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Gambling behaviour in Great Britain in 2016

**Evidence from England,
Scotland and Wales**

Authors: Anne Conolly, Byron Davies, Elizabeth Fuller, Nikki Heinze, Heather Wardle

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NatCen Social Research
35 Northampton Square
London EC1V 0AX
T 020 7250 1866
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Executive summary

This report provides information about gambling behaviour in Great Britain using data combined from the Health Survey for England (HSE) 2016, the Scottish Health Survey (SHeS) 2016 and the Wales Omnibus in 2016.

The main aims and objectives of this report are:

- to describe the prevalence of gambling participation, frequency of gambling participation, the prevalence of low risk, moderate risk and problem gambling;
- to explore characteristics associated with gambling participation, frequent gambling, low risk, moderate risk and problem gambling.

Participation in gambling activities

- 57% of adults (16+) in Great Britain had gambled in the past year, with men (62%) being more likely than women (52%) to do so.
- The most popular gambling activities were the National Lottery draws (41%), scratchcards (21%) and other lotteries (14%).
- Excluding those who only played the National Lottery draws, around four in ten adults (42%) participated in other types of gambling activities; 46% of men and 38% of women.
- For both men and women, overall participation was highest among the middle age groups and lowest among the youngest and oldest age groups. Excluding those who only played the National Lottery draws, gambling participation was highest among younger adults and lowest among those aged 65 and over.
- The National Lottery draws were the most popular activity for all age categories apart from those aged 16-24 where the most popular gambling activity was scratchcards.
- In 2016, 9% of adults in Great Britain participated in any online gambling¹ with men more likely than women to have gambled online in the past year (15% and 4% respectively).
- Participation in any online gambling decreased with age from 16% among 25-34 year olds to 2% among adults aged 75 and over.
- Gambling participation rates varied by country; 66% of Scottish adults had gambled in the past year compared to 56% of English and 55% of Welsh adults.
- Past year gambling rates were lower among adults with low well-being scores on the Warwick-Edinburgh Mental Well-being scale (WEMWBS) (52%, compared with 58% of other participants).
- Gambling participation was related to alcohol consumption. Past year gambling rates were lowest among non-drinkers (36%), followed by those who drank up to 14 units of alcohol per week (59%) and were highest for those who drank more than 14 units per week (69%).
- Trend data from England and Scotland showed a decline in overall gambling participation from 65% in 2012, 63% in 2015 to 57% in 2016. When excluding those who had gambled on National Lottery draws only, participation in gambling activities has remained largely stable (43% in 2012, 45% in 2015 and 42% in

2016). However, participation in any online gambling or betting increased from 7% in 2012 to 10% in 2015 and 2016.

Frequency of gambling participation

- Among those who gambled in the past year, four in ten (41%) gambled at least once a week, two in ten (22%) gambled less than weekly but at least once a month and four in ten (38%) gambled less than once a month.
- One in eight (13%) of those who gambled in the past year reported gambling more than once a week.
- Male gamblers were more likely to gamble more than once a week (17%) than female gamblers (9%).
- While overall gambling participation was low among older adults, among those who gambled, doing so more than once a week was strongly associated with increasing age (8% of 16-24 year old gamblers compared to 18% of gamblers aged 75 or older). The same pattern was observed when excluding those who only played the National Lottery draws (7% of 16-24 year old gamblers compared to 20% of gamblers aged 75 or over).

Low risk and moderate risk gambling

- Low risk and moderate risk gambling was measured using the Problem Gambling Severity Index (PGSI). In addition to problem gamblers, it identifies people who fall below the threshold of problem gambling but may already be experiencing lower levels of harm.
- Overall, 2.4% of adults were classified as low risk gamblers (a PGSI score of 1 or 2) and a further 1.1% as moderate risk gamblers (a PGSI score of 3 to 7). Among past year gamblers, 4.4% were classified as low risk gamblers and 2.0% as moderate risk gamblers.
- Rates of low risk and moderate risk gambling were higher among men (3.9% were classified as low risk and 1.9% were classified as moderate risk gamblers) than women (1.1% were classified as low risk and 0.4% were classified as moderate risk gamblers).
- Rates of low risk gambling were highest among those aged 16 to 24 (5.8%) and lowest among those aged 75 and over (0.4%). Rates of moderate risk gambling were highest among 25 to 34 year olds (2.1%) and 35 to 44 year olds (2.0%). The lowest prevalence of moderate risk gambling was found among those aged 65 and over (0.2%).
- The proportions of low risk and moderate risk gamblers increased significantly with the number of gambling activities undertaken in the past 12 months. Rates were lowest for gamblers who had taken part in one type of activity (1% were classified as low risk gamblers and 0.1% as moderate risk gamblers) and highest for those who had participated in 7 or more different types of gambling activities (26.3% were classified as low risk gamblers and 19.9% as moderate risk gamblers).
- People who gambled only once or twice in the past year were least likely to be categorised as low risk or moderate risk gamblers (0.7% and 0.1% respectively), while people who gambled two or more times a week were most likely to be classed as either low risk or moderate risk gamblers (9.4% and 8.4% respectively).

- Low risk gambling rates were highest among the unemployed (6.6%) and lowest among retired people (0.7%). Moderate risk gambling rates were highest among those who were unemployed or in paid work (both 1.5%) or were otherwise inactive² (1.4%) compared to 0.3% of retired people.
- Prevalence of both low risk and moderate risk gambling were also significantly associated with increased weekly alcohol consumption. Low risk and moderate risk gambling were highest among people who drank at a level indicating increased risk (over 14 units per week) (4.9% and 1.8% respectively) and lowest among non-drinkers (1.0% and 0.6% respectively).
- Rates of low risk gambling were higher among adults with less than optimal mental health (3.8%) or probable mental ill health (3.3%) than adults with no evidence of mental ill health (1.5%) according to the 12-item General Health Questionnaire (GHQ-12). Moderate risk gambling rates were highest among adults with probable mental ill health (1.8%) and lowest among those with no evidence of mental ill health (0.8%).

Problem gambling

- Problem gambling is gambling to a degree that compromises, disrupts or damages family, personal or recreational pursuits. Estimates of problem gambling are provided according to two different measurement instruments, the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) and the PGSI.
- According to the DSM-IV, problem gambling prevalence among adults living in private households³ was 0.6%. Men were more likely than women to be classified as problem gamblers according to the DSM-IV (1.0% and 0.2% respectively).
- According to the PGSI, problem gambling prevalence was 0.5%, with men again being more likely than women to be classified as problem gamblers (0.9% and 0.1% respectively).
- Problem gambling prevalence measured by either the DSM-IV or the PGSI was 0.7%, with men being more likely than women to be classified as problem gamblers (1.2% and 0.2% respectively).
- Among past year gamblers, 1.2% were categorised as problem gamblers according to either the DSM-IV or the PGSI.
- For men, the highest proportion of problem gamblers according to either screen was found among those aged 25 to 34 (2.4%). There were no observations of problem gambling among men aged 75 and over, variation by age for women was not statistically significant.
- The highest rates of problem gambling were among those who had played machines in bookmakers (13.7%), bet offline on events (other than horse or dog racing or other sports events) (13.1%), reported another gambling activity not covered by the survey questions (11.6%), bet offline on dog racing (9.5%), or gambled online on slots, casino or bingo games (9.2%).
- Problem gambling was more prevalent among people who had participated in a number of gambling activities in the past year (prevalence was 13.2% for those who participated in seven or more activities compared to 0.3% for those who had taken part in just one gambling activity in the last year).
- The proportion of problem gamblers was highest among those who gambled two or more times a week (4.5%) and lowest among those who gambled only once or twice a year (0.1%).

-
- Problem gambling prevalence was higher among those with probable mental ill health, according to the GHQ-12. Those who scored 4 or more on the GHQ-12 (indicating probable mental ill health) were more likely to be problem gamblers (2.2%) than those with a GHQ-12 score of 0 (indicating no evidence of mental ill health) (0.2%).
 - Trend data from England and Scotland showed that problem gambling rates according to either screen have remained largely stable ranging from 0.6% in 2012, 0.8% in 2015 and 0.7% in 2016 among all adults.

Notes and references

¹ This category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker or online betting using a betting exchange.

² The other economically inactive group includes people not otherwise classifiable, for example the long-term sick, carers and those looking after home or family.

³ Findings relate to adults aged 16 and over, who live in private households in Great Britain. Those living in institutions, such as prisons, care homes or student halls of residence, and the homeless, were outside the scope of the surveys. There is evidence to suggest that some of these sub-groups are more likely to be problem gamblers. As a result, it is possible that the problem gambling estimates presented in this report may underestimate the prevalence of problem gambling in Great Britain.

1 Introduction

1.1 Background and aims

Great Britain has one of the most accessible gambling markets in the world. Traditionally, opportunities to gamble existed in a smaller number of environments including those dedicated primarily to gambling, such as, betting shops, casinos, bingo halls, and amusement arcades. However, with the spread of the internet most types of gambling are now accessible remotely. The range of activities that can be played online vary from playing roulette or slot machines at an online casino, to buying lottery tickets or betting on a horse race via a smart phone. In short, gambling is much more accessible now than it was ten or 20 years ago.

With continuing changes in the way gambling is advertised, marketed and regulated, it is important to continue to understand how many people gamble, on what products, and the types of people that participate in the different gambling activities. Gambling is an activity that many people participate in without experiencing problems. However, some people experience difficulties with their gambling behaviour that can lead to a range of adverse consequences. It is therefore vitally important to monitor how many people experience problems and to assess who is most likely to do so, to plan and implement effective gambling policy, interventions and regulation.

Following the publication of the report on Gambling behaviour in Great Britain in 2015¹, gambling continues to be a contested topic within the British political and public sphere. First and foremost, the 2015 report showed the enduring popularity of gambling among the British adult population where 63% of men and women had gambled in the past year. In many cases, this may have taken the form of buying a National Lottery ticket or a scratchcard at the newsagents or placing a bet on a horse at the races. Of greater concern was the finding that 0.8% of adults in Britain were found to be problem gamblers. This equates to approximately 430,000 adults for whom gambling constitutes a serious issue. People with gambling problems often experience a range of health issues, relationship breakdown and difficulties with debt. In more severe cases, gambling problems can lead to crime or thoughts of suicide.

The purpose of this report is to provide updated estimates of gambling participation, problem gambling, low risk gambling and moderate risk gambling in England, Scotland and Wales, based on data collected in 2016. Where data is comparable for all three countries, estimates are provided for Great Britain as a whole.

1.2 Overview of study design

1.2.1 Sources of data

Until 2010, information about gambling in Great Britain was collected through the bespoke British Gambling Prevalence Survey (BGPS) series. However, following a public consultation on the survey approach and wanting to get more regular large scale updates on problem gambling this survey was discontinued and questions about gambling participation and measures of problem gambling were, from 2012, included in the Health Survey for England (HSE) and the Scottish Health Survey (SHeS).² Space

could not be secured on the equivalent health survey for Wales (now part of the National Survey for Wales), so an alternative omnibus survey was used in Wales.

In 2014, data from the 2012 HSE and SHeS were combined to produce nationally representative estimates of gambling participation and problem gambling for England and Scotland (see Wardle et al, 2014).³ In 2017, data from the 2015 HSE, SHeS and the 2015 Wales Omnibus survey were combined to produce a report on gambling behaviours in England, Scotland and Wales. As in 2017, the present report combines data collected as part of the 2016 HSE, SHeS and Wales Omnibus survey.

HSE and SHeS are nationally representative surveys of people living in private households in Great Britain, which use similar sampling methods and the same approach to data collection, making these two surveys directly comparable. The same process used in 2014 and 2017 to combine the two surveys was followed for this report; see Wardle et al. (2014) for full details. Because no comparable estimates were available for Wales, in 2015 the Gambling Commission used the Beaufort Research's omnibus survey to collect information about Welsh gambling behaviour. This was conducted with the express aim of providing the first insight about gambling behaviour in Wales since 2010 and, with some caveats, to combine data with that from England and Scotland to produce estimates of gambling behaviour for the whole of Great Britain. In 2016, data on gambling behaviour in Wales was once again provided by the Beaufort Research's omnibus survey.

Unlike the English and Scottish health surveys, the Welsh omnibus used different methods to collect survey data. Combining these data has to be undertaken with extreme care. In order to do so, a review of the methodology⁴ used by each study was carried out for the 2017 report to assess where differences might affect estimates (see Conolly et al., 2017). It was concluded that whilst the variation in methods were liable to produce differences for some estimates, comparison of the figures for England, Scotland and Wales showed that they were broadly similar.

The review concluded that, when combined and weighted to reflect the size of the population in each country, these methodological differences were unlikely to affect the overall estimates observed. As in 2017, we therefore present information on gambling participation for England, Scotland and Wales combined where possible in the present report. However, we would caution against making cross national comparisons because of the underlying differences in how the data were collected.

1.2.2 Weighting

Full details of the weighting strategies used for the HSE and SHeS individually can be found in their respective technical reports. However, in addition to producing a new combined dataset, a number of further weights were produced to:

- scale the data so that it matched the population distribution of England, Scotland and Wales;
- weight the data for non-response to both the gambling participation questions and the problem gambling screens.

Further details are given in Appendix A.

1.3 Caveats

As with any survey, there are a number of caveats which need to be considered when interpreting the estimates presented in this report:

- Findings relate to adults aged 16 and over, who live in private households in Great Britain. Those living in institutions such as prisons, military bases, care homes or student halls of residence, and the homeless, were outside the scope of the surveys. There is evidence to suggest that some of these sub-groups are more likely to be problem gamblers.⁵ As a result, it is possible that the problem gambling estimates presented in this report may underestimate the prevalence of problem gambling in Great Britain.
- The HSE and SHeS are cross-sectional surveys. Associations between gambling behaviour and other characteristics are highlighted but the direction of causality is, generally, not known.
- Some people may give 'socially desirable' (and potentially dishonest) answers to a questionnaire and may underestimate the extent of their gambling behaviour.
- There is an argument that very frequent gamblers are less likely to be at home and available for interview than other sub-groups and are therefore less likely to be included in the study.⁶ This therefore may lead to a potential underestimation of the prevalence of problem gambling in Great Britain.
- No screen for problem gambling is perfect. The best performing screens should aim to minimise both 'false positives' and 'false negatives'. A false positive is where someone without a gambling problem is classified as a problem gambler. A false negative is where a person with a gambling problem is classified as someone without a gambling problem. The number of false positives and false negatives is related to the thresholds used. The Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) threshold used in this report is the same as in the BGPS series and in other international studies. The threshold used for the Problem Gambling Severity Index (PGSI) follows the recommendation of the screen's developers and is the same as that used in the BGPS 2007 and 2010.
- The PGSI has been validated on a Canadian population. It has not been validated in Britain. The DSM-IV criterion was developed as a diagnostic tool and has not been validated for use with the general population.
- Estimates of problem gambling measured by *either* the DSM-IV or the PGSI should not be combined with PGSI low risk and moderate risk estimates to create an overall 'risk' figure. This is because these groups are not mutually exclusive (e.g. an individual could be classified as a problem gambler according to the DSM-IV and a moderate risk gambler according to PGSI and would therefore be counted twice in a combined 'risk' figure).
- The findings presented in this report are descriptive and the analysis does not control for potentially confounding variables. The age profile of different analytical groups may vary (e.g. by economic activity status or by geographical region) and some of the differences in behaviour may be influenced by the differences in age profile.
- Finally, a survey estimate is subject to sampling error and should be considered with reference to the confidence intervals (specifically presented for low risk gambling, moderate risk gambling and problem gambling estimates) as well as the survey design and sample size.

Where possible, the survey methodology used attempted to overcome these limitations. For example, HSE and SHeS were health surveys, not gambling specific surveys; they used self-completion methods to encourage honest reporting of the gambling questions; the results were weighted to take into account non-response bias and careful consideration was given to the choice of gambling screen and appropriate thresholds for problem gambling.

1.4 Report and table conventions

The following conventions are used in this report:

- Unless otherwise stated, the tables are based on the responding sample for each individual question (i.e., item non-response is excluded). Therefore bases may differ slightly between tables.
- The group to whom each table refers is shown below each table.
- The data used in this report have been weighted. The weighting strategy is described in Appendix A. Both weighted and unweighted base sizes are shown at the foot of the table or, where base sizes for individual rows are provided, in the final two columns of the table. The weighted numbers reflect the relative size of each group of the population, not the number of interviews achieved, which is shown by the unweighted base.
- The following conventions have been used in the tables:
 - No observations (zero values)
 - 0** Non-zero values of less than 0.5% and thus rounded to zero
 - []** An estimate presented in square brackets warns of small sample base sizes. If a group's unweighted base is less than 30, data for that group are not shown. If the unweighted base is between 30-49, the estimate is presented in square brackets.
 - * Estimates not shown because base sizes are less than 30.
- Because of rounding, row or column percentages may not exactly add to 100%.
- A percentage may be presented in the text for a single category that aggregates two or more percentages shown in the table. Because of rounding, the aggregated estimate may differ by one percentage point from the sum of the percentages in the table.
- Some questions were multi-coded (i.e., allowing the respondent to give more than one answer). The column percentages for these tables sum to more than 100%.
- The term 'significant' refers to statistical significance (at the 95% level) and is not intended to imply substantive importance.⁷
- Where comparisons are made, only results that are significant at the 95% level are presented in the report commentary.
- Using this method of statistical testing, differences which are significant at the 95% level indicate that there is sufficient evidence in the data to suggest that the differences in the sample reflect a true difference in the population.

Notes and references

¹ Conolly, A., Fuller, E., Jones, H., Maplethorpe, N., Sondaal, A. and Wardle, H. (2017) *Gambling behaviour in Great Britain in 2015: evidence from England, Scotland and Wales* London: National Centre for Social Research.

² Gambling questions were included on HSE in 2012, 2015 and 2016. In Scotland, gambling questions have been included in every survey year since 2012.

³ Wardle H., Seabury C., Ahmed H., et al (2014). *Gambling behaviour in England and Scotland*. <http://www.gamblingcommission.gov.uk/PDF/survey-data/Gambling-behaviour-in-England-Scotland-Full-report.pdf>

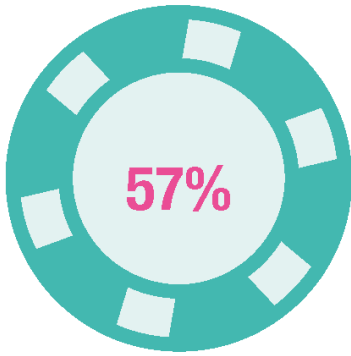
⁴ The findings of the methodological review are summarised in Appendix A in Conolly, A., Fuller, E., Jones, H., Maplethorpe, N., Sondaal, A. and Wardle, H. (2017) *Gambling behaviour in Great Britain in 2015: evidence from England, Scotland and Wales* London: National Centre for Social Research.

⁵ May-Chahal, C., Wilson, A., Humphreys, L., Anderson, J.(2012) Promoting an Evidence-Informed Approach to Addressing Problem Gambling in UK Prison Populations. *The Howard Journal*, 51(4): 372–386.

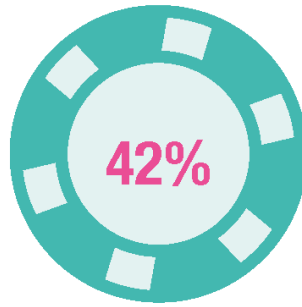
⁶ Analysis of the BGPS 2010 showed that those respondents for whom it took more effort to persuade to take part in the study (i.e., they required multiple calls to contact, were reissued or followed-up by the telephone unit) were more likely to be gamblers.

⁷ It is worth noting that the significance test (a Wald test) does not establish whether there is a statistically significant difference between any particular pair of subgroups (e.g. the highest and lowest subgroups). Rather it seeks to establish whether the variation in the outcome between groups that is observed could have happened by chance or whether it is likely to reflect some 'real' differences in the population. The test calculates the statistical significance of parameters in a logistic regression model of problem gambling prevalence (for example) in order to establish whether age (for example) is significantly associated with gambling prevalence.

Gambling participation in Great Britain



had gambled in the past year

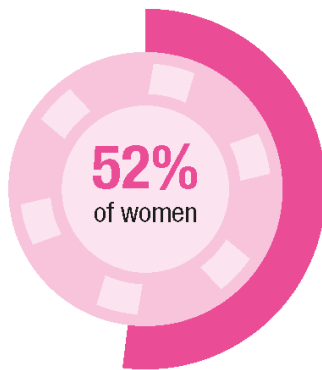
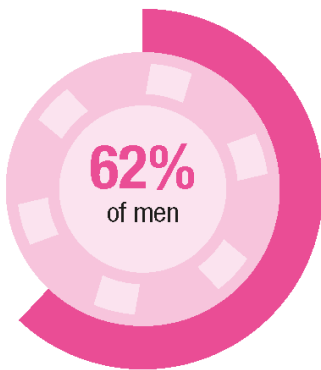


had gambled in the past year (excluding National Lottery draws)



had gambled online in the past year

Participation in any gambling activity by sex



Gambling participation by economic activity



Unemployed

More likely to have gambled on slot machines, machines in bookmakers and casino table games.



Employed

More likely to have participated in online betting with a bookmaker, offline betting on horse races and other sports events.

The most popular gambling activities were:

National Lottery draws

41%



Scratchcards

21%



Other lotteries

14%



Most popular among

35-64 year olds

25-34 year olds

Over 55s

2 Past year gambling participation

2.1 Introduction

This chapter looks at levels of participation in gambling, and whether these vary by a range of characteristics. It covers overall participation in any form of gambling as well as participation in individual gambling activities.

For all gambling activities, participation was defined as having 'spent money' on the activity over the past year. Participants were shown a list of gambling activities and were asked to think about any gambling they had done over the past 12 months. The activities included in the list were intended to cover all types of gambling available. However, to allow for the possibility that an activity was missed or that participants may have misunderstood an activity description, an option was provided for participants to mention another form of gambling.

Gambling participation is examined by a range of socio-demographic characteristics including the age and sex of participants, their ethnic group, economic activity, English region and country. Levels of gambling participation are also compared by a range of health indicators including mental health, well-being and weekly alcohol consumption.

2.2 Past year gambling participation by socio-demographic characteristics

2.2.1 Participation in gambling activities in the past 12 months, by sex

Overall participation by sex

Overall, 57% of adults aged 16 and over in Great Britain had gambled in the past year. Men were more likely to have gambled (62%) than women (52%). The most popular gambling activity was the National Lottery draws with 41% of adults (46% of men and 37% of women) buying a ticket in the past year. Four in 10 adults (42%) had gambled on activities other than the National Lottery draws; 46% of men and 38% of women.

Participation in individual gambling activities by sex

Apart from National Lottery draws, the two most popular forms of gambling were scratchcards and other lotteries. Both activities had similar participation rates for men and women; 21% of men and 20% of women had bought scratchcards, and 14% of both, men and women, had participated in other lotteries. Apart from lotteries and scratchcards, the most popular activities were offline betting on horse racing (9% of

adults), online betting with a bookmaker (8%) and slot machines (6%). Other activities had participation rates of 5% or less.

Overall, men were more likely to participate in most forms of gambling than women. Offline bingo was the only activity where men were less likely to participate than women (3% and 7%, respectively). Men were significantly more likely than women to have used an online bookmaker (13% and 2%, respectively) and to have placed an offline bet on a horse (12% and 7%, respectively) in the past year. Slot machines were also more popular among men than women (8% and 4%, respectively). And men were also more likely to have bet on sports events offline than women, with 9% of men and 1% of women.

Overall, around one in ten adults in Great Britain had gambled or bet online. Again, this was much more common among men (15%) than women (4%).

Table 2:1 Participation in gambling activities in the past 12 months, by sex

Participation in gambling activities in the past 12 months	Sex		Total %
	Men %	Women %	
Lotteries and related products			
National Lottery draws	46	37	41
Scratchcards	21	20	21
Other lotteries	14	14	14
Machines/games			
Football pools	5	1	3
Bingo (not online)	3	7	5
Slot machines	8	4	6
Machines in a bookmakers	5	1	3
Casino table games (not online)	5	1	3
Poker played in pubs or clubs	2	0	1
Online gambling on slots, casino or bingo games	4	2	3
Betting activities			
Online betting with a bookmaker	13	2	8
Betting exchange	2	0	1
Horse races (not online)	12	7	9
Dog races (not online)	3	1	2
Sports events (not online)	9	1	5
Other events (not online)	2	0	1
Spread betting	1	0	1
Private betting	6	2	4
Other gambling activity			
Any other gambling	2	1	1
Summaries			
Any gambling activity	62	52	57
Any gambling (excluding National Lottery draws only) ^a	46	38	42
Any online gambling or betting ^b	15	4	9
No gambling activity in last 12 months	38	48	43
<i>Weighted base</i>	<i>7,204</i>	<i>7,437</i>	<i>14,641</i>
<i>Unweighted base^c</i>	<i>6,547</i>	<i>8,218</i>	<i>14,765</i>

Base: Aged 16 and over, England, Scotland, and Wales

^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange.

^cBases for individual activities vary; those shown are for participation in any gambling activity.

2.2.2 Participation in gambling activities in the past 12 months, by age and sex

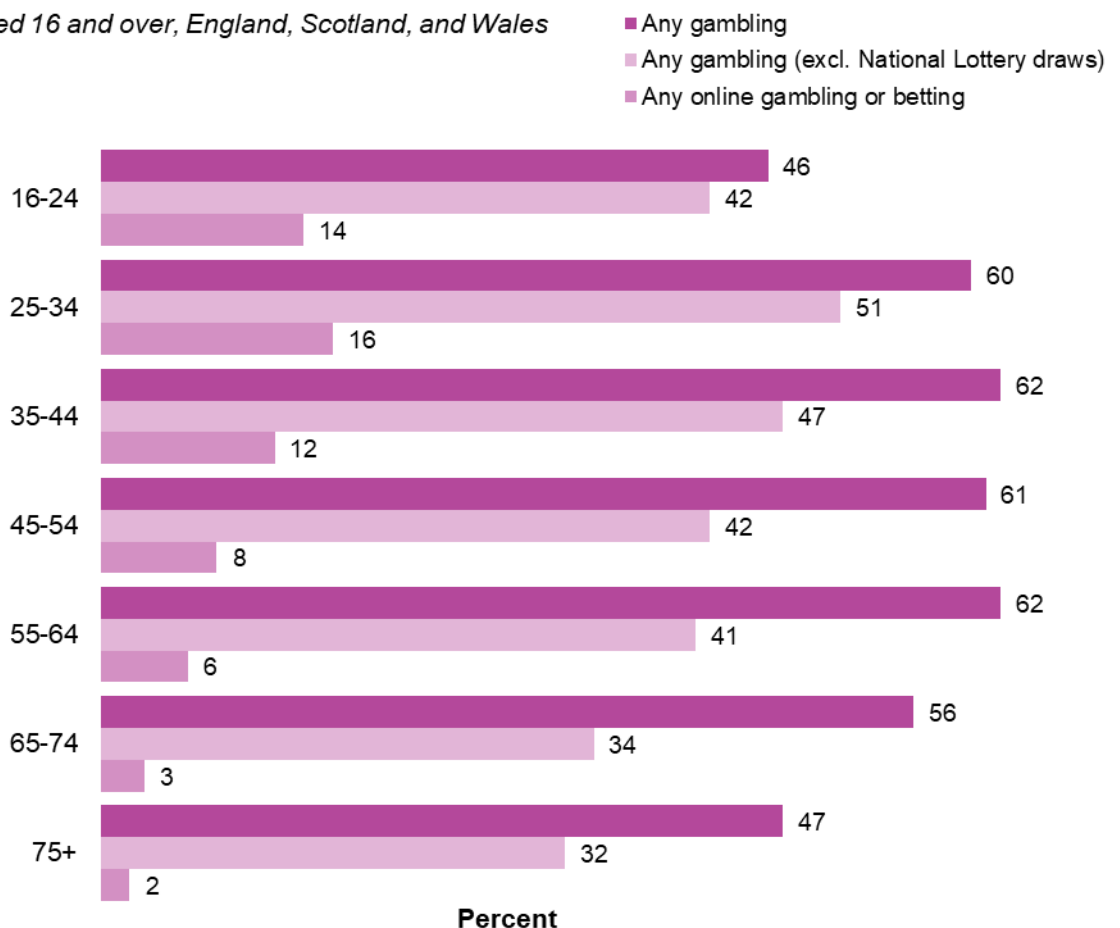
Overall participation by age and sex

Overall, the highest participation rates in any form of gambling activity were among adults aged between 25 and 64 (between 60% and 62%), while the lowest rates were found among the youngest and oldest age groups; 46% of 16 to 24 year olds and 47% of those aged 75 and over had gambled in the past year.

As Figure 2:1 shows, when those who gambled on the National Lottery draws only were excluded, there was a different age pattern. Participation was highest among adults aged 25 to 34; just over half had gambled in the past year (51%). Participation declined thereafter with age and was lowest among adults aged 75 and over (2%). A similar pattern was seen for online gambling or betting, which was most popular among adults aged 25 to 34 (16%) and least popular among those aged 75 and over (2%).

Figure 2:1 Gambling participation by age

Base: Aged 16 and over, England, Scotland, and Wales



Across all age groups at least half of men had gambled on at least one activity in the past 12 months. Participation was highest among men aged 35 to 44, with over two thirds having gambled in the past year (69%). The lowest rates of participation were found among the youngest and oldest age groups; just over half of men aged 16 to 24 (52%) and 75 or over (51%). A similar pattern of participation was seen among women, with the highest rates of participation among those aged between 25 and 74 (between 51% and 60%). As with men, participation among women was lowest in the youngest and oldest age groups (39% and 43% respectively).

Excluding those who only participated in the National Lottery draws, there was a slightly different pattern of participation by age for both men and women. Men and women aged between 25 and 64 were the most likely to have gambled in the past year, with those aged 25 to 34 being the most likely to have participated in gambling activities other than the National Lottery draws (58% and 44% respectively). Just under half of men (49%) aged between 16 and 24 had gambled on activities other than the National Lottery draws, compared to women of the same age (35%). The lowest levels of participation in gambling (excluding the National Lottery draws) were found among those aged 65 or older for men and women (Table 2:2).

The pattern was similar for online gambling activities, although this was more marked among men, where the proportions who had gambled online declined from about a quarter of those aged between 16 and 35 to just 2% of those aged 75 and over.

Participation in individual activities by age and sex

Participation in individual gambling activities varied with age. Two distinct patterns of participation by age emerged for individual gambling activities. The first pattern was seen for the National Lottery draws and betting on horse races where participation was highest for the middle and older age groups, and lower for the youngest and oldest adults. Men and women had similar patterns of participation by age in these activities, although participation rates were higher for men than women in both.

The other clearly observed pattern was for activities where participation rates declined with increasing age (e.g. scratchcards, playing on slot machines, machines in a bookmakers, private betting). Again, a similar pattern can be observed for men and women, although all these activities are more common for men than women.

Overall, scratchcards were more popular with younger adults than older age groups. The highest participation rates were found among those aged 25 to 34, 33% of whom had bought scratchcards in the past 12 months. This was true for men and women, with around a third of women (32%) and men (34%) aged 25 to 34 having played scratchcards in the past year. For young adults aged between 16 and 24, scratchcards were the most popular of all the gambling activities (26% of this age group had bought a scratchcard in the past year). This is in contrast to all other age groups where the National Lottery draws were the most popular activity.

Table 2:2 Participation in gambling activities in the past 12 months, by age and sex

Participation in gambling activities in the past 12 months	Age group						
	16-24	25-34	35-44	45-54	55-64	65-74	75+
	%	%	%	%	%	%	%
Men							
Lotteries and related products							
National Lottery draws	24	46	54	54	52	48	36
Scratch cards	27	34	29	18	12	9	7
Other lotteries	6	13	15	14	17	19	19
Machines/games							
Football pools	10	9	4	1	2	2	3
Bingo (not online)	2	6	3	2	2	4	5
Slot machines	13	15	11	5	4	2	2
Machines in a bookmakers	11	12	4	3	1	1	1
Casino table games (not online)	11	10	4	3	1	2	2
Poker played in pubs or clubs	4	2	2	1	1	1	0
Online gambling on slots, casino or bingo games	9	8	4	3	2	1	1
Betting activities							
Online betting with a bookmaker	21	23	14	11	8	4	2
Betting exchange	6	2	3	2	1	1	0
Horse races (not online)	9	13	13	13	13	11	9
Dog races (not online)	5	4	4	2	2	2	1
Sports events (not online)	15	14	10	8	7	3	1
Other events (not online)	4	3	3	3	1	1	0
Spread betting	3	1	2	1	0	0	0
Private betting	16	10	5	3	3	2	1
Other gambling activity							
Any other gambling	4	2	3	2	2	1	1
Summaries							
Any gambling activity	52	66	69	64	64	61	51
Any gambling (excluding National Lottery draws only) ^a	49	58	52	43	42	36	35
Any online gambling or betting ^b	23	25	17	12	9	4	2
No gambling activity in last 12 months	48	34	31	36	36	39	49
<i>Weighted base</i>	<i>1,032</i>	<i>1,230</i>	<i>1,165</i>	<i>1,287</i>	<i>1,032</i>	<i>861</i>	<i>598</i>
<i>Unweighted base^c</i>	<i>658</i>	<i>847</i>	<i>916</i>	<i>1,107</i>	<i>1,136</i>	<i>1,123</i>	<i>760</i>

Base: Aged 16 and over, England, Scotland, and Wales

^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange.

^cBases for individual activities vary; those shown are for participation in any gambling activity.

Table 2:2 continued

Participation in gambling activities in the past 12 months	Age group						
	16-24	25-34	35-44	45-54	55-64	65-74	75+
	%	%	%	%	%	%	%
Women							
Lotteries and related products							
National Lottery draws	21	37	41	44	45	37	29
Scratch cards	25	32	25	20	16	9	8
Other lotteries	7	9	14	17	20	17	18
Machines/games							
Football pools	2	2	1	0	0	1	1
Bingo (not online)	8	7	7	5	7	7	9
Slot machines	6	6	6	4	3	2	2
Machines in a bookmakers	1	2	1	1	0	0	0
Casino table games (not online)	2	3	2	1	1		1
Poker played in pubs or clubs	0	0	0	0	0	0	0
Online gambling on slots, casino or bingo games	3	3	2	2	2	0	1
Betting activities							
Online betting with a bookmaker	3	4	5	2	1	1	0
Betting exchange	0	0	0	0	0	0	0
Horse races (not online)	5	8	9	9	7	5	3
Dog races (not online)	1	1	3	1	1	0	1
Sports events (not online)	2	3	2	2	0	0	1
Other events (not online)	1	0	0	0	0	0	0
Spread betting	0	0	0	0	0	0	0
Private betting	2	3	2	2	1	1	1
Other gambling activity							
Any other gambling	0	0	1	0	1	0	1
Summaries							
Any gambling activity	39	54	55	58	60	51	43
Any gambling (excluding National Lottery draws only) ^a	35	44	42	40	40	31	30
Any online gambling or betting ^b	5	7	6	4	3	1	1
No gambling activity in last 12 months	61	46	45	42	40	49	57
<i>Weighted base</i>	<i>981</i>	<i>1,235</i>	<i>1,175</i>	<i>1,299</i>	<i>1,055</i>	<i>927</i>	<i>764</i>
<i>Unweighted base^c</i>	<i>748</i>	<i>1,304</i>	<i>1,245</i>	<i>1,452</i>	<i>1,318</i>	<i>1,244</i>	<i>907</i>

Base: Aged 16 and over, England, Scotland, and Wales

^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange.

^cBases for individual activities vary; those shown are for participation in any gambling activity.

Table 2:2 continued

Participation in gambling activities in the past 12 months	Age group						
	16-24	25-34	35-44	45-54	55-64	65-74	75+
	%	%	%	%	%	%	%
All adults							
Lotteries and related products							
National Lottery draws	23	41	47	49	48	43	32
Scratch cards	26	33	27	19	14	9	8
Other lotteries	6	11	14	16	19	18	18
Machines/games							
Football pools	6	5	2	1	1	1	2
Bingo (not online)	5	6	5	4	5	6	7
Slot machines	10	11	8	5	4	2	2
Machines in a bookmakers	6	7	3	2	1	0	1
Casino table games (not online)	6	6	3	2	1	1	1
Poker played in pubs or clubs	2	1	1	0	0	0	0
Online gambling on slots, casino or bingo games	6	6	3	2	2	0	1
Betting activities							
Online betting with a bookmaker	12	13	9	6	5	2	1
Betting exchange	3	1	1	1	0	0	0
Horse races (not online)	7	10	11	11	10	8	6
Dog races (not online)	3	2	4	2	1	1	1
Sports events (not online)	9	9	6	5	4	2	1
Other events (not online)	2	2	1	1	1	1	0
Spread betting	1	1	1	1	0	0	0
Private betting	9	7	3	3	2	2	1
Other gambling activity							
Any other gambling	2	1	2	1	1	1	1
Summaries							
Any gambling activity	46	60	62	61	62	56	47
Any gambling (excluding National Lottery draws only) ^a	42	51	47	42	41	34	32
Any online gambling or betting ^b	14	16	12	8	6	3	2
No gambling activity in last 12 months	54	40	38	39	38	44	53
<i>Weighted base</i>	<i>2,013</i>	<i>2,465</i>	<i>2,340</i>	<i>2,586</i>	<i>2,086</i>	<i>1,787</i>	<i>1,363</i>
<i>Unweighted base^c</i>	<i>1,406</i>	<i>2,151</i>	<i>2,161</i>	<i>2,559</i>	<i>2,454</i>	<i>2,367</i>	<i>1,667</i>

Base: Aged 16 and over, England, Scotland, and Wales

^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

^cBases for individual activities vary; those shown are for participation in any gambling activity.

2.2.3 Participation in gambling activities in the past 12 months, by ethnic group

Overall participation by ethnic group

Data on ethnic background was not available for participants in Scotland.¹ Therefore, Table 2:3 shows participation in gambling in the past 12 months by ethnic group among participants in England and Wales only.

Gambling participation was highest among White adults; six in ten (59%) White adults had gambled in the past 12 months, compared with 46% of Black adults, 45% of adults in other minority ethnic groups and 32% of Asian adults. A similar pattern was evident among those who gambled on activities other than the National Lottery draws only. For online gambling the pattern was slightly different; similar proportions of adults in the White group and other minority ethnic groups had gambled online (both 10%), compared with 5% of Black adults and just 2% of Asian adults.

Participation in individual activities by ethnic group

The National Lottery draws were the most popular activity for all groups. White adults were most likely to have played in the past 12 months (43%), compared to just under a third of Black adults (32%), a fifth (21%) of Asian adults, and over a third (36%) of adults from ethnic backgrounds other than White, Black or Asian (and including those with mixed heritage). White adults were also more likely than those from other groups to have spent money on scratchcards, other lotteries, offline bingo, and on horse races.

There was a slightly different pattern for online gambling where White adults had higher levels of participation than those from Asian and Black backgrounds, but levels of participation among those from other minority ethnic groups were similar to White participants. The same pattern was seen for betting online with a bookmaker, where participation rates were lower for Black and Asian adults than for White adults and those from other minority ethnic groups.

No such differences between ethnic groups were apparent for other gambling activities such as football pools, slot machines, betting offline on sports events (other than horse or dog racing) or betting offline on other events, where differences between groups were not statistically significant. Despite lower overall gambling participation rates, adults from minority ethnic groups were similarly likely to gamble on slot machines, machines in a bookmakers or casino table games as White adults.

Table 2:3 Participation in gambling activities in the past 12 months, by ethnic group

Participation in gambling activities in the past 12 months	Ethnic Group			
	White %	Asian %	Black %	Other, including mixed %
Lotteries and related products				
National Lottery draws	43	21	32	36
Scratchcards	21	11	17	17
Other lotteries	15	7	11	7
Machines/games				
Football pools	3	1	4	4
Bingo (not online)	5	2	3	1
Slot machines	6	5	5	3
Machines in a bookmakers	3	2	5	3
Casino table games (not online)	3	2	8	4
Poker played in pubs or clubs	1	1	0	1
Online gambling on slots, casino or bingo games	3	1	2	2
Betting activities				
Online betting with a bookmaker	8	2	3	9
Betting exchange	1	0	0	2
Horse races (not online)	10	1	4	4
Dog races (not online)	2	0	3	1
Sports events (not online)	5	2	3	7
Other events (not online)	1	1	1	2
Spread betting	1	0	1	0
Private betting	4	2	3	7
Other gambling activity				
Any other gambling	1	0	2	1
Summary				
Any gambling activity	59	32	46	45
Any gambling (excluding National Lottery draws only) ^a	44	22	30	32
Any online gambling or betting ^b	10	2	5	10
No gambling activity in last 12 months	41	68	54	55
<i>Weighted base</i>	<i>11,647</i>	<i>944</i>	<i>418</i>	<i>355</i>
<i>Unweighted base^b</i>	<i>9,999</i>	<i>473</i>	<i>192</i>	<i>196</i>

Base: Aged 16 and over, England and Wales

^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

^cBases for individual activities vary; those shown are for participation in any gambling activity.

2.2.4 Participation in gambling activities in the past 12 months, by economic activity

Overall participation by economic activity

Table 2:4 shows past year gambling by the economic activity of the participants in England and Scotland. (These data were not available for participants in Wales.²) Economic activity was split into five categories: those in paid work (including self-employment and in government training); those in full-time education; retired; unemployed; and inactive in some other way (for example, the long-term sick, carers and those looking after their home or family).³ Note that the age profiles of these groups differ – for example, adults in full-time education and those who have retired are concentrated in specific age groups – and some of the variation between groups may be influenced by this. It should also be noted that the sample only included adults living in private households meaning that people living in institutions, like students living in halls of residence, were excluded from the study.

Adults in employment or training were most likely to have gambled in the past 12 months, with almost two thirds (63%) having spent money on any gambling activity. Over half of retirees (53%) and those who were unemployed (54%) had gambled in the past year, closely followed by adults who were otherwise economically inactive (49%). Those in full time education had the lowest levels of participation with around a third (32%) having gambled in the past 12 months.

Excluding participation in National Lottery draws only, there was a different pattern of participation; in particular, unemployed adults had similar rates of gambling to those in employment or training (45% and 48% respectively).

Those in employment were again the most likely group to gamble online, with 13% having done so in the past year. However, around one in ten (9%) full time students and those who were unemployed had gambled online in the past 12 months. Retirees were the least likely group to have gambled online, with 2% having done so.

Participation in individual activities by economic activity

The pattern of participation in individual activities also varied by economic activity. National Lottery draws continued to be the most popular gambling activity for nearly all economic activity groups aside from those in full time education who were more likely to have purchased scratchcards (15%, compared with 11% who participated in National Lottery draws).

Those in employment or classed as unemployed were more likely than other groups to have participated in most gambling activities, for example, scratchcards, slot machines, horse racing, and other sports events. Notably, unemployed adults were more likely than any other group to play slot machines (11%, compared with 8% or less in other groups) or on casino table games (9%, compared with 4% or less in other groups). Generally, those in full time education had low rates of participation in most gambling activities. However, they had the highest participation rate for private betting at 8%. Other lotteries were most popular among retired people, with 19% participating in the past 12 months.

Table 2:4 Participation in gambling activities in the past 12 months, by economic activity

Participation in gambling activities in the past 12 months	Economic activity				
	In paid work %	In full-time education %	Retired %	Un-employed %	Other inactive %
Lotteries and related products					
National Lottery draws	48	11	38	30	33
Scratchcards	24	15	8	31	23
Other lotteries	15	4	19	12	10
Machines/games					
Football pools	3	5	2	6	1
Bingo (not online)	5	4	6	5	5
Slot machines	8	7	2	11	5
Machines in a bookmakers	4	4	0	6	2
Casino table games (not online)	4	4	1	9	1
Poker played in pubs or clubs	1	1	0	2	0
Online gambling on slots, casino or bingo games	4	4	1	2	3
Betting activities					
Online betting with a bookmaker	11	7	2	8	3
Betting exchange	1	3	0	3	1
Horse races (not online)	11	2	7	9	7
Dog races (not online)	3	2	1	4	1
Sports events (not online)	7	5	2	6	2
Other events (not online)	2	1	1	1	1
Spread betting	1	0	0	1	0
Private betting	5	8	1	7	2
Other gambling activity					
Any other gambling	1	2	1	2	1
Summaries					
Any gambling activity	63	32	53	54	49
Any gambling (excluding National Lottery draws only) ^a	48	28	34	45	38
Any online gambling or betting ^b	13	9	2	9	6
No gambling activity in past 12 months	37	68	47	46	51
<i>Weighted base</i>	<i>6,071</i>	<i>596</i>	<i>2,305</i>	<i>551</i>	<i>1,161</i>
<i>Unweighted base^c</i>	<i>5,770</i>	<i>445</i>	<i>2,894</i>	<i>392</i>	<i>1,233</i>

Base: Aged 16 and over, England and Scotland

^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

^cBases for individual activities vary; those shown are for participation in any gambling activity.

2.2.5 Participation in gambling activities in the past 12 months, by country and region

Overall participation by country and region

Tables 2:5 and 2:6 show past year gambling participation by country and English region.⁴ Note that estimates from Wales are not strictly comparable with those from England and Scotland due to differences in survey methodology (see Section 1.2 of this report).

Adults in Scotland were most likely to have taken part in some form of gambling, with 66% of people in Scotland spending money on gambling activities in the past 12 months compared with 56% of adults in England and 55% of adults in Wales. Gambling on activities other than the National Lottery draws only remained more popular in Scotland than in England and Wales (49%, 42% and 40% respectively). The pattern held when looking at online gambling, with adults from Scotland being the most likely group to gamble online (12%) compared to 9% in England and 6% in Wales.

The English region with the highest gambling participation rates was the North East (62%), followed by Yorkshire and Humber and East of England (61% and 60% respectively). London had the lowest participation levels, with 51% of Londoners taking part in gambling. Within the English regions, participation in activities other than the National Lottery draws was highest in the North East (48%) and lowest in London (36%). Participation in online gambling also differed by region, from 12% in the North East to 6% in the South West.

Participation in individual activities by country and region

Patterns of gambling participation by country and English region varied in different ways for individual activities, although for most activities prevalence was highest in Scotland and lower in England and Wales. Participation in the National Lottery draws was highest among adults in Scotland, with over half (51%) having played in the past year. Participants from Wales were most likely to have played scratchcards in the past year, with around a quarter (24%) having done so, closely followed by adults from Scotland (23%) and a fifth of adults from England (20%). Other lotteries were more popular in Scotland (18%), than in Wales (15%) and England (14%).

Scottish adults were more likely than those elsewhere to have bet on horse racing, bet online with a bookmaker, played slot machines, bingo and gambled on sports events not online. The only exception was private betting, which was more common among adults from England (4%) than adults from Scotland and Wales (both 3%).

Across the English regions, participation rates varied for some gambling activities. The National Lottery draws were most popular in the North East and East of England (45%) and least popular in the West Midlands and London (38% and 35% respectively). Online betting with a bookmaker was highest in the North East (10%) and lowest in the South West (4%). Although London had lower participation rates for most gambling activities, gambling online was not lower in London compared to other regions.

For many activities, such as gambling using football pools, machines in bookmakers and betting on horse racing regional differences were not apparent.

Table 2:5 Participation in gambling activities in the past 12 months, by country

Participation in gambling activities in the past 12 months	Country		
	England %	Scotland %	Wales %
Lotteries and related products			
National Lottery draws	40	51	41
Scratchcards	20	23	24
Other lotteries	14	18	15
Machines/games			
Football pools	3	5	2
Bingo (not online)	5	7	6
Slot machines	6	8	5
Machines in a bookmakers	3	4	2
Casino table games (not online)	3	3	2
Poker played in pubs or clubs	1	1	1
Online gambling on slots, casino or bingo games	3	4	2
Betting activities			
Online betting with a bookmaker	8	10	4
Betting exchange	1	1	1
Horse races (not online)	9	11	8
Dog races (not online)	2	2	1
Sports events (not online)	5	7	4
Other events (not online)	1	2	1
Spread betting	1	1	0
Private betting	4	3	3
Other gambling activity			
Any other gambling	1	1	1
Summaries			
Any gambling activity	56	66	55
Any gambling (excluding National Lottery draws only) ^a	42	49	40
Any online gambling or betting ^b	9	12	6
No gambling activity in past 12 months	44	34	45
<i>Weighted base</i>	<i>12,640</i>	<i>1,261</i>	<i>740</i>
<i>Unweighted base^b</i>	<i>6,856</i>	<i>3,886</i>	<i>4,023</i>

Base: Aged 16 and over, England, Scotland, and Wales

^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

^cBases for individual activities vary; those shown are for participation in any gambling activity.

Table 2:6 Participation in gambling activities in the past 12 months, by English region

Participation in gambling activities in the past 12 months	English region								
	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	%	%	%	%	%	%	%	%	%
Lotteries and related products									
National Lottery draws	45	41	42	41	38	45	35	41	41
Scratchcards	23	20	23	21	18	23	15	20	23
Other lotteries	14	14	17	14	14	16	8	14	16
Machines/games									
Football pools	3	3	2	2	2	3	3	4	1
Bingo (not online)	8	6	5	5	7	4	2	5	5
Slot machines	6	6	7	5	6	9	4	7	7
Machines in a bookmakers	3	4	4	3	3	2	2	4	2
Casino table games (not online)	3	2	5	3	3	3	4	4	2
Poker played in pubs or clubs	2	1	1	-	1	1	1	1	1
Online gambling on slots, casino or bingo games	4	3	4	4	4	3	2	4	2
Betting activities									
Online betting with a bookmaker	10	9	8	7	6	7	8	9	4
Betting exchange	1	1	2	0	0	1	2	2	1
Horse races (not online)	9	10	10	9	11	8	7	10	8
Dog races (not online)	2	1	2	3	3	3	3	2	0
Sports events (not online)	7	7	5	5	4	5	4	6	3
Other events (not online)	1	2	1	1	1	1	2	1	0
Spread betting	1	0	1	1	0	1	1	1	-
Private betting	5	3	4	4	4	4	6	4	4
Other gambling activity									
Any other gambling	2	2	1	1	1	1	1	2	1
Summaries									
Any gambling activity	62	55	61	57	54	60	51	56	57
Any gambling (excluding National Lottery draws only) ^a	48	41	47	42	40	43	36	42	41
Any online gambling or betting ^b	12	11	10	8	8	8	9	11	6
No gambling activity in past 12 months	38	45	39	43	46	40	49	44	43
<i>Weighted base</i>	<i>624</i>	<i>1,668</i>	<i>1,237</i>	<i>1,097</i>	<i>1,324</i>	<i>1,419</i>	<i>1,886</i>	<i>2,096</i>	<i>1,290</i>
<i>Unweighted base^b</i>	<i>613</i>	<i>969</i>	<i>593</i>	<i>620</i>	<i>626</i>	<i>815</i>	<i>800</i>	<i>1076</i>	<i>744</i>

Base: Aged 16 and over, England.

^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

^cBases for individual activities vary; those shown are for participation in any gambling activity.

2.2.6 Participation in gambling activities in the past 12 months, by mental health

The 12-item General Health Questionnaire (GHQ-12)

The GHQ-12 is a widely used and validated measure of mental health. It was originally intended for use in general practice settings as a screening instrument for general, non-psychotic psychiatric morbidity (probable mental ill health), and cannot be used to diagnose specific psychiatric problems.

The GHQ-12 concentrates on the broader components of psychological ill health and consists of 12 items measuring characteristics such as general levels of happiness, depression, anxiety, sleep disturbance and self-confidence. Six questions are positively phrased – for example “Have you recently felt capable of making decisions about things?” Six questions are phrased negatively – for example “Have you recently felt you couldn’t overcome your difficulties?”

Each of the 12 items is rated on a four-point response scale to indicate whether symptoms of mental ill health are ‘not at all present’, present ‘no more than usual’, present ‘rather more than usual’ or present ‘much more than usual’.

There are alternative scoring approaches; here, each symptom was scored as either zero if ‘not at all present’ or present ‘no more than usual’, or one for symptoms that were present ‘rather more than usual’ or ‘much more than usual’. This produces scores on a range of 0 to 12. No formal threshold exists for identifying probable mental ill health, with optimal values likely to be specific to the population under study. However, in keeping with the categories reported in HSE and SHeS, participants’ scores are grouped according to three categories: 0 (indicating no evidence of probable mental ill health), 1 to 3 (indicating less than optimal mental health), and 4 or more (indicating probable psychological disturbance or mental ill health).

A valid GHQ-12 score was available for 10,873 participants from England and Scotland. The GHQ-12 did not form part of the Wales Omnibus and therefore no scores are available for Welsh participants. After applying weighting to account for population distribution and non-response, no evidence of mental ill health was found in 54% of English and Scottish adults aged 16 and over, 27% had less than optimal mental health and 18% demonstrated evidence of probable mental ill health.

Table 2:7 GHQ-12 scores

GHQ-12 score	%
Score 0: No evidence of mental ill health	54
Score 1-3: Less than optimal mental health	27
Score 4+: Probable mental ill health	18
Total	100
<i>Unweighted Base</i>	<i>10,873</i>
<i>Weighted Base</i>	<i>10,949</i>

Base: Aged 16 and over with a valid GHQ-12 score, England and Scotland

Overall participation by mental health

Table 2:8 shows the past year participation in gambling by mental health based on scores on the GHQ-12 in England and Scotland. Data were not available for Wales. The GHQ-12 questions refer to the past few weeks, and an individual's feelings may have varied across the past 12 months.

Overall, gambling in the past year was not associated with mental health. However, when excluding those who gambled on National Lottery draws only, adults with less than optimal mental health (a GHQ-12 score between 1 and 3) were more likely to have gambled in the past year (45%). In comparison, 42% of adults with no evidence of mental ill health (a GHQ-12 score of 0) and those with probable mental ill health (a GHQ-12 score of 4 or more) had gambled on something other than the National Lottery draws.

Similarly, gambling online was more common among participants with less than optimal GHQ-12 scores (12% had done so), compared to those who had no evidence of mental ill health (9%) and those with probable mental ill health (8%).

Participation in individual activities by mental ill health

For the majority of individual gambling activities, there was no variation in participation according to mental ill health status. However, there were some exceptions to this.

Participation in the National Lottery draws declined with poor mental health. It was highest among those with no indication of mental ill health (a GHQ12 score of 0) (43%), followed by those with less than optimal mental ill health (a GHQ12 score of 1 to 3) (40%) and those with probable mental ill health (a GHQ12 score of 4+) (39%).

Conversely, scratchcards were less popular among those who had no evidence of mental ill health (a GHQ-12 score of 0) (19%), compared with adults with less than optimal ill health (a GHQ-12 score of 1 to 3) (22%) and those with probable mental ill health (a GHQ-12 score of 4+) (23%). Those who scored less than optimal mental ill health (a GHQ-12 score of 1-3) were most likely to have placed bets with an online bookmaker (10%).

Table 2:8 Participation in gambling activities in the past 12 months, by mental ill health

Participation in gambling activities in the past 12 months	GHQ-12 score ^a		
	No evidence of mental ill health %	Less than optimal mental health %	Probable mental ill health %
Lotteries and related products			
National Lottery draws	43	40	39
Scratchcards	19	22	23
Other lotteries	15	15	13
Machines/games			
Football pools	3	2	3
Bingo (not online)	5	6	5
Slot machines	6	6	8
Machines in a bookmakers	3	4	4
Casino table games (not online)	3	4	3
Poker played in pubs or clubs	1	1	1
Online gambling on slots, casino or bingo games	3	4	4
Betting activities			
Online betting with a bookmaker	7	10	6
Betting exchange	1	2	1
Horse races (not online)	9	10	10
Dog races (not online)	2	2	2
Sports events (not online)	5	6	4
Other events (not online)	1	2	1
Spread betting	1	1	1
Private betting	4	5	4
Other gambling activity			
Any other gambling	1	1	2
Summaries			
Any gambling activity	57	58	55
Any gambling (excluding National Lottery draws only) ^b	42	45	42
Any online gambling or betting ^c	9	12	8
No gambling activity in past 12 months	43	42	45
<i>Weighted base</i>	<i>5,658</i>	<i>2,874</i>	<i>1,903</i>
<i>Unweighted base^d</i>	<i>5,984</i>	<i>2,722</i>	<i>1,808</i>

Base: Aged 16 and over, England and Scotland

^aA GHQ-12 score of 0 is indicative of no evidence of probable mental ill health, a score of 1-3 is indicative of less than optimal mental health, a score of 4+ is indicative of probable mental ill health.

^bThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^cThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

^dBases for individual activities vary; those shown are for participation in any gambling activity.

2.2.7 Participation in gambling activities in the past 12 months, by well-being

The Warwick-Edinburgh Mental Well-being scale (WEMWBS)

The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) is a widely used and validated measure of subjective and psychological functioning. WEMWBS has 14 statements which cover psychological functioning, cognitive-evaluative dimensions and affective-emotional aspects of well-being. The statements are all expressed positively – for example, ‘I’ve been feeling optimistic about the future’. For each statement participants are asked to select the response option that best describes their experience over the previous two weeks from a 5-point Likert scale. Response options included ‘None of the time’, ‘Rarely’, ‘Some of the time’, ‘Often’, or ‘All of the time’. The scale is scored by summing responses to each item.

The 14 questions are aggregated into an index, ranging from 14 (those who answer ‘None of the time’ on every statement) to 70 (those who answer ‘All of the time’ to all statements) which determines the extent of the participant’s well-being. For the purposes of the analysis, WEMWBS scores were aggregated into two groups, those in the lowest decile (tenth percentile), representing the 10% of the sample whose well-being was lowest, and the remaining participants with higher scores.

A valid WEMWBS score was available for 10,855 participants from England and Scotland. The WEMWBS did not form part of the Wales Omnibus and therefore no scores are available for Welsh participants. After applying weighting to account for population distribution and non-response, 9% of English and Scottish adults aged 16 and over scored in the lowest tenth of well-being scores on the scale and 91% had other well-being scores.⁵

Table 2:9 WEMWBS scores

WEMWBS score	%
Lowest well-being scores	9
Other well-being scores	91
Total	100
<i>Unweighted Base</i>	<i>10,855</i>
<i>Weighted Base</i>	<i>10,704</i>

Base: Aged 16 and over with a valid WEMWBS score, England and Scotland

Overall participation by well-being score

Table 2:10 shows gambling participation in the past 12 months by WEMWBS score using data from England and Scotland. Data was not available for Wales. The WEMWBS questions refer to well-being in the past two weeks, and an individual's well-being may have varied across the past 12 months. In addition, well-being varies across an individual's lifespan and some of the variation in behaviour between the two groups may be influenced by differences in age profile.

Gambling participation was lower among participants with the lowest well-being scores (52%, compared with 58% of other participants). A similar pattern was seen when those who gambled on the National Lottery draws only were excluded, with the lower participation rates among those with the lowest well-being scores (38%, compared with 43% of other participants). There was no difference between the two groups' participation rates in online gambling.

Participation in individual activities by well-being score

Participation in the National Lottery draws was less popular among those with low well-being scores (37%, compared with other well-being scores, 42%). In contrast, the popularity of scratchcards did not vary according to well-being scores.

In general, there were few differences in participation in individual gambling activities according to well-being scores. However, those with lowest levels of well-being were more likely than other participants to have played machines in bookmakers and to have gambled online on slots, casino or bingo games (5%, compared to 3% for both activities). Those with higher levels of well-being were more likely than those with low well-being scores to have participated in private betting (4% and 3%, respectively).

Table 2:10 Participation in gambling activities in the past 12 months, by WEMWBS (Warwick-Edinburgh Mental Well-being Score)

Participation in gambling activities in the past 12 months	WEMWBS score ^a	
	Low well-being score	Other well-being score
	%	%
Lotteries and related products		
National Lottery draws	37	42
Scratchcards	21	21
Other lotteries	12	15
Machines/games		
Football pools	2	3
Bingo (not online)	5	5
Slot machines	6	6
Machines in a bookmakers	5	3
Casino table games (not online)	2	3
Poker played in pubs or clubs	1	1
Online gambling on slots, casino or bingo games	5	3
Betting activities		
Online betting with a bookmaker	6	8
Betting exchange	1	1
Horse races (not online)	8	10
Dog races (not online)	2	2
Sports events (not online)	5	5
Other events (not online)	1	1
Spread betting	1	1
Private betting	3	4
Other gambling activity		
Any other gambling	2	1
Summaries		
Any gambling activity	52	58
Any gambling (excluding National Lottery draws only) ^b	38	43
Any online gambling or betting ^c	9	10
No gambling activity in past 12 months	48	42
<i>Weighted base</i>	<i>973</i>	<i>9,488</i>
<i>Unweighted base^d</i>	<i>1,001</i>	<i>9,524</i>

Base: Aged 16 and over, England and Scotland

^aA 'Low well-being score' denotes the lowest 10% of scores on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). A 'Other well-being score' denotes all other scores on WEMWBS.

^bThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^cThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

^dBases for individual activities vary; those shown are for participation in any gambling activity.

2.2.8 Participation in gambling activities in the past 12 months, by weekly alcohol consumption

Weekly alcohol consumption

HSE and SHeS both measured participants' average weekly alcohol consumption. Adults from England and Scotland aged 16 and over who had drunk alcohol in the past 12 months were asked about the frequency of drinking different types of drinks and the amounts they had drunk on a typical day. From this, the average weekly consumption of units of alcohol was derived. The weekly categories are approximate only and do not take into account varying patterns of consumption, for example on different days of the week or at different times of year. By definition they cover a 'typical day' and therefore do not reflect occasions when consumption might be higher than usual (for instance holidays, or celebrations such as parties, weddings and Christmas).

Alcohol consumption is reported in terms of units of alcohol; one unit of alcohol is 10ml by volume of pure alcohol. In line with low risk drinking guidelines published by the UK Chief Medical Officers in 2016⁶, alcohol consumption was split into three categories, based upon the number of units people drink in a week; non-drinkers who do not drink at all, those who drank at a level indicating a low risk of harm (up to and including 14 units per week) and those who drank at a level indicating an increased risk (over 14 units per week).

Data on weekly alcohol consumption was available for 12,085 participants from England and Scotland. The Wales Omnibus did not include questions on alcohol consumption and therefore no classifications into different drinking profiles based on weekly alcohol consumption were available for Welsh participants. After applying weighting to account for population distribution and non-response, 17% of adults aged 16 and over in England and Scotland were non-drinkers, 59% were categorised as low risk drinkers (who drank up to 14 units per week) and 24% were categorised as increased risk drinkers (who drank more than 14 units per week).

Table 2:11 Weekly alcohol consumption	
Weekly alcohol consumption	%
Non-drinker (0 units per week)	17
Low risk (up to 14 units per week)	59
Increased risk (over 14 units per week)	24
Total	100
<i>Unweighted Base</i>	<i>12,085</i>
<i>Weighted Base</i>	<i>10,738</i>

Base: Aged 16 and over, England and Scotland

Overall participation by weekly alcohol consumption

Table 2:12 shows the rates of participation in gambling in the past year by alcohol consumption, for Scotland and England only. Data on alcohol consumption were not available for Wales.

Gambling participation varied with usual weekly alcohol consumption. Figure 2:2 shows that gambling was most common among those who drank at a level indicating an increased risk of harm (69%), compared with those who drank at a level with low risk of harm (59%), and non-drinkers, who were much less likely to have gambled (36%). A similar pattern was seen when those who gambled on the National Lottery only were excluded (53%, 43% and 25% respectively), and the same was true for online gambling or betting (16%, 9% and 3%).

Participation in individual activities by weekly alcohol consumption

Alcohol consumption was associated with nearly all individual gambling activities; non-drinkers were least likely to participate, followed by those who drank at a level with a low risk of harm, with those drinking at a level with increased risk most likely to participate in gambling activities. The exceptions to this were offline bingo and other gambling activities where there was no association with drinking.

The pattern was particularly evident for betting offline on horse races (16% of those who drank more than 14 units per week, compared with 8% of low risk drinkers and 4% of non-drinkers), online betting with a bookmaker (15%, 7% and 2% respectively), and offline betting on sports events (10%, 5% and 1%).

Table 2:12 Participation in gambling activities in the past 12 months, by weekly alcohol consumption

Participation in gambling activities in the past 12 months	Weekly alcohol consumption		
	Non-drinker (0 units per week)	Low risk (up to 14 units per week)	Increased risk (over 14 units per week)
	%	%	%
Lotteries and related products			
National Lottery draws	26	42	52
Scratchcards	13	21	24
Other lotteries	9	15	18
Machines/games			
Football pools	2	2	5
Bingo (not online)	4	6	5
Slot machines	3	6	9
Machines in a bookmakers	1	3	5
Casino table games (not online)	1	3	6
Poker played in pubs or clubs	1	1	2
Online gambling on slots, casino or bingo games	2	3	5
Betting activities			
Online betting with a bookmaker	2	7	15
Betting exchange	0	1	2
Horse races (not online)	4	8	16
Dog races (not online)	0	2	4
Sports events (not online)	1	5	10
Other events (not online)	0	1	3
Spread betting	0	0	1
Private betting	1	4	7
Other gambling activity			
Any other gambling	1	1	2
Summaries			
Any gambling activity	36	59	69
Any gambling (excluding National Lottery draws only) ^a	25	43	53
Any online gambling or betting ^b	3	9	16
No gambling activity in past 12 months	64	41	31
<i>Weighted base</i>	<i>1,834</i>	<i>6,124</i>	<i>2,530</i>
<i>Unweighted base^c</i>	<i>1,792</i>	<i>6,256</i>	<i>2,543</i>

Base: Aged 16 and over, England and Scotland

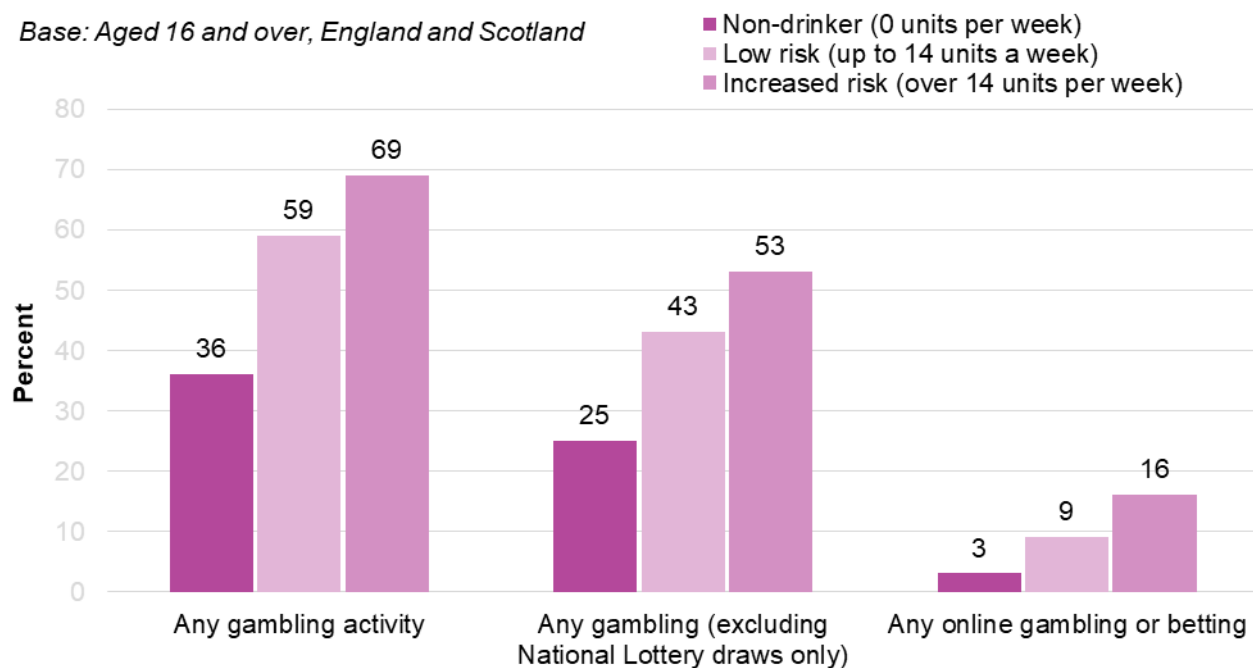
^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

^cBases for individual activities vary; those shown are for participation in any gambling activity.

Figure 2:2 Gambling participation by weekly alcohol consumption

Base: Aged 16 and over, England and Scotland



Notes and references

¹ The Scottish Government took the decision to remove data on ethnicity from the 2016 SHeS data due to disclosure risk.

² The economic activity data collected as part of the Wales Omnibus were not directly comparable to the data on economic activity collected for HSE and SHeS.

³ The other economically inactive group includes people not otherwise classifiable, for example the long-term sick, carers and those looking after home or family.

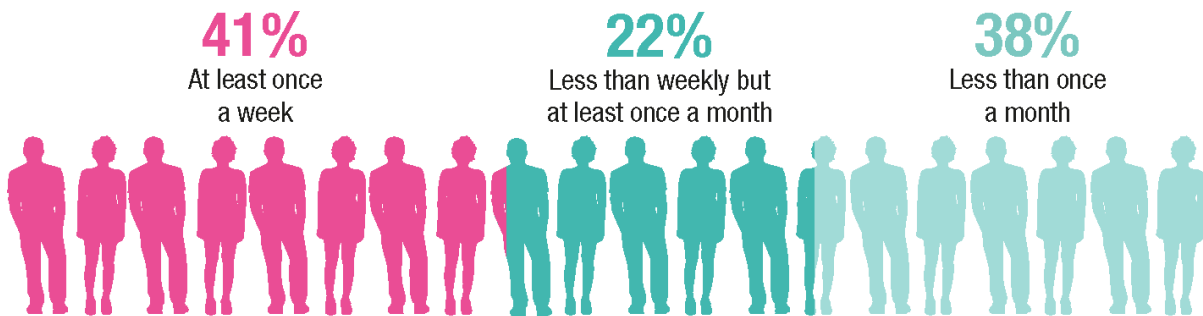
⁴ Within England regions are defined as the former Government Office Regions.

⁵ WEMWBS scores were discrete values between 14 and 70. In the combined 2016 SHeS and HSE data, the lowest decile were individuals who scored lower than 39. The discrete nature of the data meant that 9% of the sample were in the bottom decile.

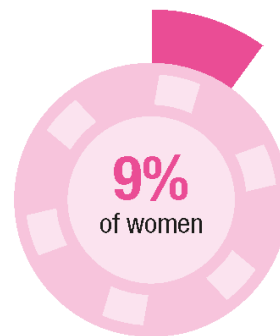
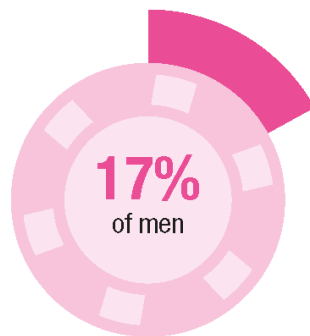
⁶ UK Chief Medical Officers. Low Risk Drinking Guidelines. Department of Health, London, 2016
<https://www.gov.uk/government/publications/alcohol-consumption-advice-on-low-risk-drinking>

Frequency of gambling in Great Britain

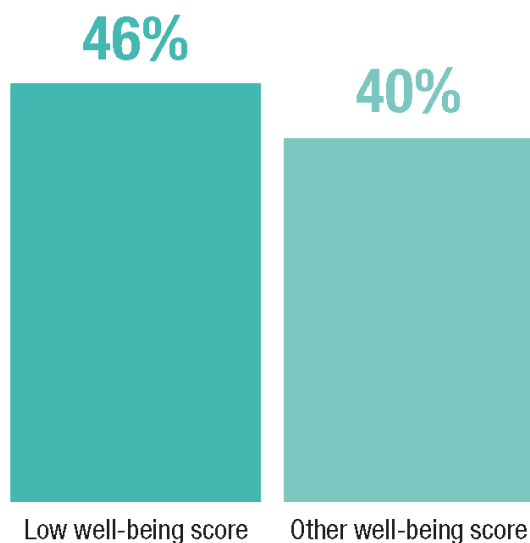
Among those who gambled in the past year



13% of gamblers gambled more than once a week

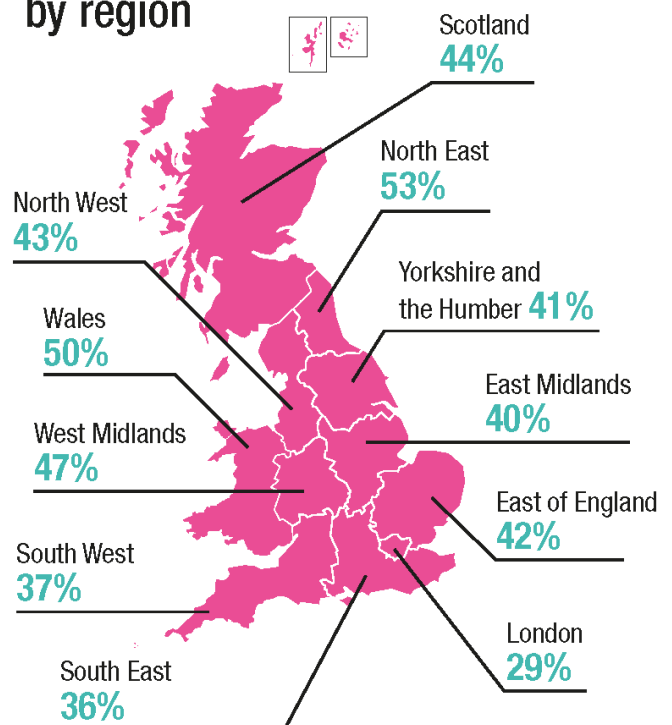


Gambling at least once a week by well-being score*



* According to WEMWBS

Gambling at least once a week by region



3 Frequency of gambling participation

3.1 Introduction

This chapter looks at the frequency of gambling among people who do gamble, and whether these vary by a range of characteristics. The chapter covers overall frequency in any form of gambling, as well as individual gambling activities. Gambling frequency is compared by a range of socio-demographic characteristics including the age and sex of the participant, their ethnic group, economic activity, country and regions within England. Levels of gambling frequency are also compared by a range of health indicators such as mental health, well-being and weekly alcohol consumption.

3.2 Frequency of gambling participation in past year gamblers

3.2.1 Frequency of gambling participation in the past 12 months, by age and sex

Table 3:1 shows the frequency of gambling participation among past year gamblers by age and sex of adults aged 16 and over in Great Britain. It includes all forms of gambling and is based on those who had gambled within the last 12 months. Overall, two in five gamblers did so at least once a week (41%), a further one in five gambled less than once a week but at least once a month (22%) and the remainder gambled less frequently (38%).

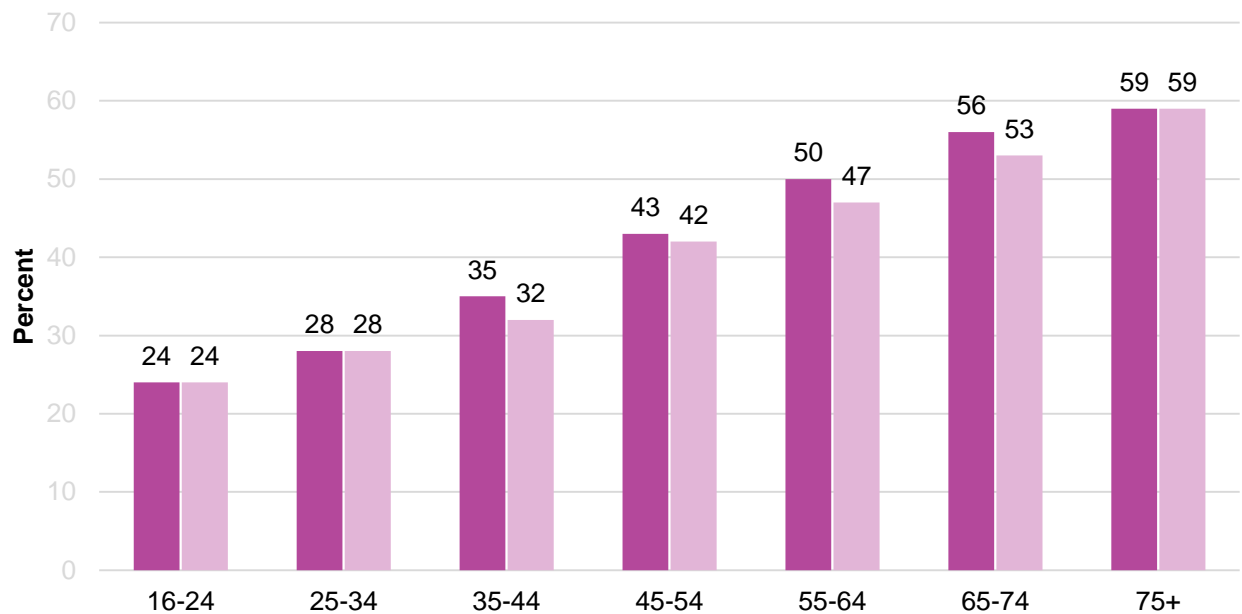
Gambling at least once a week increased with age, both for men and women. Among 16 to 24 year olds who had gambled, 24% had done so at least once week. This increased steadily with age up to 59% among adults aged 75 or more (although this age group were relatively unlikely to have gambled at all). This contrasts with the pattern of participation across age groups, with the youngest and oldest groups having the lowest gambling participation rates (see section 2.2.2). Among those who do gamble, older gamblers are likely to gamble on a frequent basis whereas the younger group gamble less frequently.

As shown in Table 3:2, gambling frequency also increased with age when excluding gamblers who had only participated in the National Lottery draws and no other gambling activities. Among 16 to 24 year olds 24% had gambled at least once a week compared to 59% of adults aged 75 and over. This suggests that gambling in older age groups is not restricted to playing the National Lottery draws. Moreover, the findings suggest that while fewer older adults gamble on activities excluding the National Lottery draws, those who do gamble are more committed gamblers.

Figure 3:1 Gambling at least once a week by age

Base: Aged 16 and over who had gambled in the past year

■ Any gambling
 ■ Any gambling (excl. National Lottery draws only)*



*This category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

Men were more likely than women to have gambled in the past 12 months (see Section 2.2.2). Among those adults who had gambled, men were more likely than women to gamble at least weekly (45% men and 36% women), and men were roughly twice as likely as women to have gambled more than once a week (17% and 9%, respectively). Women were more likely than men to be infrequent gamblers; 43% of women gambled less often than monthly compared with 33% of men.

Table 3:1 Frequency of gambling participation in the past 12 months, by age and sex

Frequency of gambling participation	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
2 or more times a week	11	13	12	21	21	21	21	17
Once a week	21	21	26	28	31	38	41	28
Less than once a week, more than once a month	14	13	12	10	9	7	6	10
Once a month	18	13	13	11	10	8	8	12
Every 2-3 months	17	16	14	12	10	8	9	13
Once or twice a year	19	25	22	18	19	19	16	20
Women								
2 or more times a week	3	6	7	9	11	13	16	9
Once a week	10	14	23	28	36	41	41	27
Less than once a week, more than once a month	12	12	8	12	9	6	9	10
Once a month	9	15	12	12	10	11	8	11
Every 2-3 months	21	19	16	14	10	9	7	14
Once or twice a year	46	33	34	24	23	20	19	28
All adults								
2 or more times a week	8	10	10	15	16	17	18	13
Once a week	16	18	25	28	34	39	41	27
Less than once a week, more than once a month	13	13	10	11	9	6	8	10
Once a month	14	14	13	12	10	10	8	12
Every 2-3 months	19	18	15	13	10	8	8	13
Once or twice a year	30	29	27	21	21	19	18	24
Weighted base								
<i>Men</i>	<i>527</i>	<i>794</i>	<i>780</i>	<i>792</i>	<i>632</i>	<i>501</i>	<i>295</i>	<i>4,321</i>
<i>Women</i>	<i>360</i>	<i>657</i>	<i>633</i>	<i>728</i>	<i>607</i>	<i>447</i>	<i>306</i>	<i>3,737</i>
<i>All adults</i>	<i>887</i>	<i>1,451</i>	<i>1,413</i>	<i>1,520</i>	<i>1,239</i>	<i>947</i>	<i>600</i>	<i>8,058</i>
Unweighted base								
<i>Men</i>	<i>341</i>	<i>558</i>	<i>614</i>	<i>690</i>	<i>687</i>	<i>671</i>	<i>370</i>	<i>3,931</i>
<i>Women</i>	<i>313</i>	<i>739</i>	<i>700</i>	<i>834</i>	<i>758</i>	<i>600</i>	<i>358</i>	<i>4,302</i>
<i>All adults</i>	<i>654</i>	<i>1,297</i>	<i>1,314</i>	<i>1,524</i>	<i>1,445</i>	<i>1,271</i>	<i>728</i>	<i>8,233</i>

Base: Past year gamblers aged 16 and over, England, Scotland, and Wales

Table 3:2 Frequency of gambling participation (excl. National Lottery draws) in the past 12 months, by age and sex

Frequency of gambling participation	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
2 or more times a week	10	14	14	22	23	20	23	17
Once a week	21	21	23	25	27	34	35	25
Less than once a week, more than once a month	14	13	13	10	9	6	4	11
Once a month	19	14	13	10	12	10	11	13
Every 2-3 months	16	16	14	14	8	8	9	13
Once or twice a year	20	23	23	18	21	22	19	21
Women								
2 or more times a week	3	5	8	12	11	13	17	9
Once a week	10	13	19	25	32	39	43	24
Less than once a week, more than once a month	12	12	7	11	10	6	9	10
Once a month	8	14	12	13	10	13	8	12
Every 2-3 months	20	21	17	13	10	7	4	15
Once or twice a year	46	34	37	25	27	21	20	31
All adults								
2 or more times a week	7	10	11	17	17	17	20	13
Once a week	17	18	21	25	30	36	39	24
Less than once a week, more than once a month	13	12	11	11	9	6	6	10
Once a month	14	14	13	11	11	11	9	12
Every 2-3 months	18	18	16	14	9	8	6	14
Once or twice a year	30	28	29	22	24	22	20	26
Weighted base								
<i>Men</i>	<i>501</i>	<i>698</i>	<i>596</i>	<i>532</i>	<i>417</i>	<i>298</i>	<i>201</i>	<i>3,244</i>
<i>Women</i>	<i>328</i>	<i>543</i>	<i>485</i>	<i>514</i>	<i>410</i>	<i>271</i>	<i>217</i>	<i>2,767</i>
<i>All adults</i>	<i>829</i>	<i>1,241</i>	<i>1,081</i>	<i>1,046</i>	<i>826</i>	<i>569</i>	<i>418</i>	<i>6,011</i>
Unweighted base								
<i>Men</i>	<i>321</i>	<i>492</i>	<i>483</i>	<i>477</i>	<i>454</i>	<i>400</i>	<i>220</i>	<i>2,847</i>
<i>Women</i>	<i>291</i>	<i>622</i>	<i>550</i>	<i>607</i>	<i>492</i>	<i>372</i>	<i>243</i>	<i>3,177</i>
<i>All adults</i>	<i>612</i>	<i>1,114</i>	<i>1,033</i>	<i>1,084</i>	<i>946</i>	<i>772</i>	<i>463</i>	<i>6,024</i>

Base: Past year gamblers aged 16 and over, England, Scotland, and Wales excluding those who participated in National Lottery draws only.

3.2.2 Frequency of gambling participation in the past 12 months, by ethnicity

Table 3:3 shows the frequency of gambling participation in the past 12 months by ethnicity for England and Wales (ethnicity data was not available for Scotland). It includes all forms of gambling and is based on those who had gambled within the past 12 months.

As described in section 2.2.3, gambling participation was highest among White adults. Among people who gamble, those from White backgrounds were also the most likely to gamble at least once a week (41%), compared to 37% of Black gamblers, 33% of gamblers from a mixed or other ethnic background and 28% of Asian gamblers.

Gamblers from Asian backgrounds were more likely to gamble infrequently (i.e. less than once a month) (51%). This compares to 37% of White gamblers, 35% of gamblers from a mixed or other ethnic background and 29% of Black gamblers.

Frequency of gambling participation	Ethnic Group			
	White	Asian	Black	Other, including mixed
	%	%	%	%
2 or more times a week	13	8	22	7
Once a week	28	20	15	26
Less than once a week, more than once a month	10	14	15	12
Once a month	12	7	19	20
Every 2-3 months	13	19	10	16
Once or twice a year	24	32	19	18
<i>Weighted base</i>	<i>6,679</i>	<i>281</i>	<i>182</i>	<i>154</i>
<i>Unweighted base</i>	<i>5,634</i>	<i>139</i>	<i>72</i>	<i>86</i>

Base: Past year gamblers aged 16 and over, England and Wales

3.2.3 Frequency of gambling participation in the past 12 months, by economic activity

Table 3:4 uses data from England and Scotland to look at the frequency of gambling participation in the past 12 month by economic activity. Comparable information was not available for participants in Wales.

Following the patterns observed for age, those who were retired were more likely to gamble frequently and those in full time education were less likely to do so. Over half of retirees (55%) gambled at least once a week, followed by those classified as other inactive (39%) and the employed (38%). Among unemployed gamblers, 32% gambled at least once a week as did 18% of students who gambled.

Section 2.2.4 showed that students were the group least likely to participate in gambling (32% had gambled in the past year), and additionally students were also unlikely to gamble frequently. Just 6% of student gamblers reported gambling more than once a week and a further 12% reported weekly gambling.

Table 3:4 Frequency of gambling participation in the past 12 months, by economic activity

Frequency of gambling participation	Economic activity				
	In paid work	In full-time education	Retired	Unemployed	Other inactive
	%	%	%	%	%
2 or more times a week	12	6	16	8	15
Once a week	25	12	39	24	24
Less than once a week, more than once a month	10	13	7	13	11
Once a month	12	9	9	16	11
Every 2-3 months	14	19	9	14	14
Once or twice a year	25	41	20	25	24
<i>Weighted base</i>	<i>3,711</i>	<i>187</i>	<i>1,145</i>	<i>290</i>	<i>553</i>
<i>Unweighted base</i>	<i>3,605</i>	<i>173</i>	<i>1,453</i>	<i>211</i>	<i>618</i>

Base: Past year gamblers aged 16 and over, England and Scotland

3.2.4 Frequency of gambling participation in the past 12 months, by region and country

Tables 3:5 and 3:6 show the frequency of gambling participation in the past 12 months by country and regions within England.

Although gambling participation in the past 12 months was lowest in Wales (see Section 2.2.5), Welsh adults who did gamble were more likely to gamble at least once a week than their Scottish and English counterparts. Among those who had gambled in the past 12 months, 50% of Welsh adults had gambled at least once a week compared to 40% of English and 44% of Scottish gamblers.

The frequency of gambling participation also varied regionally across England. Section 2.2.5 showed that gambling participation was highest in the North East and Table 3:6 shows that gamblers living in the North East were also the most likely to gamble frequently (53% of gamblers had gambled once a week or more). London had the lowest gambling participation rate (see Section 2.2.5) and those who did gamble were the least likely to do so frequently (29% had gambled once a week or more).

Table 3:5 Frequency of gambling participation in the past 12 months, by country

Frequency of gambling participation	Country		
	England %	Scotland %	Wales %
2 or more times a week	13	15	20
Once a week	27	29	30
Less than once a week, more than once a month	10	9	12
Once a month	12	10	12
Every 2-3 months	14	12	10
Once or twice a year	25	24	16
<i>Weighted base</i>	<i>6,899</i>	<i>757</i>	<i>402</i>
<i>Unweighted base</i>	<i>3,770</i>	<i>2,294</i>	<i>2,169</i>

Base: Past year gamblers aged 16 and over, England, Scotland, and Wales

Table 3:6 Frequency of gambling participation in the past 12 months, by English region

Frequency of gambling participation	English region								
	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	%	%	%	%	%	%	%	%	%
2 or more times a week	17	12	11	11	16	14	12	12	10
Once a week	37	30	31	29	31	28	17	24	27
Less than once a week, more than once a month	11	12	10	10	12	11	8	9	10
Once a month	9	9	12	13	9	12	16	13	11
Every 2-3 months	10	12	13	16	10	11	17	15	16
Once or twice a year	17	25	24	21	22	24	30	27	25
<i>Weighted base</i>	<i>376</i>	<i>872</i>	<i>741</i>	<i>614</i>	<i>683</i>	<i>827</i>	<i>916</i>	<i>1,154</i>	<i>715</i>
<i>Unweighted base</i>	<i>377</i>	<i>511</i>	<i>347</i>	<i>346</i>	<i>330</i>	<i>477</i>	<i>379</i>	<i>585</i>	<i>418</i>

Base: Past year gamblers aged 16 and over, England

3.2.5 Frequency of gambling participation in the past 12 months, by mental health

Table 3:7 shows the frequency of gambling participation in the past 12 months, by mental ill health using data from England and Scotland. Comparable data for Wales was not available. Mental ill health is based on scores on the GHQ-12. See Section 2.2.6 for details of how scores are calculated and their definitions.

There were no differences in gambling frequency according to GHQ-12 status.

Table 3:7 Frequency of gambling participation in the past 12 months, by mental ill health

Frequency of gambling participation	GHQ12 score ^a		
	No evidence of mental ill health %	Less than optimal mental health %	Probable mental ill health %
2 or more times a week	13	12	13
Once a week	29	25	25
Less than once a week, more than once a month	10	10	8
Once a month	12	13	12
Every 2-3 months	13	14	17
Once or twice a year	23	26	25
<i>Weighted base</i>	<i>3,138</i>	<i>1,607</i>	<i>1,018</i>
<i>Unweighted base</i>	<i>3,432</i>	<i>1,541</i>	<i>975</i>

Base: Past year gamblers aged 16 and over, England and Scotland

^aA GHQ-12 score of 0 is indicative of no evidence of probable mental ill health, a score of 1-3 is indicative of less than optimal mental health, a score of 4+ is indicative of probable mental ill health.

3.2.6 Frequency of gambling participation in the past 12 months, by well-being

Table 3:8 shows the frequency of gambling participation by WEMWBS scores of individuals who had gambled in the past 12 months from England and Scotland. The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) is a widely used and validated measure of subjective and psychological functioning. See Section 2.2.7 above for details of how scores are calculated and their definitions. For the purposes of the analysis, WEMWBS scores were aggregated into two groups, the 10% with the lowest scores and other participants with higher levels of well-being.

Those with the lowest well-being scores had lower participation rates, but among those who did gamble, those with the lowest well-being scores were more likely to have gambled once a week or more (46%) than those with higher well-being scores (40%). The difference between the two scores is driven by a higher number of adults with low

well-being scores gambling two or more times a week (17% compared to 12%) whereas the proportion gambling once per week was similar (28% and 27%).

Among those who had gambled in the past 12 months, those with the lowest well-being scores were less likely to have gambled only once or twice in the year (22%), compared with those with higher scores (25%).

Table 3:8 Frequency of gambling participation in the past 12 months, by WEMWBS (Warwick-Edinburgh Mental Well-being Score)

Frequency of gambling participation	WEMWBS score ^a	
	Low well-being score %	Other well-being score %
2 or more times a week	17	12
Once a week	28	27
Less than once a week, more than once a month	8	10
Once a month	12	12
Every 2-3 months	12	14
Once or twice a year	22	25
<i>Weighted base</i>	<i>491</i>	<i>5,293</i>
<i>Unweighted base</i>	<i>518</i>	<i>5,445</i>

Base: Past year gamblers aged 16 and over, England and Scotland

^aA 'Low well-being score' denotes the lowest 10% of scores on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). A 'Other well-being score' denotes all other scores on WEMWBS.

3.2.7 Frequency of gambling participation in the past 12 months, by alcohol consumption

Table 3:9 shows the frequency of gambling participation in the past 12 months, by alcohol consumption of participants from England and Scotland. Alcohol consumption is presented in three categories, based upon the amount people usually drink in a week; non-drinkers, those who drink at a level indicating a low risk of harm (up to and including 14 units per week) and those who drink at a level indicating increased risk of harm (over 14 units per week).

Non-drinkers were least likely to have gambled in the past 12 months, but were more likely to gamble on a frequent basis, with just under half (46%) gambling at least once a week. Those drinking more than 14 units per week were the most likely group to gamble and did so at a similar frequency to non-drinkers (45% at least once a week). Participation rates for those who drank less than 14 units per week were similar to those who drank more than 14 units per week, but among those who gambled they were least likely to gamble at least once a week (37%). Just two out of five low risk drinkers gambled less than once a month (41%), compared to 35% of those drinking at a level indicating increased risk and 31% of non-drinkers.

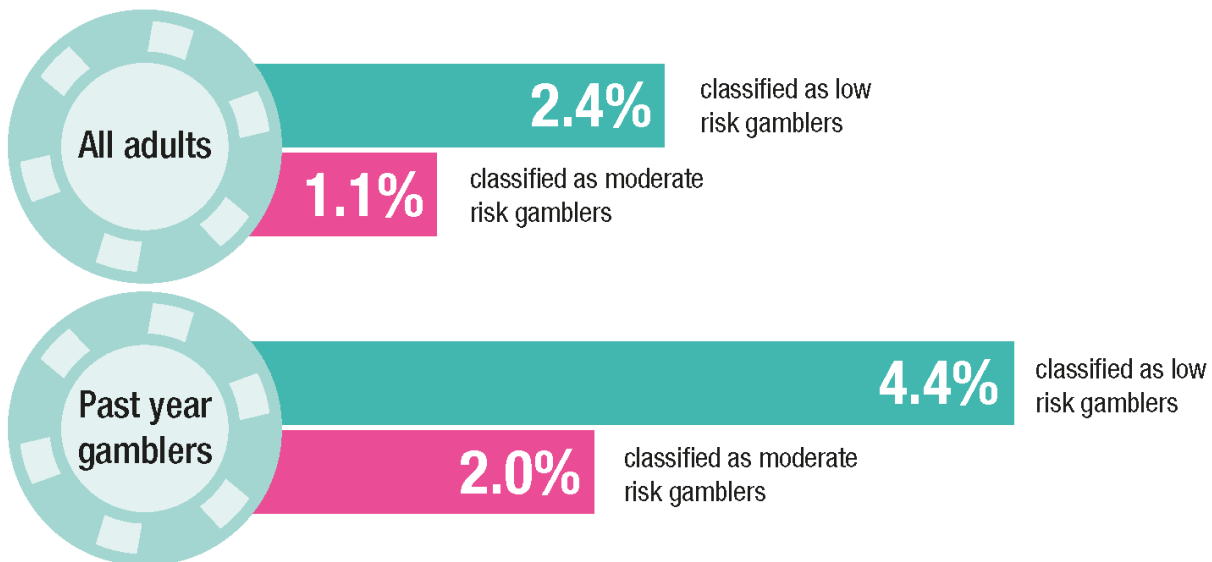
Table 3:9 Frequency of gambling participation in the past 12 months, by weekly alcohol consumption

Frequency of gambling participation	Weekly alcohol consumption		
	Non-drinker (0 units per week)	Low risk (up to 14 units per week)	Increased risk (over 14 units per week)
	%	%	%
2 or more times a week	13	12	15
Once a week	33	26	29
Less than once a week, more than once a month	13	9	10
Once a month	10	13	10
Every 2-3 months	9	14	14
Once or twice a year	22	26	21
<i>Weighted base</i>	<i>634</i>	<i>3,470</i>	<i>1,702</i>
<i>Unweighted base</i>	<i>709</i>	<i>3,600</i>	<i>1,685</i>

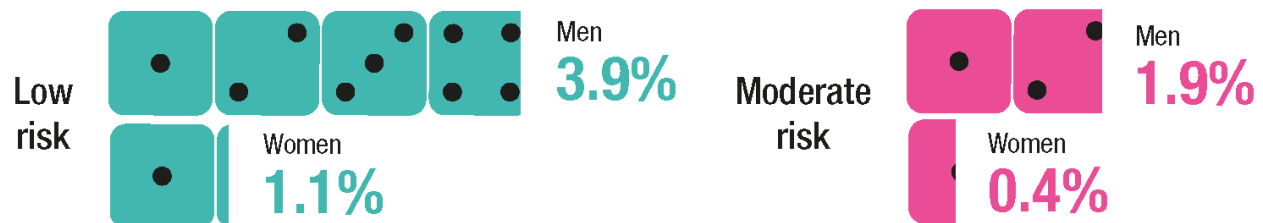
Base: Past year gamblers aged 16 and over, England and Scotland

Low risk and moderate risk gamblers in Great Britain

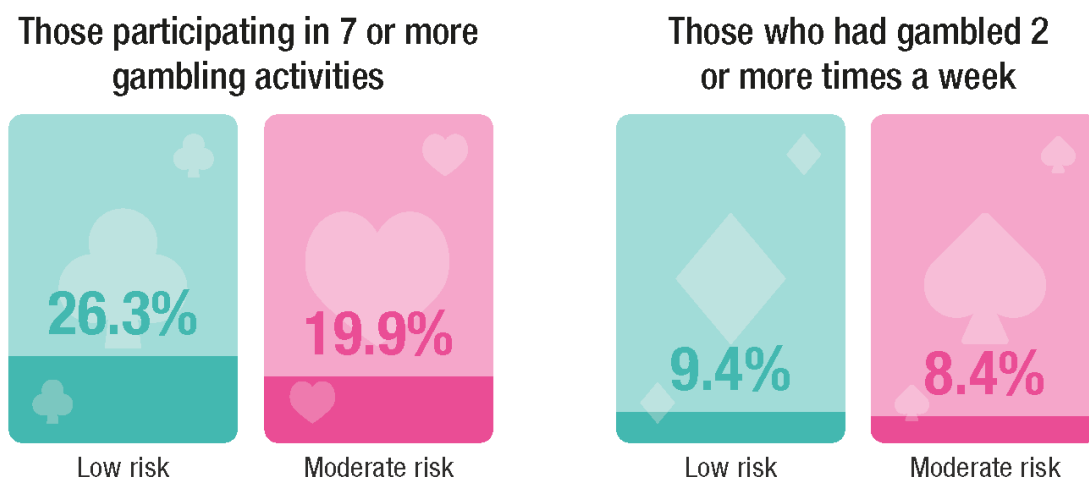
According to the PGSI problem gambling screen



Low risk and moderate risk gambling by sex (all adults)



For all adults, low risk and moderate risk gambling were more common among:



4 Prevalence and profile of low risk and moderate risk gamblers

4.1 Introduction

This chapter uses the Problem Gambling Severity Index (PGSI)¹ to describe the proportion of adults who can be classified as low risk or moderate risk gamblers. These are individuals who show some signs of problematic gambling but remain below the threshold for 'problem' gambling. Even so, they may experience a range of negative outcomes. Particularly, the moderate risk group is at risk of developing problems in the future. Low risk and moderate risk gamblers are likely to make a greater contribution to overall levels of gambling-related harm across the whole population than problem gamblers because of the greater absolute number of people in these two risk groups.

The PGSI was developed, tested and validated within a general population survey of over 3,000 Canadian residents.¹ The instrument itself has been subject to critical evaluation and was revised in 2003.²

It consists of nine items ranging from 'chasing losses' to 'gambling causing health problems' to 'feeling guilty about gambling'. Each item is assessed on a four-point scale: never, sometimes, most of the time, almost always. Responses to each item are given the following scores: never = 0; sometimes = 1; most of the time = 2; almost always = 3. When scores to each item are summed, a total score ranging from 0 to 27 is possible.

The following thresholds are recommended by the PGSI developers and have been applied in this and previous reports.³ Participants who did not gamble in the past year are given a score of 0:

<i>PGSI Score</i>	<i>Category</i>
0	Non-problem gambler
1-2	Low risk gambler
3-7	Moderate risk gambler
8 or over	Problem gambler

In Chapter 5, which discusses problem gamblers, problem gamblers are also identified using the DSM-IV. The DSM-IV does not have recognised thresholds for low risk and moderate risk gambling and it is not used in this chapter.

The focus of this chapter is to explore the prevalence and characteristics of low risk and moderate risk gamblers (as defined by the PGSI) living in Great Britain. Because of the generally low prevalence of low risk and moderate risk gambling, estimates in this chapter are shown to 1 decimal place.

4.2 Prevalence of low risk and moderate risk gambling

4.2.1 Low risk and moderate risk gambling prevalence by age and sex

This section discusses the prevalence of low risk and moderate risk gambling among adults aged 16 and over living in Great Britain. Overall 2.4% of adults were categorised as low risk gamblers (a PGSI score of 1 or 2) and 1.1% were categorised as moderate risk gamblers (a PGSI score of 3 to 7).

Rates of both low risk and moderate risk gambling were significantly higher among men (3.9% were classified as low risk and 1.9% were classified as moderate risk gamblers) than women (1.1% were classified as low risk and 0.4% were classified as moderate risk gamblers).

Rates of low risk and moderate risk gambling were significantly higher in the younger age groups, despite their lower rates of gambling participation and gambling frequency outlined in the previous two chapters. Rates of low risk gambling were highest among those aged 16 to 24 (5.8%) and lowest among those aged 75 and over (0.4%). Rates of moderate risk gambling were highest among 25 to 34 year olds (2.1%) and 35 to 44 year olds (2.0%). The lowest prevalence of moderate risk gambling was among those aged 65 and over (0.2%).

The proportions of men and women of different ages categorised as low risk gamblers (a PGSI score of 1 or 2) are shown in Table 4:1 and Figure 4:1. While there was a general decrease in the prevalence of low risk gambling among women in older age groups, this decrease was less marked than for men.

Figure 4:2 shows the proportions of men and women of different ages who have been categorised as moderate risk gamblers (a PGSI score of 3 to 7). For men, the highest proportions of moderate risk gamblers were found among those aged 25 to 34 (3.6%) and 35 to 44 (3.1%) after which prevalence gradually decreased. For women, the highest proportion of moderate risk gamblers was found among those aged 35 to 44 (0.9%) and diminished with age.

Table 4:1 PGSI Status^a, by age and sex^b

PGSI Status	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	
Men								
Non problem	86.8	87.4	94.2	95.4	96.0	98.0	99.1	93.3
Low risk gambler	9.9	6.9	2.2	2.5	1.9	1.5	0.6	3.9
Moderate risk gambler	2.4	3.6	3.1	1.1	1.2	0.3	0.3	1.9
Problem gambler	0.9	2.1	0.5	1.0	0.9	0.2	-	0.9
Women								
Non problem	98.0	97.9	98.0	98.4	98.7	99.2	99.6	98.5
Low risk gambler	1.4	1.6	1.0	1.1	1.1	0.7	0.2	1.1
Moderate risk gambler	0.5	0.5	0.9	0.3	0.1	0.2	0.2	0.4
Problem gambler	0.2	0.0	0.0	0.1	0.1	-	-	0.1
All adults								
Non problem	92.2	92.7	96.1	96.9	97.4	98.6	99.4	95.9
Low risk gambler	5.8	4.2	1.6	1.8	1.5	1.1	0.4	2.4
Moderate risk gambler	1.5	2.1	2.0	0.7	0.7	0.2	0.2	1.1
Problem gambler	0.6	1.0	0.3	0.6	0.5	0.1	-	0.5
Weighted base								
<i>Men</i>	<i>1,007</i>	<i>1,203</i>	<i>1,126</i>	<i>1,236</i>	<i>996</i>	<i>845</i>	<i>584</i>	<i>6,996</i>
<i>Women</i>	<i>950</i>	<i>1,212</i>	<i>1,138</i>	<i>1,274</i>	<i>1,037</i>	<i>908</i>	<i>766</i>	<i>7,287</i>
<i>All adults</i>	<i>1,957</i>	<i>2,415</i>	<i>2,264</i>	<i>2,510</i>	<i>2,034</i>	<i>1,753</i>	<i>1,350</i>	<i>14,283</i>
Unweighted base								
<i>Men</i>	<i>651</i>	<i>836</i>	<i>898</i>	<i>1,071</i>	<i>1,074</i>	<i>1,074</i>	<i>740</i>	<i>6,344</i>
<i>Women</i>	<i>732</i>	<i>1,280</i>	<i>1,204</i>	<i>1,396</i>	<i>1,260</i>	<i>1,189</i>	<i>872</i>	<i>7,933</i>
<i>All adults</i>	<i>1,383</i>	<i>2,116</i>	<i>2,102</i>	<i>2,467</i>	<i>2,334</i>	<i>2,263</i>	<i>1,612</i>	<i>14,277</i>

Base: Aged 16 and over with a valid PGSI score, England, Scotland, and Wales

^a PGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling. A score of 0 denotes a non-problem gambler.

^b Estimates are shown to one decimal place because of generally low moderate risk and low risk gambling prevalence rates.

Figure 4:1 Low risk gambling prevalence (PGSI score of 1 to 2), by age and sex

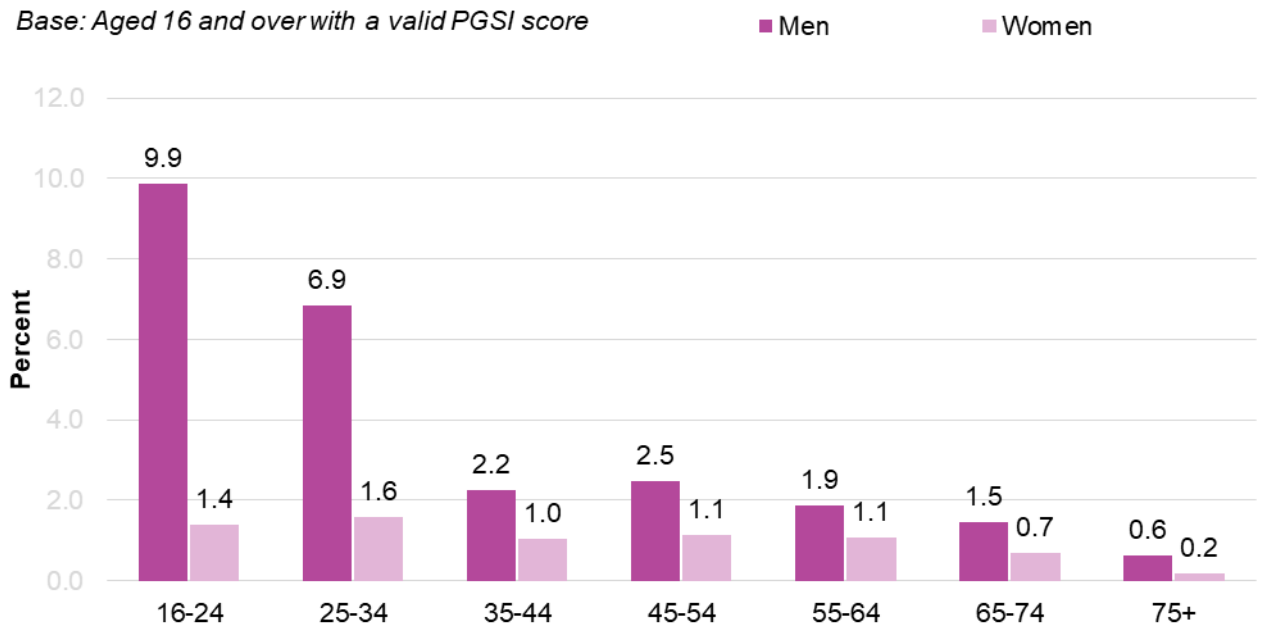
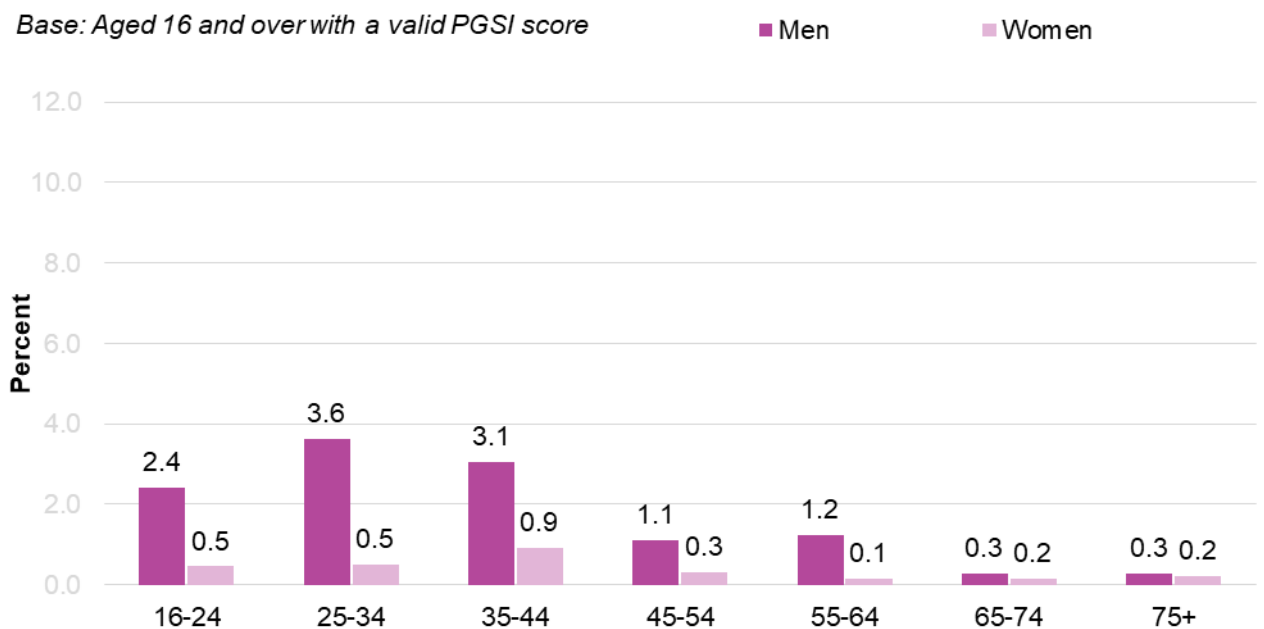


Figure 4:2 Moderate risk gambling prevalence (PGSI score of 3 to 7), by age and sex



4.2.2 Number of low risk and moderate risk gamblers in the population

Table 4:2 presents the estimated number of low risk and moderate risk gamblers in the population. In 2016, there were approximately 1,190,000 low risk gamblers and 550,000 moderate risk gamblers in Great Britain.⁴

These figures are estimates and should be considered alongside the confidence intervals shown in Table 4:2. The confidence interval for the estimated number of low risk gamblers in the population is 2.0% to 3.0%, and the confidence interval for the estimated number of moderate risk gamblers in the population is 0.9% to 1.5%.

In other words, we can be 95% confident that the true estimate of low risk gamblers in the population is somewhere between 980,000 and 1,450,000 and the true estimate of moderate risk gamblers is somewhere between 420,000 and 710,000.

Table 4:2 Number of low risk and moderate risk gamblers (according to PGSI)^a

Low risk and moderate risk gamblers	Number in population	95% confidence interval	
		Lower	Upper
Low risk gambler	1,190,000	980,000	1,450,000
Moderate risk gambler	550,000	420,000	710,000

Base: Aged 16 and over with a valid PGSI score, England, Scotland and Wales

^aPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

4.2.3 Low risk and moderate risk gambling prevalence by activity

Table 4:3 presents the prevalence of low risk and moderate risk gambling by gambling activity. When interpreting these findings it should be noted that those who gamble frequently tend to take part in a range of different activities. Such gamblers are therefore likely to be captured across a range of the activities below and these categories are not mutually exclusive.

For both, low risk and moderate risk gambling, the lowest prevalence rates were found among those who participated in the National Lottery draws (4.3% and 1.8% respectively) or other lotteries (5.3% and 2.0%).

Overall, 5.8% of the people who had participated in any gambling activity excluding the National Lottery draws in the past year were low risk gamblers and 2.7% were moderate risk gamblers. Prevalence for both risk groups were higher among people who had gambled or placed bets online, with 16.1% categorised as low risk and 8.4% categorised as moderate risk gamblers.

High prevalence rates for both, low risk and moderate risk gambling, were found for a number of gambling activities including spread betting, machines in bookmakers, online gambling on slots, casino or bingo machines, and betting offline on events other than horse or dog races.

The highest rates of low risk gambling were found among people who had participated in betting exchanges (28.5%), machines in a bookmakers (25.7%), spread betting (22.8%), online gambling on slots, casino or bingo games (21.9%), any other gambling (21.8%) and betting on any other events that are not online (21.7%).

The highest rates of moderate risk gambling were found among people who had participated in spread betting (28.8%), poker in pubs or clubs (16.1%), betting on other events that are not online (15.0%), online gambling on slots, casino or bingo machines (13.7%) and machines in bookmakers (13.5%).

Table 4:3 Low risk and moderate risk gambling prevalence^a, by activity^b

Gambling activity	PGSI risk category					
		Low risk gamblers	Moderate risk gamblers	All risk gamblers	Weighted base ^c	Unweighted base ^c
Lotteries and related products						
National Lottery draws	%	4.3	1.8	6.1	5,899	6,215
Scratchcards	%	6.7	3.4	10.1	2,899	3,009
Other lotteries	%	5.3	2.0	7.3	1,955	2,161
Machines/games						
Football pools	%	17.0	9.0	26.0	389	362
Bingo (not online)	%	6.0	4.4	10.4	734	884
Slot machines	%	12.6	7.2	19.8	885	794
Machines in a bookmakers	%	25.7	13.5	39.2	424	328
Casino table games (not online)	%	16.9	8.1	25.0	454	354
Poker played in pubs or clubs	%	19.7	16.1	35.9	126	109
Online gambling on slots, casino or bingo games	%	21.9	13.7	35.6	449	394
Betting activities						
Online betting with a bookmaker	%	15.8	8.4	24.2	1,076	888
Betting exchange	%	28.5	12.7	41.2	162	98
Horse races (not online)	%	8.0	6.1	14.1	1,338	1,324
Dog races (not online)	%	12.4	13.0	25.4	295	224
Sports events (not online)	%	14.7	10.2	24.8	744	654
Other events (not online)	%	21.7	15.0	36.7	186	184
Spread betting	%	22.8	28.8	51.6	80	63
Private betting	%	18.9	6.5	25.4	572	423
Other gambling activity						
Any other gambling	%	21.8	9.8	31.7	178	151
Summaries						
Any gambling activity	%	4.4	2.0	6.4	7,945	8,128
Any gambling (excluding National Lottery draws only) ^d	%	5.8	2.7	8.5	5,944	5,974
Any online gambling or betting ^e	%	16.1	8.4	24.4	1,331	1,117

Base: Aged 16 and over with a valid PGSI score, England, Scotland and Wales

^aPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^bEstimates are shown to one decimal place because of generally low moderate risk and low risk gambling prevalence rates.

^cThe base size for each row in the table differs. The percentage figures show low risk and moderate risk gamblers among those who participate in a particular activity, or those who belong to a summary group. Individual survey participants may be included in multiple rows.

^dThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^eThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

4.2.4 Low risk and moderate risk gambling prevalence by number of gambling activities

The proportions of low risk and moderate risk gamblers increased significantly with the number of gambling activities undertaken in the past 12 months.

Table 4:4 and Figure 4:3 show that the proportions of gamblers classified as low risk and moderate risk gamblers respectively were lowest among those who had taken part in just one type of gambling activity in the past year (1.0% and 0.1% respectively), and increased significantly for both risk types with the number of gambling activities undertaken in the past year.

The proportion of low risk gamblers was higher among those who participated in four to six activities (12.4%) than among those who participated in two to three activities (3.1%). Similarly, the proportion of moderate risk gamblers was higher among those who participated in four to six activities (5.4%) than among those who participated in two to three activities (1.1%).

The highest prevalence of low risk and moderate risk gamblers was found among those who had participated in seven or more activities (26.3% and 19.9% respectively). In other words, almost half of the people who had participated in seven or more gambling activities in the past year (46.2%) were classed as being low or moderate risk gamblers, including almost one in five (19.9%) who were moderate risk gamblers.

Table 4:4 Low risk and moderate risk gambling prevalence^a, by number of gambling activities^b

Number of gambling activities		PGSI risk category			<i>Weighted base</i>	<i>Unweighted base</i>
		Low risk gamblers	Moderate risk gamblers	All risk gamblers		
1 activity	%	1.0	0.1	1.1	<i>3,231</i>	<i>3,389</i>
2-3 activities	%	3.1	1.1	4.3	<i>3,364</i>	<i>3,475</i>
4-6 activities	%	12.4	5.4	17.7	<i>1,025</i>	<i>986</i>
7 or more activities	%	26.3	19.9	46.2	<i>325</i>	<i>278</i>

Base: Aged 16 and over with a valid PGSI score, England, Scotland and Wales

^aPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^bEstimates are shown to one decimal place because of generally low moderate risk and low risk gambling prevalence rates.

Figure 4:3 Low risk and moderate risk gambling prevalence, by number of gambling activities



4.2.5 Low risk and moderate risk gambling prevalence by frequency of gambling participation

Low risk and moderate risk gambling prevalence was also significantly associated with how often gamblers participated in gambling activities in the past year.

As can be seen in Table 4:5 and Figure 4:4, people who gambled only once or twice in the past year were least likely to be categorised as low risk or moderate risk gamblers (0.7% and 0.1% respectively), whilst people who gambled two or more times a week were most likely to be classed as either low risk or moderate risk gamblers (9.4% and 8.4% respectively).

Both risk groups followed a similar trajectory with an overall decrease in the proportions of low risk and moderate risk gamblers as the frequency of gambling decreased. However, the proportion of low risk gamblers was slightly higher among those who gambled less than once a week but more than once a month in the past 12 months than among those who gambled once a week to (7.8% and 5.7% respectively).

Table 4:5 Low risk and moderate risk gambling prevalence^a, by frequency of gambling participation^b

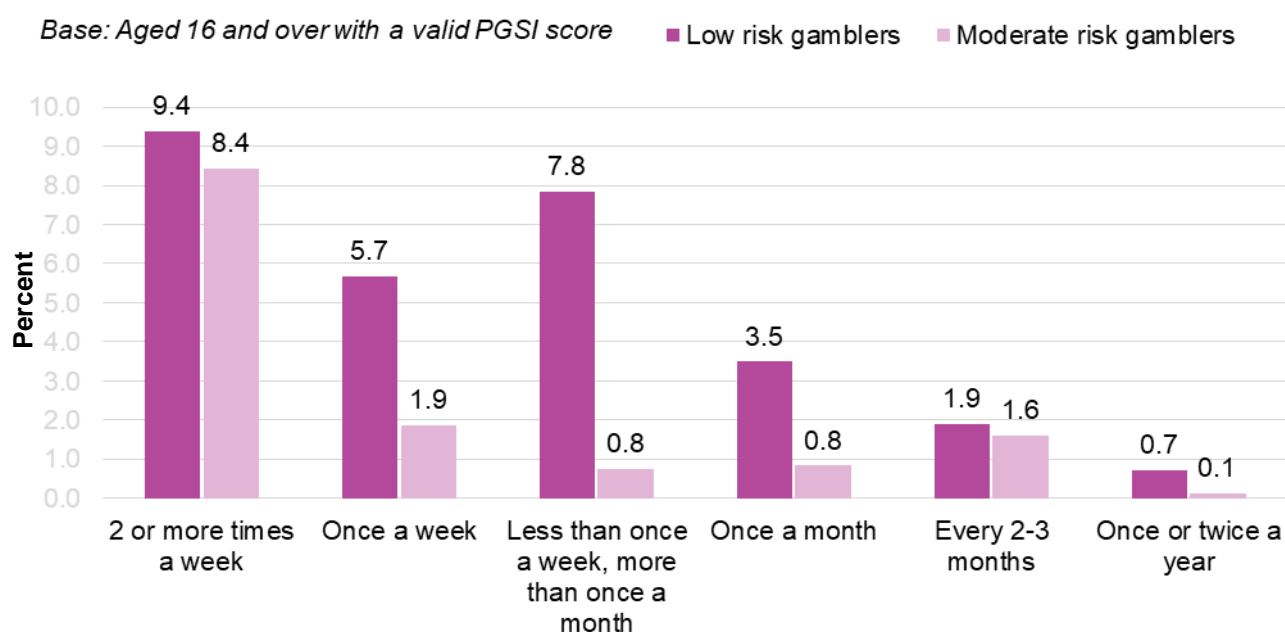
Frequency of gambling participation		PGSI risk category			Weighted base	Unweighted base
		Low risk gamblers	Moderate risk gamblers	All risk gamblers		
2 or more times a week	%	9.4	8.4	17.8	1,046	1,273
Once a week	%	5.7	1.9	7.5	2,166	2,394
Less than once a week, more than once a month	%	7.8	0.8	8.6	800	825
Once a month	%	3.5	0.8	4.3	928	904
Every 2-3 months	%	1.9	1.6	3.5	1,052	932
Once or twice a year	%	0.7	0.1	0.9	1,881	1,725

Base: Aged 16 and over with a valid PGSI score, England, Scotland and Wales

^aPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^bEstimates are shown to one decimal place because of generally low moderate risk and low risk gambling prevalence rates.

Figure 4:4 Low risk and moderate risk gambling prevalence, by frequency of gambling participation



4.3 Profile of low risk and moderate risk gamblers

This section discusses low risk and moderate risk gambling in the context of a range of socio-demographic characteristics and health indicators with the intention of deriving a profile of people who are likely to be categorised as low or moderate risk gamblers.

4.3.1 Low risk and moderate risk gambling prevalence by socio-demographic characteristics

The prevalence of low risk and moderate risk gambling by ethnicity, economic activity, English region and country is shown in Table 4:6. There were no significant associations between the proportions of low risk and moderate risk gamblers and any socio-demographic characteristic with the exception of economic activity.

Rates of low risk gambling were highest among unemployed adults (6.6%). The proportion of low risk gamblers was also higher among those in full-time education (3.9%) than among those who were in paid work⁵ (2.8%) or the other inactive group (1.3%).⁶ Retired people were least likely to be low risk gamblers (0.7%).

The highest proportions of moderate risk gamblers were found among those who were unemployed or in paid work (both 1.5%) or were otherwise inactive (1.4%). Among retired people 0.3% were classified as moderate risk gamblers. There were no observations of moderate risk gambling among those in full-time education.⁷

No statistically significant differences were found for the proportions of low risk and moderate risk gamblers by ethnicity, region, or country.

Table 4:6 Low risk and moderate risk gambling prevalence^a, by socio-demographic characteristics^b

Socio-demographic characteristics		PGSI risk category			Weighted base	Unweighted base
		Low risk gamblers	Moderate risk gamblers	All risk gamblers		
Ethnic group^c						
White/White British	%	2.5	1.2	3.7	11,364	9,835
Asian/Asian British	%	1.2	0.3	1.5	927	462
Black/Black British	%	2.5	0.0	2.5	412	187
Other, including mixed	%	5.0	1.8	6.8	350	191
Economic activity^d						
In paid work	%	2.8	1.5	4.3	7,669	5,519
In full-time education	%	3.9	-	3.9	763	435
Retired	%	0.7	0.3	1.1	2,958	2,731
Unemployed	%	6.6	1.5	8.0	706	384
Other inactive	%	1.3	1.4	2.7	1,474	1,183
English region						
North East	%	2.6	0.4	3.0	600	598
North West	%	2.5	1.3	3.8	1,618	936
Yorkshire and the Humber	%	3.4	0.8	4.3	1,216	579
East Midlands	%	1.4	0.9	2.3	1,065	609
West Midlands	%	1.7	1.7	3.4	1,290	602
East of England	%	2.4	1.1	3.5	1,370	797
London	%	1.5	1.2	2.7	1,928	779
South East	%	4.0	1.2	5.2	2,019	1,053
South West	%	2.4	1.0	3.5	1,257	724
Country						
England	%	2.5	1.1	3.6	12,364	6,677
Scotland	%	2.3	1.1	3.4	1,214	3,583
Wales	%	2.0	1.0	2.9	705	4,017

Base: Aged 16 and over with a valid PGSI score, England, Scotland and Wales

^aPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^bEstimates are shown to one decimal place because of generally low moderate risk and low risk gambling prevalence rates.

^cEstimates by ethnic group are based on England and Wales (comparable information was not available for Scotland).

^dEstimates by economic activity are based on England and Scotland (comparable information was not available for Wales).

4.3.2 Low risk and moderate risk gambling prevalence by health indicators

Table 4:7 explores whether low risk and moderate risk gambling rates in England and Scotland vary by mental health (GHQ-12 score), well-being (WEMWBS score), and weekly alcohol consumption. No comparable data were available for Wales.

The GHQ-12 is scored on a range from 0 to 12. The GHQ-12 scores have been demarcated into three categories; 0 (indicating no evidence of mental ill health), 1 to 3 (indicating less than optimal mental health) and 4+ (indicating probable psychological disturbance or mental ill health). WEMWBS scores were aggregated into two groups, those in the lowest 10% of scores and those with higher well-being scores. Alcohol consumption is split into three categories, based upon amount people drink; non-drinkers, drinking at a level indicating a low risk of harm (up to and including 14 units per week) and drinking at a level indicating increased risk of harm (over 14 units per week). A more detailed outline of these measures can be found in Chapter 2 of this report.

Low risk and moderate risk gambling were significantly associated with mental health as measured by GHQ-12 and with weekly alcohol consumption but not with well-being as measured by WEMWBS.

The proportion of low risk gamblers was lowest for those with no evidence of probable mental ill health (a GHQ-12 score of 0) and higher among those with less than optimal mental health (a GHQ-12 score of 1-3) and probable mental ill health (a GHQ-12 score of 4+) (3.8% and 3.3% respectively).

The proportion of moderate risk gamblers was highest among those who scored 4 or more on the GHQ-12 indicating probable mental ill health (1.8%). Prevalence rates decreased for those with a GHQ-12 score between 1 and 3 indicating less than optimal mental health (1.4%) and was lowest for those with a score of 0 indicating no evidence of probable mental ill health (0.8%).

The proportions of both low risk and moderate risk gamblers were associated with higher weekly alcohol consumption as measured in units of alcohol. The proportions of low risk and moderate risk gamblers were highest among people whose weekly alcohol consumption exceeded 14 units of alcohol (4.9% and 1.8% respectively). Prevalence decreased for both risk profiles among drinkers who consumed up to and including 14 units a week (1.9% and 1.0% respectively) and was lowest among non-drinkers (1.0% and 0.6% respectively).

Table 4:7 Low risk and moderate risk gambling prevalence^a, by health indicator^b

Health indicators	PGSI risk category			Weighted base	Unweighted base	
	Low risk gamblers	Moderate risk gamblers	All risk gamblers			
GHQ-12 score^c						
No evidence of mental ill health	%	1.5	0.8	2.3	5,430	5,705
Less than optimal mental health	%	3.8	1.4	5.3	2,755	2,601
Probable mental ill health	%	3.3	1.8	5.1	1,840	1,742
WEMWBS score^d						
Low well-being score	%	3.1	2.0	5.1	938	961
Other well-being score	%	2.4	1.1	3.5	9,113	9,104
Weekly alcohol consumption						
Non-drinker (0 units per week)	%	1.0	0.6	1.6	1,782	1,726
Low risk (up to 14 units per week)	%	1.9	1.0	2.9	5,863	5,979
Increased risk (over 14 units per week)	%	4.9	1.8	6.7	2,420	2,408

Base: Aged 16 and over with a valid PGSI score, England and Scotland

^aPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^bEstimates are shown to one decimal place because of generally low problem gambling prevalence rates.

^cA GHQ-12 score of 0 is indicative of no evidence of probable mental ill health, a score of 1-3 is indicative of less than optimal mental health, a score of 4+ is indicative of probable mental ill health.

^dA 'Low well-being score' denotes the lowest 10% of scores on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). An 'Other well-being score' denotes all other scores on WEMWBS.

Notes and references

¹ Ferris, J., Wynne, H. (2001). *The Canadian Problem Gambling Index: Final report*. Ottawa: Canadian Centre on Substance Abuse.

² Wynn, H. (2003). *Introducing the Canadian Problem Gambling Index*. Wynne Resources: Canada.

³ Wardle, H., Moody, A., Spence, S., Orford, J., Volberg, R., Jotangia, D., Griffiths, M., Hussey, D., Dobbie, F. (2011). *British Gambling Prevalence Survey 2010*. London: National Centre for Social Research.

⁴ Population estimates in text are rounded to the nearest 10,000.

⁵ The in paid work group includes people who are in employment, self-employed or in government training.

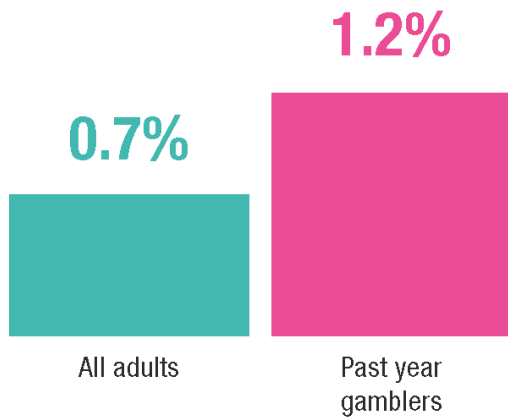
⁶ The other economically inactive group includes people not otherwise classifiable, for example the long-term sick, carers and those looking after home or family.

⁷ Note that the sample only included adults living in private households meaning that people living in institutions, like students living in halls of residence, were excluded from the study.

Problem gamblers in Great Britain

According to either the DSM-IV or PGSI problem gambling screens

Overall problem gambling



Problem gambling was more common among:



Men

1.2%

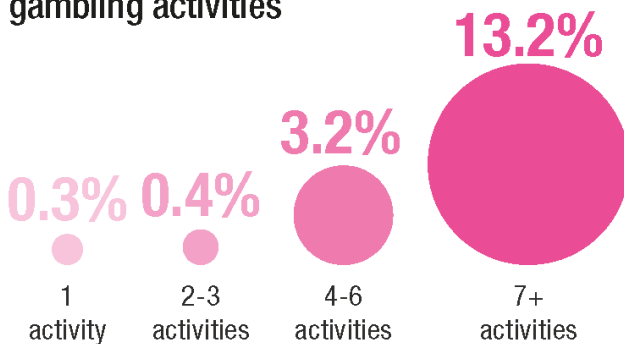


Those who had gambled 2 or more times a week

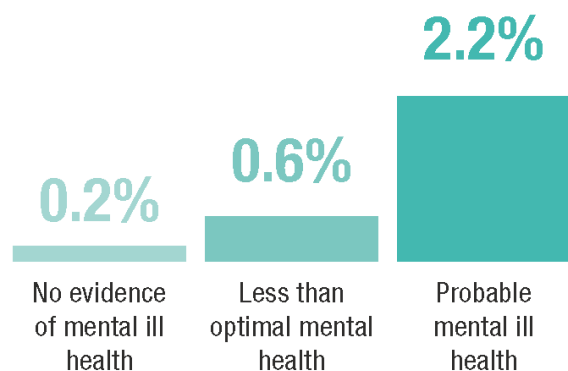
4.5%

Problem gambling was more common among people who

Participated in multiple gambling activities



Had probable mental ill health



The highest rates of problem gambling were among those who had participated in:



13.7%

Gambling on machines in bookmakers



13.1%

Betting offline on events other than sports or horse or dog racing



9.5%

Betting offline on dog racing



9.2%

Online gambling on slots, casino or bingo games

5 Prevalence and profile of problem gamblers

5.1 Introduction

This chapter presents information about the prevalence of problem gambling among adults aged 16 and over living in private households in Great Britain. It also examines how the proportion of problem gamblers varies according to a range of socio-demographic characteristics and health indicators.

‘Problem gambling’ is typically defined as gambling to a degree that compromises, disrupts or damages family, personal or recreational pursuits.¹ There are a number of screening tools available to identify problem gambling. Previous gambling studies in Great Britain have screened for problem gambling using scales based on two different measures: the DSM-IV criteria² and the Problem Gambling Severity Index (PGSI).³

Because the prevalence rates are very low, estimates of problem gambling are shown to one decimal place.

5.2 Problem gambling screens

5.2.1 The DSM-IV

The DSM-IV screening instrument is based on criteria from the fourth edition of the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV).⁴ It was created as a clinical diagnostic tool, and was not intended for use as a screening instrument among the general population. An adapted version of the DSM-IV for use in a survey setting was developed for the BGPS series and was subject to a rigorous development and testing process, including cognitive testing and piloting.

The DSM-IV contains ten diagnostic criteria ranging from ‘chasing losses’ to ‘committing a crime to fund gambling’. Each item is assessed on a four-point scale, ranging from ‘never’ to ‘very often’.⁵ The scoring of each of the DSM-IV items is described in Appendix B, including the threshold for a positive score, which varies across items. This report follows the scoring method used by the BGPS; each item is coded according to whether the respondent had a positive score, resulting in a total score between 0 and 10.

Many surveys, when adapting the DSM-IV criteria into a screening instrument for use within a general population survey, have categorised problem gambling as those who meet at least three of the DSM-IV criteria.⁶ This approach was adopted for the BGPS series and is used here.

5.2.2 The PGSI

As described in Chapter 4, the PGSI was designed for use among the general population rather than within a clinical context. It was developed, tested and validated within a general population survey of over 3,000 Canadian residents.⁷ The instrument itself has been subject to critical evaluation and was revised in 2003.⁸

The PGSI consists of nine items ranging from 'chasing losses' to 'gambling causing health problems' to 'feeling guilty about gambling'. Each item is assessed on a four-point scale: never, sometimes, most of the time, almost always. Responses to each item are given the following scores: never = 0; sometimes = 1; most of the time = 2; almost always = 3. When scores to each item are summed, a total score ranging from 0 to 27 is possible. A PGSI score of 8 or more represents a problem gambler.⁹ This is the threshold recommended by the developers of the PGSI and the threshold used in this and previous reports.

5.3 Problem gambling prevalence

5.3.1 Prevalence according to the DSM-IV

Table 5:1 shows the prevalence of problem gambling according to DSM-IV (a DSM-IV score of 3 or more) by age and sex.

According to the DSM-IV, problem gambling prevalence among adults aged 16 and over was 0.6%. The confidence interval around this estimate is 0.4% to 0.8%, meaning that taking into account sampling error we can be 95% confident that the true estimate falls between these two values.

Men were more likely than women to be classified as problem gamblers according to the DSM-IV (1.0% and 0.2% respectively). Mean DSM-IV scores followed a similar pattern, being higher among men (0.10) than women (0.02).

Among men, the proportion of problem gamblers was highest among those aged 25 to 34 (2.2%), but was otherwise at similar levels across age groups, with no problem gamblers found among men aged 75 and over. Among women, variation by age was not statistically significant.

Table 5:1 Problem gambling prevalence according to DSM-IV^a, by age and sex^b

DSM-IV score	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
Non problem gambler	99.2	97.8	99.1	98.9	99.1	99.3	100.0	99.0
Problem gambler	0.8	2.2	0.9	1.1	0.9	0.7	-	1.0
Mean DSM-IV score	0.11	0.15	0.10	0.10	0.08	0.04	0.04	0.10
Standard error of mean	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.01
Women								
Non problem gambler	99.8	99.8	99.8	99.8	99.9	100.0	99.7	99.8
Problem gambler	0.2	0.2	0.2	0.2	0.1	-	0.3	0.2
Mean DSM-IV score	0.03	0.03	0.03	0.03	0.02	0.01	0.02	0.02
Standard error of mean	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00
All adults								
Non problem gambler	99.5	98.8	99.4	99.4	99.5	99.6	99.9	99.4
Problem gambler	0.5	1.2	0.6	0.6	0.5	0.4	0.1	0.6
Mean DSM-IV score	0.07	0.09	0.07	0.06	0.05	0.03	0.03	0.06
Standard error of mean	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Men								
<i>Weighted base</i>	<i>1,009</i>	<i>1,206</i>	<i>1,128</i>	<i>1,238</i>	<i>998</i>	<i>846</i>	<i>585</i>	<i>7,010</i>
<i>Unweighted base</i>	<i>652</i>	<i>838</i>	<i>898</i>	<i>1,073</i>	<i>1,078</i>	<i>1,077</i>	<i>742</i>	<i>6,358</i>
Women								
<i>Weighted base</i>	<i>952</i>	<i>1,215</i>	<i>1,140</i>	<i>1,277</i>	<i>1,039</i>	<i>910</i>	<i>768</i>	<i>7,301</i>
<i>Unweighted base</i>	<i>732</i>	<i>1,282</i>	<i>1,206</i>	<i>1,398</i>	<i>1,262</i>	<i>1,194</i>	<i>874</i>	<i>7,948</i>
All adults								
<i>Weighted base</i>	<i>1,961</i>	<i>2,420</i>	<i>2,268</i>	<i>2,515</i>	<i>2,038</i>	<i>1,757</i>	<i>1,352</i>	<i>14,311</i>
<i>Unweighted base</i>	<i>1,384</i>	<i>2,120</i>	<i>2,104</i>	<i>2,471</i>	<i>2,340</i>	<i>2,271</i>	<i>1,616</i>	<i>14,306</i>

Base: Aged 16 and over with a valid DSM-IV score, England, Scotland, and Wales

^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

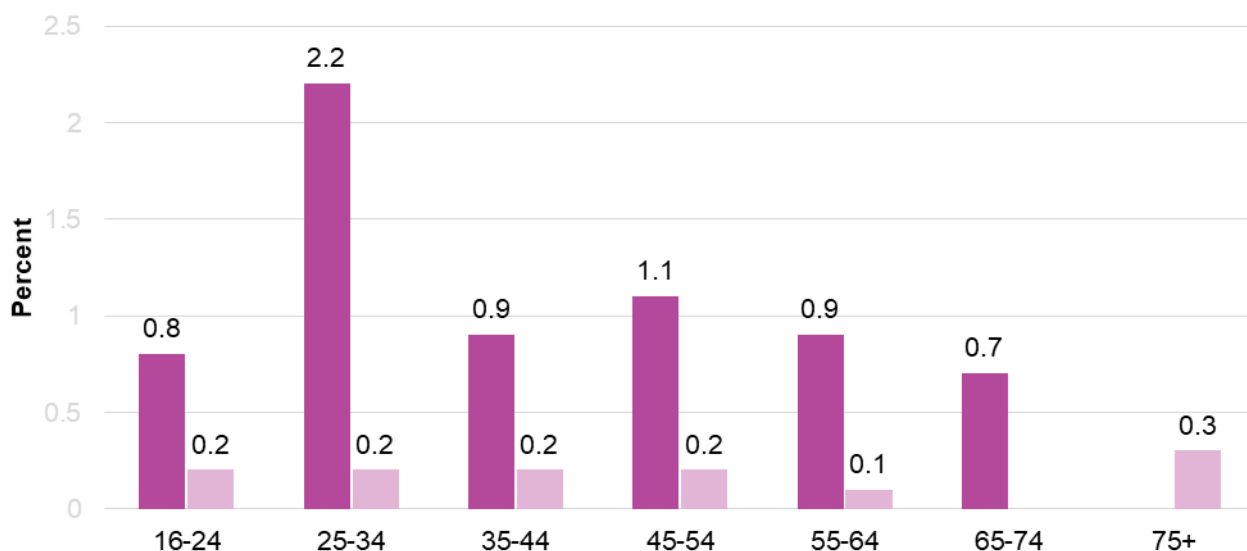
^bEstimates of prevalence are shown to one decimal place because of generally low problem gambling prevalence rates.

Figure 5:1 Problem gambling prevalence according to the DSM-IV, by age

Base: Aged 16 and over with a valid DSM-IV score

■ Men

■ Women



5.3.2 Prevalence according to the PGSI

According to the PGSI, problem gambling prevalence among adults was 0.5%. The confidence interval around the estimate for all adults is 0.3% to 0.7%, meaning we can be 95% confident that the true estimate falls between these two values.

As with the DSM-IV, men were more likely than women to be classified as problem gamblers (0.9% and 0.1% respectively). Mean PGSI scores followed a similar pattern being higher among men (0.24) than women (0.04).

There were no observations of problem gambling among those aged 75 and over.

As shown in Figure 5:2, among men, the proportion of problem gamblers according to the PGSI was again highest among those aged 25 to 34 (2.1%). Among women, there was no significant variation by age. No men aged 75 and over or women aged 65 and over were categorised as problem gamblers according to the PGSI.

Mean PGSI scores were highest among men in the youngest age groups and lower among older men.

Once again there were too few observations to indicate whether there was any pattern of problem gambling prevalence by age for women.

Table 5:2 Problem gambling prevalence according to PGSI^a, by age and sex^b

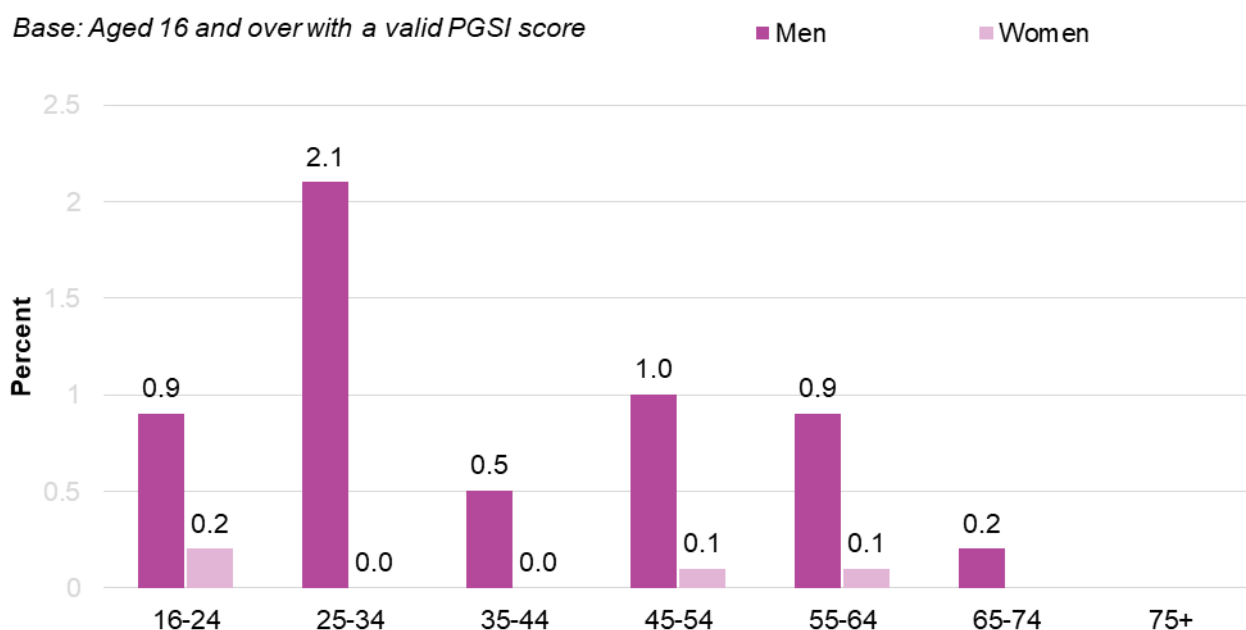
PGSI scores	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
Non problem gambler	86.8	87.4	94.2	95.4	96.0	98.0	99.1	93.3
Low risk gambler	9.9	6.9	2.2	2.5	1.9	1.5	0.6	3.9
Moderate risk gambler	2.4	3.6	3.1	1.1	1.2	0.3	0.3	1.9
Problem gambler	0.9	2.1	0.5	1.0	0.9	0.2	-	0.9
Mean PGSI score	0.35	0.46	0.24	0.21	0.18	0.04	0.02	0.24
Standard error of mean	0.08	0.10	0.06	0.05	0.05	0.02	0.01	0.03
Women								
Non problem gambler	98.0	97.9	98.0	98.4	98.7	99.2	99.6	98.5
Low risk gambler	1.4	1.6	1.0	1.1	1.1	0.7	0.2	1.1
Moderate risk gambler	0.5	0.5	0.9	0.3	0.1	0.2	0.2	0.4
Problem gambler	0.2	0.0	0.0	0.1	0.1	-	-	0.1
Mean PGSI score	0.07	0.05	0.06	0.04	0.03	0.01	0.01	0.04
Standard error of mean	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01
All adults								
Non problem gambler	92.2	92.7	96.1	96.9	97.4	98.6	99.4	95.9
Low risk gambler	5.8	4.2	1.6	1.8	1.5	1.1	0.4	2.4
Moderate risk gambler	1.5	2.1	2.0	0.7	0.7	0.2	0.2	1.1
Problem gambler	0.6	1.0	0.3	0.6	0.5	0.1	-	0.5
Mean PGSI score	0.21	0.25	0.15	0.12	0.10	0.03	0.01	0.14
Standard error of mean	0.04	0.05	0.03	0.03	0.03	0.01	0.01	0.01
Men								
<i>Weighted base</i>	<i>1,007</i>	<i>1,203</i>	<i>1,126</i>	<i>1,236</i>	<i>996</i>	<i>845</i>	<i>584</i>	<i>6,996</i>
<i>Unweighted base</i>	<i>651</i>	<i>836</i>	<i>898</i>	<i>1,071</i>	<i>1,074</i>	<i>1,074</i>	<i>740</i>	<i>6,344</i>
Women								
<i>Weighted base</i>	<i>950</i>	<i>1,212</i>	<i>1,138</i>	<i>1,274</i>	<i>1,037</i>	<i>908</i>	<i>766</i>	<i>7,287</i>
<i>Unweighted base</i>	<i>732</i>	<i>1,280</i>	<i>1,204</i>	<i>1,396</i>	<i>1,260</i>	<i>1,189</i>	<i>872</i>	<i>7,933</i>
All adults								
<i>Weighted base</i>	<i>1,957</i>	<i>2,415</i>	<i>2,264</i>	<i>2,510</i>	<i>2,034</i>	<i>1,753</i>	<i>1,350</i>	<i>14,283</i>
<i>Unweighted base</i>	<i>1,383</i>	<i>2,116</i>	<i>2,102</i>	<i>2,467</i>	<i>2,334</i>	<i>2,263</i>	<i>1,612</i>	<i>14,277</i>

Base: Aged 16 and over with a valid PGSI score, England, Scotland, and Wales

^aPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^bEstimates of prevalence are shown to one decimal place because of generally low problem gambling prevalence rates.

Figure 5:2 Problem gambling prevalence according to the PGSI, by age



5.3.3 Prevalence according to either screen

As explained in the introduction to this chapter, many different ways to measure problem gambling in population based surveys exist. For this reason, surveys measuring gambling problems in Britain have tended to include two different instruments as each captures a slightly different range of people and problems. It is therefore possible to produce a problem gambling estimate based on whether participants were categorised as a problem gambler according to either the DSM-IV or the PGSI.

The proportion of problem gamblers among adults as measured by either the DSM-IV or the PGSI was 0.7%. The confidence interval around the estimate for all adults is 0.5% to 0.9%, meaning we can be 95% confident that the true estimate falls between these two values.

Men were more likely than women to be classified as a problem gambler by one or other measure (1.2% and 0.2% respectively). The age pattern according to the combined measure was similar to each scale separately; men aged between 25 and 34 had the highest rate, but variation by age for women was not statistically significant.

Table 5:3 Problem gambling prevalence according to either DSM-IV^a or PGSI^b, by age and sex^c

Classification according to either DSM-IV or PGSI scores	Age group							Total %
	16-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75+ %	
Men								
Non problem gambler	99.0	97.6	99.0	98.9	98.7	99.1	100.0	98.8
Problem gambler	1.0	2.4	1.0	1.1	1.3	0.9	-	1.2
Women								
Non problem gambler	99.8	99.8	99.8	99.7	99.9	100.0	99.7	99.8
Problem gambler	0.2	0.2	0.2	0.3	0.1	-	0.3	0.2
All adults								
Non problem gambler	99.4	98.7	99.4	99.3	99.3	99.6	99.9	99.3
Problem gambler	0.6	1.3	0.6	0.7	0.7	0.4	0.1	0.7
Weighted base								
<i>Men</i>	<i>1,010</i>	<i>1,205</i>	<i>1,127</i>	<i>1,238</i>	<i>998</i>	<i>847</i>	<i>586</i>	<i>7,012</i>
<i>Women</i>	<i>951</i>	<i>1,214</i>	<i>1,140</i>	<i>1,277</i>	<i>1,040</i>	<i>910</i>	<i>771</i>	<i>7,302</i>
<i>All adults</i>	<i>1,961</i>	<i>2,419</i>	<i>2,267</i>	<i>2,515</i>	<i>2,038</i>	<i>1,757</i>	<i>1,357</i>	<i>14,314</i>
Unweighted base								
<i>Men</i>	<i>652</i>	<i>838</i>	<i>898</i>	<i>1,073</i>	<i>1,078</i>	<i>1,077</i>	<i>743</i>	<i>6,359</i>
<i>Women</i>	<i>732</i>	<i>1,282</i>	<i>1,206</i>	<i>1,398</i>	<i>1,262</i>	<i>1,194</i>	<i>875</i>	<i>7,949</i>
<i>All adults</i>	<i>1,384</i>	<i>2,120</i>	<i>2,104</i>	<i>2,471</i>	<i>2,340</i>	<i>2,271</i>	<i>1,618</i>	<i>14,308</i>

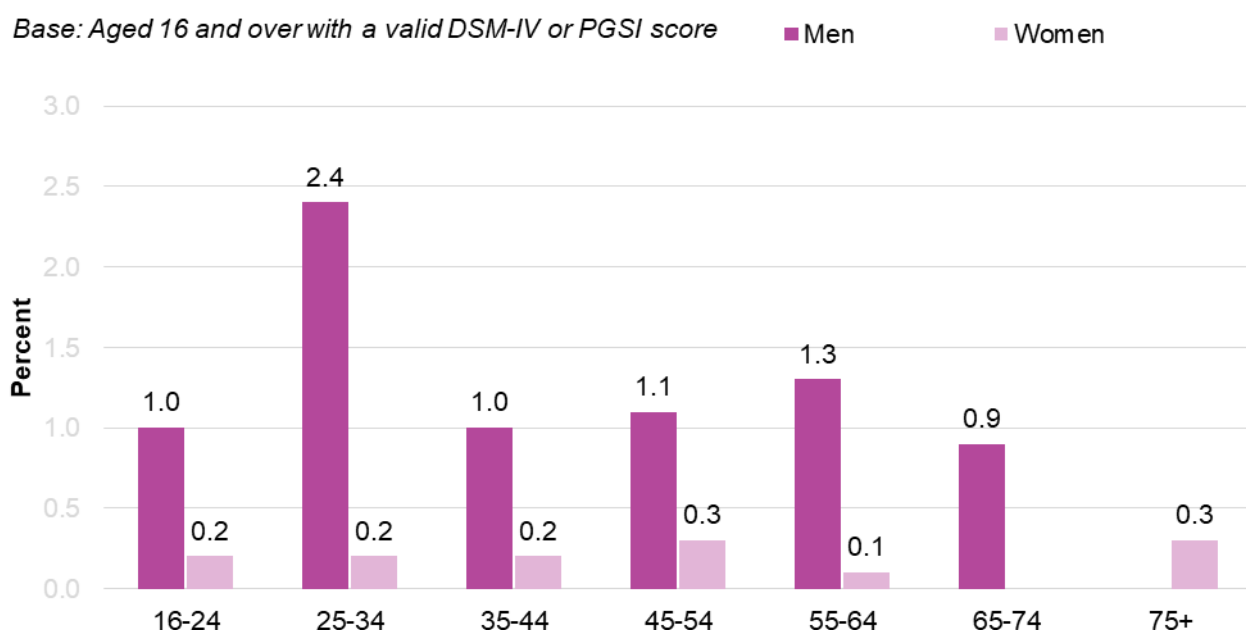
Base: Aged 16 and over with a valid DSM-IV or PGSI score, England, Scotland, and Wales

^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^cEstimates of prevalence are shown to one decimal place because of generally low problem gambling prevalence rates.

Figure 5:3 Problem gambling prevalence according to either the DSM-IV or PGSI, by age



5.3.4 Number of problem gamblers in the population

In 2016, the number of adult problem gamblers in Great Britain was approximately 290,000 according to the DSM-IV, 230,000 according to the PGSI and approximately 340,000 according to either screen.

These figures are estimates and should be considered alongside their confidence intervals, as shown by Table 5:4. The confidence interval for the DSM-IV estimate was 0.4% to 0.8%, for the PGSI estimate 0.3% to 0.7% and for either screen 0.5% to 0.9%. In other words, we can be 95% confident that the true estimate of problem gamblers in the population is somewhere between 200,000 and 410,000 adults according to the DSM-IV, between 160,000 and 350,000 adults according to the PGSI, and between 250,000 and 460,000 adults according to either screen.

Table 5:4 Number of problem gamblers according to DSM-IV^a, PGSI^b, or either

Problem gambling measure	Number in population	95% confidence interval	
		Lower	Upper
DSM-IV	290,000	200,000	410,000
PGSI	230,000	160,000	350,000
Either DSM-IV or PGSI	340,000	250,000	460,000

Base: Aged 16 and over with a valid DSM-IV or PGSI score, England, Scotland and Wales

^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

5.3.5 Problem gambling prevalence by activity

Table 5:5 presents the proportion of problem gamblers for individual gambling activity undertaken in the past year. Those who gamble frequently (at least once a month or more) tend to take part in a range of different activities, and the gambling activities shown are not mutually exclusive.

The highest rates of problem gambling were among those who had played machines in bookmakers (13.7%), participated in betting offline on events other than sports or horse or dog racing (13.1%), reported another gambling activity not covered by the survey question (11.6%), betting offline on dog racing (9.5%) and online gambling on slots, casino or bingo games (9.2%). These were all low participation activities (see Table 2:1).

As in 2015, the most popular gambling activities – the National Lottery draws, other lotteries and scratchcards – had the lowest proportion of problem gamblers of all activities: between 1.0% and 1.8%. However, due to their popularity, the actual number of problem gamblers among National Lottery and other lottery players is higher than for overall low participation activities such as playing machines in bookmakers or betting on sports events, although there is overlap between the two groups.

Table 5:5 Problem gambling prevalence according to either DSM-IV^a or PGSI^b, by activity^c

Gambling activity	Problem gambler			
		According to either DSM-IV or PGSI	Weighted base ^d	Unweighted base ^d
Lotteries and related products				
National Lottery draws	%	1.0	5,920	6,236
Scratchcards	%	1.8	2,905	3,017
Other lotteries	%	1.5	1,968	2,172
Machines/games				
Football pools	%	7.2	388	362
Bingo (not online)	%	3.9	734	886
Slot machines	%	6.4	884	795
Machines in a bookmakers	%	13.7	424	329
Casino table games (not online)	%	7.4	454	354
Poker played in pubs or clubs	%	8.5	125	109
Online gambling on slots, casino or bingo games	%	9.2	449	394
Betting Activities				
Online betting with a bookmaker	%	2.5	1,081	890
Betting exchange	%	5.4	162	98
Horse races (not online)	%	3.3	1,341	1,327
Dog races (not online)	%	9.5	297	225
Sports events (not online)	%	5.1	751	657
Other events (not online)	%	13.1	188	185
Spread betting	%	8.0	82	64
Private betting	%	2.5	572	423
Other gambling activity				
Any other gambling	%	11.6	180	153
Summaries				
Any gambling activity	%	1.2	7,979	8,159
Any gambling (excluding National Lottery draws only) ^e	%	1.6	5,967	5,995
Any online gambling or betting ^f	%	3.5	1,335	1,119

Base: Aged 16 and over with a valid DSM-IV or PGSI score, England, Scotland and Wales

^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling

^cEstimates are shown to one decimal place because of generally low problem gambling prevalence rates.

^dThe base size for each row in the table differs. The percentage figures show problem gamblers among those who participated in a particular activity, or who belong to a summary group. Individual survey participants may be included in multiple rows.

^eThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^fThis category includes gamblers who participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange

5.3.6 Problem gambling prevalence by number of activities

Table 5:6 and Figure 5:4 show the proportions of problem gamblers by the number of gambling activities undertaken in the past 12 months.

The lowest proportion of problem gamblers was found among people who had taken part in just one type of gambling activity (0.3%), or two or three activities (0.4%) in the last year. The proportion increased to 3.2% of those who had taken part in four to six activities, and was highest among those who had participated in seven or more activities in the past year (13.2%).

Table 5:6 Problem gambling prevalence according to either DSM-IV^a or PGSI^b, by number of gambling activities^c

Number of gambling activities		Problem gambler		
		According to either DSM-IV or PGSI	<i>Weighted base</i>	<i>Unweighted base</i>
1 activity	%	0.3	3,250	3,406
2-3 activities	%	0.4	3,377	3,487
4-6 activities	%	3.2	1,025	987
7 or more activities	%	13.2	327	279

Base: Past year gamblers aged 16 and over with a valid DSM-IV or PGSI score, England, Scotland and Wales

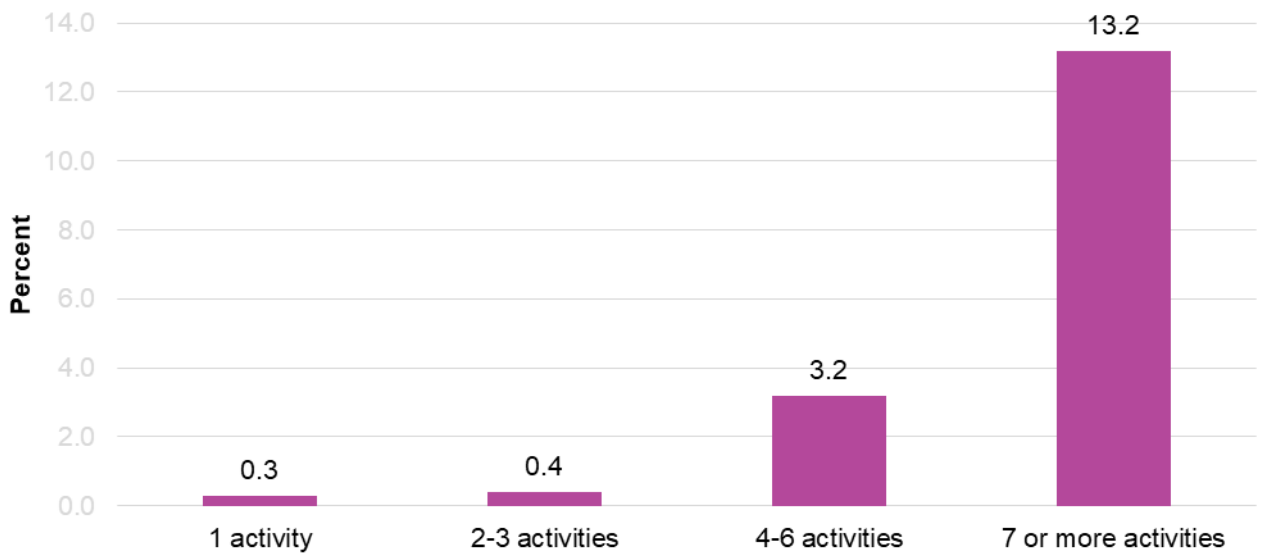
^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^cEstimates are shown to one decimal place because of generally low problem gambling prevalence rates.

Figure 5:4 Problem gambling prevalence according to either the DSM-IV^a or PGSI^b, by number of gambling activities

Base: Aged 16 and over with a valid DSM-IV or PGSI score, England, Scotland and Wales



^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

5.3.7 Problem gambling prevalence by frequency of gambling participation

A significant difference in the proportion of problem gamblers was also found for the frequency of participation in gambling activities. Table 5:7 and Figure 5:5 show that the proportion of problem gamblers decreased overall as gambling frequency decreased, so that the prevalence of problem gambling was lowest for those who gambled only once or twice a year (0.1%) and highest among those who gambled two or more times a week (4.5%).

Table 5:7 Problem gambling prevalence according to either DSM-IV^a or PGSI^b, by frequency of gambling participation^c

Frequency of gambling participation		Problem gambler According to either DSM-IV or PGSI	Weighted base	Unweighted base
2 or more times a week	%	4.5	1,047	1,274
Once a week	%	1.1	2,175	2,402
Less than once a week, more than once a month	%	0.8	800	826
Once a month	%	1.1	928	906
Every 2-3 months	%	0.6	1,058	935
Once or twice a year	%	0.1	1,896	1,736

Base: Past year gamblers aged 16 and over with a valid DSM-IV or PGSI score, England, Scotland and Wales

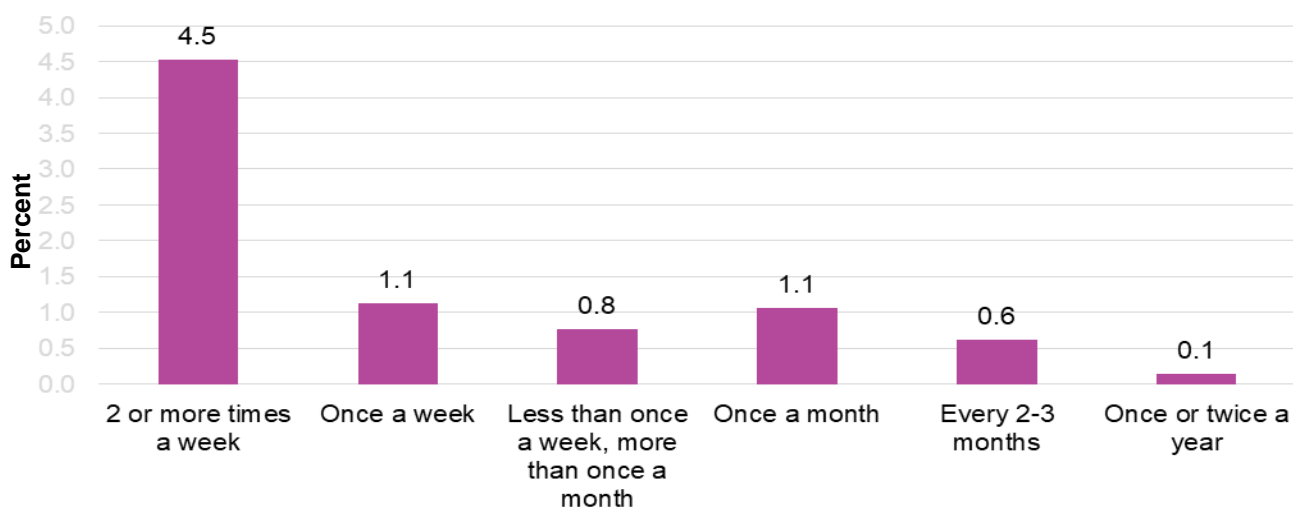
^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^cEstimates are shown to one decimal place because of generally low problem gambling prevalence rates.

Figure 5:5 Problem gambling prevalence according to either the DSM-IV^a or PGSI^b, by frequency of gambling participation

Base: Aged 16 and over with a valid DSM-IV or PGSI score, England, Scotland and Wales



^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

5.4 Profile of problem gamblers

This section examines whether problem gambling prevalence varies by various socio-demographic characteristics including ethnicity, economic activity, English region and country, and health indicators including GHQ-12, WEMWBS, and weekly alcohol consumption. A detailed outline of the survey measures used to collect data, scoring and thresholds employed for GHQ-12, WEMWBS and weekly alcohol consumption is provided in Chapter 2 of this report.

5.4.1 Problem gambling prevalence by socio-demographic characteristics

Problem gambling prevalence according to either the DSM-IV or PGSI did not vary significantly for any of the socio-demographic characteristics except for economic activity.

For economic activity, no full-time students were classified as problem gamblers.¹⁰ Rates of problem gambling were otherwise lowest among retired people (0.2%). The rate increased to 0.7% for those in paid work¹¹ and 1.4 % for those who are economically inactive but not students, unemployed or retired (for example, the long-term sick, carers and those looking after home or family).¹² The highest prevalence of problem gambling was found among those who were unemployed (1.9%).

Whilst problem gambling did not vary significantly by ethnicity in 2016, this may be due to the low number of problem gamblers from ethnic minority groups observed in the survey samples.¹³ When combining data collected in 2012, 2015 and 2016, problem gambling is associated with ethnicity.

Across all three survey years, the proportion of problem gamblers tends to be higher among people from Black ethnic groups and among other minority groups (not covered by White, Black or Asian) than among those from Asian and White backgrounds.¹⁴

Table 5:8 Problem gambling prevalence according to either DSM-IV^a or PGSI^b, by socio-demographic characteristics^c

Socio-demographic characteristics		Problem gambler		
		According to either DSM-IV or PGSI	<i>Weighted base</i>	<i>Unweighted base</i>
Ethnic group^d				
White	%	0.6	11,390	9,850
Asian	%	0.4	926	462
Black	%	2.8	415	188
Other, including mixed	%	1.2	349	191
Economic activity^e				
In paid work	%	0.7	7,680	5,527
In full-time education	%	-	763	435
Retired	%	0.2	2,972	2,747
Unemployed	%	1.9	707	386
Other inactive	%	1.4	1,477	1,188
English region				
North East	%	1.1	600	598
North West	%	0.5	1,621	937
Yorkshire and the Humber	%	0.8	1,220	583
East Midlands	%	0.7	1,067	610
West Midlands	%	1.1	1,294	605
East of England	%	0.6	1,374	798
London	%	0.9	1,933	783
South East	%	0.3	2,022	1,054
South West	%	0.2	1,260	725
Country				
England	%	0.7	12,391	6,693
Scotland	%	0.9	1,217	3,598
Wales	%	0.8	706	4,017

Base: Aged 16 and over with a valid DSM-IV or PGSI score, England, Scotland and Wales

^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^cEstimates are shown to one decimal place because of generally low problem gambling prevalence rates.

^dEstimates by ethnic group are based on England and Wales (comparable information was not available for Scotland).

^eEstimates by economic activity are based on England and Scotland (comparable information was not available for Wales).

5.4.2 Problem gambling prevalence by health indicators

Table 5:9 presents problem gambling rates according to either the DSM-IV or the PGSI in England and Scotland by mental health (GHQ-12 score), well-being (WEMWBS score) and weekly alcohol consumption. No comparable data was available for Wales. The GHQ-12 is scored on a range from 0 to 12. The GHQ-12 scores have been demarcated into three categories; a score of 0 (indicating no evidence of probable mental ill health), 1 to 3 (indicating less than optimal mental health) and 4+ (indicating probable psychological disturbance or mental ill health). WEMWBS scores were aggregated into two groups, those in the lowest 10% of scores and the other well-being scores. Alcohol consumption is split into three categories, based upon the amount people drink; non-drinkers; drinking at a level indicating a low risk of harm (up to and including 14 units per week) and drinking at a level indicating increased risk of harm (over 14 units per week). A more detailed outline of these measures can be found in Chapter 2 of this report.

The proportion of problem gamblers varied with mental health as measured by GHQ-12. Unlike low risk and moderate risk gambling, the proportion of problem gamblers also varied with well-being as measured by WEMWBS but not with weekly alcohol consumption.

Problem gambling prevalence was higher among those who scored 4 or more on the GHQ-12 indicating probable mental ill health (2.2%) than among those with a GHQ-12 score of 0 indicating no evidence of probable mental ill health (0.2%).

Likewise, problem gambling was significantly more prevalent among those with a low well-being score (lowest 10% of scores on WEMWBS); 2.6%, compared with 0.5% among adults with a higher well-being score.

Table 5:9 Problem gambling prevalence according to either DSM-IV^a or PGSI^b, by health indicator^c

Health indicators	Problem gambler			
		According to either DSM-IV or PGSI	Weighted base	Unweighted base
GHQ-12 score^d				
No evidence of mental ill health	%	0.2	5,448	5,724
Less than optimal mental health	%	0.6	2,758	2,603
Probable mental ill health	%	2.2	1,846	1,750
WEMWBS score^e				
Low well-being score	%	2.6	946	970
Other well-being score	%	0.5	9,132	9,124
Weekly alcohol consumption				
Non-drinker (0 units per week)	%	0.3	1,785	1,732
Low risk (up to 14 units per week)	%	0.7	5,881	5,997
Increased risk (over 14 units per week)	%	0.8	2,428	2,415

Base: Aged 16 and over with a valid DSM-IV or PGSI score, England and Scotland

^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling.

^cEstimates are shown to one decimal place because of generally low problem gambling prevalence rates.

^dA GHQ-12 score of 0 is indicative of no evidence of mental ill health, a score of 1-3 is indicative of less than optimal mental health, a score of 4+ is indicative of probable mental ill health.

^eA 'Low well-being score' denotes the lowest 10% of scores on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). A 'Other well-being score' denotes all other scores on WEMWBS.

Notes and references

¹ Lesieur, H.R., Rosenthal, M.D. (1991). Pathological gambling: A review of the literature (prepared for the American Psychiatric Association Task Force on DSM-IV Committee on disorders of impulse control not elsewhere classified). *Journal of Gambling Studies*, 7 (1), 5-40.

² American Psychiatric Association (1993). *Diagnostic and statistical manual of mental disorders*, 4th edition. Washington DC: American Psychiatric Association.

³ Ferris, J., Wynne, H. (2001). *The Canadian Problem Gambling Index: Final Report*. Canada: The Canadian Centre on Substance Abuse.

⁴ The HSE and SHeS were both planned and implemented prior to the formal publication of the DSM-IV and therefore used the DSM-IV. This replicates the version used in the BGPS series.

⁵ This is with the exception of the 'chasing losses' item which is rated on a scale ranging between 'never' to 'every time I lost'. See Appendix B for the full question wording.

⁶ Fisher, S.E. (1996). *Gambling and problem gambling among casino patrons, Report to the British Casino Industry Consortium*, Plymouth UK; National Gambling Impact Study Commission (NGISC) (US) 1999. Final Report. <http://govinfo.library.unt.edu/ngisc/reports/fullrpt.html>; Australian Productivity Commission (APC) (1999). *Australia's Gambling Industries*. Report No. 10, Canberra: Ausinfo.

Clarke D., Abbott M., Tse S., Townsend S. (2006). Gender, Age, Ethnic and Occupational Associations with Pathological Gambling in a New Zealand Urban Sample. *New Zealand Journal of Psychology*, 35(2), 84-91.

⁷ Ferris, J., Wynne, H. (2001). *The Canadian Problem Gambling Index: Final Report*. Canada: The Canadian Centre on Substance Abuse.

⁸ Wynn, H. (2003). *Introducing the Canadian Problem Gambling Index*. Wynne Resources: Canada.

⁹ More recently, some academics have recommended that a lower threshold be used to identify problem gamblers using the PGSI. However, this report maintains the original scoring so as to preserve comparisons with the BGPS series.

¹⁰ Note that the sample only included adults living in private households meaning that people living in institutions, like students living in halls of residence, were excluded from the study.

¹¹ The in paid work group includes people who are in employment, self-employed or in government training.

¹² The other economically inactive group includes people not otherwise classifiable, for example the long-term sick, carers and those looking after home or family.

¹³ Small sample sizes can affect the power of statistical significance tests and result in false positives (type I error) or false negatives (type II error).

¹⁴ Table for combined prevalence figures available on request.

6 Themes and trends

6.1 Key themes

For many people in Britain, gambling is a feature of everyday life. Over half of people in Britain gamble and those that do tend to gamble fairly regularly. This report highlights the latest insights into gambling behaviour in Britain. In some cases, previous patterns are confirmed. For example, those who are unemployed or from certain ethnic groups having higher rates of problem gambling despite being less likely to gamble overall, but new insights have also been highlighted.

For the first time in the Health Survey series and the first time since 2010, this report includes information about how often people gamble. As Chapter 3 shows, the vast majority of past year gamblers are regular gamblers, with 62% gambling at least once a month and 40% gambling at least once a week. Frequency of gambling is highly associated with gambling problems, and the threshold for the increased experience of problems seems to be gambling more than once a week.

Chapter 5 shows that 5% of those who gambled at least twice a week were problem gamblers compared with no more than 1% of those who gambled once a week or less often. The same pattern is true when looking at moderate risk gamblers, who experience lower levels of harms from gambling. Rates of moderate risk gambling increased from 2% among those who gambled once in the past week to 8% among those who gambled twice a week or more. This means that more than one in ten people who gambled twice a week or more were either problem or moderate risk gamblers.

Because of this, it is important to understand who these very engaged gamblers are. Chapter 3 shows that they are almost twice as likely to be male than female or to be aged 45 and over than 16-24. This latter observation runs counter to prevailing wisdom that younger people are the most engaged with gambling. Those gambling at least twice a week are more likely to be from Black ethnic groups and are more likely to have low well-being scores. Those who are unemployed or from Asian groups are less likely to be frequent gamblers, but still experienced higher rates of problem gambling, underlining that gambling frequency alone is not sufficient to explain problem gambling among these groups.

This report also includes a focus on well-being and mental health. It is increasingly recognised that gambling can have an adverse impact on health and well-being for individuals, families and communities. The newly proposed definition of gambling-related harms adopted for British policy explicitly recognises this, stating that gambling-related harms are the adverse impacts from gambling on the health and well-being of individuals, families, communities and society.¹

This report provides important insight on the relationship between well-being, mental ill health (as measured by the GHQ-12) and gambling behaviour. Those with the lowest levels of well-being or poorest mental health generally had similar levels of past year gambling participation to others and their frequency of gambling was also similar. Despite this, these groups were far more likely to experience problems with their gambling; prevalence of problem gambling was 2.5% among those with the lowest well-being compared with 0.5% for others and was 2.2% among those with probable mental ill health compared with 0.2% for those with no evidence of probable mental ill health. This suggests that those with low well-being and probable mental ill health

should be considered specific vulnerable groups for the experience of gambling problems and further work is needed to unpick the nature of these associations.

6.2 Trends in gambling behaviours

A key aim of this report was to assess change in behaviour over time.² Table 6.1 shows trends between 2012 and 2016 in past year gambling participation in England and Scotland. As in 2015, there was a continued decline in past year gambling participation in 2016, largely driven by the continuing fall in popularity of the National Lottery draws in terms of the number of people playing; participation fell from 52% in 2012 to 46% in 2015 and then to 41% in 2016. For other activities, participation rates tended to be similar between 2012 and 2016. However, some activities bucked this trend, notably online gambling and specifically online betting, where past year rates of participation continued to grow. In 2012, 5% of adults in England and Scotland had bet online; in 2015 this rose to 7% and to 8% in 2016.

As shown in Table 6.2, rates of problem gambling, moderate and low risk gambling have remained stable since 2012 with no statistically significant changes – meaning that whilst they are not increasing, neither are they decreasing. Much remains to be done if harms from gambling are to be reduced.

Table 6:1 Trends in past year gambling participation in England and Scotland

Gambling behavior	Survey year		
	2012	2015	2016
Past year participation	%	%	%
Lotteries and related products			
National Lottery draws	52	46	41
Scratchcards	19	22	20
Other lotteries	14	15	14
Machines/games			
Football pools	3	3	3
Bingo (not online)	5	6	5
Slot machines	7	7	6
Machines in a bookmakers	3	3	3
Casino table games (not online)	3	4	3
Poker played in pubs or clubs	1	1	1
Online gambling on slots, casino or bingo games	3	4	3
Betting activities			
Online betting with a bookmaker	5	7	8
Betting exchange	1	1	1
Horse races (not online)	10	11	9
Dog races (not online)	3	3	2
Sports events (not online)	3	3	2
Other events (not online)	1	2	1
Spread betting	1	1	1
Private betting	5	5	4
Other gambling activity			
Any other gambling	2	2	1
Summaries			
Any gambling activity	65	63	57
Any gambling (excluding National Lottery draws only) ^a	43	45	42
Any online gambling or betting ^b	7	10	10

Base: Aged 16 and over, England and Scotland

^aThis category excludes gamblers who only participated in the National Lottery draws and not in any other gambling activities.

^bThis category includes gamblers who had participated in online gambling on slots, casino or bingo games, online betting with a bookmaker, or online betting using a betting exchange.

Table 6:2 Trends in problem gambling in England and Scotland

Gambling behavior	Survey year		
	2012	2015	2016
	%	%	%
Problem gambling (all adults)			
DSM-IV^a			
Non-problem gambler/non-gambler	99.5	99.3	99.4
Problem gambler	0.5	0.7	0.6
PGSI^b			
Non-problem gambler/non-gambler	95.4	95.5	95.9
Low risk gambler	3.2	2.8	2.5
Moderate risk gambler	1.0	1.1	1.1
Problem gambler	0.4	0.6	0.5
Problem gambler according to either the DSM-IV or PGSI	0.6	0.8	0.7
Problem gambling among past year gamblers			
DSM-IV			
Non-problem gambler	99.3	98.8	98.9
Problem gambler	0.7	1.2	1.1
PGSI			
Non-problem gambler	92.7	92.6	92.7
Low risk gambler	5.0	4.6	4.4
Moderate risk gambler	1.6	1.8	2.0
Problem gambler	0.6	1.0	0.9
Problem gambler according to either the DSM-IV or PGSI	0.9	1.4	1.2

Base: Aged 16 and over with a valid DSM-IV or PGSI score, England and Scotland

^aDSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling.

^bPGSI: Problem Gambling Severity Index. A score of 8 or more is indicative of problem gambling. A score of 3-7 is indicative of moderate risk gambling. A score of 1-2 is indicative of low risk gambling

^cEstimates are shown to one decimal place because of generally low problem gambling prevalence rates.

Notes and references

¹ Wardle et al (2018) *Measuring gambling-related harm: a framework for action*. Responsible Gambling Strategy Board (publication pending)

² This section focuses on trends for England and Scotland only as data for Wales was not collected in 2012.

Appendix A. Weighting

Full details of the weighting strategies used for the HSE and SHeS individually can be found in their respective technical reports.¹² The Wales Omnibus data uses quotas and weighting by age group within sex within Local Authority grouping to give each cell its correct incidence within the total Welsh population derived from the results of the 2011 Census.

For analysis of the gambling data, some additional adjustments were applied to the standard survey weights in order to:

- weight the data for non-response to both the gambling participation questions and the problem gambling screens;
- scale the data so that it matched the population distribution of England, Scotland and Wales.

Gambling participation weights

The sub-sample of 14,765 respondents to the three surveys who answered at least one of the gambling participation questions was calibrated separately within each survey, so that the weighted distributions of age-by-gender and region (Government Office Regions (GOR) for the HSE, Health Board for the SHeS, local authority grouping for Wales) matched the ONS 2016 mid-year population estimates.

For each eligible case, the combined weight was calculated by dividing the calibrated (grossed) weight by the overall mean.

Problem gambling (DSM-IV and PGSI) weights

The sub-sample of respondents who completed the problem gambling screens (DSM-IV: 14,306, PGSI: 14,277) was calibrated separately within each survey, so that the weighted distributions of age-by-gender and region (GOR for the HSE, Health Board for the SHeS, local authority grouping for Wales) matched the ONS 2016 mid-year population estimates for England and Scotland respectively.

For each eligible case, the combined weight was calculated by dividing the calibrated (grossed) weight by the overall mean, separately for DSM-IV and PGSI.

Notes and references

¹ <https://files.digital.nhs.uk/publication/m/3/hse2016-methods-text.pdf>

² <https://beta.gov.scot/publications/scottish-health-survey-2016-volume-2-technical-report/documents/00525486.pdf?inline=true>

Appendix B. Scoring the problem gambling screening instruments

Introduction

Two screening instruments were used to identify problem gamblers: the DSM-IV and the PGSI. This section explains how each instrument was scored and the thresholds used to classify a problem gambler.

Scoring the DSM-IV: dichotomous scoring

The bulk of this report uses the dichotomous scoring system for the DSM-IV. The ten DSM-IV criteria are shown in Table B:1 below. The second column shows which response options were counted as positive and received a score of 1.

Table B:1 DSM-IV items	
Chasing losses	Every time I lost/Most of the time I lost
A preoccupation with gambling	Fairly Often/Very Often
A need to gambling with increasing amounts of money	Fairly Often/Very Often
Being restless or irritable when trying to stop gambling	Fairly Often/Very Often
Gambling as escapism	Fairly Often/Very Often
Lying to people to conceal the extent of gambling	Fairly Often/Very Often
Having tried but failed to cut back on gambling	Fairly Often/Very Often
Having committed a crime to finance gambling	Occasionally/Fairly Often/Very Often
Having risked or lost a relationship/job/educational opportunity because of gambling	Occasionally/Fairly Often/Very Often
Reliance on others to help in a financial crisis caused by gambling	Occasionally/Fairly Often/Very Often

This means that a DSM-IV score of between 0 and 10 is possible. The threshold for problem gambling was 3 or over, in line with previous research and the 2015, 2012, 2007 and 1999 gambling reports. Cases were excluded from the problem gambling analysis if more than half the DSM-IV items were missing (and the score was <3). Twenty-three cases were excluded for this reason. Responses for five or more but not all ten DSM-IV items were available for 72 cases. These cases were included in the analysis.

Scoring the PGSI

The PGSI criteria are shown in Table B:2.

Table B:2 PGSI items
Bet more than can afford to lose
A need to gamble with increasing amounts of money
Chasing losses
Borrowed money or sold items to get money to gamble
Felt had a problem with gambling
Gambling causing health problems including stress and anxiety
People criticising gambling behaviour
Gambling causing financial problems for you or your household
Felt guilty about way that you gamble or what happens when you gamble

All nine PGSI items have the following response codes: never, sometimes, most of the time, almost always. The response codes for each item are scored in the following way:

- ◆ score 0 for each response of 'never';
- ◆ score 1 for each response of 'sometimes';
- ◆ score 2 for each 'most of the time';
- ◆ score 3 for each 'almost always'.

This means a PSGI score of between 0 and 27 points is possible. There are four classifications categories for PGSI scores. Their description and scored cut-off points are shown in Table B:3.

Table B:3 PGSI category	
PGSI classification category	PGSI score
Non-problem gambler	0
Low risk gambler	1-2
Moderate risk gambler	3-7
Problem gambler	8+

The threshold for problem gambling was 8 or over, in line with previous research.¹ Cases were excluded from the problem gambling analysis if more than half the PGSI items were missing (and the score was <8). A total of six cases were excluded for this reason (these cases were also excluded from the DSM-IV analysis). Responses to five or more but not all nine PGSI items were available for 22 cases. These cases were included in the analysis.

Notes and references

¹ Wynne, H. (2003). *Introducing the Canadian Problem Gambling Index*, Canada <http://www.gamblingresearch.org/download.sz/The%20CPGI%20V5%20-%20from%20Hal.pdf?docid=6446>

Appendix C. Survey questions

Qa Have you spent any money on any of the following activities **in the last 12 months?**
Please tick **ONE box** for each activity.

	Tick ONE box	
	Yes	No
Tickets for the National Lottery Draw, including Thunderball and Euromillions and tickets bought online	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Scratchcards (but not online or newspaper or magazine scratchcards)	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Tickets for any <u>other</u> lottery, including charity lotteries	<input type="checkbox"/> 1	<input type="checkbox"/> 2
The football pools	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Bingo cards or tickets, including playing at a bingo hall (not online)	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Fruit or slot machines	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Virtual gaming machines <u>in a bookmakers</u> to bet on virtual roulette, poker, blackjack or other games	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Table games (roulette, cards or dice) <u>in a casino</u>	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Playing poker in a pub tournament/ league or at a club	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Online gambling like playing poker, bingo, instant win/scratchcard games, slot machine style games or casino games <u>for money</u>	<input type="checkbox"/> 1	<input type="checkbox"/> 2

Online betting <u>with a bookmaker</u> on any event or sport	<input type="text" value="1"/>	<input type="text" value="2"/>
Betting exchange <i>This is where you lay or back bets against other people using a betting exchange. There is no bookmaker to determine the odds. This is sometimes called 'peer to peer' betting.</i>	<input type="text" value="1"/>	<input type="text" value="2"/>
Betting on horse races <u>in a bookmakers, by phone or at the track</u>	<input type="text" value="1"/>	<input type="text" value="2"/>
Betting on dog races <u>in a bookmakers, by phone or at the track</u>	<input type="text" value="1"/>	<input type="text" value="2"/>
Betting on sports events <u>in a bookmakers, by phone or at the venue</u>	<input type="text" value="1"/>	<input type="text" value="2"/>
Betting on other events <u>in a bookmakers, by phone or at the venue</u>	<input type="text" value="1"/>	<input type="text" value="2"/>
Spread-betting <i>In spread-betting you bet that the outcome of an event will be higher or lower than the bookmaker's prediction. The amount you win or lose depends on how right or wrong you are.</i>	<input type="text" value="1"/>	<input type="text" value="2"/>
Private betting, playing cards or games for money with friends, family or colleagues	<input type="text" value="1"/>	<input type="text" value="2"/>
Another form of gambling in the last 12 months	<input type="text" value="1"/>	<input type="text" value="2"/>

IF YOU TICKED 'YES' FOR ANY OF THE ACTIVITIES AT Qa, PLEASE GO TO Qb OTHERWISE GO TO THE NEXT SECTION.

For the next set of questions about gambling, please indicate the extent to which each one has applied to you in the last 12 months.

In the last 12 months...

Tick ONE box

		Every time I lost	Most of the time	Some of the time (less than half the time I lost)	Never
Qb	When you gamble, how often do you go back another day to win back money you lost?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tick ONE box for each question

		Very often	Fairly often	Occasionally	Never
Qc	How often have you found yourself thinking about gambling (that is reliving past gambling experiences, planning the next time you will play, or thinking of ways to get money to gamble)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Qd	Have you needed to gamble with more and more money to get the excitement you are looking for?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Qe	Have you felt restless or irritable when trying to cut down gambling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Qf	Have you gambled to escape from problems or when you are feeling depressed, anxious or bad about yourself?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Qg	Have you lied to family, or others, to hide the extent of your gambling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Qh	Have you made unsuccessful attempts to control, cut back or stop gambling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Qi	Have you committed a crime in order to finance gambling or to pay gambling debts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Qj	Have you risked or lost an important relationship, job, educational or work opportunity because of gambling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>Qk</i>	Have you asked others to provide money to help with a desperate financial situation caused by gambling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4

In the past 12 months, how often...

Tick ONE box for each question

		Almost always	Most of the time	Sometimes	Never
<i>Ql</i>	...have you bet more than you could really afford to lose?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
<i>Qm</i>	...have you needed to gamble with larger amounts of money to get the same excitement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
<i>Qn</i>	...have you gone back to try to win back the money you'd lost?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
<i>Qo</i>	...have you borrowed money or sold anything to get money to gamble?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
<i>Qp</i>	...have you felt that you might have a problem with gambling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
<i>Qq</i>	...have you felt that gambling has caused you any health problems, including stress or anxiety?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
<i>Qr</i>	...have people criticised your betting, or told you that you have a gambling problem, whether or not you thought it is true?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
<i>Qs</i>	...have you felt your gambling has caused financial problems for you or your household?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
<i>Qt</i>	...have you felt guilty about the way you gamble or what happens when you gamble?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4

