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Summary

- In 2012, for the first time, questions on gambling activity were included in the Health Survey for England. This chapter presents estimates of participation in all forms of gambling in the last year, followed by estimates of problem and at-risk gambling according to two different measurement instruments, the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) and the Problem Gambling Severity Index (PGSI).
- In the last 12 months, 68% of men and 61% of women had participated in gambling activity; with men being more likely than women to do so. The most popular forms of gambling were purchase of tickets for the National Lottery (men 56%, women 49%); purchase of scratchcards (19% and 20% respectively), participation in other lotteries (14% for both men and women) and betting on horse racing (12% and 8% respectively).
- Excluding those who only participated in the National Lottery, 46% of men and 40% of women had gambled on some other activity in the last 12 months.
- Among both men and women, prevalence of gambling in the last year varied by age, with prevalence being highest among the middle age groups (those aged 25-64) and lowest among the very young or very old.
- Gambling prevalence was highest in the top quintiles of equivalised household income (with very similar levels across these), and lowest among the lowest income households. Exceptions to this general pattern were bingo and scratchcards, where those in lower income households were more likely than higher income households to participate.
- There was no overall variation in participation in gambling according to area deprivation as measured by the Index of Multiple Deprivation (IMD).
- On average, men took part in 1.7 different forms of gambling in the last year whereas women took part in fewer activities, 1.2. Among both men and women, the average number of gambling activities varied by age and tended to be higher among younger than older age groups.
- Overall, 4% of men and 1% of women had engaged in seven or more different gambling activities in the last year. Not only were men more likely than women to gamble overall, they were also more likely to have high levels of gambling engagement, reflected in their wider repertoire of gambling activity.
- Men living in the North East and West Midlands reported the highest average number of gambling activities in the last year (2.3 and 2.0 respectively), whereas those living in London and the South West reported significantly fewer activities (averaging 1.5 for both). This pattern was similar, though less pronounced, for women.
- In 2012, 0.8% of men and 0.2% of women were identified as problem gamblers according to the DSM-IV; the 95% confidence interval for men was 0.4% to 1.4% and for women was 0.1% to 0.4%. This means there is a 95% probability that the true estimates for men and women lie between these values.

- According to the PGSI, the problem gambling rate in 2012 was 0.6% of men and 0.1% of women, with 95% confidence intervals of 0.3% to 1.2% and 0.04% to 0.3% respectively.
- Among men, problem gambling prevalence varied with age, being typically higher among younger age groups and decreasing as age increased. For instance, among men aged 16-24, the DSM-IV rate was 2.2%, and this fell to 0.3% for men aged 75 and over. Among women, there were too few observations to be able to discern a distinct pattern for problem gambling by age.
- Overall, 4.8% of men and 1.6% of women were identified as low risk gamblers and a further 1.7% of men and 0.4% of women were categorised as moderate risk gamblers according to the PGSI. Taken together with problem gambling prevalence this shows that 7.1% of men and 2.1% women were identified as at risk of harm from their gambling behaviour in the last 12 months.
- Multivariate logistic regression was used to examine factors associated with moderate risk/problem gambling according to the PGSI. The factors found to be significantly associated in this model were sex, age, whether residing in a Spearhead Primary Care Trust area (PCT) and an increased GHQ-12 score.

7.1 Introduction

In the last decade, the gambling landscape in Britain has changed significantly. This is evident with the rise of online gambling opportunities and also with the implementation of the UK Gambling Act 2005.¹ Fully implemented in 2007, this legislation overhauled the way commercial gambling is regulated, licensed and advertised in the UK.

In Britain, gambling is positioned as a legitimate recreational and leisure activity, with policy responsibility held by the Department for Culture, Media and Sport. However, there is widespread recognition among policy makers, industry and health care professionals alike that, like alcohol consumption, some people who engage in gambling can experience harm. Unlike alcohol consumption, there are no specific policy targets relating to harm minimisation. The Gambling Act 2005, however, contains three core licensing objectives. These are to:

- Prevent gambling from being a source of crime or disorder, being associated with crime or disorder or being used to support crime
- Ensure that gambling is conducted in a fair and open way
- Protect children and other vulnerable persons from being harmed or exploited by gambling.¹

The final objective recognises the potential for some people who participate in gambling to experience harm as a result of their behaviour and states that these groups specifically should be protected.

Recognition of the (potential) harm associated with gambling has seen increased interest in gambling behaviour as a public health issue. This focus is reflected by the Responsible Gambling Strategy Board which provides advice to the regulator (the Gambling Commission) about gambling issues. They advocate that a public health approach should be taken to the consideration of gambling behaviour. This involves advocating a preventive approach and understanding the broader spectrum of behaviour along with the factors that influence gambling and may lead to problematic levels of participation.

Problem gambling is defined as ‘gambling to a degree which compromises, disrupts or damages family, personal or recreational pursuits.’² Its most severe form, pathological gambling, has been categorised as an impulse control disorder within the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) and has been included in this manual since 1980.^{3,4} With the recent publication of the DSM-V, disordered gambling has been recognised as a behavioural addiction.⁵ In 2007, the British Medical Association highlighted the insufficient treatment facilities available for gambling problems and argued that services for problem gambling should be provided through the NHS, similar to those for drug and alcohol problems.⁶ With one notable exception (the NHS National Problem Gambling Clinic in Soho, London) this gap in structured NHS provision still remains.

Problem gamblers suffer from a range of adverse consequences. There is international evidence that problem gambling is associated with a range of mental and physical health issues, including experience of depression, insomnia, and stress-related disorders as well as experience of comorbid disorders such as alcohol abuse or dependence.^{7,8} Therefore, gambling behaviour should not only be viewed from a public health perspective but for those experiencing harm, it is a significant health issue.

In 2012, for the first time, questions on gambling activity were included in the Health Survey for England (HSE). This is the first detailed exploration of this important public health issue within a study focusing on health in England. This chapter presents estimates of last year participation in all forms of gambling in England, followed by estimates of problem and at-risk gambling according to two different measurement instruments, the DSM-IV and the Problem Gambling Severity Index (PGSI).³

7.2 Methods and definitions

7.2.1 Gambling participation in the last year

All adult participants (aged 16 and over) were asked to report whether they had spent any money on 19 different forms of gambling activity in the last 12 months. The activities ranged from buying tickets for the National Lottery draw⁹ to online betting and gaming. The range of activities presented reflected all forms of commercial gambling currently available in England and also included betting or gambling privately with family or friends to capture informal gambling activity. In this chapter, gambling participation is defined as having participated in any one of these activities in the last 12 months. This definition includes the requirement that the participant spent his/her own money on the activity. This was to ensure that occasions where a participant asked someone else to place bets or purchase lottery tickets on their behalf were included.

The list of gambling activities and descriptions presented to participants reflected those used in the British Gambling Prevalence Survey (BGPS) 2007 as closely as possible.¹⁰ Exceptions included the addition of 'playing poker in pub or club' and of 'betting on sports events' (like football), which were added to reflect the growing popularity of these activities since the 2007 study.

As with the BGPS series, questions were asked using a confidential self-completion format. This was to encourage more honest reporting of a (potentially) sensitive activity and to ensure maximum comparability with the BGPS. Everyone who had gambled at least once in the last year was also asked to complete two screening instruments to identify problem or risky gambling behaviour (see Section 7.2.2).

The survey did not include any questions about frequency of gambling.

7.2.2 Problem gambling definition and measurement

Problem gambling is commonly accepted to involve 'gambling to a degree that compromises, disrupts or damages family, personal or recreational pursuits.'² However, there is no universally accepted definition of problem gambling and many different instruments or 'screens' exist to identify and measure it (with over 20 different types in existence).¹¹ To date, there is no agreed 'gold standard' instrument recommended for use in population surveys.

Because of this it has been common practice (in Britain at least) to include two different screening instruments in population-based surveys of gambling behaviour. As the instruments tend to capture different types of people using two different 'screens' they give a better reflection of the range of issues associated with problematic gambling. The first of these instruments is based on the DSM-IV. The second, the PGSI,³ was developed in Canada specifically for use in population based studies. Both instruments have been widely used internationally and were the instruments of choice for the 2007 and 2010 BGPS. The HSE 2012 included both the DSM-IV and the PGSI.

DSM-IV

The DSM-IV (Diagnostic and Statistical Manual-IV) screening instrument contains ten diagnostic criteria ranging from 'chasing losses' (described to participants as '[when you] go back another day to win back money you lost') to committing a crime to fund gambling.¹² Each DSM-IV item is assessed on a four-point scale, ranging from 'never' to 'very often'.¹³ Responses to each item are dichotomised (that is, given a score of 0 or 1) to show whether a person meets the criteria or not. A total score between 0 and 10 is possible.

A threshold of meeting at least three of the DSM-IV criteria is used to define problem gambling. This cut-off point has been found to give good discrimination between criterion groups and has provided the closest match to prevalence estimated by other screening instruments.¹⁴ Clinicians currently use an additional threshold of a DSM-IV score of five or more to represent pathological gambling.³ For a variety of reasons, this threshold is not

presented in this chapter. Firstly, the number of people falling into this category would be too small to allow any detailed analysis to be carried out. Secondly, the term ‘problem gambling’ is preferred as it has less negative and medicalised conceptual issues associated with it than the term ‘pathological gambling.’¹³ Finally, it appears likely that the label ‘pathological gambling’ will become obsolete as it has been renamed ‘gambling disorder’ in the recent publication of the DSM-V.¹⁵ The threshold and scoring criteria used to identify problem gamblers in this study are the same as those used in the BGPS series.¹⁶

PGSI

The PGSI was developed for use among the general population rather than within a clinical context and was tested and validated within a general population survey. The instrument consists of nine items ranging from chasing losses to gambling causing health problems and 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

Scores for each item are summed to give a total score ranging from zero to 27. A score of eight or more on the PGSI represents problem gambling. This is the threshold recommended by the developers of the PGSI and the threshold used in this report. The PGSI was also developed to give further information on sub-threshold problem gamblers. PGSI scores between three and seven are indicative of ‘moderate risk’ gambling and scores of one or two are indicative of ‘low risk’ gambling.¹⁷ As with the DSM-IV, the PGSI thresholds and scoring mechanisms used in the HSE are the same as those used in the BGPS.

Creating problem gambling scores

To produce problem gambling prevalence rates among all adults aged 16 and over, all non-gamblers were allocated a score of zero to both the DSM-IV and the PGSI screens. To be included in the final analysis for each instrument participants were required to have answered at least five of the DSM-IV questions or at least four of the PGSI questions. Those who answered fewer than this were only included in the final analysis if their responses to their answered questions scored them as a problem gambler.

Overall, around 19% of eligible adults did not have a valid DSM-IV or PGSI score. This comprised of those who a) did not agree to answer any questions in the self-completion booklet, b) answered some questions in the self-completion booklet but not those on gambling and c) answered the last year gambling questions but not the problem gambling screens. Separate non-response weights have been produced to take into account the differing profile of those who answered the problem gambling screens. However, non-response weights can only provide adjustments based on commonly known profiles, such as age, sex, type and area of residence. It does not take into account the gambling behaviour of these ‘missing’ people. Therefore some residual bias may still be evident; this should be considered when reviewing these results.

7.3 Gambling participation in the last year

7.3.1 Participation in gambling activities in the last year, by age and sex

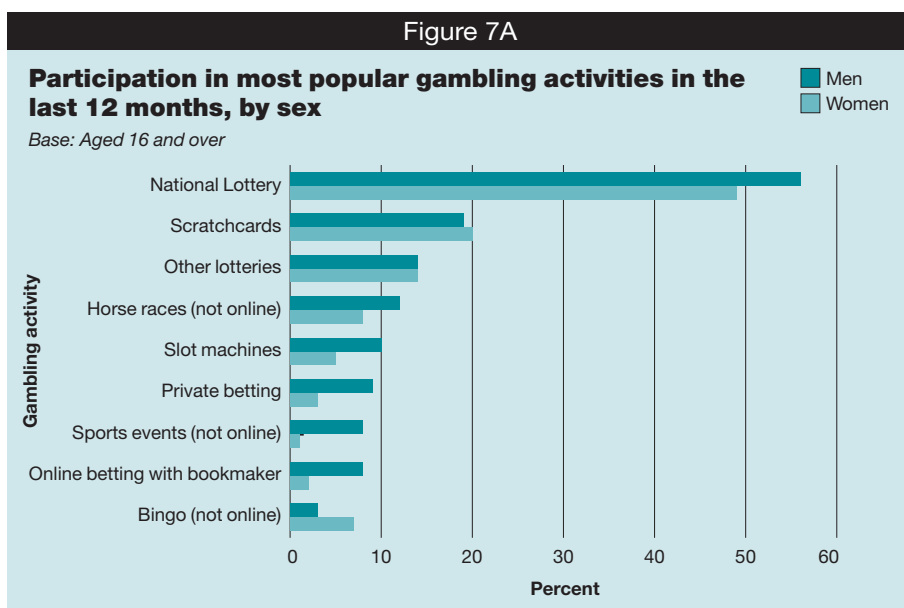
In the last 12 months, 68% of men and 61% of women had participated in gambling activity; with men being more likely than women to do so.

Among both men and women, the most popular forms of gambling were purchase of tickets for the National Lottery (men 56%, women 49%); purchase of scratchcards (19% and 20% respectively), participation in other lotteries (14% for both men and women) and betting on horse racing (12% and 8% respectively).

Among men, the next most prevalent gambling activities were slot machine play (10%), private betting (9%), online betting with a bookmaker (8%) and sports events (8%). Among women, the subsequent most popular activity was bingo (7%). For all other individual activities, the prevalence rate was 5% or less.

These findings show that men tended to be more likely than women to gamble in most activities, and had a larger gambling activity repertoire. The exceptions to this were bingo, with men being less likely to participate than women (3% and 7% respectively); scratchcards, with men and women being equally likely to participate (19% and 20% respectively); and other lotteries, again with men and women equally likely to take part (14% for each).

Figure 7A shows the most prevalent gambling activities over the last 12 months.



As participation in the National Lottery was so much higher than other gambling activities, it is useful to look at prevalence rates without 'National Lottery only' play as this can highlight patterns in other forms of gambling participation. Excluding those who only participated in the National Lottery, 46% of men and 40% of women participated in other gambling activity. Men remained significantly more likely than women to participate in these gambling activities.

10% of men and 4% of women participated in gambling online (excluding online gambling on the National Lottery) during the last twelve months. Although the prevalence for this online gambling was low overall, it was still the case that men were significantly more likely than women to participate in this activity.

Among both men and women, prevalence of gambling in the last year varied by age. The broad pattern was similar for men and women, with prevalence being highest among the middle age groups (those aged 25-64) and lowest among the very young or very old. Figure 7B shows that the pattern of participation by age was comparable for men and women.

This age pattern is somewhat skewed by the inclusion of National Lottery play. With much higher participation rates than any other gambling activity, the age profile of National Lottery players naturally dominates the overall age pattern for all gambling activities. By removing participants who only played the National Lottery, a different participation pattern by age is observed, as shown in Figure 7C. Participation rates for both men and women in this group were highest for 16-34 year olds (54% of men aged 16-24, 57% aged 25-34, 45% and 46% respectively of women), and they decreased steadily as age increased (to 32% of men and 29% of women aged 75 and over).

Figure 7B



Figure 7C



Participation rates followed this pattern by age for most of the individual activities for both men and women. Those activities with a different pattern were horse racing, the prevalence of which remained roughly constant and was lower only for the oldest age group, and dog racing and bingo, for which there was no clear age pattern.

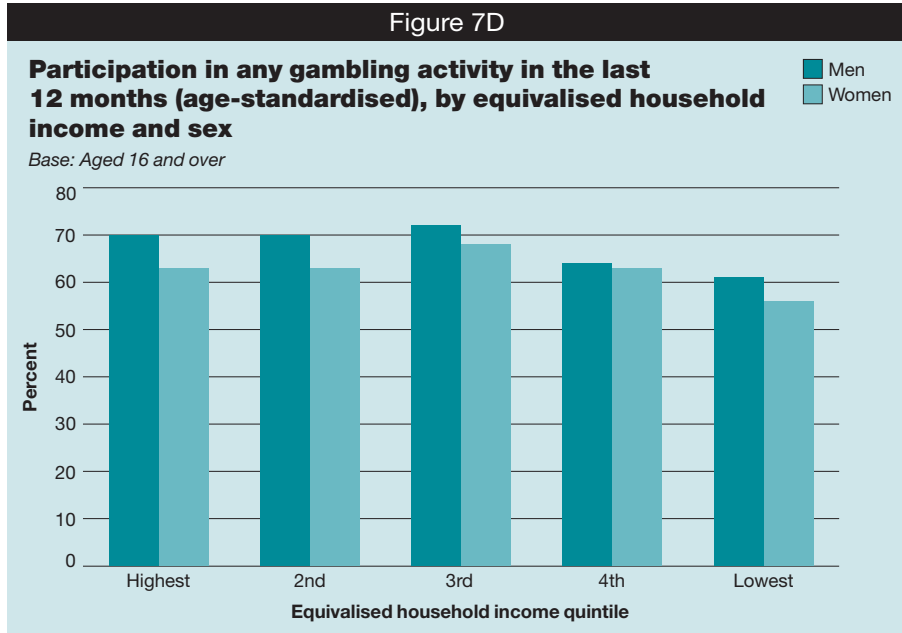
Among both men and women, prevalence of online gambling (excluding the National Lottery) was higher among younger age groups and lower among older age groups. For men, estimates were 16% to 22% among those aged 16-34, and less than 10% for those aged 45 and over. Among women, 6% to 7% of the 16-34 age group participated in online gambling, decreasing to 3% or less among those aged 45 and over.

Table 7.1, Figures 7A, 7B, 7C

7.3.2 Participation in gambling activities in the last year, by equivalised household income

Table 7.2 shows age-standardised estimates for gambling activity by equivalised household income and sex. Equivalised household income is a measure of income which takes into account the number of people living in the household. To ensure that comparisons presented are not confounded by the different age profiles of the groups the data have been age-standardised.¹⁸

Figure 7D



As shown in Figure 7D, gambling participation was most common in the highest three or four quintiles (with very similar levels across these) and lowest among the lowest income households.

This pattern of those in the lowest income households being less likely than those in higher income quintiles to participate in gambling held true for many individual gambling activities. Exceptions to this were several activities with low overall prevalence, where there was no clear pattern by income; these were football pools, poker, betting exchange, betting on other events (not online) and spread betting.

A further exception was bingo where for both men and women the trend was reversed, with those living in lower income households being more likely to participate (for men, 3% in the highest income quintile and 5% in the lowest two, and for women 4% and 9%-11% respectively).

National Lottery play did not appear to skew overall patterns of participation by household income. As with overall gambling prevalence, if those who only played the National Lottery were excluded, rates of engaging with other forms of gambling were highest among the top four quintiles and lowest among the lowest income households for both men and women.

Prevalence also differed by income for online gambling among men (excluding National Lottery play only), as shown in Figure 7E. Men in the highest three quintiles were more likely to gamble online than those in the lower two quintiles (11%-13% in the highest three quintiles, 5%-8% in the lowest two).

Table 7.2, Figure 7D, 7E

7.3.3 Participation in gambling activities in the last year, by Index of Multiple Deprivation

Table 7.3 shows last year participation in gambling by area deprivation, measured by the Index of Multiple Deprivation (IMD). As with income, results have been age-standardised.

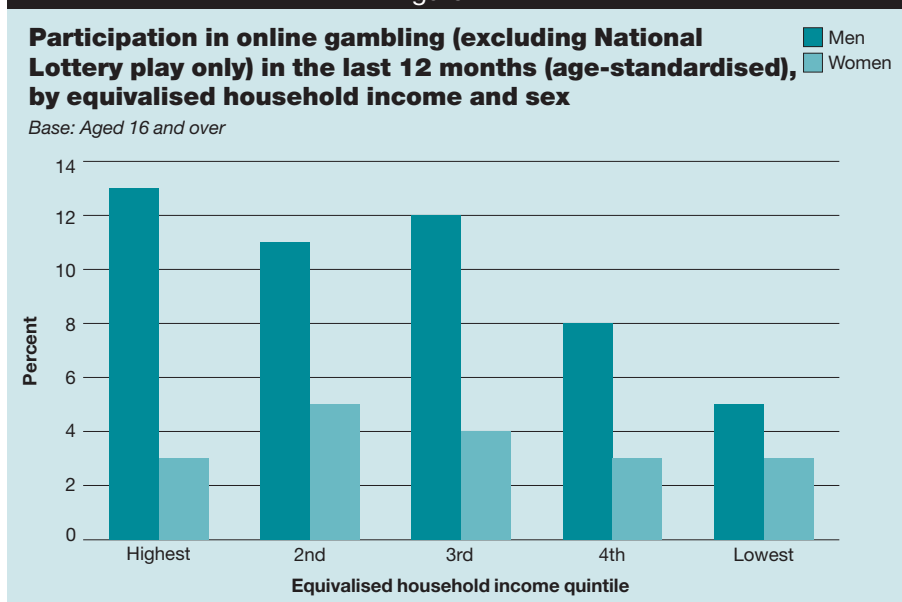
Among both men and women, there was no difference in gambling prevalence by area deprivation, once age was accounted for. This held true across all gambling activities, with the exception of bingo, horse racing and online betting with a bookmaker.

For bingo, those living in the most deprived IMD quintile were more likely to participate than those living in less deprived areas (for men, 2% played bingo in the least deprived quintile and 4% in the most deprived; for women the equivalent figures were 6% and 12%).

The pattern for horse racing and online betting with a bookmaker went in the opposite direction, with participation lower in the more deprived rather than the less deprived quintiles.

Table 7.3

Figure 7E



7.3.4 Number of gambling activities undertaken in the last year, by age and sex

This section looks at the range of different gambling activities that people took part in; it should be remembered that no information was collected about the frequency of participation in each activity. On average, men took part in 1.7 different forms of gambling in the last year, whereas women took part in slightly fewer, 1.2. Among both men and women, the average number of gambling activities varied by age and tended to be higher among younger age groups than older age groups. For men, estimates varied from 2.5 gambling activities for those aged 25-34 to 0.9 among those aged 75 and over, while for women, estimates for the equivalent age groups were 1.5 and 0.8. These findings demonstrate that while the majority of the population participated in some form of gambling, most tended to take part in only one or two activities. With the exception of younger men, this is evident for most age groups.

Participating in a greater number of gambling activities in the last year has been identified as a proxy for high levels of gambling engagement,¹⁹ though there is no consensus about how many activities constitute a 'high' level. This chapter uses a threshold of seven or more activities, based on inspection of the distribution of the data.²⁰

Overall, 4% of men and 1% of women had engaged in seven or more different gambling activities in the last year. For men, this varied significantly by age. One in ten men aged 16-34 had engaged in seven or more gambling activities in the last year whereas fewer than 1% of those aged 65-74, and none of those aged 75 and over, reported the same. There was little variation across age groups for women.

It is clear that not only were men more likely than women to gamble overall, they were also more likely to have high levels of gambling engagement.

Table 7.4, Figure 7F

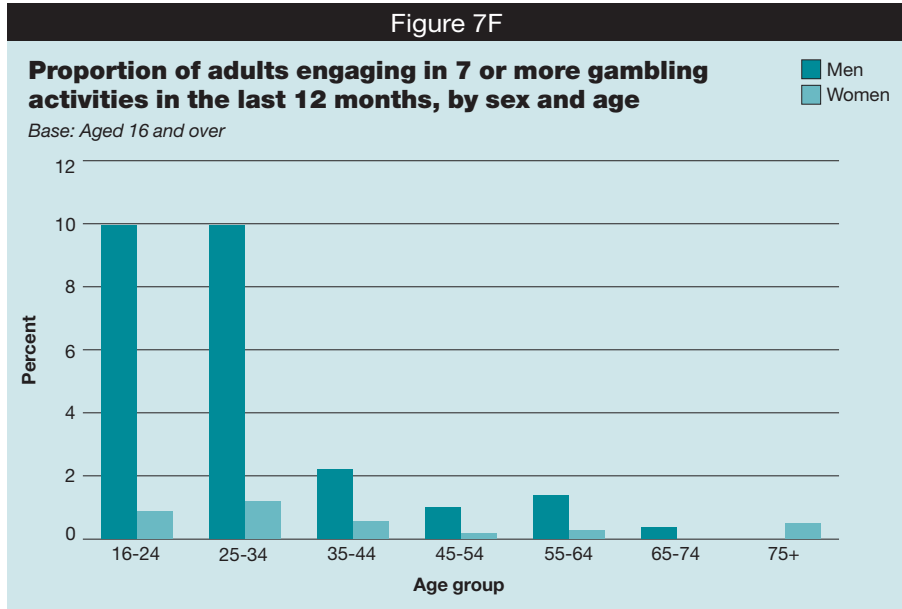
7.3.5 Number of gambling activities undertaken in the last year, by region

Table 7.5 shows both observed and age-standardised estimates of the number of gambling activities engaged in by region.

Having accounted for age, there was clear variation in the average number of gambling activities undertaken when looking at the estimates according to region. Men living in the North East and West Midlands were likely to take part in a larger number of gambling activities, with an average of 2.3 and 2.0 respectively, whereas those living in London and the South West were likely to participate in significantly fewer activities, both averaging 1.5 in the last year. This pattern was similar, though less pronounced, for women.

Table 7.5

Figure 7F



7.3.6 Number of gambling activities undertaken in the last year, by equivalised household income and IMD

Tables 7.6 and 7.7 show age-standardised estimates of the number of gambling activities engaged in by equivalised household income and area deprivation.

Among men, there was significant variation in the average number of gambling activities undertaken according to equivalised household income. Men living in the three higher income quintiles took part in between 1.7 to 1.9 gambling activities on average whereas those living in the lowest income quintile averaged 1.3. Estimates did not vary significantly for women.

There was no significant variation by quintile of IMD in either the proportion of adults who gambled on seven or more activities or in the average number of activities undertaken in the last year.

Tables 7.6, 7.7

7.4 Problem gambling

7.4.1 DSM-IV items, by age and sex

As discussed in Section 7.2.2, the DSM-IV problem gambling screening instrument consists of ten criteria ranging from 'chasing losses' (going back another day to win back money lost) to committing a crime to fund gambling. Participants indicated the extent to which a statement applied to them in the last 12 months by choosing one of four possible answer options ranging from 'very often' to 'never' (for chasing losses the options ranged from 'every time I lost' to 'never').

Response to each of the ten items, by age and sex, is shown in Table 7.8. Men were more likely than women to endorse each of the DSM-IV items. However, the patterns of male and female endorsement were broadly similar. Out of the ten items, both men and women were most likely to state that they had chased their losses (2.3% and 1.5% respectively). This was followed by being preoccupied with gambling (1.3% of men and 0.3% of women), lying to family or friends (0.7% men, 0.2% women), and among women, trying but failing to cut back on gambling (0.2%). For all other items endorsement was 0.6% or less among men, and 0.1% among women.

Engaging in behaviours such as chasing losses, being preoccupied with gambling, trying but failing to cut back on gambling and committing a crime to fund gambling all varied by age. For each of these items, rates of endorsement were generally higher among younger age groups and lower among older adults. For example, 3.9% of men and 2.0% of women

aged 16-24 reported chasing losses, whereas 0.7% and 0.8% respectively of those aged 75 and over reported this. Furthermore, 1.8% of men and 0.8% of women aged 16-24 had tried but failed to cut back on their gambling whereas no-one aged 75 and over reported this. (The lack of observations among those aged 75 and over does not indicate that no one of this age within England experienced this, but simply that this was not observed within the HSE sample.) Finally, around 1.0% of men aged 16-34 reported that they had, at least occasionally, committed a crime to fund their gambling (0.9% aged 16-24, 1.0% aged 25-34).

Table 7.8

7.4.2 PGSI items, by age and sex

The PGSI problem gambling screen consists of nine different criteria. For each of the criteria participants were asked to choose the answer option that most closely applied to them in the previous 12 months. There were four answer options ranging from 'almost always' to 'never'. (See Section 7.2.2 for a detailed discussion of the PGSI instrument). Responses to the PGSI are shown in Table 7.9. In the analysis that follows, endorsement of an item means that a participant reported that they at least sometimes engaged in each behaviour.

As observed with most responses to DSM-IV items, men were more likely than women to endorse each item. Again, as with DSM-IV, the patterns of endorsement were similar between men and women. Chasing losses was the most endorsed item for both men and women (4.4% and 1.5% respectively). This was followed by 'betting more than you can afford to lose' (2.6% and 0.7% respectively). Among men, 2.2% reported that they at least sometimes felt guilty about what happened when they gambled; the equivalent estimate for women was 0.4%. 1.7% of men and 0.4% of women reported that other people had, at least sometimes, criticised their gambling behaviour. For all other items, rates of endorsement were lower than this.

Endorsement rates varied by age for betting 'more that you could afford to lose', 'needing to gamble with larger amounts of money to get the same excitement', chasing losses, 'feeling like you had a gambling problem' and 'feeling guilty about what happens when you gamble'. The broad pattern was of higher rates of endorsement among younger than among older adults.

For example, 4.1% of men and 1.2% of women aged 16-24 reported that they felt guilty about what happened when they gambled at least sometimes. Equivalent estimates among men aged 75 and over were 0.3%; among women, 0.3% aged 55-64 reported this (and there were no women above this age in the HSE sample who did so).

Table 7.9

7.4.3 Problem gambling prevalence, by age and sex

Responses to the individual DSM-IV and PGSI items are used to calculate problem gambling scores (see Section 7.2.2 for further details). These scores are used to estimate problem gambling prevalence rates among the adult population living in private households in England.

In 2012, 0.8% of men and 0.2% of women were identified as problem gamblers according to the DSM-IV. The 95% confidence interval for men was 0.4% to 1.4% and for women was 0.1% to 0.4%. This means there is a 95% probability that the true estimates for men and women lie between these values.

According to the PGSI, the problem gambling rate in 2012 was 0.6% of men and 0.1% of women. The confidence intervals for these estimates were 0.3% to 1.2% for men and 0.04% to 0.3% for women.

For both screens, problem gambling rates were significantly higher among men than women. This is unsurprising given the higher rates of endorsement to each item observed among men, in Sections 7.4.1 and 7.4.2.

Among men, problem gambling prevalence varied with age, being typically higher among younger age groups and decreasing as age increased. For men aged 16-24, the DSM-IV rate was 2.2%, and this fell to 0.3% for men aged 75 and over. A similar pattern was evident

for men when looking at the PGSI: estimates fell from 1.7% among men aged 16-24 to 0.4% among those aged 65-74 (none of the survey participants aged 75 and over were problem gamblers). Mean DSM-IV and PGSI scores followed a similar pattern, being highest among the youngest age groups and lower among older men.

Among women, there were too few observations to be able to discern a distinct pattern for problem gambling by age.

It is also possible to examine problem gambling rates among those who gambled in the last year. These estimates are shown in the table below.

Table 7A		
Problem gambling rates, 2012, for all adults and last year gamblers only		
	DSM-IV	PGSI
	%	%
All adults		
Men	0.8	0.6
Women	0.2	0.1
Last year gamblers		
Men	1.1	0.9
Women	0.3	0.2

Problem gambling prevalence rates among last year gamblers were 1.1% (DSM-IV) and 0.9% (PGSI) for men and 0.3% (DSM-IV) and 0.2% (PGSI) for women. Thus, among men who gambled in the last year, around one in 100 may be problem gamblers. Among female last year gamblers, either one in 200 or one in 500 may be problem gamblers, depending on the measurement instrument used.

7.4.4 Problem gambling prevalence according to both screens

The BGPS study has repeatedly demonstrated that different problem gambling screens capture different people. The same is true for the HSE. Overall, 0.4% of men and 0.1% of women were identified as problem gamblers according to both screens and 0.9% of men and 0.2% of women were identified as problem gamblers according to either screen (table not shown).

7.4.5 'At-risk' gambling prevalence, by age and sex

As noted in Section 7.2.2, the PGSI screen includes two further sub-categories of gambling behaviour – gamblers at 'low risk' of harm (a PGSI score of 1-2) and gamblers at 'moderate risk' of harm (a PGSI score of 3-7).

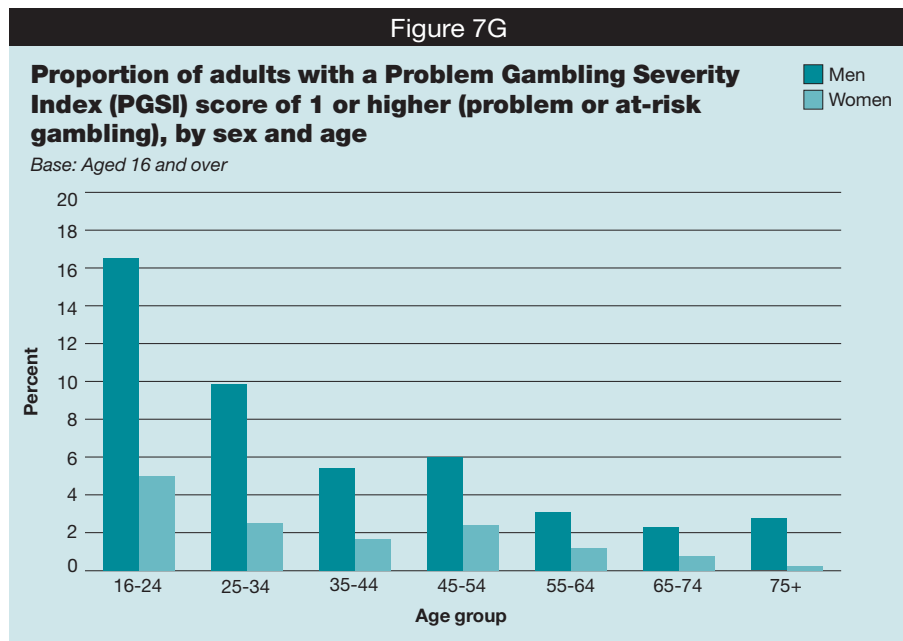
Overall, 4.8% of men and 1.6% of women were identified as low risk gamblers and a further 1.7% of men and 0.4% of women were categorised as moderate risk gamblers. Taken together with problem gambling prevalence this shows that 7.1% of men and 2.1% women were identified as at risk of harm from their gambling behaviour in the last 12 months.

As with problem gambling estimates, men were significantly more likely than women to be either low risk or moderate risk gamblers.

For both men and women, rates of 'at-risk' gambling varied significantly with age, tending to be lower among older age groups. Among men aged 16-24, 11.7% were classified as low risk gamblers and a further 3.2% as moderate risk gamblers. Comparable estimates among men aged 75 and over were 1.7% and 1.0%. When combined with problem gambling rates, 16.6% of men aged 16-24 experienced some type of difficulty with their gambling behaviour in the last year, compared with 2.7% among those aged 75 and over.

The same pattern was observed for women, though at much lower prevalence rates than men. Among women aged 16-24, 3.2% were classified as low risk gamblers and a further 1.7% as moderate risk gamblers; including problem gamblers, 5.0% of young women showed at least some risk in their gambling behaviour. Among women aged 75 and over, just 0.2% were classified as being any type of 'at-risk' gambler.

Table 7.10, Figure 7G



7.4.6 Factors associated with moderate risk and problem gambling

Multivariate logistic regression was used to examine the independent associations between a range of socio-demographic, economic and health and lifestyle behaviours with moderate risk/problem gambling according to the PGSI. There was a number of reasons for the decision to combine moderate risk (a PGSI score of 3-7) and problem gambling (a PGSI score of 8 or more) as the dependent variable. Firstly, the small absolute number of problem gamblers in the sample meant that regression models could not be developed focusing on problem gambling alone. Secondly, problematic gambling behaviour is conceptualised as existing upon a continuum ranging from no problem to problematic behaviour. The PGSI categorisation reflects this. Therefore combining moderate risk and problem gambling categories allows us to examine factors associated with experiencing a wider range of potential harm along this spectrum of behaviour. Finally, although not universally accepted, some researchers have argued that the threshold for identifying problem gambling within the PGSI instrument should be reduced from 8 to 5. Combining moderate risk and problem gamblers together encompasses this lower threshold, though notably also includes some people with scores lower than the new recommendation.

The factors investigated included age, sex and measures of socio-economic status in terms of household income, economic activity of the individual and area deprivation. A number of other factors were included such as marital status, ethnicity, religious orientation and educational attainment. Finally, a range of behavioural characteristics explored in other chapters of this report were included such as alcohol consumption and mental ill health (as measured by the 12-item General Health Questionnaire – GHQ-12), and cigarette smoking status.²¹ These factors have been shown to be correlated with problem gambling in both the BGPS series and other international prevalence surveys.

Results are presented as odds ratios and are shown in Table 7.11. For each categorical variable, the odds of being either a moderate risk or problem gambler are presented relative to a reference category, which is given a value of 1. An odds ratio greater than 1 indicates higher odds of being a moderate risk/problem gambler while an odds ratio less than 1 indicates lower odds of being a moderate risk/problem gambler. 95% confidence intervals

are shown for each odds ratio. If the confidence interval does not include 1, the odds ratio for that category is significantly different from the reference group.

The factors found to be significantly associated with moderate risk/problem gambling in this model were sex, age, whether residing in a Spearhead Primary Care Trust area (PCT)²² and GHQ-12 status.

The odds of being a moderate risk/problem gambler were considerably lower among women relative to men. Older adults were less likely to be a moderate risk/problem gambler than younger ones. Relative to the 16-24 age group, the odds decreased with advancing age, with an odds ratio of 0.1 among those aged 75 and over.

The odds of being a moderate risk/problem gambler were also greater among those with high scores on the GHQ-12. A high GHQ-12 score (of 4 or more) is indicative of a possible psychiatric disorder whereas a score of 0 indicates that there is no evidence of mental ill health. The odds of being a moderate risk/problem gambler were 3.7 times higher among those with a GHQ-12 score of 4 or more than those with a score of 0.

Finally, whether the participant lived in a Spearhead PCT area was also significantly associated with moderate risk/problem gambling. The odds of being a moderate risk/problem gambler were 1.9 times higher among those living in Spearhead PCT areas than those who did not.

Table 7.11

7.5 Discussion

7.5.1 Gambling behaviour in 2012

Findings from this chapter demonstrate that in England, gambling is the majority behaviour, with most people taking part in at least one type of gambling activity in the last year. Perhaps unsurprisingly, the National Lottery was the most popular form of gambling activity, but engagement in other types of gambling, while undertaken by smaller proportions, was also fairly common; around 4 in 10 individuals engaged in some form of gambling other than the National Lottery in the last year. This ranges from private betting with family and friends to gambling online. Participation in a range of gambling activities was especially common among younger adults. While younger adults did not have the highest overall rates of gambling participation, those who did gamble tended to take part in a broader range of activities. One in ten men aged 16-24 took part in at least seven different forms of gambling in the last year.

The increased levels of gambling engagement among young men highlights them as a particular group who may be at risk of experiencing of gambling-related harm. Overall, less than 1% of adults were classified as problem gamblers, with a further 1.7% of men and 0.4% of women classified as moderate risk gamblers. However, among young men aged 16-24, around one in 20 (4.9%) were classified as either moderate risk or problem gamblers and 16.6% reported experiencing some kind of difficulty with their gambling behaviour in the last year.

In addition to identifying young men as a group of interest, results from this study also highlight how moderate risk and problem gambling is associated with health status and the type of area in which a participant lives. The GHQ-12 measures mental ill health, with a score of 4 or more indicating possible psychiatric disorder. Given that problem gambling is included within the American Psychiatric Association Diagnostic and Statistics Manual as either an impulse control disorder or behavioural addiction (depending on which version is used), a strong relationship between moderate risk/problem gambling and mental ill health would be expected. It is notable, however, that this relationship was evident when examining moderate risk gamblers alone, with the odds of being a moderate risk gambler being over three times higher among those with a GHQ-12 score of 4 or more (table not shown). Understanding the relationship between mental ill health and sub-threshold problem gambling behaviour warrants further investigation. This relationship also highlights

the importance of taking a public health approach to understanding gambling, where attention is given to exploring the whole spectrum of behaviour rather than focusing on problematic gambling alone.

The association between where a participant lives and moderate risk/problem gambling is also important. Spearhead PCT areas are the most health-deprived areas in England; yet even after mental ill health and other measures of inequality were controlled for, living in these areas was positively associated with moderate risk and problem gambling. Although area deprivation as measured by IMD did not differentiate rates of gambling participation, area deprivation was associated with moderate risk and problem gambling in the regression model through Spearhead PCT status. It appears, on this evidence, that whilst those who live in deprived areas may be no more likely to gamble than others, those who do are at greater risk of experiencing some problems with their behaviour. This has the potential to contribute further to health inequalities already known to exist in these deprived areas, and highlights a wider group of those potentially vulnerable to harm.

Of course, it should also be remembered that most people who gamble do so without experiencing problems. Taking a public health perspective to gambling should also include consideration of why people gamble and the benefits they derive from this engagement. This too would help policy makers and regulators to understand better the full and broad spectrum of gambling behaviour and fully assess the costs and benefits of gambling. This, in turn, would provide useful insight into the development of appropriate policies and interventions which help to protect those with most need.

7.5.2 Gambling behaviour: comparisons with the BGPS and changes over time

As noted in the introduction to this chapter, gambling behaviour and problem gambling were previously measured by the BGPS series. This was a survey specifically designed to understand gambling behaviour and attitudes to gambling in greater detail. Funding for the BGPS study was withdrawn in 2010. Questions about gambling behaviour were included in HSE 2012 to provide some continued measurement of these issues and to enable deeper investigation of the health correlates of gambling behaviour than previously allowed. The questions and format of administration of the HSE gambling module were closely similar to those used in the 2007 BGPS.

However, while the methods and questions were the same, the survey vehicle was not. The impact of this on comparisons with the earlier BGPS series is discussed below.

Within HSE 2012, 0.8% of men were categorised as problem gamblers according to the DSM-IV and 0.6% of men according to the PGSI. Among women, equivalent estimates were 0.2% and 0.1%.

For women, these estimates are similar to those observed for England within the BGPS series. The BGPS 2010 identified 0.3% of women in England as problem gamblers according to the DSM-IV and 0.2% as problem gamblers according to the PGSI. However, among men, the HSE 2012 estimates are significantly lower than those provided by the BGPS 2010. The BGPS 2010 estimated that 1.5% of men in England were problem gamblers according to the DSM-IV and that 1.3% were problem gamblers according to the PGSI.

While the rates estimated by the HSE are significantly lower than the BGPS estimates, it is not clear whether this represents a real reduction in problem gambling rates within the broader population. It is widely acknowledged that different survey vehicles can generate different estimates using the same measures, because they can appeal to different types of people, with varying patterns of behaviour. An experiment conducted in Canada showed that gambling screens included within health surveys typically generate lower rates of problem gambling than gambling specific studies.²³ The authors of this report argued this is because non-gamblers are more likely to take part in studies presented as health surveys whereas gamblers are more likely to take part in gambling studies, thus affecting resultant gambling prevalence rates.²³ It is uncertain how applicable this evidence is to the

HSE/BGPS comparison, as both studies used face to face interviewing rather than telephone interviewing to make initial contact with the potential participants. Face to face interviewing (arguably) offers the interviewer more opportunity to explain why the survey is appropriate for all people. However, what is clear is that different survey vehicles gave different problem gambling estimates. Furthermore, examination of non-responders to the HSE series has also demonstrated that those experiencing poorer health are less likely to take part in a health survey.^{24,25} It is well documented that problem gamblers experience an array of adverse health outcomes. Therefore it is also possible that they are less likely to take part in a survey aimed at understanding health and health behaviour.

The extent to which each of these potential sources of bias is evident with the HSE/BGPS series is unknown. There may also be other contributing factors to consider; Section 7.2 has already documented levels of non-response to the problem gambling screen. While non-response weighting can adjust for certain biases in the data (in terms of the age, sex and residential profile of participants) it can not take into account the kinds of biases discussed here. Furthermore, because the prevalence of problem gambling is very low in the population, the absolute number of problem gamblers identified in any survey is very small, and these estimates are therefore very susceptible to these potential biases. Taking all of this into account, comparisons with the BGPS estimates should therefore be made with caution.

References and notes

- 1 www.legislation.gov.uk/ukpga/2005/19/contents
- 2 Lesieur HR, Rosenthal MD. *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 1991; 7:5-40.
- 3 American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV)*. APA, USA, 1994.
- 4 Wynne HJ. *Introducing the Canadian Problem Gambling Screen*. Wynne Resources, Edmonton, Canada, 2003.
- 5 American Psychiatric Association. Substance-related and Addictive Disorders. APA, 2013. www.dsm5.org/Documents/Substance%20Use%20Disorder%20Fact%20Sheet.pdf
- 6 Griffiths MD. *Gambling Addiction and Its Treatment Within the NHS: A Guide for Healthcare Professionals*. British Medical Association, London, 2007.
- 7 Potenza MN, Fiellin DA, Heninger GR, Rounsaville BJ, Mazure CM. *Gambling*. Journal of General Internal Medicine 2002;17:721-732.
- 8 Griffiths M. *Betting your life on it: Problem gambling has clear health related consequences*. BMJ 2004;329:1055-1056.
- 9 This includes purchase of tickets for all National Lottery games including Thunderball, Euromillions and the Lotto.
- 10 The BGPS 1999 and 2007 used a paper self-completion booklet to collect data. In 2010, computer-assisted self-completion was used which allowed the questionnaire to have a more complex structure as more follow-up questions could be asked. As the HSE used a paper self-completion, the questionnaire structure and format of the 1999 and 2007 studies was followed.
- 11 Abbott M, Volberg R. *The measurement of adult problem and pathological gambling*. International Gambling Studies, 2007;6:175-200.
- 12 The full wording of the items in the DSM-IV and PGSI screens is available in the self-completion booklets, included in Volume 2, Appendix A of this report.
- 13 This is with the exception of chasing losses which is rated on a scale ranging between 'never' and 'every time I lost'.
- 14 Orford J, Wardle H, Griffiths M, Sproston K, Erens B. *PGSI and DSM-IV in the 2007 British Gambling Prevalence Survey: reliability, item response, factor structure and inter-scale agreement*. International Gambling Studies 2010;10:31-44.
- 15 The categorisation and screening of problem and pathological gambling has been reviewed and revised in the recently published DSM V. Main changes proposed are that the term 'pathological gambling' be replaced with the term 'gambling disorder', that the crime criterion be removed from classification and that the threshold for identifying 'gambling disorders' be dropped from 5 (formerly the threshold for identifying pathological gamblers) to 4. However, the DSM-V was not officially released at the time of the HSE 2012 fieldwork. Therefore, this chapter uses the standards set by the DSM-IV and replicates the scoring methods used in the BGPS series to allow comparisons to be made.

16 Scoring to meet the criteria for each DSM-IV statement is as follows:

Item	Response for endorsement
Chased losses	Every time I lost/most of the time
Preoccupied with gambling	Very often, fairly often
Gambled with increasing amounts of money	Very often, fairly often
Restless or irritable when trying to stop gambling	Very often, fairly often
Gambling as escapism	Fairly often, very often
Tried but failed to cut back on gambling	Very often, fairly often
Lied to people to conceal extent of gambling	Very often, fairly often
Committed a crime to finance gambling	Very often, fairly often, occasionally
Risked or lost a relationship/job/educational opportunity because of gambling	Very often, fairly often, occasionally
Relied on others to help with a financial crisis caused by gambling	Very often, fairly often, occasionally

17 Some researchers have recommended that different (lower) thresholds should be used when identifying problem gamblers using the PGSI. However, these recommendations have not been universally accepted and are not currently endorsed by the original developers of the PGSI instrument. Therefore, this chapter uses the thresholds and categorisation recommended by the original developers and replicates the methods used in the BGPS, also allowing comparisons to be made.

18 See Volume 2, Chapter 8 for information about age-standardisation.

19 LaPlante DA, Nelson SE, LaBrie RA, Shaffer HJ. *Disordered gambling, types of gambling and gambling involvement in the British Gambling Prevalence Survey 2007*. *European Journal of Public Health*. 2011;**21**:532-37

20 Exploratory Latent Class Analysis was used to identify different groups of gamblers. This showed that those who engaged in seven or more activities were a distinct cluster of gamblers. This information was used to categorise the number of gambling activities undertaken into meaningful groups.

21 Cigarette smoking status is not covered in this report; however, it is included in the HSE trend tables. www.hscic.gov.uk/pubs/hse2012trend

22 Spearhead PCTs are the most health deprived areas of England. Before the NHS re-organisation in April 2013, they were defined as the Local Authority areas that were in the bottom fifth nationally for three or more indicators relating to life expectancy at birth, cancer and CVD mortality rates and the Index of Multiple Deprivation.

23 Williams RJ, Volberg RA. *Impact of survey description, administration format, and exclusionary criteria on population prevalence rates of problem gambling*. *International Gambling Studies* 2009;**9**:101-117.

24 Gibson A, Hewson P, Asthana S. *Modelling the nature, scale and consequences of health-related non-response bias in Health Survey for England data*. Paper presented at the UK Data Service's Health Survey User meeting, 2013. http://ukdataservice.ac.uk/media/262808/healthusermeeting_gibson_11july13.pdf

25 Gorman E. *Exploiting record linkage to quantify non-response bias and improve population estimates in health surveys*. Paper presented at the UK Data Service's Health Survey User meeting, 2013. http://ukdataservice.ac.uk/media/263014/healthusermeeting_gorman_11july13.pdf

Tables

- 7.1 Gambling activities in the last 12 months, by age and sex
- 7.2 Gambling activities in the last 12 months (age-standardised), by equivalised household income and sex
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- 7.8 Endorsement of DSM-IV items, by age and sex
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Notes on the tables

1. The group on which the figures in the table are based is stated at the upper left corner of the table.
2. The data in most tables have been weighted. See Volume 2, Chapter 7, of this report for more detail. Both unweighted and weighted sample sizes are shown at the foot of each table.
3. Apart from tables showing age breakdowns, data have been age-standardised to allow comparisons between groups after adjusting for the effects of any differences in their age distributions. See Volume 2, Chapter 8.4, of this report for more detail.
4. The following conventions have been used in tables:
 - no observations (zero value)
 - 0 non-zero values of less than 0.5% and thus rounded to zero
 - [] used to warn of small sample bases, if the unweighted base is less than 50. If a group's unweighted base is less than 30, data are normally not shown for that group.
5. Because of rounding, row or column percentages may not add exactly to 100%.
6. 'Missing values' occur for several reasons, including refusal or inability to answer a particular question; refusal to co-operate in an entire section of the survey (such as the nurse visit or a self-completion questionnaire); and cases where the question is not applicable to the participant. In general, missing values have been omitted from all tables and analyses.

Table 7.1

Gambling activities in the last 12 months, by age and sex								
<i>Aged 16 and over</i>								2012
Activities on which spent money in last 12 months	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
Lotteries and related products								
National Lottery	33	58	66	63	60	56	43	56
Scratchcards	30	30	23	16	10	8	6	19
Other lotteries	7	16	16	12	15	20	17	14
Machines/games								
Football pools	12	5	1	3	2	3	3	4
Bingo (not online)	5	4	2	3	3	3	4	3
Slot machines	21	21	9	5	4	2	1	10
Machines in a bookmakers	12	10	4	2	1	1	-	5
Casino table games (not online)	11	11	4	2	2	1	-	5
Poker played in pubs or clubs	6	6	2	1	0	1	-	2
Online gambling on slots, casino or bingo games	9	9	5	2	1	0	-	4
Betting activities								
Online betting with a bookmaker	12	17	8	6	2	2	1	8
Betting exchange	4	3	1	1	1	1	-	2
Horse races (not online)	10	15	13	13	11	10	7	12
Dog races (not online)	4	8	4	2	2	1	2	4
Sports events (not online)	16	14	7	7	3	3	0	8
Other events or sports (not online)	5	3	1	1	1	0	0	2
Spread-betting	2	2	0	1	1	0	0	1
Private betting	19	14	9	5	3	3	1	9
Other gambling activity								
Any other gambling	6	3	2	2	1	2	1	2
<i>Any gambling activity</i>	58	71	74	71	68	68	54	68
<i>Any gambling (excluding National Lottery)</i>	54	57	50	42	36	36	32	46
<i>Any online gambling (excluding National Lottery)</i>	16	22	12	8	3	2	1	10
<i>No gambling in last 12 months</i>	42	29	26	29	32	32	46	32
Bases (unweighted)^a								
<i>Men</i>	325	402	541	549	553	529	310	3209
Bases (weighted)								
<i>Men</i>	528	611	645	630	525	372	259	3570

^a Bases vary; those shown use the variable 'Any gambling activity'.

Continued...

Table 7.1 continued

Aged 16 and over

2012

Activities on which spent money in last 12 months	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Women								
Lotteries and related products								
National Lottery	31	53	53	56	56	49	35	49
Scratchcards	30	28	22	18	15	12	8	20
Other lotteries	9	12	14	14	18	18	15	14
Machines/games								
Football pools	2	1	1	0	1	0	1	1
Bingo (not online)	8	8	7	6	5	9	8	7
Slot machines	9	7	6	4	2	1	1	5
Machines in a bookmakers	3	2	1	0	1	0	0	1
Casino table games (not online)	3	1	1	1	0	-	1	1
Poker played in pubs or clubs	1	0	0	-	-	-	0	0
Online gambling on slots, casino or bingo games	3	3	2	1	2	0	0	2
Betting activities								
Online betting with a bookmaker	3	5	2	1	1	1	1	2
Betting exchange	-	-	-	0	-	-	0	0
Horse races (not online)	8	13	8	9	8	5	3	8
Dog races (not online)	3	3	2	2	1	1	1	2
Sports events (not online)	1	3	1	1	1	-	1	1
Other events or sports (not online)	0	1	0	0	0	-	0	0
Spread-betting	0	0	0	-	-	-	0	0
Private betting	2	5	3	2	2	1	1	3
Other gambling activity								
Any other gambling	1	1	0	0	1	0	1	1
<i>Any gambling activity</i>	<i>52</i>	<i>65</i>	<i>64</i>	<i>65</i>	<i>66</i>	<i>61</i>	<i>51</i>	<i>61</i>
<i>Any gambling (excluding National Lottery)</i>	<i>45</i>	<i>46</i>	<i>42</i>	<i>38</i>	<i>37</i>	<i>35</i>	<i>29</i>	<i>40</i>
<i>Any online gambling (excluding National Lottery)</i>	<i>6</i>	<i>7</i>	<i>4</i>	<i>2</i>	<i>3</i>	<i>1</i>	<i>1</i>	<i>4</i>
<i>No gambling in last 12 months</i>	<i>48</i>	<i>35</i>	<i>36</i>	<i>35</i>	<i>34</i>	<i>39</i>	<i>49</i>	<i>39</i>
Bases (unweighted)^a								
<i>Women</i>	<i>422</i>	<i>600</i>	<i>686</i>	<i>727</i>	<i>617</i>	<i>555</i>	<i>400</i>	<i>4007</i>
Bases (weighted)								
<i>Women</i>	<i>528</i>	<i>618</i>	<i>641</i>	<i>627</i>	<i>531</i>	<i>390</i>	<i>334</i>	<i>3669</i>

^a Bases vary; those shown use the variable 'Any gambling activity'.

Table 7.2

Gambling activities in the last 12 months (age-standardised), by equivalised household income and sex

Aged 16 and over

2012

Activities on which spent money in last 12 months	Equivalised household income quintile				
	Highest %	2nd %	3rd %	4th %	Lowest %
Men					
Lotteries and related products					
National Lottery	54	56	63	52	48
Scratchcards	16	20	22	20	17
Other lotteries	15	18	14	12	11
Machines/games					
Football pools	5	4	6	4	3
Bingo (not online)	3	3	3	5	5
Slot machines	11	10	11	9	5
Machines in a bookmakers	6	3	7	6	4
Casino table games (not online)	11	4	5	3	3
Poker played in pubs or clubs	4	2	2	3	1
Online gambling on slots, casino or bingo games	6	3	6	3	2
Betting activities					
Online betting with a bookmaker	10	9	10	6	4
Betting exchange	2	2	2	1	1
Horse races (not online)	15	13	14	11	7
Dog races (not online)	4	3	4	4	1
Sports events (not online)	7	8	10	8	5
Other events or sports (not online)	2	1	2	2	1
Spread-betting	1	0	1	2	1
Private betting	12	8	7	8	5
Other gambling activity					
Any other gambling	3	2	3	3	1
<i>Any gambling activity</i>	<i>70</i>	<i>70</i>	<i>72</i>	<i>64</i>	<i>61</i>
<i>Any gambling (excluding National Lottery)</i>	<i>50</i>	<i>48</i>	<i>45</i>	<i>44</i>	<i>38</i>
<i>Any online gambling (excluding National Lottery)</i>	<i>13</i>	<i>11</i>	<i>12</i>	<i>8</i>	<i>5</i>
<i>No gambling in last 12 months</i>	<i>30</i>	<i>30</i>	<i>28</i>	<i>36</i>	<i>39</i>
Bases (unweighted)^a					
<i>Men</i>	<i>569</i>	<i>655</i>	<i>538</i>	<i>441</i>	<i>457</i>
Bases (weighted)					
<i>Men</i>	<i>615</i>	<i>714</i>	<i>586</i>	<i>465</i>	<i>533</i>

^a Bases vary; those shown use the variable 'Any gambling activity'.

Continued...

Table 7.2 continued

Aged 16 and over

2012

Activities on which spent money in last 12 months	Equivalised household income quintile				
	Highest %	2nd %	3rd %	4th %	Lowest %
Women					
Lotteries and related products					
National Lottery	49	49	56	52	42
Scratchcards	17	21	23	23	21
Other lotteries	12	14	16	14	12
Machines/games					
Football pools	1	1	1	1	1
Bingo (not online)	4	7	8	11	9
Slot machines	3	6	6	4	4
Machines in a bookmakers	1	1	2	2	0
Casino table games (not online)	2	2	1	1	1
Poker played in pubs or clubs	-	0	0	0	0
Online gambling on slots, casino or bingo games	2	1	2	2	2
Betting activities					
Online betting with a bookmaker	2	3	2	1	1
Betting exchange	-	-	0	0	0
Horse races (not online)	10	10	10	8	5
Dog races (not online)	2	1	4	2	1
Sports events (not online)	2	1	1	1	0
Other events or sports (not online)	0	1	0	0	0
Spread-betting	-	0	0	0	-
Private betting	2	4	4	2	1
Other gambling activity					
Any other gambling	1	1	1	0	0
Any gambling activity	63	63	68	63	56
Any gambling (excluding National Lottery)	40	42	46	41	37
Any online gambling (excluding National Lottery)	3	5	4	3	3
No gambling in last 12 months	37	37	32	37	44
Bases (unweighted)^a					
Women	625	703	658	647	647
Bases (weighted)					
Women	572	641	586	568	594

^a Bases vary; those shown use the variable 'Any gambling activity'.

Table 7.3

Gambling activities in the last 12 months (age-standardised), by Index of Multiple Deprivation^a and sex

Aged 16 and over

2012

Activities on which spent money in last 12 months	IMD quintile				
	Least deprived	2nd	3rd	4th	Most deprived
	%	%	%	%	%
Men					
Lotteries and related products					
National Lottery	58	55	58	56	51
Scratchcards	20	22	20	18	16
Other lotteries	14	15	16	16	12
Machines/games					
Football pools	4	7	4	3	4
Bingo (not online)	2	3	3	4	4
Slot machines	10	14	9	9	8
Machines in a bookmakers	3	6	5	5	5
Casino table games (not online)	7	7	5	3	5
Poker played in pubs or clubs	1	3	2	2	3
Online gambling on slots, casino or bingo games	3	6	6	4	4
Betting activities					
Online betting with a bookmaker	8	11	9	6	6
Betting exchange	2	1	2	1	2
Horse races (not online)	14	13	14	8	11
Dog races (not online)	4	3	4	3	4
Sports events (not online)	8	10	8	6	9
Other events or sports (not online)	2	2	3	1	2
Spread-betting	1	1	1	0	2
Private betting	9	9	10	8	6
Other gambling activity					
Any other gambling	2	3	3	2	3
<i>Any gambling activity</i>	70	70	69	67	63
<i>Any gambling (excluding National Lottery)</i>	48	47	49	45	42
<i>Any online gambling (excluding National Lottery)</i>	10	13	13	9	9
<i>No gambling in last 12 months</i>	30	30	31	33	37
Bases (unweighted)^b					
<i>Men</i>	735	702	632	606	534
Bases (weighted)					
<i>Men</i>	735	756	729	693	658

^a The Index of Multiple Deprivation 2010 combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score at the small area level in England.

^b Base vary: those shown use the variable 'Any gambling activity'.

Continued...

Table 7.3 continued

Aged 16 and over

2012

Activities on which spent money in last 12 months	IMD quintile				
	Least deprived	2nd	3rd	4th	Most deprived
	%	%	%	%	%
Women					
Lotteries and related products					
Lotteries and related products					
National Lottery	51	46	49	53	45
Scratchcards	19	18	20	20	22
Other lotteries	15	14	14	13	13
Machines/games					
Football pools	1	1	1	1	0
Bingo (not online)	6	6	6	8	12
Slot machines	6	3	4	4	5
Machines in a bookmakers	1	1	1	1	1
Casino table games (not online)	1	1	1	1	1
Poker played in pubs or clubs	0	-	0	0	0
Online gambling on slots, casino or bingo games	2	2	2	2	2
Betting activities					
Online betting with a bookmaker	2	2	3	2	1
Betting exchange	-	-	0	0	-
Horse races (not online)	10	10	8	9	5
Dog races (not online)	2	2	2	2	2
Sports events (not online)	1	1	2	2	0
Other events or sports (not online)	0	1	1	0	0
Spread-betting	-	0	0	0	0
Private betting	3	3	3	2	2
Other gambling activity					
Any other gambling	1	1	1	1	1
Any gambling activity	63	62	62	62	59
Any gambling (excluding National Lottery)	40	40	40	39	41
Any online gambling (excluding National Lottery)	4	3	5	3	3
No gambling in last 12 months	37	38	38	38	41
Bases (unweighted)^b					
Women	911	866	794	758	678
Bases (weighted)					
Women	784	775	753	715	643

^a The Index of Multiple Deprivation 2010 combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score at the small area level in England.

^b Base vary: those shown use the variable 'Any gambling activity'.

Table 7.4

Number of gambling activities in last 12 months, by age and sex								
<i>Aged 16 and over</i>								2012
Number gambling activities in last year	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
Non-gamblers	42	29	26	29	32	32	46	32
1 activity	15	20	27	33	38	38	28	28
2-3 activities	21	27	31	28	24	25	23	26
4-6 activities	13	15	13	9	5	5	2	10
7 or more activities	10	10	2	1	1	0	-	4
Mean number of activities	2.3	2.5	1.8	1.5	1.2	1.2	0.9	1.7
Standard error of mean	0.22	0.15	0.08	0.07	0.06	0.06	0.08	0.05
Women								
Non-gamblers	48	35	36	35	34	39	49	39
1 activity	18	26	29	33	36	35	31	30
2-3 activities	25	27	28	28	25	24	18	26
4-6 activities	7	11	6	4	4	2	1	6
7 or more activities	1	1	1	0	0	-	1	1
Mean number of activities	1.2	1.5	1.3	1.2	1.2	1.0	0.8	1.2
Standard error of mean	0.08	0.07	0.05	0.05	0.05	0.05	0.07	0.03
<i>Bases (unweighted)</i>								
<i>Men</i>	325	402	541	549	553	529	310	3209
<i>Women</i>	422	600	686	727	617	555	400	4007
<i>Bases (weighted)</i>								
<i>Men</i>	528	611	645	630	525	372	259	3570
<i>Women</i>	528	618	641	627	531	390	334	3669

Table 7.5

Number of gambling activities in last 12 months (observed and age-standardised), by region^a and sex

Aged 16 and over

2012

Number of gambling activities in last 12 months	Region									
	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East	South West	
	%	%	%	%	%	%	%	%	%	
Men										
Observed										
Non-gamblers	24	28	32	31	25	30	42	36	34	
1 activity	26	30	28	31	27	28	24	26	32	
2-3 activities	34	26	28	26	32	27	21	23	24	
4-6 activities	7	12	7	9	13	11	9	11	7	
7 or more activities	9	4	5	3	4	4	4	4	2	
Mean number of activities	2.2	1.8	1.7	1.7	2.0	1.7	1.5	1.7	1.4	
Standard error of mean	0.33	0.14	0.14	0.13	0.14	0.16	0.17	0.13	0.11	
Standardised										
Non-gamblers	23	28	31	31	25	30	42	36	33	
1 activity	26	30	28	31	28	28	25	25	31	
2-3 activities	34	26	28	26	31	27	22	23	25	
4-6 activities	7	12	7	9	13	11	8	11	8	
7 or more activities	9	4	5	3	4	4	3	4	3	
Mean number of activities	2.3	1.9	1.8	1.6	2.0	1.7	1.5	1.7	1.5	
Standard error of mean	0.31	0.15	0.14	0.13	0.13	0.16	0.17	0.13	0.14	
Women										
Observed										
Non-gamblers	28	40	33	33	33	35	50	41	40	
1 activity	34	29	29	28	31	28	26	31	32	
2-3 activities	30	24	29	31	29	30	19	21	27	
4-6 activities	6	7	9	7	6	6	4	5	1	
7 or more activities	1	0	0	1	1	1	0	1	-	
Mean number of activities	1.4	1.2	1.4	1.4	1.3	1.4	0.9	1.1	1.0	
Standard error of mean	0.10	0.08	0.08	0.10	0.08	0.10	0.07	0.06	0.06	
Standardised										
Non-gamblers	29	39	34	33	33	35	50	41	40	
1 activity	34	30	28	29	31	28	27	31	31	
2-3 activities	30	24	29	31	29	30	18	21	28	
4-6 activities	6	7	9	7	6	6	3	5	1	
7 or more activities	1	0	0	1	1	1	0	1	-	
Mean number of activities	1.4	1.2	1.4	1.4	1.3	1.3	0.9	1.1	1.0	
Standard error of mean	0.10	0.07	0.08	0.10	0.08	0.09	0.06	0.06	0.07	
<i>Bases (unweighted)</i>										
Men	247	467	314	303	334	374	351	489	330	
Women	310	558	381	345	414	456	492	664	387	
<i>Bases (weighted)</i>										
Men	181	486	361	311	374	397	513	561	386	
Women	184	484	362	305	374	411	562	623	364	

^a Regions defined as the former Government Office Regions.

Table 7.6

Number of gambling activities in last 12 months (age-standardised), by equivalised household income and sex

Aged 16 and over *2012*

Number of gambling activities in last 12 months	Equivalised household income quintile				
	Highest %	2nd %	3rd %	4th %	Lowest %
Men					
Non-gamblers	30	30	28	36	39
1 activity	27	29	30	25	30
2-3 activities	25	27	24	27	24
4-6 activities	12	10	11	9	5
7 or more activities	5	3	6	3	2
Mean number of activities	1.9	1.7	1.9	1.6	1.3
Standard error of mean	0.14	0.09	0.13	0.16	0.09
Women					
Non-gamblers	37	37	32	37	44
1 activity	34	30	30	28	28
2-3 activities	24	27	29	28	23
4-6 activities	5	5	9	6	5
7 or more activities	0	1	1	0	0
Mean number of activities	1.1	1.3	1.4	1.3	1.1
Standard error of mean	0.06	0.07	0.06	0.07	0.06
<i>Bases (unweighted)</i>					
<i>Men</i>	569	655	538	441	457
<i>Women</i>	625	703	658	647	647
<i>Bases (weighted)</i>					
<i>Men</i>	615	714	586	465	533
<i>Women</i>	572	641	586	568	594

Table 7.7

Number of gambling activities in last 12 months (age-standardised), by Index of Multiple Deprivation^a and sex

Aged 16 and over

2012

Number of gambling activities in last 12 months	IMD quintile				
	Least deprived	2nd	3rd	4th	Most deprived
	%	%	%	%	%
Men					
Non-gamblers	30	30	31	33	37
1 activity	27	30	26	29	27
2-3 activities	29	24	28	26	24
4-6 activities	11	10	10	10	8
7 or more activities	3	6	5	3	4
Mean number of activities	1.7	1.9	1.9	1.6	1.6
Standard error of mean	0.11	0.13	0.15	0.09	0.11
Women					
Non-gamblers	37	38	38	38	41
1 activity	30	32	30	31	27
2-3 activities	27	25	26	25	27
4-6 activities	6	5	6	6	5
7 or more activities	1	0	1	1	-
Mean number of activities	1.2	1.1	1.2	1.2	1.1
Standard error of mean	0.05	0.05	0.06	0.06	0.06
<i>Bases (unweighted)</i>					
<i>Men</i>	735	702	632	606	534
<i>Women</i>	911	866	794	758	678
<i>Bases (weighted)</i>					
<i>Men</i>	735	756	729	693	658
<i>Women</i>	784	775	753	715	643

^a The Index of Multiple Deprivation 2010 combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score at the small area level in England.

Table 7.8

Endorsement of DSM-IV ^a items, by age and sex ^b								
Aged 16 and over								2012
DSM-IV item (last 12 months)	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
Chased losses ^c	3.9	4.0	1.7	1.9	1.3	1.8	0.7	2.3
Preoccupied with gambling ^d	3.7	2.1	0.2	1.0	0.8	0.5	0.5	1.3
Gambled with increasing amounts of money ^d	2.0	1.0	-	0.5	0.1	-	-	0.6
Felt restless or irritable when trying to stop gambling ^d	1.0	0.7	-	0.1	0.2	-	-	0.3
Gambling as escapism ^d	1.1	0.7	0.3	0.6	-	0.2	-	0.5
Tried but failed to cut back on gambling ^d	1.8	1.0	0.3	0.7	0.2	-	-	0.6
Lied to family or friends to conceal extent of gambling ^d	1.2	1.2	0.8	0.1	0.7	0.4	-	0.7
Committed a crime to finance gambling ^e	0.9	1.0	-	0.7	0.2	-	0.3	0.5
Risked or lost a relationship/job/educational opportunity because of gambling ^e	1.3	1.1	-	0.5	0.2	0.2	0.3	0.5
Relied on others to help with a financial crisis caused by gambling ^e	1.5	0.8	0.2	0.7	0.3	0.2	0.3	0.6
Women								
Chased losses ^c	2.0	1.3	1.8	1.3	0.9	2.5	0.8	1.5
Preoccupied with gambling ^d	0.7	0.1	0.3	0.4	-	0.4	-	0.3
Gambled with increasing amounts of money ^d	0.3	-	0.1	0.1	-	0.2	-	0.1
Felt restless or irritable when trying to stop gambling ^d	0.2	-	0.2	0.1	-	0.2	-	0.1
Gambling as escapism ^d	-	0.3	0.1	0.1	-	0.2	-	0.1
Tried but failed to cut back on gambling ^d	0.8	-	0.3	0.1	-	0.2	-	0.2
Lied to family or friends to conceal extent of gambling ^d	0.2	-	0.5	0.1	0.2	0.4	-	0.2
Committed a crime to finance gambling ^e	0.1	-	0.1	0.1	-	-	-	0.1
Risked or lost a relationship/job/educational opportunity because of gambling ^e	0.7	-	0.1	0.1	-	-	-	0.1
Relied on others to help with a financial crisis caused by gambling ^e	0.1	-	0.3	0.1	0.2	-	-	0.1
<i>Bases (unweighted)^f</i>								
<i>Men</i>	319	390	514	521	526	484	285	3039
<i>Women</i>	408	581	630	687	566	499	365	3736
<i>Bases (weighted)</i>								
<i>Men</i>	493	566	589	584	487	346	254	3318
<i>Women</i>	486	573	594	590	499	375	342	3459

^a DSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth edition (1994). The definition of 'endorsement' to each item varies, consisting of those who have carried out the activity in the last 12 months most of the time, fairly often or occasionally. Details of the definitions are provided below.

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

^c Endorsement is defined as those responding 'Every time I lost/most of the time'.

^d Endorsement is defined as those responding 'Very often/fairly often'.

^e Endorsement is defined as those responding 'Very often/fairly often/occasionally'.

^f Bases are shown for chasing losses; bases for other items vary but are of similar magnitude.

Table 7.9

Endorsement of PGSI^a items, by age and sex^b

Aged 16 and over

2012

PGSI item (last 12 months)	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
Bet more than could afford to lose								
Almost always	0.2	0.4	0.2	-	0.2	0.4	-	0.2
Most of the time	1.7	0.3	-	0.2	-	-	-	0.3
Sometimes	2.6	2.9	3.2	2.0	0.9	1.0	0.4	2.1
Never	95.6	96.4	96.6	97.8	98.9	98.6	99.6	97.4
Needed to gamble with larger amounts of money								
Almost always	0.2	0.4	-	-	-	-	-	0.1
Most of the time	1.2	-	-	0.1	-	-	-	0.2
Sometimes	1.8	2.0	1.2	0.5	1.1	-	0.3	1.1
Never	96.8	97.6	98.8	99.4	98.9	100.0	99.7	98.6
Chased losses								
Almost always	0.2	0.4	0.2	-	0.2	-	-	0.2
Most of the time	2.5	0.2	-	0.5	0.2	0.2	0.7	0.6
Sometimes	8.1	5.3	2.2	4.0	1.0	1.3	1.3	3.6
Never	89.1	94.0	97.6	95.6	98.6	98.5	97.9	95.6
Borrowed money/sold items to finance gambling								
Almost always	-	0.4	-	-	-	-	-	0.1
Most of the time	0.6	-	-	0.1	0.2	-	-	0.1
Sometimes	1.0	0.9	0.3	0.3	0.1	0.2	0.3	0.5
Never	98.4	98.6	99.7	99.6	99.7	99.8	99.7	99.3
Felt that might have a gambling problem								
Almost always	0.2	0.4	0.2	-	-	-	-	0.1
Most of the time	-	0.2	-	0.1	0.2	0.2	0.3	0.1
Sometimes	3.2	1.8	1.5	1.0	0.3	0.6	0.3	1.4
Never	96.6	97.6	98.3	98.9	99.5	99.2	99.4	98.4
Gambling caused health problems (including stress)								
Almost always	0.6	0.4	0.2	-	-	-	-	0.2
Most of the time	-	0.3	-	0.3	0.2	-	0.3	0.2
Sometimes	1.3	1.2	0.6	1.7	0.3	1.0	0.3	1.0
Never	98.1	98.1	99.2	98.1	99.5	99.0	99.4	98.7
People criticised gambling behaviour								
Almost always	0.5	0.4	0.2	-	-	-	-	0.2
Most of the time	-	-	-	0.5	0.4	-	0.4	0.2
Sometimes	2.7	1.8	1.2	0.7	1.0	0.6	0.6	1.3
Never	96.7	97.7	98.6	98.9	98.6	99.4	99.0	98.3
Gambling caused financial problems								
Almost always	0.6	0.4	0.2	-	-	-	-	0.2
Most of the time	0.6	-	-	0.3	-	0.2	-	0.2
Sometimes	0.4	0.5	0.8	0.4	0.5	0.6	0.7	0.5
Never	98.5	99.1	99.0	99.4	99.5	99.2	99.3	99.1
Felt guilty about gambling								
Almost always	-	0.4	0.2	-	-	-	-	0.1
Most of the time	1.5	-	-	0.3	0.2	-	-	0.3
Sometimes	2.6	3.6	1.9	1.1	1.3	0.8	0.3	1.8
Never	95.9	96.0	98.0	98.6	98.5	99.2	99.7	97.8
<i>Bases (unweighted)^c</i>								
Men	316	390	513	512	521	484	284	3020
<i>Bases (weighted)</i>								
Men	488	566	587	574	482	346	253	3297

^a PGSI: Problem Gambling Severity Index.^b Estimates are shown to one decimal place because of generally low prevalence rates.^c Bases are shown for betting more than you could afford to lose; bases for other items vary but are of similar magnitude.

Continued...

Table 7.9 continued

Aged 16 and over

2012

PGSI item (last 12 months)	Age group							Total %
	16-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75+ %	
Women								
Bet more than could afford to lose								
Almost always	-	-	-	-	-	-	-	-
Most of the time	-	0.3	0.1	-	-	-	-	0.1
Sometimes	1.1	0.7	1.2	1.0	-	0.2	-	0.7
Never	98.9	99.0	98.7	99.0	100.0	99.8	100.0	99.3
Needed to gamble with larger amounts of money								
Almost always	-	-	-	-	-	-	-	-
Most of the time	-	-	-	-	-	-	-	-
Sometimes	1.1	0.2	0.1	0.1	-	-	-	0.2
Never	98.9	99.8	99.9	99.9	100.0	100.0	100.0	99.8
Chased losses								
Almost always	-	-	-	-	-	-	-	-
Most of the time	0.2	-	0.1	-	-	-	0.2	0.1
Sometimes	4.2	1.9	1.0	1.2	0.7	0.2	-	1.4
Never	95.6	98.1	98.9	98.8	99.3	99.8	99.8	98.5
Borrowed money/sold items to finance gambling								
Almost always	-	-	-	-	-	-	-	-
Most of the time	-	-	-	0.1	-	-	-	0.0
Sometimes	0.5	-	0.3	-	-	-	-	0.1
Never	99.5	100.0	99.7	99.9	100.0	100.0	100.0	99.9
Felt that might have a gambling problem								
Almost always	-	-	-	-	-	-	-	-
Most of the time	-	-	0.1	0.1	0.2	-	-	0.1
Sometimes	0.3	0.1	0.7	0.1	0.2	-	-	0.2
Never	99.7	99.9	99.2	99.7	99.7	100.0	100.0	99.7
Gambling caused health problems (including stress)								
Almost always	-	-	-	0.1	-	-	-	0.0
Most of the time	-	-	0.1	-	0.2	-	-	0.0
Sometimes	0.4	0.2	0.6	-	-	-	-	0.2
Never	99.6	99.8	99.3	99.9	99.8	100.0	100.0	99.8
People criticised gambling behaviour								
Almost always	-	-	-	-	0.2	-	-	0.0
Most of the time	0.2	-	-	-	-	-	-	0.0
Sometimes	0.1	0.1	0.7	0.6	0.2	0.3	-	0.3
Never	99.7	99.9	99.3	99.4	99.7	99.7	100.0	99.6
Gambling caused financial problems								
Almost always	-	-	-	-	0.2	-	-	0.0
Most of the time	-	-	-	0.1	-	-	-	0.0
Sometimes	0.5	0.1	0.5	-	-	-	-	0.2
Never	99.5	99.9	99.5	99.9	99.8	100.0	100.0	99.8
Felt guilty about gambling								
Almost always	-	-	0.1	-	0.2	-	-	0.0
Most of the time	0.2	-	-	0.1	-	-	-	0.0
Sometimes	1.0	0.1	0.6	0.3	0.2	-	-	0.3
Never	98.8	99.9	99.3	99.6	99.7	100.0	100.0	99.6
Bases (unweighted)^c								
Women	410	581	632	686	560	496	364	3729
Bases (weighted)								
Women	488	573	596	589	495	373	341	3455

^a PGSI: Problem Gambling Severity Index.

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

^c Bases are shown for betting more than you could afford to lose; bases for other items vary but are of similar magnitude.

Table 7.10

DSM-IV^a and PGSI^b scores, by age and sex^c

Aged 16 and over

2012

DSM-IV and PGSI scores	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
DSM-IV								
DSM-IV score 0	97.8	99.0	100.0	99.2	99.6	99.6	99.7	99.2
DSM-IV score 3+ (problem gambler)	2.2	1.0	-	0.8	0.4	0.4	0.3	0.8
Mean DSM-IV score	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.1
Standard error of mean	0.07	0.04	0.01	0.02	0.02	0.01	0.01	0.01
PGSI								
Non-problem (score less than 1)	83.4	90.2	94.6	94.0	96.9	97.7	97.3	92.9
Low risk (score 1-2)	11.7	7.0	3.1	4.1	2.1	1.3	1.7	4.8
Moderate risk (score 3-7)	3.2	2.1	2.0	1.6	0.5	0.6	1.0	1.7
Problem gambler (score 8+)	1.7	0.8	0.3	0.3	0.5	0.4	-	0.6
<i>Problem or at risk gambler (score 1+)</i>	<i>16.6</i>	<i>9.8</i>	<i>5.4</i>	<i>6.0</i>	<i>3.1</i>	<i>2.3</i>	<i>2.7</i>	<i>7.1</i>
Mean PGSI score	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.2
Standard error of mean	0.16	0.10	0.04	0.04	0.04	0.04	0.04	0.03
Women								
DSM-IV								
DSM-IV score 0	99.7	100.0	99.5	99.9	100.0	99.8	100.0	99.8
DSM-IV score 3+ (problem gambler)	0.3	-	0.5	0.1	-	0.2	-	0.2
Mean DSM-IV score	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Standard error of mean	0.02	0.01	0.01	0.01	0.01	0.02	0.00	0.01
PGSI								
Non-problem	95.0	97.5	98.3	97.6	98.8	99.2	99.8	97.9
Low risk	3.2	2.2	0.8	2.1	1.0	0.8	0.2	1.6
Moderate risk	1.7	0.4	0.6	0.1	-	-	-	0.4
Problem gambler	0.1	-	0.3	0.1	0.2	-	-	0.1
<i>Problem or at risk gambler (score 1+)</i>	<i>5.0</i>	<i>2.5</i>	<i>1.7</i>	<i>2.4</i>	<i>1.2</i>	<i>0.8</i>	<i>0.2</i>	<i>2.1</i>
Mean PGSI score	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Standard error of mean	0.03	0.01	0.03	0.02	0.02	0.00	0.01	0.01
<i>Bases (unweighted)^d</i>								
<i>Men</i>	<i>319</i>	<i>390</i>	<i>514</i>	<i>521</i>	<i>526</i>	<i>487</i>	<i>285</i>	<i>3042</i>
<i>Women</i>	<i>410</i>	<i>581</i>	<i>632</i>	<i>688</i>	<i>567</i>	<i>503</i>	<i>368</i>	<i>3749</i>
<i>Bases (weighted)</i>								
<i>Men</i>	<i>493</i>	<i>566</i>	<i>589</i>	<i>584</i>	<i>487</i>	<i>348</i>	<i>254</i>	<i>3320</i>
<i>Women</i>	<i>488</i>	<i>573</i>	<i>596</i>	<i>591</i>	<i>500</i>	<i>378</i>	<i>345</i>	<i>3471</i>

^a DSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth version (1994). A score of 3 or more is indicative of problem gambling. Details of scoring are provided in the chapter text.

^b PGSI: Problem Gambling Severity Index. Details of scoring are provided in the chapter text.

^c Estimates are shown to one decimal place because of generally low prevalence rates.

^d Bases shown are for DSM-IV problem gambling score; bases for the PGSI score are of similar magnitude.

Table 7.11

Factors associated with moderate risk and problem gambling (PGSI^a)*Aged 16 and over who gambled in the last year* 2012

Independent variable	Bases (weighted)	Odds ratio	95% confidence interval	
			Lower	Upper
Age group (p<0.001)				
16-24	530	1.00		
25-34	765	0.40	0.18	0.88
35-44	790	0.38	0.18	0.82
45-54	776	0.27	0.12	0.62
55-64	640	0.15	0.05	0.40
65-74	444	0.14	0.05	0.41
75 and over	288	0.13	0.04	0.46
Sex (p<0.001)				
Men	2,194	1.00		
Women	2,040	0.20	0.11	0.40
GHQ-12 score (p<0.001)				
0	2,547	1.00		
1 to 3	974	2.53	1.41	4.55
4 or more	595	3.72	1.86	7.46
Not answered	118	1.33	0.30	5.89
Spearhead PCT (p<0.05)				
Non-Spearhead PCT	2,694	1.00		
Spearhead PCT	1,540	1.86	1.11	3.12

^a PGSI: Problem Gambling Severity Index.