THE GEOGRAPHY OF GAMBLING PREMISES IN BRITAIN

Summary:

Nearly three-quarters of consumers say that they would not want gambling premises on their 'ideal' high street, and there are concerns from those with lived experience of gambling harms that such venues "prey on those that can't afford it and have taken over streets in rundown areas and towns". With the UK Government's commitment to 'level-up' the country, it is therefore important to understand the geography of gambling premises throughout Britain and the extent to which it matches other types of geographical inequalities between areas.

The Gambling Commission reports that as of March 2020 there were still over 10,000 gambling premises in Britain – more than the number of stores (9,968) run by the eight largest supermarket chains in the country.

This report introduces various academic and grey literature on the geography of gambling premises and also presents new analyses of gambling licensing data from local authorities. We find that:

- A long-running trend of gambling premises being more common in deprived areas persists in Britain. As of November 2020, 21% of gambling premises were based within the most deprived decile of areas in the country, compared to just 2% in the least deprived decile. By way of comparison, just 10% of supermarkets were located in the most deprived decile and 7% were in the least deprived decile.

- The relationship with deprivation is stronger for 'family entertainment centres' (FECs, also commonly called 'amusement arcades') – with 34% of such venues located in the most deprived decile. Bingo venues and adult gaming centres (AGCs) also have a strong relationship with deprivation, while it is slightly weaker (but still significant) for casinos and betting shops.

- Seaside towns continue to have a close relationship with gambling. Coastal areas are home to nearly three-quarters (72%) of FECs, with all of the top ten places with the most FECs being well-known seaside resorts. In comparison, 29% of AGCs, 25% of bingo venues, 18% of casinos and just 10% of betting shops are located in coastal places.

- There are a range of instances of gambling premises being located in close proximity to potentially vulnerable populations. For example, of the 348 gambling treatment centres we were able to map, 20% had gambling premises within a 100m radius, while 50% had one within a 250m radius. Meanwhile nearly 10% (2,221 of 23,729) of schools in England (as of 2019) had a gambling premise within a 250m radius (approximately a five-minute walk) of the school's postcode – affecting approximately 742,000 school pupils (out of 8.2 million).

While local authorities cannot currently decline a premises licence based solely on the view that there are already too many in the area, there are various examples across the country of local authorities which have introduced policies to restrict gambling premises where there is evidence that it may harm vulnerable populations. A recent House of Lords select committee report meanwhile argues that the Gambling Act should be amended to give licensing committees deciding upon gambling licences similar powers to those available to them when deciding licences related to the sale of alcohol.

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1. Introduction

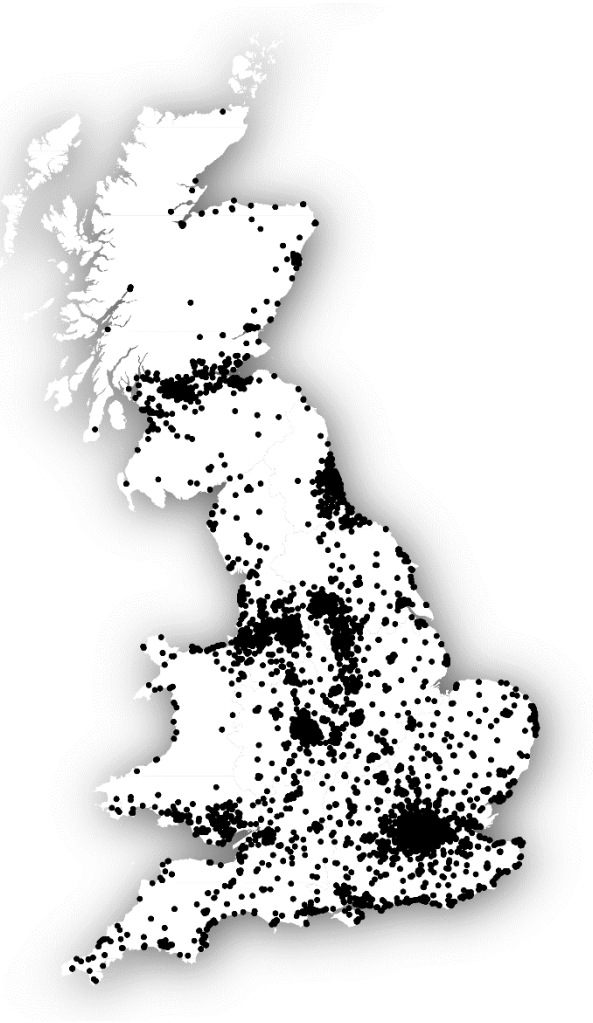
While online gambling has grown at pace in recent years, 'land-based' gambling remains a key part of the industry. In 2019-20, gambling at land-based venues accounted for nearly half (44%) of the industry's £10.2 billion gross gambling yield in Britain (excluding lotteries) (Gambling Commission, 2020).

Despite a decline in numbers in recent years, the Gambling Commission report that there were still more than 10,000 licensed gambling premises in Great Britain as of March 2020. By way of comparison, this is more than the number of stores (9,968) run by the eight largest supermarket chains in Britain (in terms of market share).[1]

This short report focuses on the geography of gambling premises in Britain – in particular on the relationship between gambling and deprived areas of the country. Throughout the report we give an overview of academic and other research on this topic, as well as presenting new geographical analysis of data supplied by the Gambling Commission on the location of licensed gambling premises in Britain (focusing mainly on data for November 2020). The data we use is provided to the Gambling Commission by local licensing authorities (typically local authorities) and contains address details that allow the locations of gambling premises to be mapped.[2]

To contextualise the results we present similar analyses conducted for two other types of business – supermarkets and ATMs – that consumers might also expect to find on their local high street. The data for supermarkets is for November 2020 and is publicly-available from Geolytix, while the dataset of ATMs covers the month of September 2020 and was supplied by LINK. The datasets and analysis are explained in more detail in the Appendix.

Fig. 1 - Gambling premises in Britain – Nov. 2020



The analyses presented here have relevance not only to the ongoing review of the 2005 Gambling Act, but also to the Government's 'levelling-up' agenda to reduce the geographical inequalities between areas in the UK. Analysis of banking data, for example, shows not only that high levels of gambling are associated with a range of financial problems, including payday loan use and missing

[1] Author analysis of data from Geolytix shows that the combined total number of stores owned by Tesco, the Co-operative Group, Sainsburys, Aldi, Lidl, Asda, Morrisons and Waitrose in the UK in Nov 2020 was 9,968. These are the eight largest supermarket chains based on market share (collectively accounting for 92% of the overall market share at the time).

[2] On the Gambling Commission website, it publishes data on the number of premises in GB based on regulatory returns from gambling operators. These returns are generally slightly more up-to-date than the data provided by local authorities (in terms of premises numbers); however, address details are not requested through these regulatory returns for arcades, betting or bingo premises, thus making it unsuitable for mapping. It should be noted that for March 2020, while our data shows 10,796 gambling premises in total, the comparable figure using regulatory returns is 10,098.

mortgage payments, but also that harm happens even at relatively low levels of gambling (Muggleton et al., 2021).

2. The geography of gambling premises

As outlined in Figure 2, different types of gambling premises appear to have quite different geographical patterns. Betting shops are relatively ubiquitous across the country but are also concentrated heavily in certain city centres: the City of London, for example, is home to 32 betting shops, Glasgow City Centre has 21 and Leeds City Centre has 16. Casinos are far less common but are

Fig. 2 - The number and locations of different types of gambling premises in GB (Nov. 2020)

8,099 Betting Shops

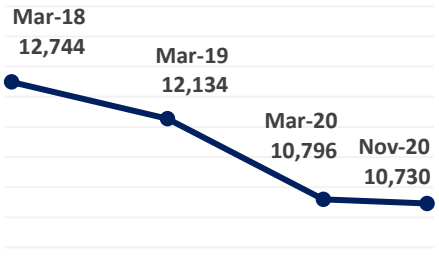
1,537 Adult Gaming Centres

637 Bingo Venues

232 Family Entertainment Centres

197 Casinos

Number of licensed gambling premises over time in GB:



Notes: based on licensing data submitted by local licensing authorities to the Gambling Commission. While licensing authorities should inform the GC of closures 'as soon as is reasonably practicable', it is likely that some closures take time to be reflected in the data. Additionally, some premises were missing data for activity type, which explains why the numbers shown below the maps do not add up to the total above. Duplicate entries have been removed from the dataset where possible. For more detail on the methodology, see the appendix.

also more apparent in larger city centres, while Adult Gaming Centres (AGCs) and bingo venues tend to be found outside of the UK's biggest cities. As demonstrated by Figure 3, family entertainment centres (FECs) – also called 'amusement arcades' – are most commonly found in British seaside resorts. Indeed, all of the top ten areas with the highest number of FECs are coastal locations, and we find that 72% of FECs are located within 2km of the British shoreline (compared to 29% of AGCs, 25% of bingo venues, 18% of casinos and just 10% of betting shops).

We also looked at the number of betting shops within each local authority district / unitary authority. Figure 4 shows the ten local authority areas that have the highest number of betting shops per capita. The City of London (a metropolitan borough within London) is very high, with 32 betting shops serving a resident population of less than 10,000 – though many more people clearly travel into this area for work or leisure purposes. Outside of London, Glasgow, Liverpool and Middlesbrough are found to have some of the highest number of betting shops per head of population. Glasgow, for example, has 194 betting shops overall, representing one betting shop for every 3,264 people. At the other end of the spectrum, Broadland – to the north of Norwich – with two betting shops in the dataset has one betting shop for every 65,000 people.

Fig. 3 - Areas of Britain with the most family entertainment centres (Nov. 2020)

Place	Number of FECs
Ingoldmells & Chapel St Leonards, East Lindsey	10
Skegness Town, East Lindsey	6
Hemsby & Ormesby, Great Yarmouth	6
Scarborough Town & North Bay, Scarborough	6
Withernsea East & Patrington, East Riding of Yorkshire	5
Southport Waterfront, Sefton	4
Central Blackpool, Blackpool	4
Old Portsmouth & Southsea Common, Portsmouth	4
Sheppey East, Swale	4
Yarmouth Parade, Great Yarmouth	4

Notes: analysis conducted using middle-layer super output area (MSOA) boundaries in England and Wales, which are areas with a typical population of 7,000-10,000 people. MSOA names derived by the House of Commons Library. For Scotland, the equivalent to MSOAs, 'Intermediate Zones' were used.

Fig. 4 – Local/ unitary authorities with the most betting shops per capita (Nov. 2020)

Place	Number of betting shops	Pop. per betting shop
City of London	32	304
Glasgow City	194	3,264
Westminster	79	3,308
Liverpool	136	3,662
Brent	87	3,790
Middlesbrough	37	3,810
West Dunbartonshire	22	4,042
Norwich	34	4,135
South Ayrshire	26	4,331
Haringey	62	4,333

Notes: gambling premises assigned to local authority district / unitary authority based on postcode using the National Statistics Postcode Lookup file (May 2020). 2019 mid-year population estimates for local authority districts used to calculate the number of people in the population per betting shop.

3. Relationship with deprivation

A relationship that has been well documented in the literature is the higher prevalence of opportunities to gamble in deprived communities (Adeniyi, 2020; Townsend, 2017; Wardle et al, 2014; Rintoul, 2013; Young, Markham, and Doran 2012; Doran and Young 2010). Betting shops in the UK tend to 'cluster' in areas where people can least afford to gamble (Select Committee on the Social and Economic Impact of the Gambling Industry, 2020) and some argue that this is a deliberate strategy of betting companies who are targeting the most vulnerable (Adeniyi, 2020; Townsend, 2017). Those with low income, low education, ethnic minorities and young people are all groups who are more susceptible to gambling-related harm (Sharman et., 2019; Wardle et al, 2017; Wardle et al., 2011) and people with these characteristics are more likely to live in deprived neighbourhoods (Adeniyi, 2020). This raises an important question about the impact on communities of gambling outlets being clustered in deprived areas.

Looking at the association between deprivation and specific gambling activities, Wardle et al. (2014) found a strong correlation between Electronic Gaming Machine (EGM)[3] density and deprivation. They mapped the location of gambling premises and density of gambling machines in Britain and found 384 areas which they classed as High Density Machine Zones (HDMZ; having 1 or more gambling machine per hectare). These high-density areas were associated with greater levels of deprivation, more economically inactive people, a younger age profile and seaside towns. They concluded that areas with higher EGM density in Britain were more likely to be areas where people were at most risk from gambling-related harm.

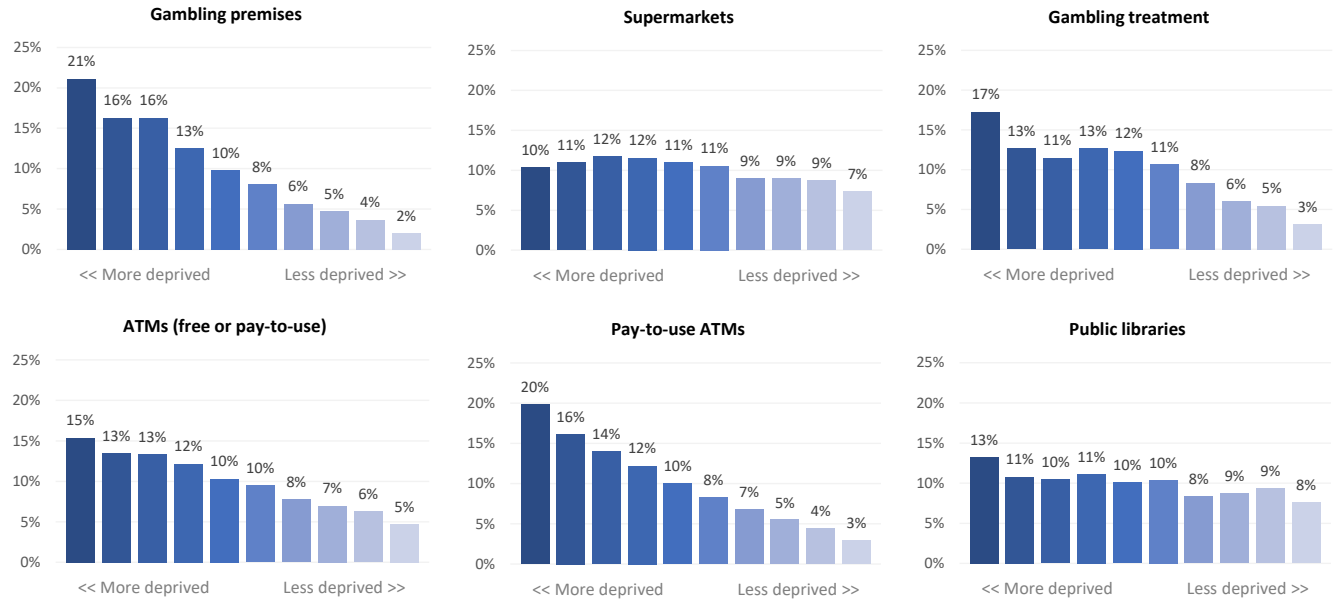
Comparing gambling venues & other business types

Adeniyi et al., (2020) considered whether gambling premises in Britain in 2015 were more likely to be found in areas of greater deprivation, but went further by comparing this to food and grocery retailers. It was possible that deprived areas could simply be more appealing to retailers more broadly, rather than it being a case of gambling premises specifically targeting vulnerable groups. For example, it can be cheaper for businesses to set up in deprived areas where the rents may be lower (Portas, 2011) and clustering of betting shops has become more of an issue since the 2008 financial downturn, as betting shops moved into vacant town centre premises (LGA, 2018). There is also an argument that positioning in an area where competition already exists can reduce uncertainty and be beneficial to retailers (Webber, 1972). However, Adeniyi (2020) found that, compared with gambling premises, food and grocery retailers were far less concentrated in deprived areas. For example, while 18% of gambling outlets were found in Income Decile 1 (the most deprived 10% of areas in the UK), just 10% of food and grocery stores were found in Income Decile 1.

Partially replicating and building upon Adeniyi et al's analysis – which used data on gambling premises as of April 2015 – we find a similar pattern still existed in the autumn of 2020. As shown by Figure 5, a higher percentage of gambling premises are based within more deprived areas (at Lower-layer Super Output Area (LSOA)-level[4]) than in less deprived places.[5] More than a fifth (21%) of gambling premises are based within the most deprived decile of areas of Britain, while just 2% are located in the least deprived decile. This relationship is notably more pronounced for gambling premises than it is for either supermarkets (of all sizes) or ATMs, although it should be noted that the pattern for pay-to-use (PTU) ATMs more closely resembles that of gambling premises. The nature of the relationship between deprivation and supermarkets remains largely unchanged even if

[3] Please see this guide for more information on EGMs.
[4] LSOAs are areas of England and Wales with a mean population of 1,500 residents. The equivalent for Scotland are called 'data zones'.
[5] For the deprivation analyses in this report we use the 'overall' measure of deprivation for each country, rather than focussing on specific domains – such as the income domain or crime domain. In appendix table 2, however, we show that this pattern holds across six of the seven domains, with only 'barriers to housing and services' exhibiting a more even distribution of gambling premises across deciles.

Fig. 5 - Gambling premises are disproportionately concentrated in more deprived areas
% of gambling premises, supermarkets, gambling treatment centres, ATMs (all / Pay-To-Use only) and public libraries located within each deprivation decile



Notes: the dataset for public libraries is based on the situation as of 1 July 2016 as collated by the Department for Digital, Culture, Media & Sport. It only includes static, i.e. not mobile, libraries. We have removed libraries that had closed from the dataset.

we only focus on smaller food stores (not shown in Figure 5), such as those more likely to be found in city and town centre locations. Gambling treatment services meanwhile do appear to match the profile of gambling premises more generally, with a higher proportion of services being located in more deprived areas. Libraries on the other hand tend to be more evenly distributed across deprivation deciles.

Figure 6 demonstrates that the relationship between deprivation and gambling differs according to the type of gambling premises. While the relationship with deprivation is strong across all types of gambling premises, it is less pronounced for betting shops (and to some extent, casinos) than other types. Family entertainment centres, adult gaming centres and bingo venues are especially likely to be located within the most deprived decile of areas.

Regression analysis enables us to understand the association between different area characteristics and the presence of different types of gambling premises, supermarkets and ATMs within an LSOA. The regression models include several explanatory variables, namely: deprivation, whether the area is urban or not, whether the area is coastal or not, the ethnic composition of the local population, the median age of the local population, the percentage of households that are private renters, and the percentage of the population that are full-time students. The results (full table presented in the appendix) indicate that:

- Deprivation is associated with a statistically significant increase in the number of gambling premises (of any type) in an area (when controlling for the other area characteristics included in the model, such as urban-ness).
- The association between deprivation and number of gambling premises is strongest for bingo venues, followed by FECs and AGCs. The relationship is still statistically significant, however, for betting shops and casinos.

Fig. 6 - The relationship with deprivation is less strong (but still significant) for betting shops than for other types of gambling

% of gambling premises of different types located within each deprivation decile

Deprivation decile	Betting shops	AGCs	Bingo	Family Entertainment Centres	Casinos
1 (most deprived)	18%	29%	30%	34%	24%
2	16%	17%	19%	12%	8%
3	16%	17%	17%	15%	20%
4	13%	10%	13%	11%	11%
5	10%	8%	9%	7%	8%
6	9%	7%	5%	6%	9%
7	6%	5%	4%	6%	7%
8	5%	3%	2%	5%	7%
9	4%	3%	1%	4%	5%
10 (least deprived)	2%	1%	0%	1%	1%
Total N	8099	1537	637	232	197

- Deprivation also has a significant – but generally lower – association with number of supermarkets, ATMs and PTU ATMs; with the strongest relationship being for PTU ATMs. The strength of this latter relationship is similar to that between deprivation and betting shops/casinos.
- Coastal areas have significantly lower numbers of betting shops, supermarkets and ATMs, but significantly higher numbers of AGCs, bingo venues and – in particular – FECs.
- As with PTU ATMs, betting shops and casinos are significantly more common in areas where a higher proportion of residents are from a non-white ethnic background.
- Urban areas are especially likely to have betting shops and, to a greater extent, casinos. Areas with a higher proportion of private rented tenants are more likely to have all types of gambling premises, as well as food stores and ATMs.

Overall, the regression analyses highlight that even when we control for factors such as whether an area is urban or not, we identify a relationship whereby more gambling premises (of all different types) are found in more deprived areas. This relationship is generally stronger for gambling premises than it is for other types of businesses, such as food shops and ATMs (although PTU ATMs exhibit a pattern more similar to betting shops and casinos). The proliferation of gambling premises in seaside resorts meanwhile is as expected, while the finding related to ethnicity also matches that identified in other studies.

4. How many schools and gambling treatment services are located near to gambling premises?

While acknowledging the relationship between deprivation and gambling premises, Wardle et al. (2017) argued that using deprivation (and other area characteristics) alone is too simplistic a measure of the potential harm caused by gambling premises. Indices of deprivation look only at characteristics of the people who live in an area and do not take into account the characteristics of those travelling into an area (for example, to use gambling or mental health treatment facilities, or places where children may gather such as schools and playgrounds). Wardle et al. therefore produced an index of vulnerability to gambling harm, finding that vulnerable areas were not

necessarily always the most deprived. Some affluent areas, for example, had gambling treatment services that would also attract groups who may be vulnerable to gambling harm. As such, they suggest that the placement of gambling premises in these areas may be problematic.

Using geographical information systems (GIS), we therefore measured the distance (as the crow flies) from schools and gambling treatment services to the nearest gambling premises. This is based on their postcode, rather than exact coordinates; therefore, measurements will not be fully precise (postcodes in the UK on average are home to around 15 properties).

Using data for England only, we find that 2,221 of 23,729 schools (as of 2019) had at least one gambling outlet within 250m of the school's postcode (approximately a five-minute walk for a child). This means that approximately 742,000 pupils (out of 8.2 million) are within a five-minute walk from at least one gambling outlet when they are at school. In addition, 292 schools (with a combined total of 86,000 pupils) had three or more gambling premises within the same distance – 206 of these schools are primary schools.

Of the 348 local gambling treatment services in Britain that we were able to map, 68 (20%) were within 100m (as the crow flies) of a gambling outlet; while 173 (50%) were within 250m.

5. More gambling premises = more harm?

Understanding the spatial patterns of gambling outlets is important as the literature suggests that living closer to gambling outlets, or in an area with a higher density of gambling opportunities, can be associated with an increase in gambling behaviour and gambling related harm (St-Pierre et al. 2014; Rush et al. 2007; Pearce et al. 2008; Welte et al. 2009).

Pearce et al. (2008), for example, found that people living close to gambling venues (less than 0.7km away) were twice as likely to be 'problem gamblers' than individuals living further from venues (more than 3.1km away). Welte et al., (2009) found that for young people in particular (aged 18-21), the likelihood of encountering gambling problems, as opposed to never gambling, increased by 39% for each additional form of gambling operator located within their local area. Astbury and Wardle (2016) showed that people living close to a concentration of Licensed Betting Offices (LBOs) had higher rates of problem gambling. They highlighted that the concentration of LBOs was an important factor when it came to differences in gambling behaviour, even more so than a simple count of outlets near to a player's home.

Ofori Dei et al (2021) examined the impact of both *actual* exposure to casinos and slot machines in the local area and also *perceived* exposure, i.e. whether individuals believed there were too many gambling outlets in their area or an acceptable level. Their analysis (of survey data from Canada in 2008/09) indicated that actual exposure was significantly associated with problem gambling risk, while perceived exposure was connected to problem gambling severity. Based on this, the authors concluded that "problem gambling can be reduced by placing restrictions on gambling venue locations and advertising."

However, not all the literature suggests an association between geographical accessibility and disordered gambling behaviour (St-Pierre et al. 2014). For example, a study in Canada showed that while there was a rise in problem gambling one year after a casino opened in Quebec, after following up two and four years later this increase was no longer identifiable (Jacques & Ladouceur, 2006). It has been argued that the impact of geographical accessibility on problem gambling may plateau over time as a community adapts (Abbott, 2006). Where studies have found a relationship between accessibility and harm, the strength of the findings vary. It has therefore been suggested that the relationship between geographical accessibility and gambling-related harm is multi-faceted

and accessibility needs to take into account wider environmental factors that could moderate the relationship (St-Pierre et al., 2014).

It should be noted though that the growing emphasis in recent years on online gambling means that there is arguably now a lack of up-to-date literature on the impact of geographical accessibility on gambling harms in Britain. As we discuss in the final section, there may therefore be a need to explore this impact in greater detail, with newer forms of data (such as bank transaction data) offering interesting possibilities for such analysis.

6. Do consumers and local businesses want gambling premises on their high street?

The clustering of betting shops in one location can indicate that an area is underperforming (HHD, 2019; RSPH, 2015) and there are arguments that they make areas less desirable: for people to live in, visit and for businesses to invest in (Portas, 2011).

For over a decade there has been a focus on how to bring back life to high streets, which have struggled since the 2008 financial crisis, the rise in online retail, and other factors – most recently the coronavirus pandemic – which changed the way that people shop and businesses operate (Portas, 2011). It has been argued that the rise in vacant premises has led to an increase in clustering of gambling outlets in town centres (LGA, 2018), as 'low-quality' retailers such as betting shops and pawnbrokers tend to thrive in locations with low rents in which other retailers do not perform well (HDH, 2019). By improving these poorly performing high streets, that concentrate in deprived areas, it could encourage a greater diversity of shops and facilities and therefore help improve the physical and mental health outcomes for those who live in the community (PHE, 2018).

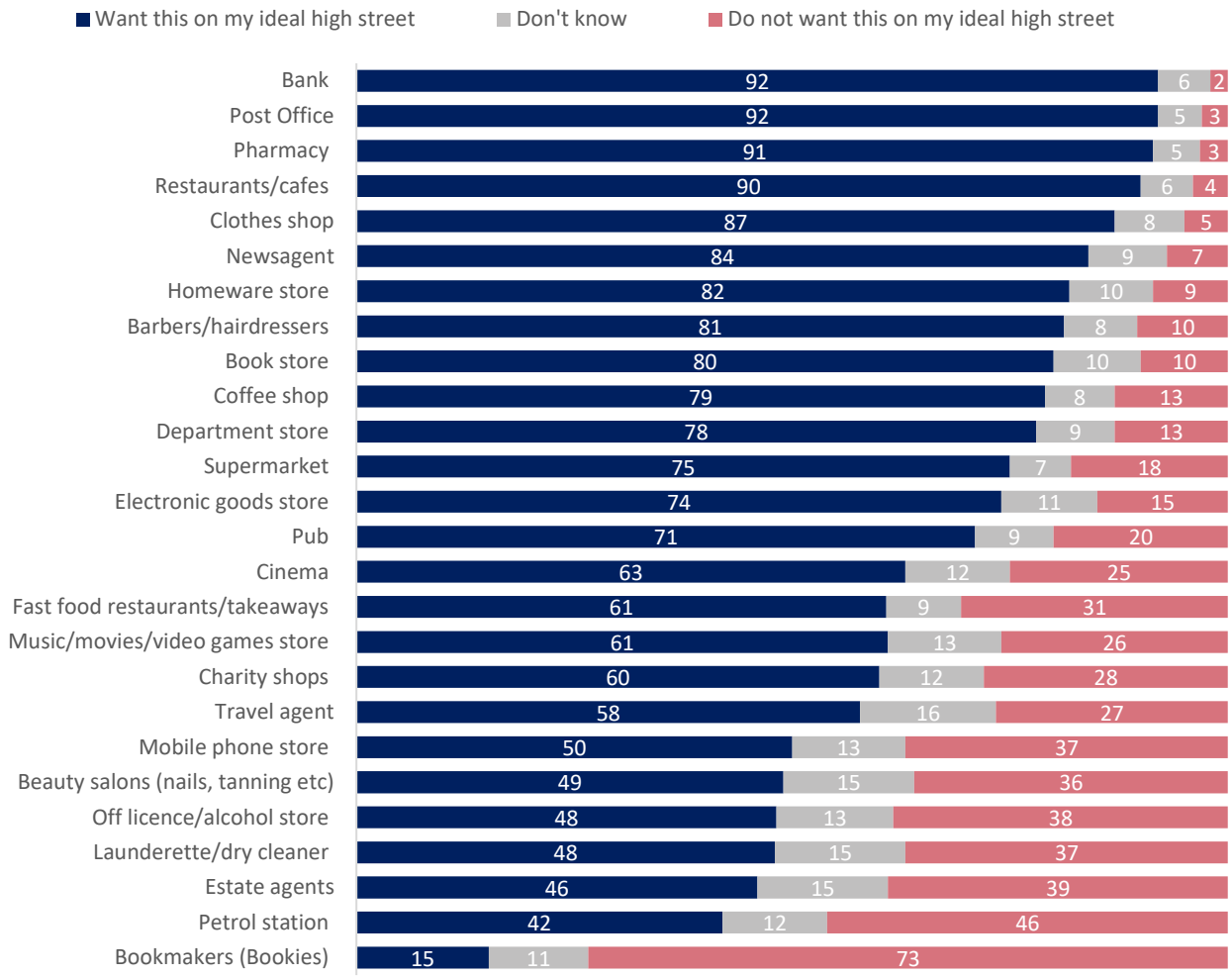
The Harper Dennis Hobbs Vitality Index scores retail centres based on their 'retail health' (HHD, 2019). It looks at a combination of factors, including the level of upmarket shops, vacancy rates and the proportion of 'low-quality' retail operators such as pawnbrokers, money lenders and bookmakers. In response to the 2019 rankings, Jonathan De Mello, Head of Retail Consultancy at Harper Dennis Hobbs, said: "The changing face of the high street means retailers need to be confident their investment is likely to pay off. Quality retailers don't want to be surrounded by empty units, discount stores and betting shops, which are a clear indicator of deprivation in the area" (HDH, 2019b).

In 2015, the Royal Society for Public Health introduced its 'Health on the High Street' campaign, which argued that high streets have an important role to play in promoting the health of residents (RSPH, 2015). It argued that certain businesses such as fast-food outlets and betting shops can enable and support poor health behaviours. Its research showed that over half of the UK population (54%) believe that betting shops discourage healthy choices and over half (52%) believe they have a negative impact on mental wellbeing. The RSPH also developed an index for rating the health of high streets and found that unhealthy businesses cluster in areas of higher deprivation and lower life expectancy. It argued that reshaping these high streets to be more "health promoting" is an important part of "redressing this imbalance". It recommended that Local Authorities be given greater planning powers to prevent clustering of betting shops as well as limiting each type of business on a high street to 5% to avoid oversaturation (RSPH, 2018). The same point was made by the Portas review in 2011, which noted that too many of one type of retailer "tips the balance of the location and inevitably puts off potential retailers and investors" (Portas, 2011).

The general population also appears unenthused about the prospect of gambling premises in their local area. For example, a YouGov survey showed that 73% of the UK population would not want to see betting shops when picturing their 'ideal high street' (YouGov, 2018). As shown in Figure 7, betting shops performed much less favourably compared to all other businesses listed. Similarly, a

Fig. 7 – Relatively few consumers want to see bookmakers on their 'ideal' high street

% of respondents who said that they do or do not want each amenity on their ideal high street (YouGov, 2018)



report by the Association of Convenience Stores showed that when asked to think about their local communities, 60% of the UK population stated they would want to see fewer bookmakers within their local communities but more banks and specialist food retailers. For context, 33% of the population wanted to see fewer fast-food retailers and 22% fewer charity shops (ACS, 2020). Furthermore, when asked to pick three services in their local area that had the most positive impact on their community, bookmakers performed the least favourably out of a list of 16 business types including banks, post offices and hairdressers. It should be noted though that none of these surveys asked whether gambling premises were preferable to empty shops / a lack of amenities.

In response to the government's Gambling Act 2005 Review which was launched in 2020, GamFam and GamLEARN (organisations led by people with lived experience of gambling harm and their loved ones) brought together evidence from 60 people who had been affected by someone else's gambling. Their comments highlight some of the negative perceptions that can be associated with betting shops and the areas they are based in. For example, one affected other mentioned that bookies are "rather seedy and unpleasant places" which "did not draw shoppers to an area". Another commented that living near to betting shops "feels grimey and dodgy" and another mentioned that betting shops "prey on those that can't afford it and have taken over streets in rundown areas and towns (GamFam & GamLEARN, 2021)."

7. What are local authorities doing about this?

As highlighted above, the evidence shows that clustering of betting shops is not generally not considered desirable by local residents and may promote unhealthy choices within an area. However, under the Gambling Act 2005 there is often little that local authorities can do to prevent this and many have felt frustrated at their lack of control over clustering of certain gambling premises (LGA, 2018). Under the current Act (part 8; 153) local authorities are required to "aim to permit" the use of a premises for gambling if they are consistent with the licencing objectives. These are:

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

Currently, local authorities cannot decline a premises licence based on the expected demand for the facilities (Gambling Act, 2005), meaning they cannot argue solely that there are already too many in the area or are not wanted by the community.

Proliferation of betting shops or other types of gambling premises is not in itself a reason to decline a premises licence. However, it can be relevant if a new premises could increase harm to vulnerable persons. For example, Westminster City Council was able to refuse a premises licence in an area which already had multiple premises, by demonstrating a new betting shop would be a high risk to those vulnerable to gambling harm (LGA, 2018). It highlighted for example that the location in question had several hostels for the homeless (Citizens Advice Westminster, 2014).

Similarly, Tower Hamlets Council has adopted a gambling policy which restricts opening of new gambling premises near schools, hospitals, resident homes for the elderly and near any venues where a Gamblers Anonymous meeting is held (Tower Hamlets, 2019). It states it will take the local area profile into account and will pay particular attention to applications where the proximity of the premises to vulnerable groups is likely to present a risk to the third licencing objective of consumer protection. This highlights the importance of establishing an evidence base, knowing the characteristics of the local area and what impact a premise could have on those vulnerable to harm.

Several councils have developed initiatives and conducted area-specific research to better understand gambling harm locally. For example, Sheffield City Council has provided a detailed understanding of gambling-related harm within its Joint Strategic Needs Assessment (Sheffield City Council, 2019), which aims to improve the health and wellbeing of the local community (Department of Health, 2012). It highlighted that areas in Sheffield with higher student populations and those with greater deprivation have higher gambling prevalence rates. Further examples of local initiatives can be found in the Gambling Commission's Local Authority Toolkit (Gambling Commission, no date) and provide a range of ways that local authorities are growing their evidence base to help understand and reduce gambling harm within their local areas.

Some councils have included specific gambling strategies within their local plans. For example, Newham Council received Planning Inspectorate approval for a cumulative impact approach (Newham Council, 2015). It can restrict the number of betting shops and fast-food outlets being located within typical walking distance of one another (400m radius) and aims for 67% of the leisure use in town centres being 'quality leisure' (excluding betting shops and takeaways). It did this by providing a strong evidence base and looking at the impact that clustering of these types of businesses has on its vulnerable residents and viability of town centres.

Despite there being examples of evidence and policy being used by local authorities to prevent clustering of gambling premises, it still remains difficult to challenge a license application. Even where there are objections, applications are likely to be successful under the current framework (RSPH, 2021). As part of the 2005 Gambling Act Review (Department for Digital, Culture, Media & Sport, 2020), the government has asked for evidence about whether local authorities have enough powers to fulfil their responsibilities in respect to licensing (see question 43). A House of Lords select committee has therefore argued that "The Act should be amended to give licensing committees the same powers as they already have when deciding on the licensing of premises for the sale of alcohol" (House of Lords Select Committee on the Social and Economic Impact of the Gambling Industry, 2020). It argues that local authorities should be able to decide where a betting shop is located based on what is good for the community as a whole.

8. Further research

Gambling is complex and what works for one community might not work for another when it comes to reducing gambling-related harm. If greater powers did exist to prevent the overall number or location of gambling premises, many questions would remain. For example:

- If the number or location of gambling premises were restricted:
  - What could happen to the empty premises, would these remain vacant and reduce the economic viability of an area?
  - Would there be a greater shift to online gambling?
- What impact might Covid have? There has been a steady decline in the number of betting shops for the last six years and the closure of premises during the pandemic will likely exacerbate this further (Gambling Commission, 2020). It will be important to look at which premises remain after the pandemic and where these are in relation to vulnerable groups e.g., deprived areas or those with younger populations.
- How could this interact with other policies? For example, the government is also looking for evidence relating to whether they should increase the number of machines allowed in casinos (DCMS, 2020; see Q41). If the number of premises reduced but at the same time the number of machines increased in larger venues, could the overall access to gambling in a community remain the same? What impact would fewer venues with more machines have on the local area and gambling related harm?

It is unknown what impact preventing a new gambling outlet or restricting clustering of premises could have on reducing gambling harm, especially if several policies were introduced in conjunction. What is clear is that local authorities are well-placed to understand their local area, the type of people that live there and what their local community needs to thrive, both economically and regarding the health of residents.

Furthermore, evidence is essential when assessing the needs of communities. Local authorities and the wider public health community would benefit if more data were made available on factors such as local gambling spend and the prevalence of gambling harms at different geographical scales. GambleAware, for example, has recently published maps indicating the severity of gambling harms and demand for gambling treatment services across the country at local authority and ward-level (GambleAware, 2021); there would be merit in analysing this data together with the premises data given in this report.

Clearly, gambling operators are also well-placed to provide useful data on gambling spend/harms and could do so under a similar scheme to that via which banks disclose lending data at postcode sector level. In Australia for example, much richer data is available on gambling spend. Each state is required to collect information on gambling which is then collated at a national level to produce the

annual Australian Gambling Statistics report (Queensland Government Statistician's Office, 2021). The state of Victoria publish data in relation to gambling expenditure, at venue and Local Government Area level (Victorian Commission for Gambling and Liquor Regulation, no date), which has enabled analysis into how spend compares with local area characteristics such as deprivation (Rintoul, et al 2013). See here for more information on the level of data available in Australia.

Likewise, bank transaction data (as utilised by Muggleton et al. (2021)) could provide detailed, cross-operator data on card-based gambling spend within local areas or be used to assess the impact on consumers' gambling behaviour in various situations (for example, if a local gambling premise is closed do customers switch to online gambling or continue to gamble at a land-based venue elsewhere?). Such information would be invaluable for understanding how to prevent gambling harm and where best to focus resources.

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ATM data © LINK 2021

Appendix

Data sources

Data on the location of gambling premises was provided to the research team by the Gambling Commission, as part of a national register of premises licences for gambling that it maintains. This dataset is provided to the Gambling Commission by local licensing authorities, which are usually the local authority where the premise is located. The Gambling Commission cautions that "whilst we make every effort to assure the data, it may contain errors, duplications or there may be omissions."

We cleaned the data and removed duplicates as far as possible. This involved first removing those premises without a valid postcode (according to the National Statistics Postcode Lookup file). Duplicates were then identified on the basis of perfect matches of address, postcode and activity type. Lastly, near-duplicates were identified and removed, for example, where different spellings had been used for the same premises address. This was achieved using a process which calculates the 'string distance' between two addresses, which means that it determines how many characters in one word would need to be replaced to make it the same as another word. For example, the 'distance' between "London Road" and "London Rd" is 2. The table below indicates how many premises remained in the dataset following each stage of data cleaning.

Stage	Mar18	Mar19	Mar20	Nov20
Raw dataset - prior to data cleaning	13,505	12,531	11,026	10,962
After removing those without valid postcode	13,423	12,520	11,025	10,960
After removing 'perfect' duplicates	12,942	12,312	10,891	10,811
After removing 'near-duplicates'	12,744	12,134	10,796	10,730

It should be noted that some premises within the dataset are those for which a licence was being applied at the time the dataset was created. This applied to between 1,103 and 1,251 premises in March 2018-2020 but had dropped to just 379 by November 2020. They mainly appear to be licence re-applications for existing premises; for example, of the 1,251 'applications' in the March 2020 dataset, we estimate that at least 74% of these were already gambling premises as of March 2018. The remaining ones may be entirely new applications (which could in due course be declined). The fact that we saw a reduction in the number of applications between March 2020 and November 2020 is likely to mean that we will see a further reduction in the number of gambling premises in due course, as fewer premises look to be renewing their licences.

As mentioned in the report, it should also be noted that the overall number of gambling premises in our dataset is slightly higher than published elsewhere by the Gambling Commission, using data on regulatory returns from gambling operators. This is because licensing authorities submit licensing data to the Gambling Commission 'as soon as practicably possible' but this does not always mean that closures are reflected in the dataset immediately. However, address details are not requested through these regulatory returns for arcades, betting or bingo premises, thus making it unsuitable for the mapping purposes of this report. It should be noted that for March 2020, while our data shows 10,796 gambling premises in total, the comparable figure using regulatory returns is 10,098.

The other sources of data used in these analyses are:

- Geolytix supermarket and food store dataset (for November 2020 – N=16,273): Supermarket Retail Points | Geolytix
- ATM dataset provided by LINK (for September 2020 – N= 63,590).
- School census for England (2018-2019), collated by the Department for Education: Schools, pupils and their characteristics: January 2019 - GOV.UK (www.gov.uk)
- Location of gambling treatment premises: from GamCare and Gamblers Anonymous. Data for a small number of NHS clinics was also added manually to the dataset. (N=348)
- Department for Digital, Culture, Media & Sport: public libraries in England: basic dataset (as on 1 July 2016). Libraries marked as closed and those with a postcode that wasn't valid when matched with the National Statistics Postcode Lookup file were removed from the analyses, leaving a total of 3,003 libraries.

Analysis

Statistical analysis and data preparation was conducted in *R.* The various premises datasets were matched to other geographical and census data based on their postcode, using the National Statistics Postcode Lookup file (for May 2020). LSOAs were also categorised as 'coastal' or not, based on GIS analysis of the distance (as the crow flies) between LSOA (or data zone in Scotland) population weighted centre and the nearest point on the UK coastline. Those LSOAs within 2km of the coastline were identified as being 'coastal'.

Basic descriptive statistics and cross-tabulations were produced to explore the data, while poisson regression was used to explore the relationship between the number of gambling premises in an LSOA and various area/population characteristics (while controlling for other characteristics). The results of these are shown below. Distances between premises and schools/treatment centres were calculated using QGIS.

Appendix Table 1 - Number of different types of gambling premises over time, March 2018 to November 2020

Activity type	Mar-18	Mar-19	Mar-20	Nov-20
Betting shops	9614	9235	8222	8099
AGCs	1884	1686	1496	1537
Bingo	777	758	623	637
FECs	265	243	232	232
Casinos	199	201	198	197
Missing activity type	2	11	25	28
Total	12744	12134	10796	10730

Appendix Table 2 – Percentage of gambling premises as of November 2020 located in each decile of deprivation, using each different domain of deprivation to measure this. England only.

Deprivation decile	Income	Employment	Education, Skills and Training	Health Deprivation and Disability	Crime	Barriers to Housing and Services	Living Environment
1	18%	20%	15%	22%	32%	10%	22%
2	17%	14%	15%	14%	17%	10%	18%
3	15%	13%	14%	14%	13%	10%	15%
4	13%	13%	11%	11%	10%	10%	10%
5	11%	10%	10%	9%	9%	9%	9%
6	8%	8%	9%	8%	7%	10%	7%
7	6%	6%	7%	7%	5%	10%	6%
8	5%	6%	7%	6%	4%	9%	5%
9	3%	4%	6%	5%	2%	10%	5%
10	4%	5%	6%	5%	1%	11%	3%
Total no. of gambling premises	9104	9104	9104	9104	9104	9104	9104

Appendix Table 3 - Regression coefficients showing the relationship between different area characteristics and the number of different gambling premises and other amenities within an LSOA (November 2020)

Each column represents an individual regression model. Figures in bold indicate statistically significant relationships (at $p<0.05$). Darker cell colours indicate stronger associations, with negative values reflecting negative relationships (e.g. fewer gambling premises as variable on left of table increases/is true) and positive values reflecting positive relationships.

Variable	Gambling Premises	Betting shops	AGCs	Bingo	FECs	Casinos	Super-markets	ATMs	PTU ATMs
Coastal	**-0.11**	**-0.49**	**0.40**	**0.30**	**2.05**	0.24	**-0.22**	**-0.21**	0.05
Urban area	**0.71**	**1.25**	**-0.32**	-0.10	**-1.02**	**2.37**	**0.22**	**0.30**	0.05
More deprivation	**0.22**	**0.18**	**0.33**	**0.42**	**0.32**	**0.18**	**0.04**	**0.11**	**0.17**
% white ethnic background	**-0.003**	**-0.003**	0.00	0.00	**0.05**	**-0.01**	**0.01**	0.00	**-0.003**
Median age	**0.05**	**0.04**	**0.08**	**-0.07**	**0.10**	**0.04**	**0.02**	**0.03**	0.00
% private rented tenure	**0.06**	**0.05**	**0.07**	**0.06**	**0.07**	**0.09**	**0.04**	**0.04**	**0.03**
% full-time students	0.00	**-0.01**	**0.01**	**0.01**	0.01	**0.01**	**-0.002**	**0.002**	0.00