March 2020

Final Synthesis Report
Executive Summary

The effect of gambling marketing and advertising on children, young people and vulnerable adults

Written by Ipsos MORI on behalf of GambleAware

This synthesis report is based on separate research conducted by two independent research consortia. One led by Ipsos MORI (in partnership with University of Bristol, University of Edinburgh, Ebiquity and the Centre for Analysis of Social Media at Demos), and the other by the University of Stirling (in partnership with ScotCen Social Research, University of Glasgow, and University of Warwick).
1 Executive Summary

1.1 Background and method

In March 2018, GambleAware commissioned two independent consortia to assess the extent, nature and impact of gambling marketing and advertising on children, young people and vulnerable groups in the UK. The first consortium was led by Ipsos MORI (in partnership with University of Bristol, University of Edinburgh, Ebiquity and the Centre for Analysis of Social Media at Demos), and the second by the University of Stirling (in partnership with ScotCen Social Research, University of Glasgow, and University of Warwick). Each consortium looked at the broad spectrum of gambling marketing and advertising, using different research methods (see Table 1.1 below summarising the different strands of the study). Separate consortium reports have been prepared to give more detail on the work each consortia led and methods used.

Ipsos MORI have written this final synthesis report to explore the effect of gambling advertising on children, young people and vulnerable adults. It draws on data from all nine strands of research carried out as part of this study. In July 2019 Ipsos MORI published an interim synthesis report1 exploring the exposure, tone and format of gambling related marketing and advertising – it drew on data from all strands minus the survey of children and young people (strand 7).

It should be noted that the key findings, conclusions and recommendations synthesised in both the interim and final synthesis reports represent the views of Ipsos MORI, and do not necessarily represent the views of all the authors who contributed to the research study.

The key objectives of the whole research study were:

1. To explore whether and how gambling marketing and advertising influences children, young people and vulnerable adults’ attitudes towards gambling.

2. To examine the tone and content of gambling marketing and advertising across all media, including social media, and to explore the potential impact of these on children, young people and vulnerable adults.

3. To identify specific themes and features of gambling advertising that children, young people and vulnerable adults are particularly susceptible to.

For the purposes of this research children and young people were those aged 11 to 24, and vulnerable adults were defined as people living in constrained economic circumstances, people with limited capacity to understand information, people already experiencing problems with gambling, and people with experience of mental health problems. The research design was purposefully intended to explore beyond current age restrictions of gambling activity in the UK, given that these may change in the future and are different in other jurisdictions.

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The research objectives were explored through a multidisciplinary approach. In total there were nine strands to the research; a summary of which is provided below. A more detailed overview is provided in section 1.5 of this document; full detail is provided within the main report.

**Table 1.1: Research strands**

<table>
<thead>
<tr>
<th>Strands</th>
<th>Organisation/(s) responsible</th>
<th>Strand aims</th>
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<tbody>
<tr>
<td>Strand 1 - literature review</td>
<td>University of Stirling</td>
<td>To add context to the study as a whole by reviewing literature from 2013-2018 identified using pre-specified search terms.</td>
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<tr>
<td>Strand 2 – media Monitoring</td>
<td>Ebiquity</td>
<td>To assess volume, frequency and estimated spend associated with traditional gambling-related advertising in the UK from 2015-2018.</td>
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<tr>
<td>Strand 3 – online avatars</td>
<td>Ebiquity</td>
<td>To assess volume and frequency of paid-for gambling-related advertising online, including an assessment of whether behavioural targeting is used within the gambling industry, and to explore the likelihood of exposure of children, young people and vulnerable groups.</td>
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<tr>
<td>Strand 4 - social media analysis</td>
<td>Demos</td>
<td>To assess volume and frequency of gambling-related advertising and marketing on Twitter. This includes bespoke age-based analysis to assess the extent to which children and young people are part of this online conversation.</td>
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<tr>
<td>Strand 5 - content analysis</td>
<td>University of Stirling</td>
<td>To provide an in-depth analysis of the tone, format and content of gambling-related advertising across a wide range of media both on and offline.</td>
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<tr>
<td>Strand 6 – review of sport sponsorship</td>
<td>University of Stirling</td>
<td>To examine the frequency and nature of gambling references during television and radio broadcasts of sport in the UK.</td>
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<tr>
<td>Strand 7 – quantitative survey of children, young people and young adults</td>
<td>ScotCen Social Research</td>
<td>To provide a nationally representative measure of exposure to and impact of gambling-related advertising among children, young people and young adults.</td>
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<tr>
<td>Strand 8 – qualitative research with children and young people</td>
<td>Ipsos MORI (conducted in-depth interviews) ScotCen Social Research (conducted focus groups with some additional in-depth interviews)</td>
<td>A combination of focus groups and in-depth interviews to provide a more nuanced understanding of exposure to gambling-related advertising in the context of attitudes, behaviours and circumstances – including frequency of exposure, which tone/format is most engaging, and the potential impact (both immediate and over time).</td>
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<tr>
<td>Strand 9 – qualitative research with vulnerable people</td>
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</table>
1.2 Overview of evidence

This section considers the original research questions posed by GambleAware in turn and the evidence gathered to answer each of these.

1.2.1 Where and how often does gambling advertising occur?

There has been a clear increase in the volume of, and spend on, gambling advertising in recent years. Across all media, with the exception of online advertising for which there is limited trend data available, the estimated spend on gambling ‘paid for’ advertising has steadily increased year on year from £264,657,325 in 2015 to £328,945,916 in 2018. This represents a 24% increase from 2015 to 2018.

The presence of gambling advertising throughout the day is further evident in the media monitoring across TV, radio and Twitter. For example, outside of evening slots, gambling advertising is also prominent in the afternoon on TV and in the morning on radio. Most of the accounts identified on Twitter as promoting gambling sent at least one Tweet between 1am-5am.

Although there are signs that advertising spend and volume is decreasing in some sectors and channels2 it is also apparent that the adverts captured as part of this study are likely to be an underestimate of the true volume of gambling advertising. The spend estimate excludes marketing that is more difficult to capture, such as window adverts in gambling premises, scratchcard or lottery facilities at the point of sale in shops, content marketing as well as sponsorship of sports teams and leagues, and within sports live TV coverage.

Sport is an important context in which exposure to gambling advertising is likely to occur. This was demonstrated in a number of ways: i) by spikes in spend on gambling advertising within traditional media, and spikes in social media activity across key sporting events (such as Cheltenham Gold Cup and the World Cup), ii) by the compounded rate of exposure to sponsorship whilst watching some live sporting events on TV, and iii) by the prevalence of sports/event betting as the most common form of online advertising within the online avatars’ research. However, this association was not universal across all sports at the time of data collection – for example, the sports sponsorship analysis found very few references to gambling within live broadcasting of rugby and tennis sample matches, and no references within Formula 1. However, it is important to note that sponsorship of sports events, teams and individuals is subject to change between and within sports.3

Yet, outside of advertising online, sports and event betting has a smaller profile than the advertising of lotteries. Lotteries (including the National Lottery, Postcode Lottery, Health Lottery) were identified as the biggest spenders on advertising across TV, radio, cinema, direct mail, door drops and outdoor media.

The research also identified the rise of advertising of new forms of gambling, in particular eSports.4 The Centre for Analysis of Social Media at Demos identified 44 accounts which posted a total of 26,573 Tweets relating to gambling in eSports across 2018. Further research is required to establish how many of these accounts are licenced gambling operators, and to establish the context in which people are engaging with this content. Nonetheless, Demos estimated that at least 9,000 people in the UK follow at least one of these accounts.

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2 for example in a separate study the ASA found that exposure to children on TV had decreased since 2013: https://www.asa.org.uk/resource/children-s-exposure-to-age-restricted-tv-ads.html

3 It is important to note that sponsorship of sports is constantly evolving. For example, Formula 1 which previously did not have any gambling sponsorship now does so, Formula 1 struck a $100m deal to sell betting sponsorships in September 2018. This research was conducted prior to this in 2018 and therefore this data is based on sporting events that took place during this year. See https://www.bbc.co.uk/sport/formula1/45558975

4 eSports are multiplayer video games played competitively for spectators, typically by professional gamers.
1.2.2 What are the main themes and features used to market gambling?

Adverts used a range of promotions to elicit an immediate customer response. Common features included time-limited offers, promotion of specific odds, free or matched bets, details of price offers and bonuses, new customer offers, and minimized risk (such as money back in free bets).

Beyond this, the content analysis demonstrated the wide variety of themes and features used to market gambling. This included adverts from gambling companies with no specific gambling reference – particularly on social media where ‘content marketing’ was widely used to build brand loyalty rather than prompt a specific gamble (for example promoting a discussion about who the best players are in a sports league).

Across both datasets, the content analysis found evidence of a wide range of topical associations used to promote gambling. The most prominent of which was sport, often comprised of specific bets linked to real world events, teams or organisations, or broader discussion of topical debates within a sport. Other common features included the use of humour (especially within ‘content marketing’) and celebrity endorsement. It was less common to advertise jackpots and potential prizes, or feature previous winners or testimonials.

1.2.3 To what extent are children, young people and vulnerable groups exposed to gambling advertising (offline and online)?

Within the data captured, the research found no examples of gambling adverts being placed within children’s media, including the most popular children’s websites. For example, there were no examples of adverts appearing in children’s magazines, or on popular children’s websites. Moreover, the most prominent placement of gambling adverts online was found on sites such as Oddschecker, sites used by regular gamblers, which are unlikely to be visited by children. The avatar research did find one example of a sophisticated strategy to target a profile with the traits of a ‘Young Person Gambler’; however, it was not clear whether this strategy targeted traits related to gambling or traits related to being a young person.

Nonetheless, an absence of direct targeting did not prohibit exposure to gambling marketing and advertising. Children, young people and vulnerable adults reported what they believed to be high levels of exposure, and spoke of the ubiquitous nature of gambling advertising, across multiple formats, and at different times of the day. The quantitative research conducted by ScotCen as part of this study found that only 4% of 11-24 year olds reported having no exposure to gambling marketing in the last month across the 17 types of gambling marketing listed.

The most common routes for self-reported exposure to gambling advertising were through TV, shops on the high street and social media. This was apparent in both the qualitative and quantitative data (where 85%, 70% and 66% aged 11-24 report seeing ads on TV, in shops and on social media respectively). Exposure on TV was not restricted to the viewing of live sports matches. Participants also shared examples of gambling advertising while watching other genres on demand/catch up, and the sponsorship of daytime TV programmes. Exposure on social media was most likely to be in the form of video adverts while watching clips on YouTube or ads appearing while scrolling through Facebook feeds, with a few reporting following gambling accounts. Exposure to gambling advertising was also frequently noted in betting premises on the high streets, along with promotional window displays, as well as displays for scratchcards and lotteries within other shop windows, on shop floors and near tills. The presence of gambling advertising throughout the day was further evident in the data collected across TV, radio and Twitter.

Evidence of high levels of exposure to gambling marketing was also apparent from high brand awareness and recognition among participants. In the ScotCen survey it was found that on average respondents had heard of more than seven of the ten brands they were asked if they were aware of (mean=7.3). Across the focus groups, participants correctly identified between 6-9 of the 9 logos they were shown, with an average of 8 logos correctly identified.

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5 These were the ten brands with the greatest advertising spend in the month prior to the survey launch, plus a dummy brand CogBet to test reliability
6 Logos shown were from Coral, The Big Lottery, Bet365, Ladbrokes, William Hill, Betfred, Foxy Bingo, Paddy Power and SkyBet.
There is clear evidence of children following and engaging with gambling related accounts on Twitter. Using an age classifier, it was estimated that 41,000 UK followers of gambling related accounts are likely to be under 16, and that children make up 6% of followers of ‘traditional’ gambling related accounts - this rises to 17% of accounts focused on eSports gambling. The research also found 13,000 replies to and retweets of gambling content sent from accounts believed to belong to children in the UK.7

However, advertising isn’t the only route of exposure to gambling brands and gambling activity. Participants across the qualitative strands noted the role of family and friends in introducing them to gambling, often at a young age, and in informal settings. This included picking numbers for the lottery, selecting horses for the Grand National, playing arcade games, and playing bingo on holiday or at school fundraising events. As such, awareness of the different types of gambling activity and brands was closely linked to the attitudes and behaviour of family and friends. This is further supported by the quantitative data, which showed how behaviour and attitudes of peers and family was associated with children and young people’s awareness of gambling brands and marketing.

The research identified two possible ways to mitigate the risk of exposure to gambling advertising among children and young people. Firstly, in response to evidence that children under 16 are actively engaging in gambling material on Twitter, more could be done to work closely with social media platforms to improve age screening tools before individuals are allowed to follow accounts that promote gambling. Secondly, betting operators and advertisers could make better use of adtech8 to positively exclude online browsing profiles that seem likely to be a child. Within the avatar research, there was no evidence to suggest that steps had been taken to restrict exposure to gambling advertising of vulnerable adults and children based on their known browsing history.

1.2.4 What types of adverts are children, young people and vulnerable adults particularly susceptible to?

The findings suggest that appeal of gambling advertising cannot realistically be defined in simplistic binary terms of ‘does appeal to young people’ or ‘does not appeal to young people’, or in terms that classify appeal as being significantly different at the point at which children turn 16. To date, definitions of ‘particular appeal’ have largely focused on the images or language used in ads, and considered the extent to which they could be seen as child-friendly to the point that they would have more appeal to children and young people than they would to adults. The qualitative research did identify some instances of adverts that participants found appealing, including the use of music, colours, characters and celebrities that will have an obvious appeal to children and young people; or the presentation of insider knowledge/skill which was more appealing to high risk gamblers. However, it also demonstrated that children and young people are attracted to a wide range of other features that are not unique to their cohort.

Overall, in alphabetical order, the themes and features of gambling advertising that attracted the attention of children, young people and vulnerable adults who participated in the qualitative research included:9

- **Celebrity endorsement:** was thought to appeal to and attract the celebrity’s fans and more widely perceived to make the promotion more authentic, trustworthy and memorable. The choice of celebrity dictated the appeal of the advert; examples of appeal to children and young people included use of sports stars.

- **Characters:** participants also remembered the characters that were used in marketing campaigns and adverts and suggested that appeal would be tied closely to the character’s features. Examples included adverts from Foxy Bingo, Paddy Power, Ladbrokes, Gala Bingo and the National Lottery.

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7 It is important to note that analysis has not been restricted to analysis of licenced accounts in Great Britain. Some of these accounts therefore may fall out of scope of existing regulation in GB where they are not based in GB and are not directly targeting a GB audience – this is particularly the case within the eSports dataset. Though there is clearly engagement from British users within this dataset, further work is required to explore how and why people are engaging with this content.

8 ‘Adtech’ stands for advertising technology and refers to different types of analytics and digital tools used in the context of advertising. This includes the systems used to direct advertising to individuals and specific target audiences.

9 The appeal of advertising was assessed by combining the spontaneous submission of adverts that participants to the diary task found had caught their attention, with discussion of different types and features of gambling advertising that were appealing within the focus group and in-depth interviews.
• **Colour:** all participant groups (children, young people and vulnerable adults) were more attracted to gambling advertising that used bright and engaging colours. This transcended TV, social media, billboards and window displays. Younger participants felt that the use of colour could be particularly appealing to their peers.

• **Fun:** participants were attracted to advertising which reinforced the fun element of participating in gambling with low risks, or presented taking part as harmless or light hearted.

• **Glamour:** younger participants were more likely than vulnerable adults to identify with content with perceived high production value that often appeared dramatic, akin to a film. Participants also noticed ads that associated gambling with a glamorous lifestyle, such as dreaming of a big win and using winnings to treat yourself, friends or family.

• **Humour:** marketing that used humour appealed to all participant groups, and was perceived potentially to have universal appeal to all children and adults. Even where there was no specific call to action to place a bet, participants reported that humorous ads aided recall, made gambling seem less serious and therefore more acceptable.

• **Memorable songs and catchphrases:** thought by all participant groups to aid recall of the ad and brand. Participants broadly felt that catchy songs were particularly attractive to young people, some of whom would hum or sing along inadvertently.

• **Offers:** this included promotion of free bets or spins, deals and boosts in odds. Reduced risks through money back guarantees were also attractive. There was evidence of the latter being particularly appealing to low frequency gamblers or those who hadn’t gambled before (including children and young people), and vulnerable adults with financial difficulties.

• **‘People like me’:** in addition to presenting winners from members of the public, participants were also attracted by adverts that used other features to appear personalised, or that gave the reader a sense of ownership. Moreover, social media content that had been shared or liked by friends was assumed to be more relevant and therefore more appealing.

• **Skill:** ads that used features such as odds boosts or referenced accumulators were seen as particularly attractive to high risk or frequent gamblers. This was apparent in the ads shared by these groups, which appealed to a sense of expertise and knowledge, or sense of community based on a perception of ‘skill’.

• **Winners:** showcasing previous winners was seen to add authenticity, encouraging others to try and replicate success. Vulnerable adults in financial difficulty reported that they felt they were particularly susceptible to these features.

**Messages of risk and messages to gamble safely received mixed levels of understanding.** Children and young people felt that in theory, gambling could be enjoyable; however, their understanding of risk varied, notably by age, with those under 16 commenting that they did not fully understand how odds worked. They often described risk in overly simplistic terms with some confusion about the chance of winning. Without prompting, there were calls from across all participant groups to better highlight the risks of gambling.

**There was some evidence of content or features that could appeal specifically to children and young people.** Within the content analysis of traditional media conducted by University of Stirling, there were three features that researchers judged could appeal directly to children and young people: i) language (e.g. ‘Starburst’, ‘House Party’); ii) graphic design (e.g. cartoon-like, colourful); and iii) narratives such as fun, excitement, or ‘non-stop’ playing. At least one of these features was identified in 11% of creatives. Using a similar distinction, researchers at University of Bristol found a higher prevalence within the Twitter content analysis, where 21% of Traditional Betting Tweets, 59% of eSports Betting Tweets, and 37% of eSports Content Marketing Tweets were judged to contain features that could plausibly appeal directly to children and young people.
young people, largely accounted for by the use of images and animations. Examples of this included cartoon or animated style graphics, and features such as popcorn, lucky charms and unicorns, and game-like avatars.¹⁰

Enticing financial offers are a common feature of gambling advertising, and the qualitative research highlighted that these are likely to attract the attention of some children, young people and vulnerable adults. This includes participants saying that they found these offers personally appealing but also a wider perception that they would be particularly attractive to those with little awareness or understanding of gambling. The most prevalent of these offers was reference to a ‘free’ or ‘matched’ bet, which was contained within 44% of the traditional media content analysis, and 47% of the Twitter content analysis. Other examples include price offers and bonuses, means of minimising risks (for example money back offers), and offers available only to new customers.

Beyond initial appeal (i.e. the extent to which an advert attracts attention, and creates interest in and desire for a product) it is also important to consider potential susceptibility of children, young people and vulnerable adults to the themes and features used in gambling advertising. The content analysis identified three areas of wider concern in this regard: i) lack of any labelling to signal the difference between advertising and general content on Twitter, ii) a lack of emphasis on the risks of gambling and of messages of how to gamble safely; and iii) overly complex terms and conditions particularly where reduced risks or free bets/spins are being promoted.

Some ads may exploit the susceptibility of children, young people and vulnerable adults. Alongside the mixed and often limited understanding of risk identified among participants in the qualitative research, researchers identified a number of features of gambling advertising within the content analysis that may exploit the susceptibilities, aspirations, credulities, inexperience, or lack of knowledge of children, young people and vulnerable adults. This included content that implied limited risk, the overly complicated or potentially misleading presentation of gambles or offers, inflated suggestions of winning, suggesting that gambling was simple, or that the company provided a safeguard to losses. In total 22% of ads within the traditional media content analysis were found to contain at least one of these features; this rose to 37% of adverts within the Twitter dataset using a similar definition.

There was some evidence of encouraging frequent gambling or creating a sense of urgency. The most prominent feature of this was the use of time limited gambles or offers, often driven by reference to a specific sporting event taking place immediately which may be interpreted as creating a sense of immediacy or urgency, encouraging instant action by the consumer. This issue was compounded within the eSports analysis by the fact that many of the global events promoted take place late at night in the UK.

There was little evidence of prominent consumer protection messages that might help raise awareness of the risks of gambling. The presentation of age warnings, promotion of lower-risk gambling, or of terms and conditions was judged to be poor in both traditional media and Twitter datasets analysed as part of this study.

¹⁰ The features judged to be of particular appeal were taken from the CAP definitions of what is of particular appeal to children, so where appropriate, the research has drawn on guidance and advice published in the CAP code and by ASA to inform discussion of key issues relevant to this project. In some cases, the findings highlight cases which plausibly contain content which may not comply with these self-regulations; however, it should be noted that researchers do not seek to provide an assessment of whether any complaint would or would not be upheld. They acknowledge that such a judgement would also be subject to individual interpretation.
1.2.5 What is the impact?

A wide variety of impacts from gambling advertising and marketing were evident across the research. In support of the modern taxonomies used to describe the way advertising works (see Feldwick 2015, and Vakratsas and Ambler 1999), the qualitative research found evidence (both claimed by participants and observed by researchers during fieldwork) of where gambling advertising had either a direct impact on immediate behaviour, or a more indirect impact on emotional responses that can help shape attitudes to and associations with gambling.

The primary qualitative research found some evidence of individual ads prompting immediate gambling behaviour that had not already been intended or considered by participants. This was most apparent among adults who were current frequent or problem gamblers. However, adverts which encouraged new customers to sign up through special offers did also have appeal to other participant groups. This should perhaps not be a surprise, given that 51% of adverts sampled for the Full Media Deep Dive included a specific call to action. Children and young people tend to report low direct engagement with gambling adverts; yet, the social media analysis points to a small but active group of children and young people engaging with gambling brands online.

Though exposure to advertising didn't always translate into engagement, it did increase awareness. Many participants claimed to be good at ignoring gambling advertising content (particularly those under 18, who felt it wasn't relevant to them) but, the strong performance of all participant groups in the brand awareness and recognition tasks conducted by ScotCen is evidence of the role of exposure in building awareness of gambling and of gambling brands. Participants were often surprised at how well they performed in this task.

Feedback from participants and observations by researchers also identified a wide range of emotional and cognitive responses to gambling advertising and marketing. The claimed and observed impact of these responses was a change in participants' framing of and associations with gambling, rather an immediate desire to gamble. For example, these appeared to normalise gambling behaviour, broaden what constitutes gambling, encouraged people to feel part of a community; a sense of providing an escape, creating trust, and creating misperceptions of risk involved in gambling. These were almost all positive associations. In some instances, these emotional and cognitive responses had an immediate impact on participants framing of and associations with gambling; however, participants also stressed that the impact on attitudes to gambling is likely to be more cumulative over time, as a result of repeated exposure to advertising.

Advanced statistical analysis shows that for young people who did not currently gamble, exposure to advertising was significantly associated with likelihood to gamble in the future, after controlling for demographic and other factors. Those who experienced a greater level of exposure to adverts, those who engaged with marketing activities from gambling operators, and those who had a high level of brand awareness were more likely to be susceptible to gambling in the future.11 These factors were more significant than the behaviour and attitudes of parents and peers.

The relationship between advertising and current gambling behaviour is multifaceted. Within the statistical analysis, factors which were significantly associated with current gambling included peer gambling, engagement with marketing activities from gambling operators, brand awareness, parental gambling, and age. Of these factors, peer gambling had the greatest association with current gambling but engaging with marketing activities from gambling operators and brand awareness were both associated with current gambling behaviour. This does not suggest causation, yet the significance of engagement and brand awareness over pure exposure to gambling advertising overall warrants further investigation. Among those who currently gamble, participants reported that advertising helps remind people of events and of specific odds and opportunities to gamble, in turn helping to reinforce positive association with gambling.

11 All respondents were asked whether they thought that they would spend money on gambling in the next year (this is used as a measure for susceptibility to gamble in the future). Those who were not current gamblers were categorised as being susceptible to gambling within the next year if they selected the answer (definitely yes, probably yes and probably not), and not susceptible if they opted for ‘definitely not’. Classifying susceptibility in this way has been used in previous studies to determine youth susceptibility to consume alcohol and tobacco for example see: Pierce et al, 1996 (https://psycnet.apa.org/record/1996-01601-004), Muttet et al, 2017 (https://academic.oup.com/heapro/article/32/4/650/2950997) and Critchlow et al, 2019 (https://eucam.info/2019/02/20/nathan-critchlow-et-al-2019-participation-with-alcohol-marketing-and-user-created-promotion-on-social-media-and-the-association-with-higher-risk-alcohol-consumption-and-brand-identification-among/)
Age was significantly associated with both susceptibility to gamble in the future, and current gambling behaviour; however, significant associations with advertising are independent of age. Having controlled for demographic and other factors within the statistical analysis, it is clear that further significant associations (including differences by exposure and interaction with gambling advertising) are not driven by any underlying differences in age between those aged 11-17 and those aged 18-24.

The attitudes and gambling behaviours of peers and parents are also important in shaping behaviour. Whether or not a close friend or carer gambles, or has favourable attitudes towards gambling, increased an individuals likely exposure to advertising and brands, but was also significantly associated with current gambling among those aged 11-24. For example, those who had a close friend who gambles had six times the odds of being a current gambler than those without. This suggests that changes to advertising practices should be an intrinsic part of a wider policy initiative that also considers the influence of peers and family members in exposure to gambling brands and practices.

1.3 Discussion

It should be noted that the conclusions and recommendations stated here represent the views of Ipsos MORI, and do not necessarily represent the views of all the authors who contributed to the research study.

1.3.1 Conclusions

The research points to a clear growth in the volume of gambling advertising and marketing in recent years, and suggests that the amount of exposure to gambling advertising and marketing is significant. Although the research found no evidence of gambling adverts being placed within children’s media, exposure among children and young people remains high. The multiple formats of exposure are apparent within ScotCen’s survey of those aged 11-24, and supports the claims of participants from qualitative research of the ubiquitous nature of gambling advertising. Television, social media and the high street were the most popular channels of seeing gambling advertising. Although there is a strong association between sport and gambling advertising, exposure to gambling brands is not restricted to key games and events, and spans wider than the betting sector. As a result, brand awareness and recognition of gambling companies, including lotteries, is high – even among those who do not currently gamble.

Although many participants claimed to dislike, and to be able to ignore gambling advertising, all participant groups were able to point to themes and features within gambling advertising that they found appealing. The appeal of these features was not unique to children, young people and vulnerable adults; this therefore suggests that it is challenging to define appeal of advertising in binary terms, based purely on age.

Engagement with gambling marketing was low, with relatively few instances of participants (outside of frequent and problem gamblers) reporting they had engaged in gambling as a direct result of seeing an advert. Given that many of these participants are below the legal age to gamble, this is perhaps not surprising. However, the qualitative research highlighted a range of emotional and cognitive responses to advertising which were claimed by participants to have changed their attitudes (mostly positively) towards gambling in a number of ways. The cumulative impact of exposure to gambling advertising is further evident within the statistical analysis, where among those who do not currently gamble, exposure to gambling advertising was significantly associated with whether or not they were susceptible to spending money on gambling in the future.

The relationship between advertising and actual gambling behaviour is complex and multifaceted. The attitudes and gambling behaviours of peers and carers are also important in shaping behaviour. For example, whether or not a close friend or carer gambles, or is likely to find gambling acceptable, is closely linked to recalled exposure to advertising and brand awareness, and is also significantly associated with whether or not an individual gambles. This suggests that changes to advertising practices should be an intrinsic part of a wider policy initiative that also considers the influence of peers and family members, in order to help reduce the plausible risk of future gambling related harms among children, young people and vulnerable adults.
The findings of this research will and should be seen in the context of wider trends – for example, the overall number of young people reporting taking part in gambling has fallen in recent years despite a considerable increase in spend and volume of advertising. This decrease is likely to be influenced by a multitude of factors, which it is not appropriate to speculate about here. Furthermore, it’s important to note that the research would benefit from appropriate comparisons with other sectors – it is otherwise currently difficult to judge whether findings in relation to exposure and engagement of gambling advertising are favourable or not.

Nonetheless, triangulation of the evidence produced by this research project would suggest that there are reasonable grounds for concern. In the absence of conclusive longitudinal research and wider comparisons, there is a clear link between gambling advertising and the attitudes, current and likely future behaviours of children, young people and vulnerable adults. This is not to say that gambling cannot be enjoyed recreationally at a legal age; however, it is important to note that these are all groups who have already been identified as more likely to experience gambling disorder or be vulnerable to gambling related harms.12

1.3.2 Looking forward

The application of the precautionary principle advocates taking preventative measures even if cause and effect relationships are not fully established.13 Within this context, the research findings of this project suggest that action would be warranted in a number of areas:

- **The case for reducing exposure to gambling advertising:** exposure to advertising is high across all age groups with gambling advertising predominantly found in public places rather than specifically child-friendly places. This suggests that current rules to restrict exposure have a limited impact, including the ‘25% rule’ aimed at excluding advertising from media with an audience consisting of a 25% or more of children and young people. The research suggests that sheer exposure to gambling advertising can have an impact on attitudes toward the prevalence and acceptability of gambling, and in turn the susceptibility to gamble in the future. Furthermore, the rise of new forms of gambling marketing through social media have increased the ways in which children, young people and vulnerable adults can engage with gambling brands, often innocently, in such a way as to develop brand loyalty.

- **The case for reducing the appeal of gambling advertising:** rules in place to reduce the appeal of gambling advertising currently assume that there are a set of specific features that children and young people find more appealing than adults do. Current regulations require clarification in areas such not using sports stars under the age of 25 or child-like images in new sectors such as eSports. However, this research suggests that appeal should be extended to other common features, and particularly adverts that emphasise fun, a sense of reduced risk, and financial reward. Furthermore, these features may play on the susceptibilities of children, young people and vulnerable adults – especially where understanding of risk is poor. The appeal of adverts may not always elicit an immediate gamble; however, the appeal of adverts is successful in eliciting emotional responses that in turn are likely shape attitudes to gambling and the chance that an individual will consider gambling in the future.

- **The case for improving consumer protection messaging within advertising:** the research points to low and mixed understanding and awareness of risk; moreover, participants proactively called for advertising to place greater emphasis on risk (including chance of winning) rather than on fun and excitement. Only around half (53%) of those aged 11-24 were aware of labelling to indicate that gambling is not legal for under 18s, and even fewer recalled

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12 As a result of recommendations from Per Binde’s 2014 review, the original specification for the project asked research to focus on key groups of concern: children (aged 11-18), young people (aged 18-24) and vulnerable adults (those living within economic constraints, those with a limited capacity to understand information contained within gambling marketing and advertising and those already experiencing problems with their gambling). The link to the project brief can be found here: https://about.gambleaware.org/media/1165/binde_rgts_report_gambling_advertising_2014_final_color_115p.pdf, and to Per Binde’s review: https://about.gambleaware.org/media/1138/project-brief-41-advertising-young-and-vulnerable-people.pdf. Also see Sharman, S, Butler K, & Roberts, A (2019) Psychosocial risk factors in disordered gambling: A descriptive systematic overview of vulnerable populations. Addictive Behaviors, 99

13 The classic definition of the precautionary principle was established at the 1992 Rio Declaration on Environment and Development. This states that “Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”. The principle has more recently been applied to wider public health concerns (for example see Kriebel and Tickner, ‘Precautionary Principle and Public Health’ September 2001, Vol 91, No.9, American Journal of Public Health, 1351).
messages about safer gambling. Furthermore, the content analysis demonstrated poor visibility of consumer protection messages across a range of media formats. Greater action is required to identify the best ways to help consumers make more informed judgements when they are exposed to an advert which they find appealing.

- **The case for improving wider education initiatives:** as a legitimate leisure activity, it is realistic to expect that children, young people and vulnerable adults will be exposed to some form of gambling advertising, marketing or sponsorship (this is currently most evident among sports fans). Continued efforts to improve education relating to gambling and risk are therefore imperative in helping young and vulnerable adults make better informed assessments about whether or not to spend money on gambling. These initiatives should be extended to consider the influence of parents and peers too, who are a key route for exposure to gambling brands and who were strongly associated with current gambling activity among children and young people.

- **The case for improving understanding through further research:** it is important to note there are a number of limitations to this study. This is a cross-sectional design which does not benefit from a longitudinal assessment of the impact of exposure to adverts. Given that exposure to adverts was significantly associated with susceptibility to gamble rather than actual gambling behaviour, further insight is needed into the mechanisms and circumstance in which children sustain and convert any initial interest in gambling into future action. The research would benefit from additional statistical analysis of the relationship between advertising and gambling behaviour among vulnerable adults, and of the relationship between frequency of exposure to advertising and current gambling activities. This will help establish the extent to which adverts may or may not be related to problem gambling. Finally, it has not been possible within the scope of this project to fully assess click-through rates of online adverts – this may improve understanding of the risk of exposure to ads online, and the appeal of different features.

## 1.4 Recommendations

Based on these findings, Ipsos MORI has identified 18 recommendations that warrant further consideration among industry, regulators and researchers. These are intended to help stimulate collective discussion and action. We welcome the opportunity for others to build on and to challenge our suggestions.

### 1.4.1 Recommendations for gambling, advertising, technology and social media industry

1. **Make better use of technology to minimise the risk of children, young people and vulnerable adults’ exposure to gambling advertising** This could include using adtech\[14\] to positively exclude certain online profiles from seeing gambling ads (including those with a child-like persona and those who have sought help for problem gambling), and working with platforms such as Twitter to make use of features that allow better age verification for account followers.

   *Since the Interim Synthesis Report, Ipsos MORI note that a number of positive steps have been taken by industry to explore the use of technology in this regard. The Betting and Gaming Council have launched Safer Gambling Commitments including a commitment to work with advertising bodies to explore using adtech to prevent under-18s seeing gambling adverts online.\[15\] The Gambling Commission have launched their advertising technology challenge\[16\] and they have also released guidance for consumers on how to limit the amount of gambling-related content they are shown on Twitter.\[17\]*

2. **Integrate more explicit, more frequent and more visible references to risk and safer gambling within advertising** This signposting could include dedicating more visual presence to messages about safer gambling within current

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\[14\] Adtech’ stands for advertising technology and refers to different types of analytics and digital tools used in the context of advertising. This includes the systems used to direct advertising to individuals and specific target audiences.

\[15\] https://bettingandgamingcouncil.com/safer-gambling/


ads, and ensuring that clear age restrictions are evident. Given the spontaneous demand from participants, this commitment should also extend to supporting independent campaigns that highlight risks and promote safer gambling.

Ipsos MORI note industry’s commitment to the launch of the Safer Gambling campaign since the Interim Synthesis Report was published in summer 2019; alongside other commitments. It remains important to consider commitments both to independent campaigns and within marketing content produced directly by gambling companies.

3. **Consider how best to minimise the risk that adverts in the wider public arena may play on susceptibilities of children, young people and vulnerable adults.** We suggest that even greater differentiation should be made between the themes and features used in adverts that have a high volume or proportion of children and young people within the audience, compared to the themes and features used to promote gambling in exclusively adult audiences. Efforts should be made to increase the clarity of risk where it is likely some groups may misunderstand financial incentives, and being cautious not to over-emphasise elements of fun, enjoyment and financial reward.

4. **Reduce the volume of gambling advertising and marketing reaching children, young people and vulnerable adults.** This should explicitly consider the likely impact of repeated exposure across multiple formats, including through sponsorship and on the high street.

### 1.4.2 Recommendations for policy and regulation

5. **Establish whether issues identified within the research are due to poor compliance with existing regulations and guidelines, or whether further guidance is needed from regulators, or indeed whether it is time for new regulations.** Regulatory issues identified for attention include the use of individuals under 25 in gambling adverts, labelling of ads on social media, the low visibility of consumer protection messages, and determining whether financial incentives are presented clearly enough for users to understand, so that they do not exploit the credulity or lack of understanding among children, young people and vulnerable adults.

6. **Consider whether ‘particular appeal’ remains a useful definition for protecting children and young people from the potentially harmful impacts of gambling advertising, given that advertising content that appeals to adults may appeal to younger audiences too.** Regulators could consider the extent to which features beyond child-friendly images and language are likely to also generate significant interest to children and young people – even if they are not the intended target audience – and how best to accommodate this alongside other aspects of the ad, such as likely exposure.

Since the Interim Synthesis Report, Ipsos MORI note that CAP have been assessing the social media content identified as part of study in relation to ‘particular appeal’.18

7. **Consider whether the ‘25% rule’ remains an appropriate criterion for deciding which gambling ads can be legitimately marketed to a mass audience.** Based on the findings from this research, further discussion is required to test the assumption that limited harm is caused from exposure to advertising where children and young people make up no more than 25% of the likely audience; and whether this threshold should be reduced and/or expressed as an absolute number rather than a percentage.

8. **Ensure that existing regulations and codes of practice are applied to the licensed eSports betting market as it develops** Where eSports betting operators are licensed to transact with consumers within Great Britain, care must be taken to ensure that existing regulations and best practices are followed, especially concerning the use of child-friendly images and inclusion of individuals under 25.

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9. **Maintain careful oversight over unlicensed operators online, particularly in relation to eSports.** The unlicensed remote eSports betting market requires close scrutiny to ensure that it is not contravening British law by allowing consumers in Great Britain to access its gambling facilities. This is particularly important as the research found evidence of children being exposed to, and interacting with, Twitter accounts advertising unlicensed eSports betting. The regulator should maintain a robust approach in deterring and combating unlawful gambling activities.

10. **Consider the potential role and value of education initiatives.** Many participants reported exposure to gambling activity often in informal settings, at a young age, and encouraged by family and friends. Moreover, understanding of gambling risk amongst children, young people and vulnerable adults was mixed. Education initiatives therefore could include content for both parents and young people to promote a better understanding of gambling-related harms and risks, and of odds and financial offers stated in marketing. These initiatives could also raise awareness of the potential impact of content marketing techniques designed to build brand loyalty and awareness.

1.4.3 **Recommendations for research**

11. **Establish a longitudinal research project that would allow for a more robust assessment of the impact of advertising on children, young people and vulnerable adults.** This could include a young cohort that would enter adulthood (and legal age to gamble) during the lifecycle of the project to better understand the long-term impact of exposure to young people who are less likely to be able to act immediately on their early exposure. This should include monitoring of the new framework for measuring gambling relating harms for young people.19

12. **Establish better benchmarks against which the volume of gambling advertising in the UK, and likely exposure to children, young people and vulnerable adults, can be judged.** The media monitoring work currently lacks comparisons to other sectors (such as alcohol), and to other countries. This will help assess for example whether the trends experienced in the UK are similar or unique compared to others, and whether any media channels or gambling sub-sectors are more or less prevalent compared to other regulatory frameworks. Furthermore, measures of exposure and engagement with gambling advertising would benefit from an agreed reference to other relevant sectors or product categories.

13. **Commission content analysis on a regular basis.** This would provide an up to date assessment of the themes and features used to market gambling, and would establish whether industry has successfully sought to reduce risk of appealing to susceptibilities of children, young people and vulnerable adults, and sought to improve consumer protection messages.

14. **Commission research to better understand the impact of improved visibility of consumer protection messages.** This would include exploration of the extent to which exposure to varying visibility of age ratings and other health warnings or promotion of safer gambling messages reduces susceptibility to gamble.

15. **Improve understanding of exposure to online advertising, including social media.** This could include integrating purchase behaviour as part of avatar online profile (not just browsing behaviour and search queries) to establish whether this is likely to generate a greater level of gambling ad exposure. Moreover, the current avatars research excludes social media advertising – this was a key source of exposure among participants within the qualitative strand of research.

16. **Explore prevalence of other forms of less featured advertising, including in-app adverts, and notifications.** Current media monitoring does not capture new mobile forms of advertising; furthermore, these forms of advertising were not mentioned spontaneously by participants in the qualitative research. Further research is required to better understand the themes, features, appeal and prevalence of this form of advertising.

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19 This can be found here: https://about.gambleaware.org/media/1937/measuring-grh-in-cyp-a-framework-for-action.pdf
17. **Improve understanding of engagement with eSports advertising on social media.** Further work is required to better understand how and why people are engaging with this content, and the prevalence and penetration of gambling related content within the wider eSports community.

18. **Improve understanding of engagement of online ads relative to other forms of advertising.** It is likely that this will involve direct engagement from the industry to help establish click-through rates for display marketing and pay per click advertising, especially in public online areas (for example sports news sites) rather than specialist gambling interest areas (for example odds checking sites). This will help establish the prevalence of engagement beyond survey research, including exploration of conversion through to opening an account or playing a gamble, rather than just clicking on the ad.

1.5 **Summary of methodology**

A project of this complexity requires a multidisciplinary approach. This included a quantitative assessment of the volume and frequency of gambling-related advertising, in its many forms, and a measure of exposure to advertising among children, young people and other vulnerable groups. It also included detailed content analysis of the features of advertising and marketing, and the use of qualitative and quantitative techniques, to explore the potential impact this advertising and marketing has on the attitudes and behaviours of children, young people and other vulnerable groups.

To meet the objectives of this research, this project had nine strands, an outline of these is given below. A more detailed outline of each of these strands is provided as an appendix to the main report.

1.5.1 **Strand 1 - literature review**

This literature review was led by the University of Stirling, with the aim of providing an overview of the most relevant literature on gambling advertising in relation to children, young people and vulnerable groups. This review built on Binde’s work (2014) by exploring research on gambling marketing from between 2013 and 2018. The review included primary research that related to the study research objectives in the English language, and included any research design, for example, quantitative or qualitative. Findings from the literature review have been published in Current Addiction Reports.

1.5.2 **Strand 2 - media monitoring**

This strand of the research acted as an exploratory exercise with the aim of identifying where and how often gambling advertising occurs and how much is spent across a variety of media types including press, radio and television. Ipsos MORI conducted this research using Ebiquity’s in house advertising database, Portfolio. Portfolio is an advertising research platform, which links advertisements to their placement in the media and the standard spend rate for these advertisements. This data was then crossed with other variables such as region, type of advert, brand and type of gambling.

Analysis consisted of two parts: an overall sector-level analysis of gambling advertising from 2015-2018, as well as a more in-depth analysis (by sub-sector and media type) of the data available from October 2017 to September 2018.

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20 The original project design include scope to consider how best to collect click-through data to ascertain conversion rate and engagement within online gambling-related advertising. After an initial scoping phase, it was decided that this should be considered as part of a separate focused study to engage directly with advertisers and industry.


1.5.3 Strand 3 – online avatars

Led by Ebiquity and Ipsos MORI, this provided an assessment of the volume and frequency of paid-for gambling-related advertising online. To achieve this, an ‘avatar panel’ was generated which consisted of various ‘personalities’ including children and vulnerable groups. To do this, Ebiquity employed a method known as ‘Audience Panel Simulation’: this generates users that are referred to as avatars. Each of these avatars had a specific personality. These personalities were developed through normal browsing activity, akin to the behaviours of a real online user. In total, for this research, 11 avatars were generated, which included a child under 13, an adult with a gambling problem and a child under 18 who was a sports fan.

After the avatars had been generated, they were then put ‘into field’, meaning that they were sent to various websites online and were able to record each of the adverts that they saw. The avatars were in field for 34 days (12 September – 15 October 2018), and visited 150 sites every day. These sites included the top 100 sites, top 20 children’s sites, top 20 sports sites, four gambling help sites and two debt finance product sites, and four other help sites for vulnerable audiences.

1.5.4 Strand 4 - social media analysis

Led by Demos and Ipsos MORI, this provided an assessment of the volume and frequency of advertising and marketing on social media related to gambling. This included basic analysis of available Facebook data, and more extensive analysis of Twitter data. Within the Twitter analysis, this further included bespoke age-base analysis to assess the extent to which children and young people were part of this ecosystem. In order to achieve this, Demos collected and analysed: i) 888,000 Tweets sent from 417 gambling related accounts over a 9-month period in 2018; ii) details of the 825,000 followers of these accounts located within the UK; and iii) a total of 1.6 million Tweets sent from the UK which mentioned one of the 417 gambling related accounts by name. To investigate this large dataset, researchers trained a series of algorithmic classifiers to determine, for example, whether a given Tweet mentioned a specific bet, or to estimate the rough age of a follower.

1.5.5 Strand 5 - content analysis

Two content analyses were conducted, one led by the University of Stirling and one led by the University of Bristol. Together they provide an in-depth analysis of the tone, format and content of gambling-related advertising across all types of media and consider to what extent (if at all) the content may reach and appeal to children, young people and vulnerable groups. The content analysis codebook used to categorise adverts covered six main areas: i) descriptive information; ii) design features; iii) content in detail; iv) consumer protection information; v) information about the gamble; and vi) messages about gambling behaviour and outcomes.

The University of Stirling carried out a full media deep dive content analysis of paid-for gambling advertising in traditional media. A random sample of 300 creatives were selected from across 5-11 March 2018 and 12-18 March 2018, with adverts drawn from Ebiquity’s media monitoring data. These dates were chosen to reflect a week of high intensity (based on advertising expenditure data) and an adjacent week of average intensity. 45 brands were represented in the sample and there was a stratified sample of: 224 x print press; 27 x internet; 22 x TV; 11 x radio; and 16 x email, direct mail, door drops, outdoor.

The Twitter deep dive content analysis was led by the University of Bristol. The data from this was solely from Twitter and made up of four samples: 241 advertising Tweets from bookmakers and tipsters; 181 advertising Tweets from eSports operators advertising from accounts run by organisations and individuals involved in eSports gambling; 191 content marketing Tweets from bookmakers and tipsters; and 190 content marketing Tweets from eSports.23

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23 It should be noted that this research has not been restricted to accounts that have a British gambling licence. Further research is required to fully understand how and why users engage with the content identified through the research.
1.5.6 Strand 6 – review of sport sponsorship

The University of Stirling carried out analysis of the frequency and nature of gambling references in televised and radio broadcasts of professional sporting events in the UK. The sample was made up of 10 professional sporting events, recorded as broadcast in the UK on public service (e.g. BBC) and commercial broadcasters (e.g. Sky Sports or BT Sports) in 2018. The sample also included one radio broadcast on a commercial sports radio station (TalkSport).

A gambling marketing reference was defined as any visual reference to gambling or to a gambling brand, lasting one second or more, during the broadcast programme or commercial break. Each gambling reference was coded based on set criteria (e.g. whether it was in play or out of play, what the duration of the reference was).

1.5.7 Strand 7 – quantitative survey of children and young people

Led by ScotCen, strand 7 provides a nationally representative measure of exposure and impact among children and young people. The postal-online-telephone survey was conducted between 21 May 2019 to 13 September 2019, and the sample was made up of previous participants in the Scottish Household Survey (2014-16) or Family Resources Survey (2017), who had given consent to be contacted about further research, and where at least one person aged 11-24 was living in the household. The questionnaire was developed using both questions included in other relevant surveys on gambling, and the impact of alcohol marketing, as well as specifically tailored questions.

In total ScotCen received 1091 completed surveys from 912 households. When adjusting for the likely proportion of households with out of date contact details and the proportion of households with no eligible participants, the approximate household response rate is 33%. As the sample was drawn from two nationally representative surveys, it was possible to weight the respondents to be representative of those aged 11-24 in Britain.

1.5.8 Strands 8 and 9 – qualitative research with children, young people and vulnerable adults

Led by Ipsos MORI and ScotCen, a combination of focus groups and diary based in-depth interviews were conducted to provide a more nuanced understanding of exposure to gambling-related advertising in the context of other attitudes, behaviours and circumstances – including the frequency of exposure, which tone/format is most engaging, and the potential impact (both immediate and over time).

In total 28 children and young people, aged 11-24, and 32 vulnerable adults were included in the in-depth diary research, conducted by Ipsos MORI. Participants took part in three stages of research to gather evidence to explore the above objectives: i) an initial in-depth face-to-face interview; ii) a four-week diary research task to share examples of gambling advertising they saw during this time; and iii) a follow-up telephone interview to review the diary task.

Within the qualitative research conducted by ScotCen, a total of 83 people participated in either one of 13 focus groups or additional four in-depth interviews, including 62 young people aged 11-24, 13 adults with an experience of mental health problems, and 8 adults with problems with gambling. The definitions of vulnerability used are set out in Table 1.2 below.

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Table 1.2: Vulnerable group definitions

<table>
<thead>
<tr>
<th>Group 1 “people living in constrained economic circumstances”</th>
<th>Group 2 “people with limited capacity to understand information”</th>
<th>Group 3 “people already experiencing gambling problems”</th>
<th>Group 4 “people with experiences of mental health problems”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ipsos MORI</td>
<td>Ipsos MORI</td>
<td>Ipsos MORI / ScotCen</td>
<td>ScotCen</td>
</tr>
<tr>
<td>• Routinely struggle with money / availability of disposable income / low income</td>
<td>• First language is English and have difficulties with comprehension</td>
<td>• Moderate or high-risk gambling</td>
<td>• Recruited with the support of national and local mental health support organisations</td>
</tr>
<tr>
<td>• People whose economic circumstances have recently changed</td>
<td>• First language not English and cannot speak English well</td>
<td></td>
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</tr>
</tbody>
</table>

1.6 Notes on interpretation

The following notes should be considered when drawing conclusions from the strands reported in this Final Synthesis Report.

- **The literature review** is not able to cover all of the unpublished research, nor research published in languages aside from English. Moreover, eSports was not included as a specific search term at the beginning of the project. This later became an important part of the social media analysis and should be considered as an area for future research.

- Similarly, the **media monitoring research** provides a comprehensive overview of the volume of gambling creatives but it cannot claim to capture every gambling ad distributed. Moreover, within the ads captured, spend is estimated by Ebiquity rather than known (see appendix for further information). The research would also benefit from the ability to compare trends of volume and spend to other similar countries or sectors.

- The purpose of the **avatar research** was to identify whether the avatar personality had an impact on which adverts they were being shown across all sites. Although designed to provide insight into which adverts each avatar was exposed to, it is acknowledged that browsing behaviour is more fluid and dynamic than can be captured in a preset model. Furthermore, it is unlikely that an individual would conduct such an intense amount of online browsing activity as to visit 150 sites every day. Within this research there were no visits to social media sites. Finally, there is no established statistical margins of error for comparing results across avatars – instead identification of whether ad tech was intentionally driving changes in exposure to adverts between avatars used a mixture of quantitative and qualitative analysis.

- **Twitter** is regularly used by millions of people in the UK, but the platform is not representative of the UK population. By mid-2018, around a fifth of UK adults had accessed Twitter within the last three months (21%). As such, research should be seen as indicative of exposure only on this platform rather than on social media more widely. Furthermore, it should be noted that this strand of research does not encompass the entirety of gambling activity on Twitter. While researchers have taken extensive steps to ensure that the majority of prominent voices along with a breadth of different types of gambling activity are represented in this study, our sample is extensive but not exhaustive. Finally, given that this research aims to take a comprehensive view of Twitter’s gambling ecosystem, it is important to note that analysis has not been restricted to analysis of licenced accounts in the UK. Some of these accounts therefore may fall out of scope of existing regulation (as per Gambling Commission remit) where they are not based in Britain and are not directly targeting a British audience – this is particularly the case within the eSports.

dataset. Though there is clearly engagement from British users within this dataset, further work is required to explore how and why users are engaging with this content.

- The **content analysis** is reflective of the random samples selected. Guided by the principles of coherence and meaningfulness, reliability and explicitness, and sensitivity to subjectivity, distinctive steps were undertaken to ensure the soundness of the analysis, including inter-coder reliability checks. However, it should be noted that the coding decisions reflect the judgement of researchers at University of Stirling and University of Bristol, not the possible judgments of other interested bodies.

- The **qualitative research** is intended to be illustrative rather than statistically reliable. Given the qualitative nature of the data collected from the in-depth interviews, mobile app diaries and focus groups, this report aims to provide detailed and exploratory findings that give insight into the experiences, attitudes, circumstances and behaviours of people, rather than statistical evidence from a representative sample. It is not possible in qualitative research to provide a precise or useful indication of the prevalence of a certain view or experience, due to the relatively small number of participants generally involved.

- The **quantitative research** comprised a postal-online-telephone survey of those aged 11-24 years and achieved an approximate 33% household response rate. As the participants were drawn from the Scottish Household Survey and the Family Resources Survey, it was possible to weight the sample to match the target population profile in terms of age, sex and region. This means the sample, and the survey results, can be considered broadly representative of those aged 11-24 in Britain. However, it was a cross-sectional survey and as a result it is important to note that significant associations, and not causal effects, are reported. Although questions on gambling behaviour were included in the survey, the focus of the study was on the awareness, views and potential impacts of gambling marketing.