

GAMBLING RESEARCH GLASGOW

Gambling and the Red Wall: traditional pastime or modern menace?

Policy briefing note

- People living in the most deprived areas in England are **seven times** more likely to experience problem gambling than those living in the least deprived areas
- As many as **9800 people per 100,000** living in the most deprived areas may be affected by their own gambling or that of someone else. For those living in the least deprived areas, it is around 1400 people per 100,000.
- The economic and social costs of gambling harms in England is around £1.27 billion per year. Deprived communities are likely to bear a greater burden of this cost.

Overview

The Social Market Foundation hosted a panel event at the Conservative Party Conference on October 4th, 2021. Dr Heather Wardle from the University of Glasgow, and member of Gambling Research Glasgow was invited to discuss the evidence relating to the relationship between area deprivation and gambling harms. This briefing note supports her contribution at that event.

Background

Whilst anyone may experience harms from gambling, these harms tend to be concentrated among certain demographic groups namely, younger people, males, and individuals residing in deprived areas. A recent report by Public Health England (PHE) confirms this socioeconomic gradient in gambling by stating that *“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*



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*living in more deprived areas. This suggests harmful gambling is related to health inequalities”.*¹ This briefing paper extends their analysis to look at the relationship between the experience of problem gambling and area deprivation, using gold-standard evidence from the Health Survey for England (HSE) 2015, 2016 and 2018. Combining these data allows us to look at these relationships for different demographic groups living in deprived areas.

Measures

The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation used in England. The HSE uses a method by which neighbourhoods in England are ranged from most deprived to least deprived and then dividing them into five equal groups. These groups then range from the most deprived 20% of neighbourhoods nationally to the least deprived 20% of neighbourhoods nationally.

Experience of problem gambling in the HSE series is measured using two tools: one based on the American Psychiatric Association’s Diagnostic and Statistics Manual IV (DSM-IV) and one called the Problem Gambling Severity Index (PGSI). As both measure a slightly different range of issues, it is common to look at those who have been defined as experiencing problem gambling according to either measure. Based on the combined HSE 2015, 2016 and 2018 data (using most recent datasets) 0.7% of the English population living in private households were estimated to be experiencing problem gambling.

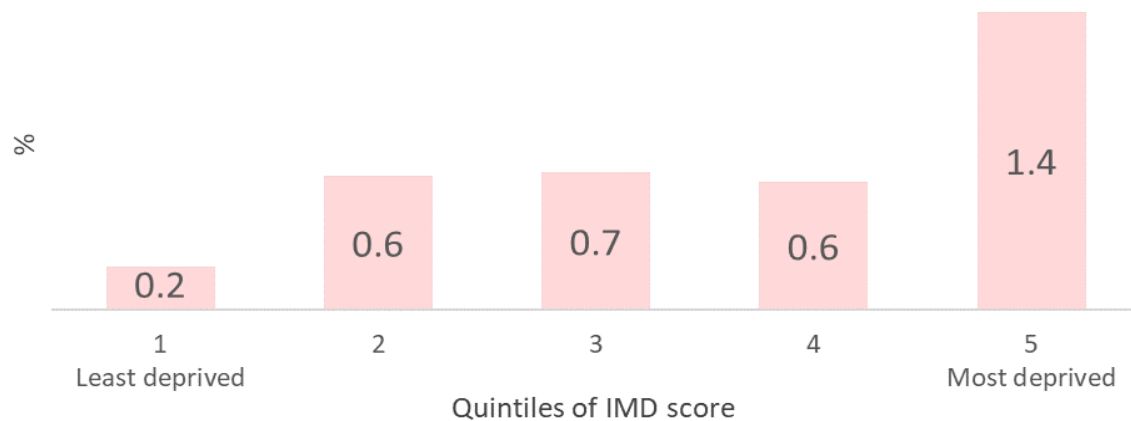
Findings

- Rates of problematic gambling among those living in the most deprived areas in England are over seven times higher than those living in the least deprived areas (1.4% vs 0.2%) (see Figure 1).



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Figure 1: Problem gambling prevalence by area deprivation in England



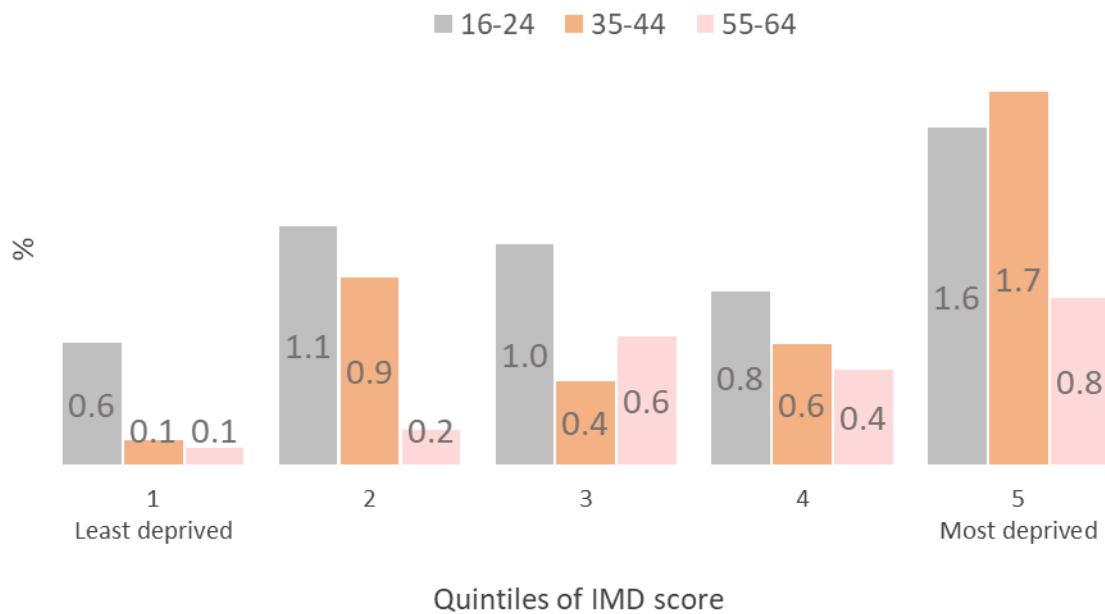
- Rates of problem gambling in the most deprived areas in England are twice that of the national average (1.4% vs 0.7%).
- This pattern is observed among men, women and among all age groups – those living in the most deprived area in England have higher rates of experiencing gambling problems than those who live elsewhere (see Figure 2 & 3)

Figure 2: Problem gambling prevalence, by area deprivation and sex



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Figure 3: Problem gambling prevalence, by area deprivation and age



- The PHE report suggested that those living in the most deprived areas of England had similar overall rates of gambling engagement, although they displayed a slight preference for certain forms of gambling. To check this, a logistic regression model was fitted to examine the association between area deprivation and problem gambling, adjusting for key confounders namely, age, sex, ethnicity as well as different types of gambling activity (see Table 1).
- This pattern remained significant even when age, sex, ethnicity, and engagement in different types of activity were taken into account – the odds of experiencing problem gambling were 7.1 (95% confidence interval: 2.1-23.6) times higher among those living in the most deprived areas than the least deprived areas in England.ⁱⁱ
- Notably, the odds of experiencing problem gambling among those in the most deprived areas were of similar magnitude to those observed among people who played casino, slot or bingo online or gambled on Fixed Odd Betting Terminals.
- Finally, research evidence suggests that an average of 6 other people are negatively affected by those experiencing problem gambling. This means for every 100,000 people living in the least deprived areas in England, around



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1400 people in total may be affected by gambling problems. Among those living in the most deprived areas in England, around **9800** per 100,000 may be affected.

Implications

- The elevated odds of problem gambling among those living in the most deprived areas in England are substantial and significant and of similar magnitude to those gambling online or gambling on machines, demonstrating the strength of this association.
- These are not trivial numbers, nor a “tiny minority”, especially when the impact on others is taken into account. In the most deprived areas in England, a significant minority of people (around one in ten) are likely affected by harms from gambling.
- Gambling harms generate social costs to communities; evidence of such inequity in the experience of harms suggests that gambling may contribute towards or further exacerbate inequalities within these areas.
- Evidence from PHE suggests that the social costs of gambling harms in England is around £1.27 billion this year.ⁱⁱⁱ This data suggests that deprived communities are likely to bear a greater burden of this cost.

Limitations

- The calculations for the number of people affected in a region have been created by applying empirical estimates of the number of people affected per problem gambler to the proportion of people experiencing gambling harms in that area. The affected others multiplier was generated from evidence from a range of sources, which individually estimate that between 5-17; 6 or 4-11 further people are affected per person experiencing gambling harms.^{iv} Six was chosen as a potentially conservative estimate for these calculations.
- The calculations assume that those affected will live in the same local area to the person experiencing the harms. This assumption needs to be tested empirically, but it is reasonable to assume that the partners and children of



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those experiencing harms are more likely to live in the same area as the person experiencing gambling problems.

- Finally, self-reported data from the HSE may give rise to measurement error bias since individuals might under-report their gambling activity. Relatedly, rates of problem gambling estimated by the HSE series may be underestimated because it is a survey of private households which excludes people living in institutions, such as student halls of residence or prisons, or those experiencing housing instability. People in these circumstances may have higher rates of problem gambling and are not represented in this data.



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Appendix

Table A1 Logistic regression: Odds of experiencing problem gambling according to either the DSM-IV or the PGSI

Variables	Odds ratio	P-value (comparative to reference group)	95% CI
Age group			
25-34	3.22	0.02	[1.20, 8.59]
35-44	2.16	0.13	[0.79, 5.90]
45-54	4.52	0.01	[1.51, 13.52]
55-64	5.97	0.00	[2.09, 17.04]
65-74	3.64	0.06	[0.93, 14.27]
75+	0.96	0.97	[0.10, 9.54]
16-24 (Ref.)	1		
Sex			
Female	0.42	0.00	[0.24, 0.73]
Male (Ref.)	1		
Ethnic Group			
Black	3.12	0.07	[0.90, 10.87]
Asian	4.13	0.00	[1.78, 9.54]
Mixed	3.65	0.02	[1.22, 10.96]
Any other ethnic group	3.59	0.21	[0.48, 26.92]
White/white British (Ref.)	1		
Quintile of Area Deprivation			
2	4.07	0.04	[1.10, 15.02]
3	3.85	0.03	[1.15, 12.91]
4	2.90	0.11	[0.80, 10.55]
Most deprived	7.11	0.00	[2.14, 23.62]
Least deprived (Ref.)	1		
National Lottery			
Yes	1.06	0.88	[0.53, 2.11]
No (Ref.)	1		
Scratchcards			
Yes	1.15	0.75	[0.48, 2.78]
No (Ref.)	1		
Other Lotteries			
Yes	1.06	0.88	[0.51, 2.18]
No (Ref.)	1		
Football pools			
Yes	0.85	0.79	[0.26, 2.79]
No (Ref.)	1		
Bingo (not online)			
Yes	1.87	0.06	[0.97, 3.63]
No (Ref.)	1		
Fruit/Slot machines			



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Variables	Odds ratio	P-value (comparative to reference group)	95% CI
Yes	3.21	0.00	[1.54, 6.65]
No (Ref.)	1		
Fixed Odd Betting Terminals			
Yes	5.39	0.00	[2.10, 13.86]
No (Ref.)	1		
Table games in a casino			
Yes	0.47	0.15	[0.17, 1.30]
No (Ref.)	1		
Poker at a venue			
Yes	2.05	0.27	[0.57, 7.44]
No (Ref.)	1		
Online casino/slots/bingo			
Yes	5.82	0.00	[2.21, 15.36]
No (Ref.)	1		
Online betting			
Yes	0.31	0.03	[0.11, 0.89]
No (Ref.)	1		
Betting exchange			
Yes	1.97	0.22	[0.67, 5.77]
No (Ref.)	1		
Betting on horse races at a bookmakers			
Yes	2.04	0.06	[0.96, 4.33]
No (Ref.)	1		
Betting on dog races at a bookmakers			
Yes	1.08	0.90	[0.33, 3.48]
No (Ref.)	1		
Betting on sports at a bookmakers			
Yes	1.42	0.54	[0.46, 4.38]
No (Ref.)	1		
Betting on other things at a bookmakers			
Yes	1.24	0.72	[0.38, 4.04]
No (Ref.)	1		
Spread betting			
Yes	1.51	0.52	[0.43, 5.32]
No (Ref.)	1		
Private betting			
Yes	1.32	0.58	[0.49, 3.53]
No (Ref.)	1		
Other gambling			
Yes	2.76	0.06	[0.97, 7.86]
No (Ref.)	1		



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Endnotes

ⁱ See here for further information: <https://www.gov.uk/government/publications/gambling-related-harms-evidence-review/gambling-related-harms-evidence-review-summary>

ⁱⁱ Note, this analysis differs from that published in the PHE review: they only used data from 2016 for their regression models and used a PGSI score of 1 or more for their outcome measure. This data combines information from 2015, 2016 and 2018 – giving a greater sample size of those experiencing gambling harms on which to base analysis, and thus allowing us to adjust for engagement in different forms of activity. Our outcome is whether someone was a problem gambler according to either the DSM-IV or PGSI, focusing analysis on the most severe end of the harms spectrum.

ⁱⁱⁱ See here:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1022208/Gambling-evidence-review_economic-costs.pdf

^{iv} See *Goodwin et al, A typical problem gambler affects six others. 2017; Holdsworth et al, The impact of problem gambling on partners: partners interpretations. 2013; The House of Lords Select Committee in Enquiry on the Social and Economic Impact of the Gambling Industry: Gambling: Time for change? Paragraph 283.*



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