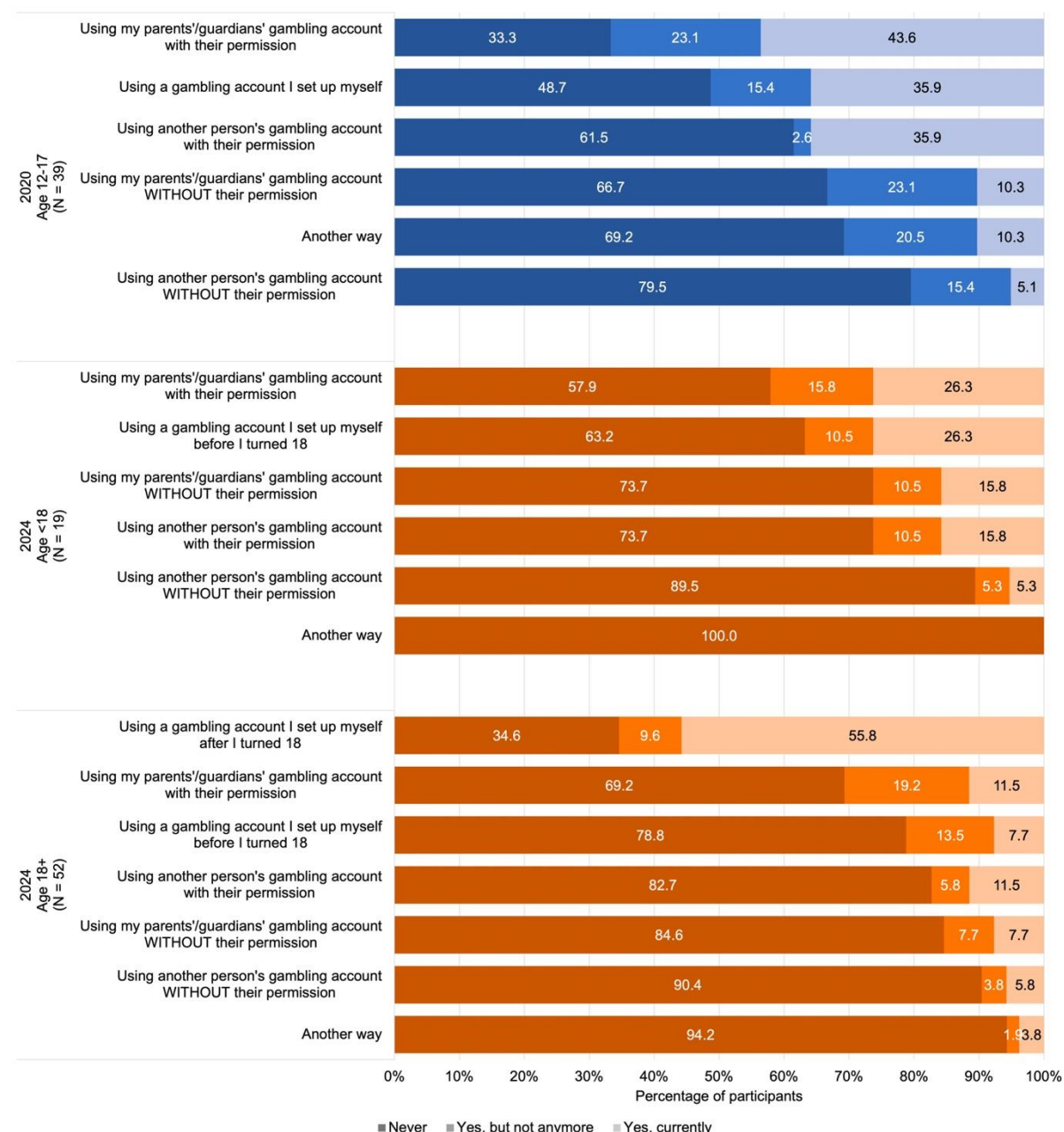
3.1.10. How participants accessed online gambling

In 2020, when all participants were under 18, the most common way of accessing online gambling was through their parents' or guardians' account with their permission (**66.7%** of those who had gambled online). Around half of those who had gambled online (**51.3%**) reported using a gambling account they had set up themselves, despite being underage.

In 2024, the under-18s reported a similar pattern, with the most common response being using a parents' or guardians' account with permission, followed by an account they had set up themselves. While the percentages differed from 2020, the 2024 data is based on a small number of participants (19).

In 2024, participants over 18 most commonly reported using an account that they had set up themselves after they turned 18 (**65.4%** of those who had gambled online), although **30.7%** still reported using their parents' or guardians' account with permission.

Figure D.9. How participants access online gambling services, 2020 and 2024, online gamblers only



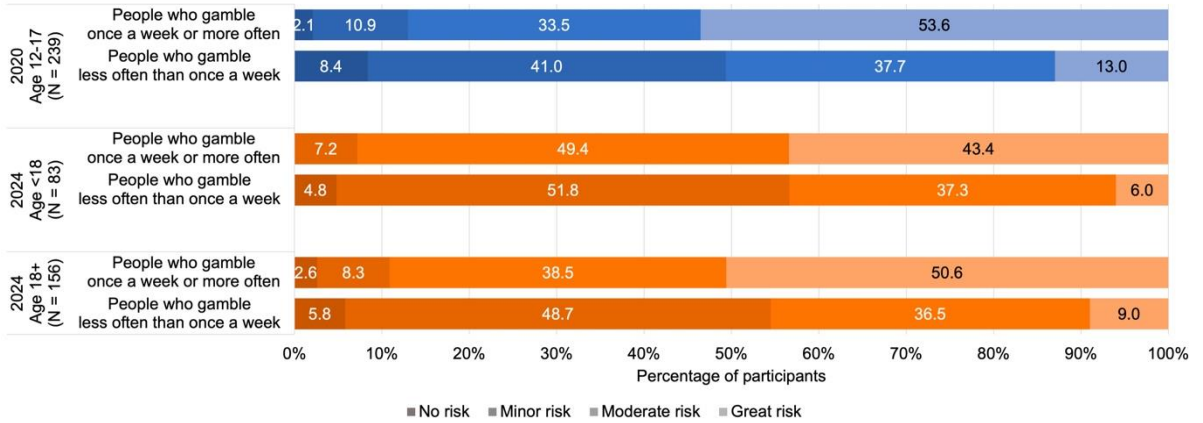
Note: GB8. Please read all the sentences below and select one response on each line. I have gambled online....

3.1.11. Attitudes towards risk of harm from gambling

In 2020, most participants (97.9%) felt that people who gambled once a week or more often were at minor, moderate or great risk of harm, and 87.1% reported that they were at moderate or great risk. In 2024, 100% of participants under 18 reported that people who gambled once a week or more were at some risk of harm, and 92.8% reported moderate or great risk.

In 2020, 91.6% of participants reported that people who gambled less often than once a week were at some degree of risk, with 50.7% reporting moderate to great risk. Figures were similar in 2024. For those under 18, 95.2% reported some risk and 43.3% reported moderate to great risk. For those over 18, 94.2% reported some risk and 45.5% reported moderate to great risk.

Figure D.10. Perceived risk of harm for people who gamble at least weekly vs less often, 2020 and 2024

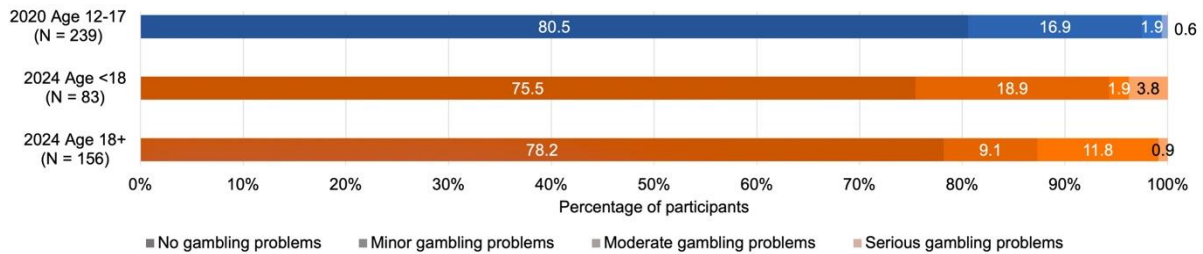


Note: GA2. How much do you think people risk harming themselves (physically, mentally, financially or in other ways) if they gamble?

3.1.12. Parental gambling problems

In 2020, 80.5% of participants reported that their parents/guardians had not experienced problems with their gambling in the last four years, and 2.5% reported they had experienced moderate or severe gambling problems. This was similar in 2024 for those under 18, with 75.5% reporting no problems, and 5.7% reporting moderate or severe problems. In 2024, 78.2% of those aged 18 years or over reported no problems, but around 12.7% reported moderate or severe problems, mostly moderate problems.

Figure D.11. Perceived parental gambling problems, 2020 and 2024

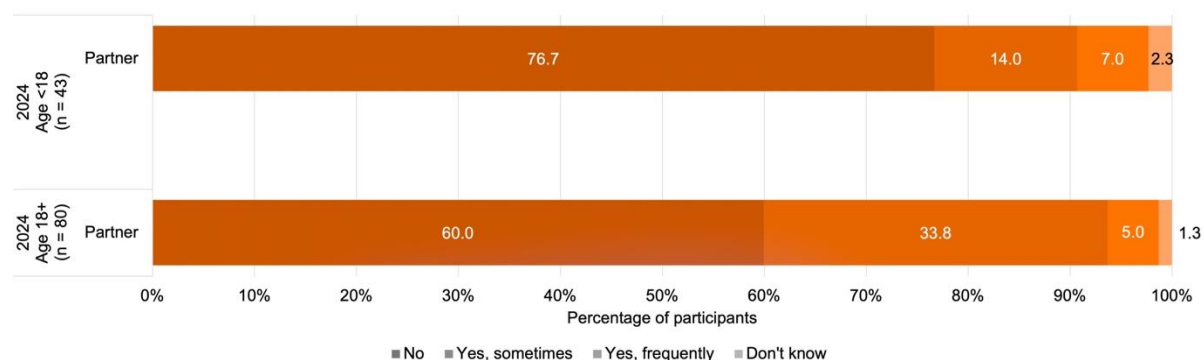


Note: CE2. During the last four years, did any of the adults in these households experience problems with their gambling? This means spending too much money or time on gambling which causes problems for themselves or other people.

3.1.13. Partner's gambling

Amongst participants who had a partner, 21.0% of under-18s in 2024 reported that their partner gambled either sometimes or frequently, compared to 38.8% of those who were 18 or older in 2024. This question was not asked in 2020.

Figure D.12. Whether participant's partner gambles, 2024

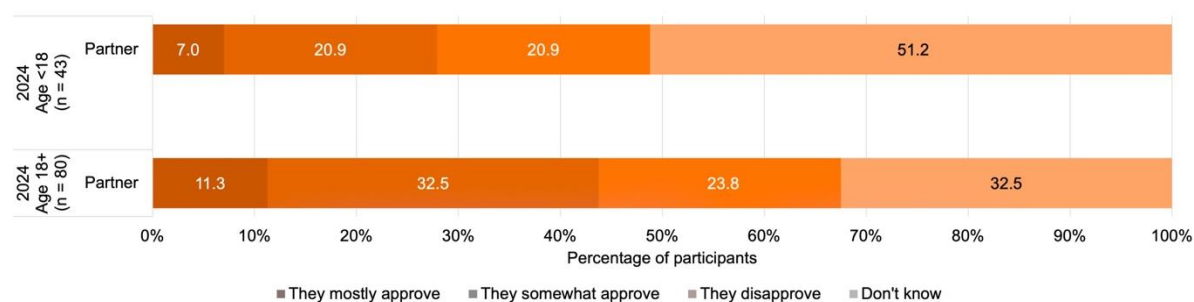


Note: PE2a. Does your girlfriend, boyfriend or partner gamble?

3.1.14. Partner's approval of gambling

Amongst participants with a partner, 51.2% of under-18s in 2024 did not know what their partner thought about people their age gambling, whereas this figure was 32.5% amongst those 18 or older. Amongst the under-18s, 20.9% reported that their partner disapproved of people their age gambling, whereas 23.8% of those 18 or over reported the same.

Figure D.13. Partner's approval of gambling, 2024

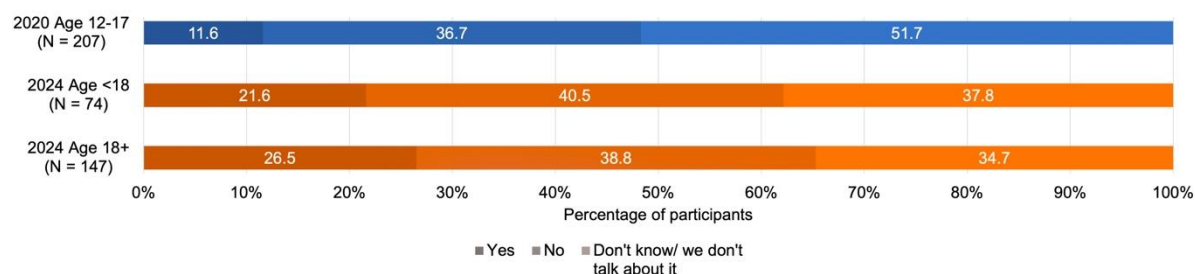


Note: PE3a. How does your girlfriend, boyfriend or partner feel about someone your age gambling?

3.1.15. Closeness to people who strongly approve of gambling

In 2020, 11.6% of participants reported they had close friends who strongly approved of gambling and 51.7% reported that they did not know or had not discussed if their close friends strongly approved of gambling. In 2024, amongst those under 18, 21.6% reported having friends who strongly approved of gambling and 37.8% did not know. For those 18 or older in 2024, 26.5% had close friends who strongly approved of gambling, and 34.7% did not know.

Figure D.14. Whether participants have close friends who strongly approve of gambling, 2020 and 2024



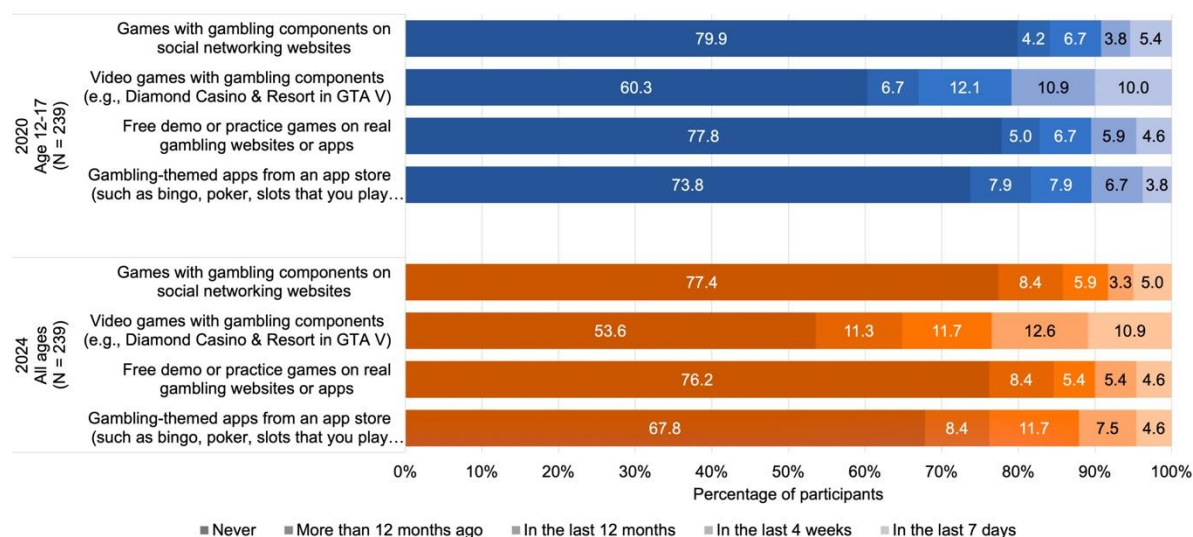
Note: PE4. Do you have any close friends who strongly approve of gambling?

5.2. Simulated gambling

3.2.1. Participation in games with gambling components

Video games such as GTA V were the most commonly played type of game with gambling components (39.7% in 2020 and 46.4% in 2024). Gambling-themed apps from an app store were also popular (26.2% in 2020 and 33.2% in 2024). Free demo games on real gambling websites or apps were played by about a quarter of participants, and games with gambling components on social networking websites were played by about 20% in both 2020 and 2024. Around half of those who engaged in each type of game reported doing so within the last four weeks, with the trend relatively stable across years.

Figure D.15. Playing games with gambling components, 2020 and 2024

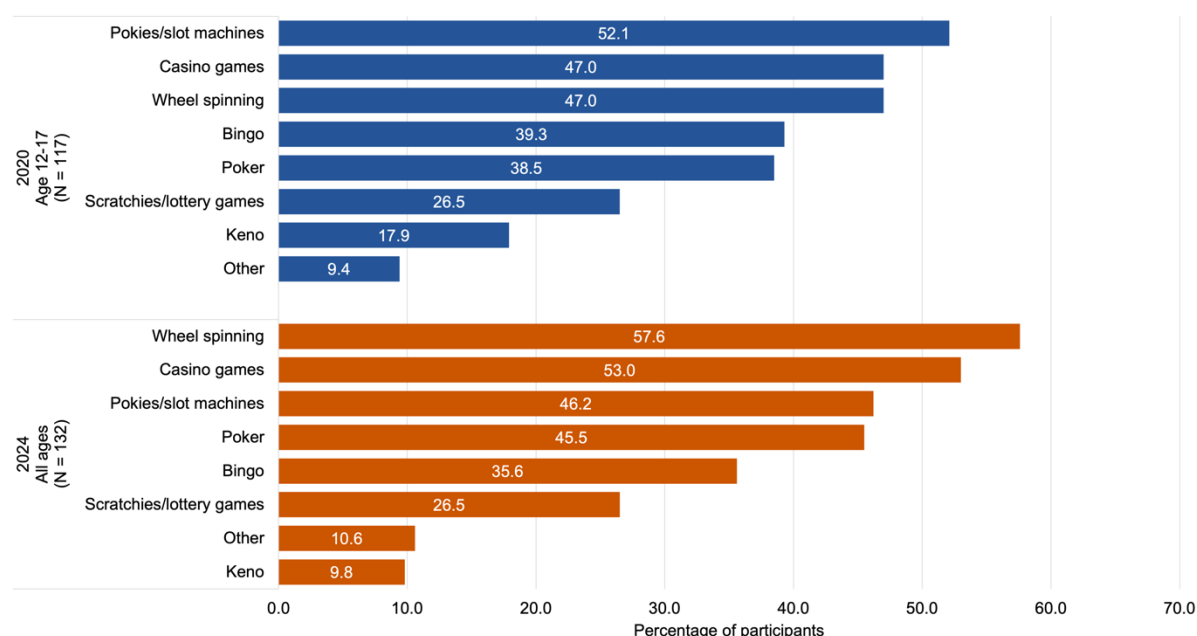


Note: GSG1. When, if ever, did you last play any of these games with gambling components?

3.2.2. Participation in simulated gambling components in games

The most common kind of simulated gambling form in games changed slightly across the years. In 2020, the most common was pokies (52.1%), followed by casino games (47.0%) and wheel spinning (47.0%). In 2024, wheel spinning was the most commonly reported (57.6%), with pokies dropping to third place (46.2%). Bingo and poker were similar in 2020 and 2024, as were scratchies/lottery games, keno and other forms. 'Other' forms reported by participants included gacha games, solitaire, coin flip, and dice rolling.

Figure D.16. Engagement in different forms of simulated gambling, 2020 and 2024

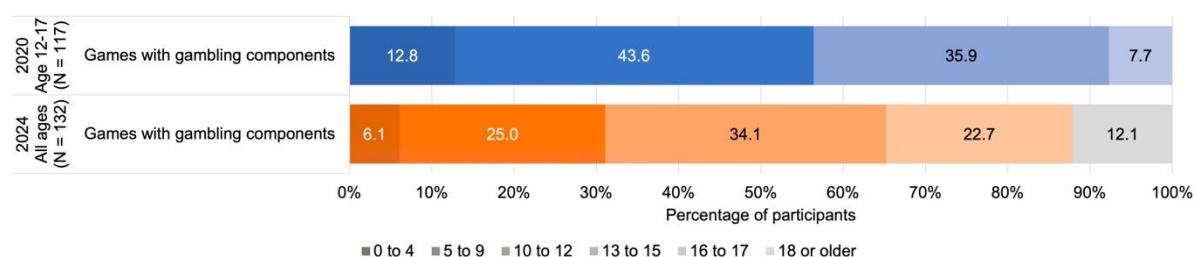


Note: GSG3. Have you ever played any of the following gambling components in games?

3.2.3. Age of first playing games with gambling components

In 2020, more than half (56.4%) the participants who reported playing games with gambling components had started by age 12. In 2024, 31.1% reported starting by age 12, and 12.1% started after the age of 18.

Figure D.17. Age of first engaging with games with gambling components, 2020 and 2024

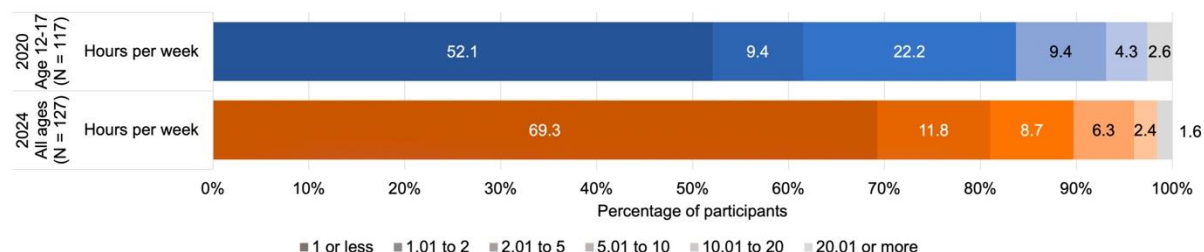


Note: GSG4. At what age did you first play a game with gambling components? If you're unsure, provide your best guess.

3.2.4. Time spent playing games with gambling components

Most participants who played games with gambling components reported doing so for less than one hour per week on average (52.1% in 2020, 69.3% in 2024). Very few reported spending more than 10 hours a week (6.9% in 2020 and 4.0% in 2024).

Figure D.18. Hours per week spent on games with gambling components, 2020 and 2024

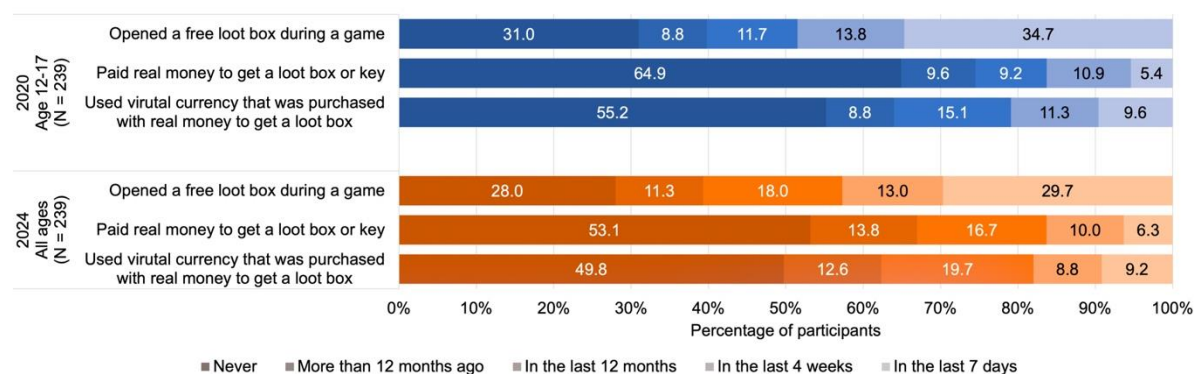


Note: GSG6. In general, about how many hours per week OR per month do you usually spend playing games with gambling components? (Monthly responses converted to weekly.)

3.2.5. Opening and purchasing loot boxes

Most participants had opened a free loot box (69.0% in 2020, 72.0% in 2024), and tended to do so regularly, with 29.7% reporting opening then in the last 7 days in 2024, compared to 34.7% in 2020. Paying for loot boxes was less common, with 46.9% doing so in 2024, up from 35.1% in 2020, and about 16% doing so in the last four weeks in each year. Half (50.2%) reported using virtual credits to buy loot boxes in 2024, similar to 2020 (44.8%).

Figure D.19. Loot box frequency, 2020 and 2024

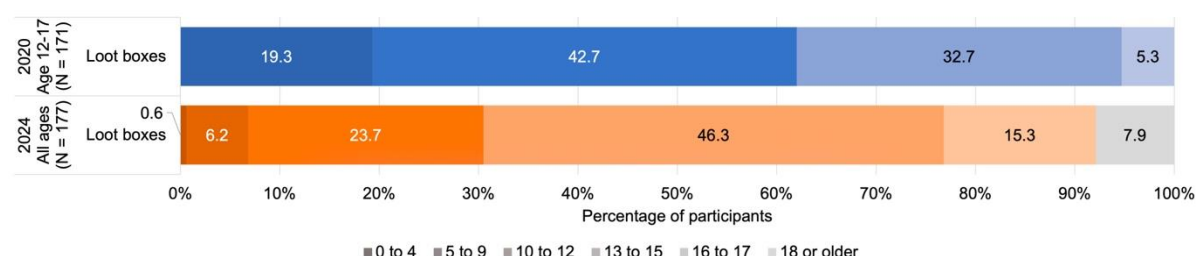


Note: LB1. When, if ever, did you last obtain a loot box in the following ways?

3.2.6. Age of first opening loot boxes

In 2024, 30.5% of participants who had opened loot boxes had done so by the age of 12, compared to 62.0% in 2020. Only 7.9% reported first engaging with loot boxes after the age of 18.

Figure D.20. Age of first opening loot boxes, 2020 and 2024

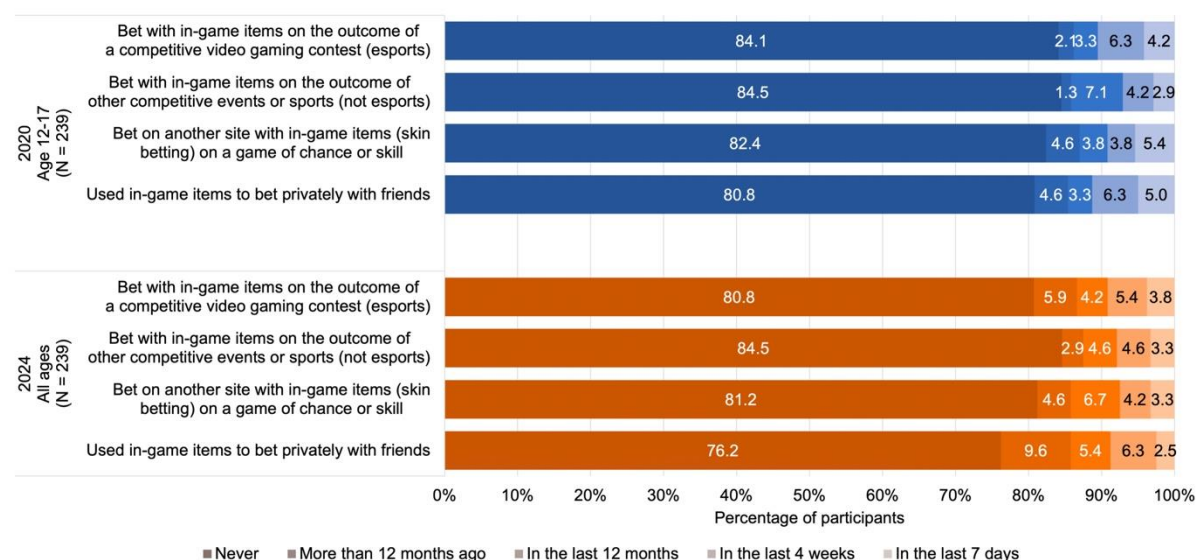


Note: LB2. At what age did you first open loot boxes/crates/packs? If you're unsure, provide your best guess.

3.2.7. Frequency of betting with in-game items

In 2024, about 75-80% of participants had not bet with in-game items such as skins on activities including esports, other sports betting or skin betting, including privately with friends. These figures were similar to those seen in 2020 (80-85%).

Figure D.21. Frequency of betting with in-game items, 2020 and 2024



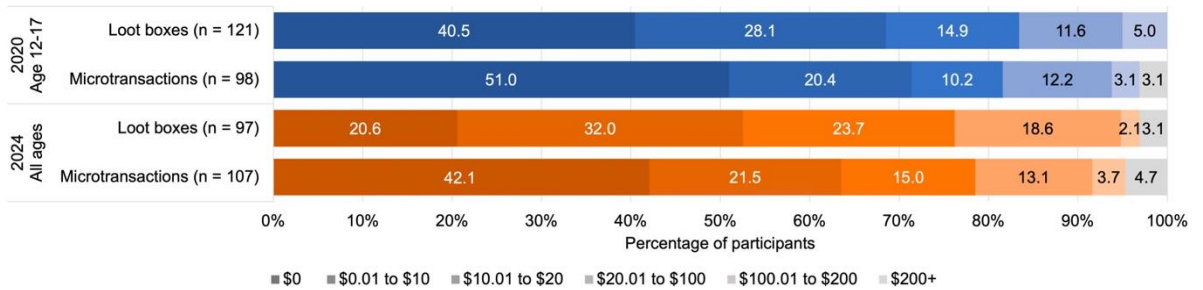
Note: IG11. When, if ever, did you last use in-game items for betting in the following ways?

3.2.8. Expenditure on loot boxes and microtransactions in games

Amongst participants who engaged with loot boxes, 52.6% reported spending under \$10 per year (vs 68.6% in 2020), and 5.2% reported spending more than \$100 per year (vs 5.0% in 2020).

For microtransactions, 63.6% reported spending up to \$10 per year (compared to 71.4% in 2020), and 8.4% reported spending \$100 or more in a year (vs 6.2% in 2020).

Figure D.22. Expenditure on loot boxes and microtransactions, 2020 and 2024

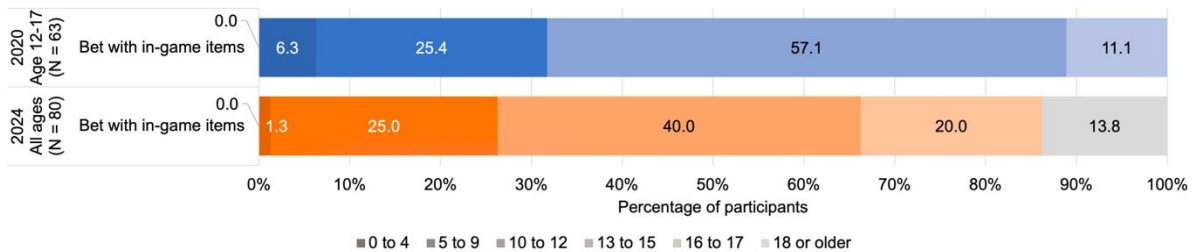


Note: EIG1. *In a typical month, about how much do you spend on **loot boxes** in games, either directly with money or with in-game currency purchased with money? If you're unsure, please provide your best guess.* And EIG2. *In a typical month, about how much do you spend on **microtransactions, such as to get virtual credits**, in games with gambling components (not including loot boxes)? If you're unsure, please provide your best guess.*

3.2.9. Age of first betting with in-game items

Amongst participants who had bet with in-game items, 66.3% reported doing so before age 15 (vs 88.9% in 2020), and 13.8% in 2024 reported doing so after turning 18.

Figure D.23. Age of first betting with in-game items, 2020 and 2024

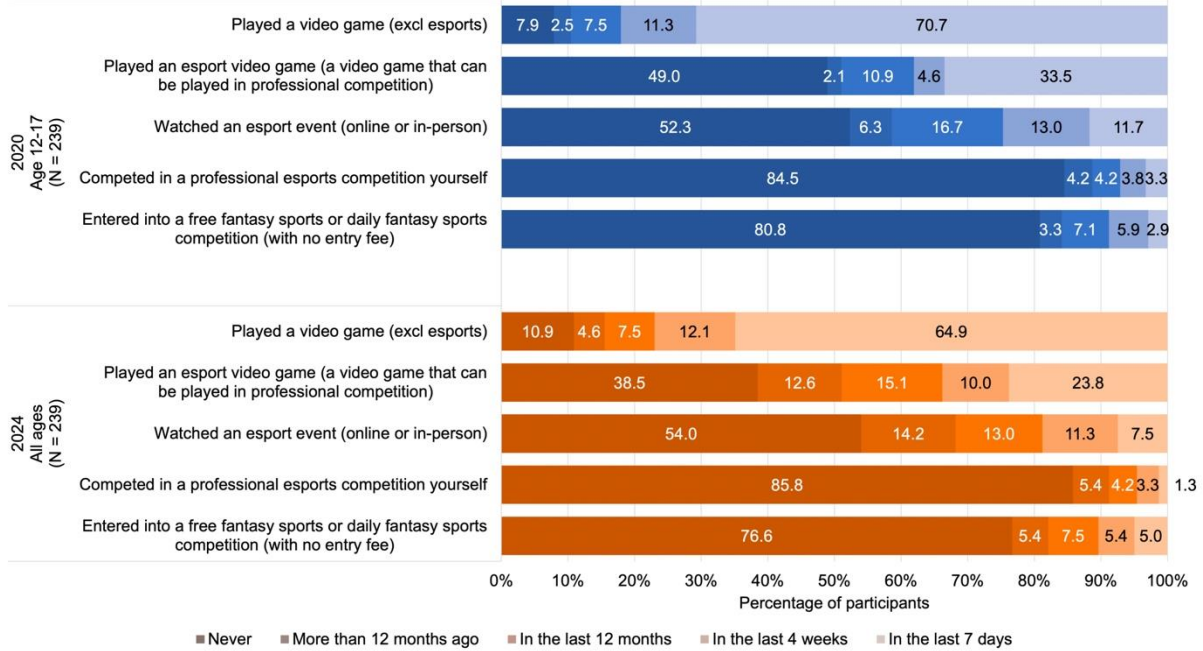


Note: IGI2. *At what age did you first bet with in-game items? If you're unsure, provide your best guess.*

3.2.10. Frequency of other gaming activities

Most participants reported playing a video game (89.1%), down from 92.1% in 2020. In 2024, 61.5% reported playing a game that is also an esports, up from 51.0% in 2020. In 2024, 46.0% reported watching an esports event, and 14.2% reported competing in esports, similar to figures in 2020 (47.7% and 15.5% respectively). In 2024, 23.4% reported entering a free fantasy sports competition, similar to 2020 (19.2%).

Figure D.24. Frequency of engaging with esports and fantasy sports, 2020 and 2024



Note: POG1. When, if ever, did you last do any of the following activities?

3.2.11. Time spent on gaming

Amongst those who took part in gaming in 2024, 31.5% did so for up to two hours a week, and 54.0% did so for up to 5 hours a week. These figures indicate less time spent gaming compared to 2020, when 21.0% did so for up to two hours a week, and 34.2% did so for up to five hours a week.

Figure D.25. Time spent on gaming, 2020 and 2024



Note: POG2. About how many hours per week OR per month do you usually spend on gaming? (Monthly responses converted to weekly.)

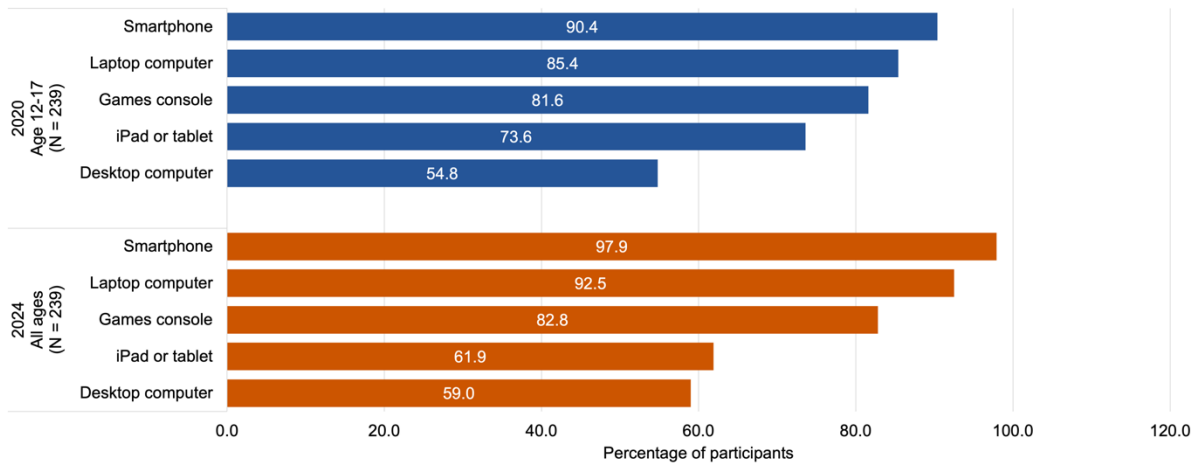
5.3. Access to internet-connected devices

3.3.1. Availability of devices

Access to smartphones was almost universal in 2024, up slightly from 2020. A very high proportion of participants reported access to laptop computers and games

consoles. Around 60% reported access to an iPad or tablet, and a desktop computer. Access to iPads or tablets was slightly lower in 2024.

Figure D.26. Access to devices, 2020 and 2024

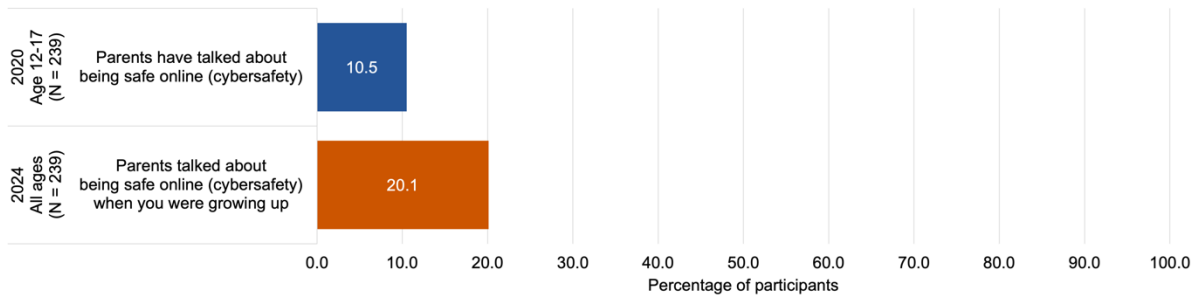


Note: MD1. Which of these devices are available for you to use within your household?

3.3.2. Parental advice about online safety

In 2020, around 10% of participants reported that their parents had talked to them about cybersafety. In 2024, this proportion had almost doubled.

Figure D.27. Whether parents talked about cybersafety when participants were growing up, 2020 and 2024

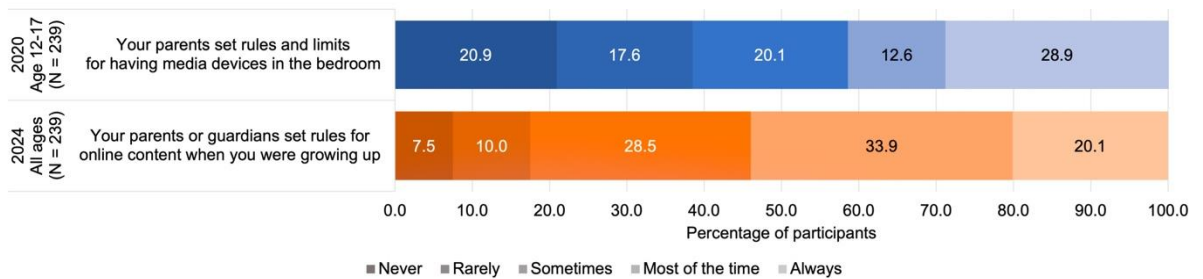


Note: MD4. When you were growing up, did your parents or guardians talk to you about being safe online (cybersafety)?

3.3.3. Parental monitoring of online media use

In 2020, around 75-80% of participants reported that parents set rules and limits around online content and the length of time they could spend online at least sometimes. In 2024, this figure was similar, around 82%.

Figure D.28. Parental rule setting and monitoring for online content and engagement, 2020 and 2024



Note: MD5. When you were growing up, how often did your parents or guardians set rules and limits for online content?

5.4. Exclusive gambling transitions from 2020 to 2024

Table D.2 shows the cross-tabulation of gambling group membership in 2020 and 2024 for the exclusive categories shown.

Table D.2. Exclusive gambling transitions from 2020 to 2024, all participants

Gambling category	No gambling (and no simulated gambling) 2024	Simulated gambling (with no monetary gambling) 2024	Monetary gambling (with no at-risk/problem gambling) 2024	At-risk/problem gambling 2024	Total
No gambling (and no simulated gambling) 2020	11	16	22	1	50
Simulated gambling (with no monetary gambling) 2020	14	48	36	6	104
Monetary gambling (with no at-risk/problem gambling) 2020	7	7	36	4	54
At-risk/problem gambling 2020	1	2	6	22	31
Total	33	73	100	33	239

Appendix E. Attrition analysis

Table E.1 shows comparisons between those who did not complete the 2024 survey compared to those who did complete the 2024 survey, based on their known values on select key variables in 2020. For example, the first part of the table shows that, for gender, 37.1% of those who did not complete the survey in 2024 were women, compared to 36.3% of those who did complete the 2024 survey. For men, these figures are 62.9% and 63.7% respectively, noting that figures sum to 100% and therefore present the same comparison as for women. There were no significant differences between those who did and did not complete the 2024 survey for gender.

As outlined in the table, there were no significant differences between those who did and did not complete the 2024 survey for most variables: gender, age bracket, location, main language, and internet gaming disorder status (i.e., gaming problems). Significant differences were observed for gambling in the last 12 months, being at-risk of gambling problems, and simulated gambling in the last 12 months. In all instances, those who completed the 2024 survey were significantly less likely to report these behaviours in 2020, compared to those who did not complete the 2024 survey.

Table E.1. Attrition analysis

Demographic	2020 values	Did not complete 2024 survey (%)	Completed 2024 survey (%)	Chi-square	p-value
Gender	Woman	37.1	36.3	0.05	.818
	Man	62.9	63.7		
Age bracket	12-14	43.2	49.0	2.91	.088
	15-17	56.8	51.0		
Location	Greater Sydney	55.6	56.9	0.14	.708
	Rest of NSW	44.4	43.1		
Main language	English	96.0	97.9	2.19	.139
	Other	4.0	2.1		
Gambled in the last 12 months	No	46.2	64.4***	28.28	<.001
	Yes	53.8***	35.6		
At-risk of gambling problems	No	65.5	87.0***	45.39	<.001
	Yes	34.5***	13.0		
Simulated gambling in the last 12 months	No	22.1	28.9*	5.53	.019
	Yes	77.9*	71.1		
IGD status	No	87.1	90.8	2.69	.101
	Yes	12.9	9.2		

Note: Genders other than men or women could not be included due to small cell sizes. * $p < .05$, ** $p < .01$, *** $p < .001$.



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