Research and analysis

Gambling-related harms evidence review: summary

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Contents

This publication is available at https://www.gov.uk/government/publications/gambling-related-harms-evidence-review/gambling-related-harms-evidence-review-summary

1. Introduction

In the 2005 Gambling Act (https://www.legislation.gov.uk/ukpga/2005/19/section/3), gambling is defined as gaming, betting and participating in a lottery.

In recent years, concern about the harms associated with gambling has been increasing in the UK and in March 2018, the Public Health England (PHE) remit letter confirming PHE's priorities for 2018 to 2019 (https://www.gov.uk/government/publications/phe-remit-letter-2018-to-2019) included the request for PHE to 'inform and support action on gambling-related harm as part of the follow up to the Department for Digital, Culture, Media and Sport-led (DCMS) review of gaming machines and social responsibility'.

In May 2018, DCMS published its response to a consultation on proposals for changes to gaming machines and social responsibility measures (https://www.gov.uk/government/consultations/consultation-on-proposals-for-changes-to-gaming-machines-and-social-responsibility-measures). In it they announced that 'PHE will conduct an evidence review of the health aspects of gambling-related harm to inform action on prevention and treatment'.

The UK has one of the biggest gambling markets in the world, generating a profit of £14.2 billion in 2020 (https://www.gamblingcommission.gov.uk/about-us/statistics-and-research). Previous research has shown that harms associated with gambling are wide-ranging. These include not only harms to the individual gambler but their families, close associates and wider society [footnote 1] [footnote 2]. There have been growing calls by the public health community, people with lived experience and parliamentarians that a population-level approach is needed to tackle this public health issue [footnote 2] [footnote 3] [footnote 4]. However, there was a need to fully understand the extent to which gambling is a public health issue, for whom it is a problem and the extent of the possible harms.

Our evidence review and analysis examined the following questions:

1. What is the prevalence of gambling and gambling-related harm in England by socio-demographic characteristics, geographical distribution and year?
2. What are the determinants (risk factors) of gambling and harmful gambling?
3. What are the harms to individuals, families, communities, and wider societal harms associated with harmful gambling?
4. What is the social and economic burden of gambling-related harms?
5. What are stakeholder views on gambling-related harms in England?
6. To what extent has coronavirus (COVID-19) affected gambling participation and behaviour?

You can find the full technical reports on the gambling-related harms evidence review page (https://www.gov.uk/government/publications/gambling-related-harms-evidence-review).

2. Approach and methods

We used a mixed methods approach for this review, including quantitative, qualitative and rapid review methodologies. We developed 6 studies to answer each of the 6 questions.

To answer question 1, we conducted a quantitative analysis to examine the prevalence of gambling and related harms in England using data from the annual Health Survey for England (HSE) and a number of other gambling data sources.

To answer question 2, we conducted an umbrella review (a systematic review of systematic reviews) to identify and examine evidence on potential risk factors associated with gambling and harmful gambling.

To answer question 3, we conducted an abbreviated systematic review to identify and examine the potential harms associated with gambling.

To answer question 4, we conducted an analysis to estimate direct, indirect, and intangible excess costs of gambling-related harms based on the best available evidence.

To answer question 5, we conducted a qualitative investigation of stakeholder perspectives on gambling using data from a Gambling Commission consultation and an anonymous sample of gambling-related tweets from Twitter.

To answer question 6, we conducted a rapid review of studies to examine the impact of COVID-19 on gambling behaviour and associated harms.

The evidence review was underpinned by an adaptation of an existing framework (https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-016-2747-0) which classifies gambling-related harms by type and temporality.

The types of harms are:

- financial
- relationship disruption, conflict or breakdown
- mental and physical health
- cultural
- employment and education (referred to as reduced performance at work or study)
- criminal activity

Temporality includes general, crisis and legacy and is based on the idea that a harm might occur at the first single engagement with gambling and continue even after a person stops gambling.

3. Results

3.1 The gambling population in England

Overall prevalence of gambling

In 2018, 24.5 million people in England gambled (54% of the adult population, or 40% when you exclude the National Lottery). The National Lottery is the most common type of gambling across all age groups, except among younger people where scratch cards are more common. Football pools and electronic gaming machines are more common among people under 35 years of age compared with older age groups. Men are more likely to gamble than women, and this difference is most obvious for online gambling where 15% of men participate, compared to 4% of women.

Our analysis revealed that overall gambling prevalence has fluctuated between 2012 and 2018. Participation in the National Lottery reduced by 10%, participation in other gambling activities has stayed at 40% despite an increase to 45% in 2015, and online gambling (excluding the National Lottery) has increased from 6% in 2012 to 9% in 2018.

Prevalence of at-risk and problem gambling

Based on 2018 data, we estimated that 0.5% of the population reached the threshold to be considered problem gamblers, and this proportion has remained relatively consistent since 2012. We also estimated that 3.8% of the population are classified as at-risk gamblers. These people are typically low- or moderate-risk gamblers, meaning they may experience some level of negative consequences due to their gambling.

The highest rates of gambling participation are among people who have higher academic qualifications, people who are employed, and among relatively less deprived groups. People who are classified as at-risk and problem gamblers are more typically male and in younger age groups. The socio-demographic profile of gamblers appears to change as gambling risk increases, with harmful gambling associated with people who are unemployed and among people living in more deprived areas. This suggests harmful gambling is related to health inequalities.

Factors affecting gambling-related harm

Gambling and the risk of gambling-related harm are also associated with psychological and physical health. The highest levels of gambling participation are reported by people who have better general psychological health and higher life satisfaction. And people who have poorer psychological health are less likely to report gambling participation. However, it is the opposite for at-risk and problem gambling, where there is a higher prevalence among people with poor health, low life satisfaction and wellbeing. This is particularly true where there is an indication of psychological health problems.

Body mass index (a measure of overweight or obesity) and cigarette smoking were not found to be associated with gambling, but there was a clear association between gambling at all levels of harm and increased alcohol consumption. This association is evident for overall gambling participation but is greater for at-risk and problem gambling.

Harmful gambling has a different activity profile to general gambling. It includes low National Lottery participation and high participation in online gambling (including online slots), casino and bingo games, electronic gambling machines in bookmakers, sports and other event betting, betting exchanges and dog racing. Harmful gamblers are far more likely to participate in 7 or more gambling activities. Overall participation in online gambling for at-risk gamblers (23.4%) was more than double that of the general population (9.4%) in 2018.

Demographic factors, particularly being male, appear more significant in predicting at-risk gambling behaviour than economic factors such as income, employment, and relative deprivation. Poor mental health is a stronger predictor of at-risk gambling than both poor physical health and negative health behaviours, with the notable exception of alcohol.

Regional variations

The North West (4.4%) and North East (4.9%) had the highest prevalence of at-risk gamblers, while the South West (3.0%) had the lowest prevalence. Due to small numbers, it was not possible to determine the levels of problem gambling for each region in England with any statistical significance.

Gambling among children and young people

The proportion of children and young people who reported participating in any gambling in the last 7 days has reduced from 23% in 2011 to 11% in 2019. The proportion reporting any gambling in the last 12 months reduced from 39% in 2018 to 36% in 2019.

The extent of gambling among children and young people is lower than drinking alcohol but higher than using e-cigarettes, smoking tobacco cigarettes, or taking illegal drugs. There may also be a relationship between these other harmful activities and gambling. Compared with children who have

not gambled, those who have spent their own money on gambling are more likely to have consumed alcohol, taken drugs, or smoked either a tobacco cigarette or an e-cigarette.

Nearly double the number of boys (13%) reported participating in any gambling activity in the past 7 days than girls (7%), and participation was higher in children aged 14 to 16 years (12%) compared to those aged 11 to 13 years (9%). Electronic gaming (fruit and slot) machines were often identified as the first experiences of gambling among children and young people although National Lottery, scratch cards, and placing private bets with friends were the most common forms of gambling reported. As young people got older there was a significant increase in online gambling among boys.

Other people affected by gambling

Around 7% of the population of Great Britain (adults and children) were found to be negatively affected by someone else's gambling according to the best available evidence from YouGov (https://www.begambleaware.org/sites/default/files/2020-12/gambling-treatment-and-support.pdf).

Affected others are more likely to be women. The most severe impacts of problem gambling were felt most by immediate family members. Almost half (48%) of people who were affected by a spouse or partner's gambling reported a severe negative impact. This was followed by people affected by the gambling of a parent (41%) and the gambling of a child (38%).

3.2 Risk factors for gambling and harmful gambling

We identified 39 reviews examining possible risk factors for gambling and harmful gambling. Only 5 of these included longitudinal studies which are essential to determine the direction of a relationship, and only one was rated as high quality. The high quality review (https://www.sciencedirect.com/science/article/pii/S0272735815301963) examined risk factors for harmful gambling among children and young people. We identified 45 possible risk factors within these reviews, and three-quarters of these (33 factors) were individual risk factors. The remaining related to families or other social influences (5 factors), community-level influences (4 factors) and societal influences (3 factors).

To determine whether these factors could be considered risk factors for gambling or harmful gambling, we considered number, quality and appropriateness of studies as well as consistency of results to develop confidence ratings. None of the factors were identified as risk factors for gambling for any age group with moderate or high confidence.

We had a high degree of confidence that risk factors for subsequent harmful gambling among children and young people include:

- impulsivity
- substance use (alcohol, tobacco, cannabis and other illegal drugs)
- being male
- depression

We had moderate confidence that risk factors for subsequent harmful gambling among children and young people include:

- the number of gambling activities they participated in
- the severity of problem gambling
- anti-social behaviour
- violence
- poor academic performance

- peer influence

We had moderate confidence that the following are not risk factors for harmful gambling among children and young people:

- money won or lost
- risk taking
- age and age of gambling onset
- religion
- aggression
- dispositional attention (see glossary)
- some mental health problems (anxiety, psychological distress, suicidal ideation and negative affect)

We had low confidence that 10 identified factors could be considered risk factors for gambling (including ethnicity and impulsivity), and a further 14 factors for harmful gambling (including personal relative deprivation and trauma). This low confidence was in part due to methodological limitations (for example, most studies in the review were cross-sectional) despite some having large numbers of studies. For other factors (including risk perception or family influences), there was either very low confidence in the evidence or insufficient evidence to determine if these are risk factors for gambling or harmful gambling.

3.3 The harms associated with gambling

We identified 53 studies describing a range of harms that had resulted from gambling. Most of the studies had focused on harms to the gambler, although some had also examined the harms to affected others. There was limited evidence examining harms to society.

Financial harms

We examined financial harms in 31 studies. One high quality study reported that an increase in the number of electronic gaming venues in a local area increased the number of personal bankruptcies in that area. There was also considerable evidence from the qualitative studies that gambling directly causes financial harms to gamblers and their close associates, particularly intimate partners.

We identified gambling-related debt as a crucial harm that can lead to other harms such as relationship problems, physical and mental health problems, and crime.

The financial difficulties and debt experienced by gamblers and affected others were often severe. Several studies reported that gambling led to bankruptcy and housing problems including homelessness. Financial harms also affected the children of gamblers.

Relationship harms

We examined relationship harms in 30 studies. One study reported that moderate risk or problem gamblers experienced lower levels of family functioning and social support compared to low risk or non-gamblers. Although another study suggested that associations identified between gambling problems and intimate partner violence may be influenced by other factors.

The qualitative evidence described how gambling directly causes relationship problems affecting the gambler and their close associates, including their children. Examples of harms included arguments, relationship strain or domestic abuse. The impact of gambling on relationships ripples outwards,

negatively affecting wider family and friendship networks.

Mental and physical health harms

We examined mental and physical health harms in 48 studies. A high quality quantitative study showed that people with gambling disorder have an increased risk of dying from any cause, in a given time period, relative to the general population. This was greater in gamblers aged between 20 and 49.

Two quantitative studies reported that deaths from suicide were significantly higher among adults with gambling disorder or problems compared to the general adult population. One of these found that some participants, particularly women, had already experienced suicidal events before starting to gamble. This suggests that gambling may trigger suicidal events in some people already prone to suicidal ideation. The link between gambling and suicide and self-harm was supported by qualitative studies.

In quantitative studies, anxiety and depression were the most commonly measured mental health disorders. Results were mixed in terms of showing whether gambling caused these outcomes. In qualitative studies, gamblers experienced emotions such as guilt, shame, loss of self-esteem, loneliness and sleep problems and neglected caring properly for themselves. Close associates of gamblers reported negative emotional, psychological and health impacts. These included anxiety, depression and sleep problems.

Studies also reported mixed findings on the link between gambling and various measures of alcohol, smoking and drug use. In qualitative studies, gamblers reported co-occurring alcohol and drug-related problems.

There was low quality evidence that young adult gamblers with moderate to severe gambling disorder at the start of the study was associated with a significantly lower quality of life score and higher body mass index.

Employment and educational harms

We examined employment and educational harms in 13 studies. One moderate quality quantitative study showed that a higher level of gambling participation at age 14 did not predict decreased academic performance at age 17 when other factors were taken into consideration (such as family and individual characteristics).

The qualitative studies described that adult gamblers had lost jobs, were demoted or resigned due to gambling. Gambling was linked to loss of concentration on work activities, showing up late, not turning up for work or turning up after no sleep. Close associates of gamblers also reported their work performance being affected, and work colleagues and employers also suffered. Child gamblers noted difficulties at school. Children of gamblers also noted difficulties at school because of the chaotic home life associated with a gambling parent. Absenteeism, job turnover, withdrawal from education or reduced educational attainment represent societal harms.

Criminal and anti-social behaviour harms

We examined criminal and anti-social behaviour harms in 22 studies. In all 3 of the quantitative studies, problem gambling was not associated with future crime or anti-social behaviour. However, all 3 studies relied on the people self-reporting they had committed a crime.

Three of 4 qualitative studies specifically focused on crime, with 3 describing how gambling caused crime. But in total, crime featured in 19 qualitative studies (of low to moderate quality). Gambling-related financial difficulties were associated with crimes by adult gamblers. This included theft and selling drugs. This criminal activity affected close associates and wider society. For example, gamblers took out loans in other people's names, stole from friends and family and committed fraud.

Cultural harms

Cultural harms refer to the tensions between gambling and cultural practices and beliefs, and 'normalisation' (where an activity and the associated harms become thought of as 'normal'). We found 14 low to moderate quality qualitative studies related to cultural harms from gambling. These studies showed that gambling-related harm is influenced by cultural norms, so some gamblers and their close associates experience additional harm like shame and isolation. Gambling is normalised in society so harms can be passed on to the next generation.

Gambling within gaming

There was one low quality qualitative study that looked at gaming in people aged 11 to 24 years old. The young people felt gambling-like activities in gaming (such as loot boxes and skin betting) were addictive. They also said that games were designed to make it difficult to enjoy without buying loot boxes, and they thought that gambling-like activity in gaming was normal.

3.4 The costs to society from gambling-related harms

The overall economic burden of gambling

Our economic analysis estimated that the annual economic burden of harmful gambling is approximately £1.27 billion (expressed in 2019 to 2020 prices), with 95% confidence that the precise estimate is between £841 million and £2.12 billion.

Half of the estimated economic burden (£647.2 million) is a direct cost to government. This is likely to be underestimated due to a lack of available evidence, which means that some identified harms have been only costed partially (financial, health, employment and education, crime), while others have not been costed at all (cultural harms and impact on relationships). Table 1 shows an overview of costs.

Table 1. Estimated excess cost of harm associated with gambling, by type of harm and type of cost

Type of harm	Direct costs to government (£ millions)	Intangible costs to wider society (£ millions)	All costs (£ millions)
Financial	62.8	N/A	62.8
Mental and physical health	342.2	619.2	961.3
Employment and education	79.5	N/A	79.5
Criminal activity	162.5	N/A	162.5
Excess cost	647.0	619.2	1,266.1

Financial harms

The excess cost of financial harms focused on homelessness and is estimated to be £62.8 million (with 95% confidence that the precise estimate is between £41.0 million and £84.6 million). This is based on the estimated 21,438 statutory homeless applications associated with at-risk and problem gambling only in England. This estimate excludes the costs incurred by rough sleepers.

Mental and physical health harms

The overall estimated excess cost of health harms is estimated to be £961.3 million. This is based on the direct costs to government of treating depression, alcohol dependence and illicit drug use, as well as the wider societal costs of suicide.

The estimated excess cost of suicide is £619.2 million (with 95% confidence that the precise estimate is between £366.6 million and £1.1 billion), based on the wider social costs of an estimated 409 suicides associated with problem gambling.

The estimated excess cost of depression is £335.5 million (with 95% confidence that the precise estimate is between £221.7 million and £529.6 million), based on an estimated 212,511 people with depression and problem or at-risk gambling.

The estimated excess cost of alcohol dependence is £4.7 million (with 95% confidence that the precise estimate is between £3.6 million and £5.7 million), based on an estimated 3,646 people receiving alcohol treatment in England. An estimated 28,312 people are both alcohol dependent and problem or at-risk gamblers.

The estimated excess cost of illicit drug use is £2.0 million (with 95% confidence that the precise estimate is between £1.4 million and £2.7 million), based on an estimated 712 people receiving drug treatment. It is estimated that 1,487 people aged 17 to 24 years who are at-risk and problem gamblers also have problematic drug use in England.

Employment and education harms

The excess cost of employment-related harms is estimated to be £79.5 million (with 95% confidence that the precise estimate is between £48.3 million and £110.7 million).

Criminal activity

The costs of harms related to criminal activity are estimated to be £162.5 million (with 95% confidence that the precise estimate is between £158.4 million and £327.2 million). This is based on an estimated 3,799 people in prison who had committed an offence associated with problem gambling.

3.5 Stakeholders' perspectives of gambling-related harms

Categories of harm identified

Our qualitative analysis of stakeholder perspectives was based on 302 respondents to the consultation and 929 tweets from 669 individuals. We identified 8 categories of harms. These were:

- general harms (where no particular harm was specified)
- health
- financial

- relationship
- work or study
- criminal activity
- cultural
- miscellaneous (for any other harms that could not be categorised)

Stakeholders mostly discussed harms caused by gambling in general terms (without mentioning any specific harm). These general mentions of harm accounted for 50% of all harm-related references. Where a specific type of harm was mentioned, it was most often a health harm (23% of total harm related references) followed by financial harms (15%), criminal activity (5%) relationship (3%), work or study (2%), and cultural (1%) harms. Miscellaneous harms accounted for 1% of references.

Major themes discussed by stakeholders

We identified 3 major themes that highlighted opposing views between commercial stakeholders (those who work for the gambling industry and their affiliates) and non-commercial stakeholders (including those categorised as ‘health’, ‘lived experience’, and ‘charity’ stakeholders).

The first major theme related to the sources of gambling harm. Commercial stakeholders believed the causes of harmful gambling are complex and could be due to co-morbidities or a tendency toward addiction. Non-commercial stakeholders thought that harms are caused directly by gambling products and gambling environments.

A second theme related to who is affected by gambling-related harm. Commercial stakeholders believe that harms are experienced by a minority of gamblers only. Non-commercial stakeholders took a broader view that harms can be experienced by any gamblers and can also be experienced indirectly by families and society. Stakeholder views were consistent about the hidden nature of gambling-related harms, in that many harms are not apparent to others.

The third theme related to the measures required to prevent and reduce gambling-related harm. Commercial stakeholders thought the focus should be on individual interventions and treatment. The non-commercial stakeholders thought that tackling gambling-related harm requires a whole systems approach, in other words a public health approach.

All stakeholders agreed that it’s necessary to increase consumer awareness of the potential harms associated with gambling, and for gambling venues to take further actions to prevent, identify and reduce harm in their facilities or on their platforms.

3.6 The initial impact of COVID-19 restrictions on gambling

Our rapid review on COVID-19 included 19 quantitative studies, but only 3 of these examined the impacts of COVID-19 on gambling over time. A UK study reported an overall reduction in gambling following the first lockdown, and either no change or a reduction in frequency of gambling. However, there was a small increase in online gambling from 1.5% to 2.3%. Four percent of participants in this study reported gambling more during lockdown, but 20% of problem gamblers reported gambling more. A further 2 studies conducted in Europe using data on online gambling participation found reductions in online betting between March and April 2020. Both studies used data from gambling providers.

The one study that examined harms resulting from gambling reported no change overall in psychological distress, high risk alcohol consumption or smoking status in gamblers during the first lockdown. The study reported increased psychological distress and increased high risk alcohol

consumption (from 10% to 20%) in ethnic minority gamblers, and in problem gamblers aged 18 to 34 (from 20% to 31%). Despite gambling reductions, the proportion of participants reporting being affected by someone else's gambling increased from 6% to 7%.

These studies were conducted during the early stages of the COVID-19 pandemic. We need to understand how gambling participation has been affected as the pandemic and associated restrictions have changed and continued. There is also a need for more longitudinal studies of both gambling participation and the resulting harms.

4. Discussion

4.1 Summary and interpretation of findings

Prevalence of gambling and harms

This review has estimated that 0.5% of the adult population have a problem with gambling, 3.8% are gambling at at-risk levels, and 7% are affected negatively by an others people's gambling.

A recent YouGov study of prevalence (https://www.begambleaware.org/sites/default/files/2021-06/Annual_GB_Treatment_and_Support_Survey_2020_report_%28FINAL%29_26.03.21.pdf) reported that 13% of the population were experiencing some level of gambling harm compared to 4% from HSE, when combining surveys for England, Scotland and Wales. We expect that the HSE is likely to be closer to the true estimate of prevalence, but with the reliance on survey data, it may be an underestimation.

There are also inequalities in the extent to which sub-groups of the population are affected by gambling. People at the greatest risk of harm are more likely to be unemployed and living in more deprived areas, have poor health, low life satisfaction and wellbeing, and have an indication of probable psychological health problems.

The proportion of children and young people who participate in any gambling is reducing. But participation is higher in older children, and boys are more likely to gamble than girls.

Risks and factors that influence gambling

It was not possible to identify any risk factors for harmful gambling in adults because there was no high-quality systematic review of longitudinal studies. While a high-quality meta-analysis has been published (https://onlinelibrary.wiley.com/doi/abs/10.1111/add.15449?af=R) since our review was completed, this again relied heavily on cross-sectional studies. For children and young people, we identified one high-quality meta-analysis of longitudinal studies (https://www.sciencedirect.com/science/article/pii/S0272735815301963). This gave us confidence in identifying some risk factors for children and young people specifically in relation to harmful gambling. It will be important to consider these when monitoring, and in any efforts to address gambling participation. A similar review focused on adults is needed for a clearer understanding of risk factors for adults.

Harms associated with gambling

The evidence suggests that gambling can lead to a wide range of harms to gamblers. Most of the evidence we identified focused on harms to gamblers, and although there is some evidence suggesting harms to close associates, there are not many studies. There was very limited evidence on societal harms. Identifying specific harms according to different levels of gambling severity was challenging because gambling and harms were measured differently across studies.

There was some evidence from qualitative studies that particular populations are at more risk of harm (such as migrants and people with learning disabilities) and gambling may make existing inequalities worse.

The economic cost of gambling

The excess economic costs of harmful gambling were estimated at £1.27 billion for England. But we expect that the true costs are higher because the lack of evidence meant that it was not possible to cost all types of harms or the wider harms to individuals or society. Previous research on the economic costs of gambling in England (https://www.ippr.org/publications/cards-on-the-table) (from 2016) estimated the excess cost of harmful gambling to be between £200 million and £570 million for England. These estimates are likely to change with further evidence.

Stakeholder views about gambling harms

With the exception of commercial stakeholders, there was consensus across different types of stakeholders that gambling is a public health issue, and it requires a public health approach.

4.2 Limitations

Our quantitative analysis was limited by the available data. Although HSE is a good data source, not all topics relevant to gambling are included and we had to rely on other sources of published data to fill gaps.

We relied on review-level evidence to understand risk factors for gambling and harmful gambling, but this proved difficult as the reviews were low quality and relied heavily on cross-sectional studies. Except for some risk factors for children and young people, it was not possible to identify all risk factors for all ages with confidence.

Most of the studies published on gambling and harm do not allow us to determine that gambling came before the harm. We intended to draw on previous reviews as well as primary studies, but we could not identify any reviews that focused on longitudinal studies. It's possible that there are more longitudinal studies that we did not identify through this method.

The lack of evidence meant that we could not cost all of the harms identified in the review, or cost the economic and social burden of gambling on affected others. This means that the overall estimated costs are likely to be underestimated. However, our economic analysis does provide a more recent and extensive estimate of excess costs than has been previously attempted.

We relied on Twitter and stakeholder consultations to build an understanding of stakeholder perspectives. It's possible that Twitter users are not representative of the general population. It is also possible that people discussing gambling on Twitter and those who responded to the stakeholder consultation have a firmer opinion of gambling or have been affected by it in some way.

4.3 Research gaps

Until relatively recently, research on gambling has focused on people who experience severe problems, and there are clear gaps in the evidence base for the harms experienced by affected others and wider society. For instance, there are no questions about being affected by another person's gambling in the HSE.

We also found that the evidence of harms was limited. We were not able to cost any harms to affected others in the economic analysis. We have detailed the research gaps in each piece of work, but examples of further research needed are:

- a systematic review of longitudinal studies of risk factors in adults
- longitudinal studies on if or how community and societal factors can influence harmful gambling
- longitudinal quantitative studies on harms, including harms to affected others and societies

5. Conclusions and next steps

5.1 Conclusions

This review has brought together and analysed the best available international research evidence on risk factors and gambling-related harms. The evidence suggests that harmful gambling should be considered a public health issue because it is associated with harms to individuals, their families, close associates and wider society.

Gambling-related harms have considerable cost to society, likely to be in excess of £1.27 billion.

The most socio-economically deprived and disadvantaged groups in England have the lowest gambling participation rates, but the highest levels of harmful gambling and they are also the most susceptible to harm. So, if there are no interventions to improve this situation, harmful gambling is likely to make existing health inequalities worse.

The harms identified in this report and the cost to society suggests that more needs to be done to prevent and reduce the harms associated with gambling.

5.2 Next steps

To address gaps in this evidence base PHE is undertaking a Delphi study (https://osf.io/3m7ar/#!). This study aims to identify what policies and interventions could be adapted from public health to address the gambling-related harms identified in this review .

The Office for Health Improvement and Disparities will work in partnership with other government departments and key stakeholders to develop a workplan to:

- address the knowledge gaps identified in this review
- improve data collection
- deliver effective and implementable responses to gambling-related harms

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