MIDDLESBROUGH COUNCIL LICENSING SUB COMMITTEE HEARING 12 JULY 2023 AT 10.00AM

Application to vary a converted casino premises licence in relation to premises at 22 Newport Road Middlesbrough

Application to vary an adult gaming centre premises licence in relation to premises at 22 Newport Road Middlesbrough

Responsible Authorities' Additional Information

Documents

1. Updated representation of the Director of Public Health through Public Protection Services
2. Demographic Information for Middlesbrough and Central Ward including ward profile and indices of multiple deprivation
3. Photographs showing frontages of gambling premises in the area
4. Location Plan showing gambling and licensed premises
5. Government White Paper: High Stakes: Gambling Reform for the Digital Age April 2023 extracts
6. Report of Professor Heather Wardle, University of Glasgow.

Representation by the Public Protection Service (formerly the Community Protection Service) on behalf of the Director of Public Health in relation to the application for the variation of the converted Casino licence to 22 Newport Road

The Public Protection Service maintains its representation dated 28th April 2022. Its opinion remains that this licensing application is not consistent with the licensing objective of protecting children and other vulnerable persons from being harmed or exploited by gambling.

The Public Protection Service recognises the variety of harms that problem gambling encompasses:

- Potential co-morbidities e.g. anxiety & depression, substance misuse
- Medical consequences e.g. insomnia, CVD, stomach problems
- Social consequences e.g. relationships, neglect, bankruptcy
- Burden on public purse e.g. health, welfare, housing, criminal justice

In relation to co-morbidities, the Health Survey for England 2012 found that:

- For male gamblers, alcohol consumption is heavier in those classified as problem or at risk gamblers than those classified as non-problem or non-at-risk gamblers.
- Problem gamblers are more likely to be smokers and they are also more likely to be heavy smokers
- For self-reported anxiety and/or depression; 47% of problem gamblers said they are moderately or severely anxious or depressed versus 20% of non-problem or nongamblers.
- For diagnosed disorders, 11% of problem gamblers have a diagnosed mental health disorder versus 5% of non-problem or non-gamblers.

It is our view that the proposed application will increase access to gambling and, in particular, access to rapid, high stake and prize gambling in a sensitive part of the Borough.

Using the ONS Mid-Year Estimates 2020, the total 18+ population for Middlesbrough is 108,156. Applying the national prevalence rates found by the Public Health England gambling-related harms evidence review in 2018 showed that:

- 54% (58,404) of the adult population had gambled or 40% (43,262) excluding the National Lottery.
- 3.8% (4,110) of the population were classified as at-risk gamblers. However regional breakdowns showed that the North East had the highest rate of at-risk gamblers with 4.9% (5,300).
- 0.5% (541) had reached the threshold to be considered problem gamblers.

Given the risk factors above, it is reasonable to assume that there would be a higher rate in Middlesbrough and the wider Tees Valley area compared to the national average.

The application provides particular cause for concern when the location is considered. The premises at 22 Newport Road are sited in a prominent position for daytime and night-time activity. It is located alongside an Adult Gaming Centre and within the central retail area, with a number of other gambling establishments nearby and close to the bus station. Given that it will be offering machine gaming at far higher stakes than are currently available, we remain seriously concerned that the premises will increase the availability and attraction of casual, ambient gambling. We are advised that a licence will be applied for the sale of alcohol and the proposed application would increase access to gambling for individuals under the influence of alcohol, or who wish to gamble while drinking. The 'Clinical Psychology Review' published a systematic review and meta-analysis in 2017 featuring robust evidence on the risk factors associated with problem gambling. Alcohol use frequency was cited as a thematic risk factor.

A research report from the Royal College of Psychiatrists has also shown links between Gambling and Alcohol issues, with 1 in 6 respondents to a survey who sought help for alcohol misuse admitting they had also experienced problems with gambling. The research urges restrictions to prevent both problems becoming worse and argues that authorities can learn lessons from approaches adopted in the alcohol field to limit alcohol misuse and protect communities from harm, including imposing tougher restrictions on marketing, and decreasing availability. The research also surmises that people with alcohol problems often participate in unhealthy gambling and vice versa. Recommendations to reduce gambling harm in this report were 'fully endorsed' by Prof Jim Orford of Gambling Watch UK.

Studies also suggest that 49% of people with a gambling disorder have suicidal thoughts. An academic study monitoring 2,000 individuals with gambling disorders over an 11-year period, found that problem gamblers are at 15 times higher risk of suicide compared with the general population. The risk further increases to 19 times higher for men aged between 20 and 49 with a gambling problem – which we also know is the age/population group where suicide is still the most common cause of death in the UK. (Source: Mental Health Foundation).

Regarding impact on financial issues, national research conducted by the Citizen's Advice Bureau in 2018 found that more than three-quarters of gamblers and more than two in five affected others had built up debt as a result of gambling; and over a third of families with children couldn't afford essential costs such as food, rent and household bills as a result of a family member's gambling. Locally, an audit of two complete years (2015 & 2016) of Coroner's reports on suicides in Middlesbrough identified financial issues as a common theme.

Additionally, it is important to acknowledge that Central ward in which the premise is situated (Middlesbrough Town Centre) has a very high level of deprivation as shown in the table below. The index of multiple deprivation score was 54.4 in 2019, compared to an average of 40.5 in

Middlesbrough and 21.7 in England. When looking specifically at income deprivation, 34% of the population of Central ward are income deprived compared to 25.1% across Middlesbrough and 12.9% in England.

Alongside deprivation, the table below demonstrates that residents in Central ward also experience high levels of child poverty, fuel poverty, unemployment and low levels of educational attainment. Health data shows that Central ward has very high levels of emergency hospital admissions, alcohol admissions, clients in substance misuse treatment, admissions for self-harm and the population suffers from very low life expectancy rates and high levels of premature mortality.

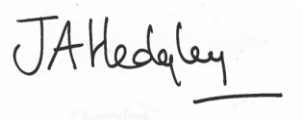
Indicator	England	M'Bro	Central Ward
Deprivation *Index of multiple deprivation score (2019)*	21.7	40.5	54.4
Income Deprivation *Income Deprivation % (2019)*	12.9%	25.1%	34.0%
Child Poverty *Income deprivation affecting children (2019)*	17.1%	32.7%	35.8%
Fuel Poverty *Estimates of proportion of households % (2020)*	13.2%	16.8%	27.9%
Unemployment *Working age claiming out of work benefit % (2021/22)*	5.0%	8.3%	11.0%
Education *Census population with no qualifications % (2021)*	18.1%	23.9%	25.9%
All Emergency Hospital Admissions *Ratio of emergency admissions for all cause (16/17 - 20/21)*	100	132.1	153.1
Alcohol Admissions *Ratio of admissions for alcohol attributable condtions (16/17 - 20/21)*	100	142.9	236.2
Clients in Substance Misuse Treatment *Adults in treatment (2021/22)*	-	1,792	18.3%
Hospital Admissions for Self Harm *Ratio of admissions for intentional self harm (16/17 - 20/21)*	100	184.1	208.7
Life Expectancy (Male) *Life expectancy at birth in years (2016-20)*	75.3	79.5	69.4
Deaths from All Causes *Estimates of proportion of households % (2020)*	100	132.1	153.1

In addition, 22 Newport Road is located within Middlesbrough 001G LSOA (Lower Layer Super Output Area) and in the Indices of Multiple Deprivation 2019 this LSOA is ranked

11th most deprived out of 86 LSOAs in Middlesbrough and nationally is ranked 244th most deprived out of 32,844.

In considering this application, the Public Protection Service understands that there is an existing licence for a casino licence at Teesside Leisure Park, and that this application is effectively to move it to a new location at 22 Newport Road. The Public Protection Service's concerns centre on the type of gambling, the location in which this application is made and the vulnerabilities of the local population.

Considering the cumulative and correlative risks associated with problem gambling, combined with the prevalence of existing alcohol/gambling related harm in Middlesbrough, the nature of the gambling proposed and the potential increased harm to local vulnerable persons, the Public Protection Service strongly advises against the grant of this application for the variation of the converted Casino licence to 22 Newport Road.



Head of Public Protection
04/07/23

Central

The Index of Multiple Deprivation is used to provide a set of relative measures of deprivation for small geographical areas

In this report, we will set out to identify the trend in deprivation for the ward

Contents

Executive Summary

1. Central is a ward with all of its LSOAs ranking in the top 10% most deprived in England, has significant challenges for its resident population, of which key issues are listed below.

Income Deprivation

2. A significant proportion of residents in Central are living in Income Deprivation, it is estimated that around 1,300 out of 4,024 households in the Central ward are below average income, before housing costs, with over 1,000 below average income after housing costs. It could be theorised that these estimates are low due to the inequalities in deprivation across the town. This is further supported by the significant proportion of the working age population in the ward drawing on Income Support benefits.

Employment Deprivation

3. A significant proportion of residents in Central are living in Employment Deprivation, with many claiming unemployment benefits such as Jobseekers Allowance. The increase in Universal Credit claimants make it somewhat difficult to identify the reason for claims in recent years, however Employment Support Allowance has remained a large proportion of claims which suggests residents are in employment but on a low income.

Education, Skills and Training Deprivation

4. This measure looks at education attainment for two stages of Life, Children and Young People and Adults and Older People. Looking at those who have completed their education, namely adults, in Central the trend points to low attainment of Level 1 (GCSE grades 1-3 or D-G) or lower. Data for current attainment in schools shows that the majority of schools have attainment below national trends, however Newport Primary School has significantly lower attainment than national comparators. Whilst Newport Primary is in a different ward, a significant number of children from Central ward attend.

Health Deprivation and Disability

5. In Central, residents are expected to live shorter lives than their national counterparts and the overall average across the town; 46% of deaths recorded between 2001 and 2018 were under the age of 75 and classed as premature deaths. There is a significant rate of residents with a work limiting disability or ill health in Central, claiming health related benefits. Emergency Hospital Admissions for all causes was higher for Central residents than other Middlesbrough residents, with a significantly higher rate for Chronic Obstructive Pulmonary Disease (COPD) admissions. Self-harm also shows a much higher rate. All factors point to a resident population with low levels of good health both physically and mentally.

Crime

6. Violent crime rates in Central have been rising significantly, although the six months to January 2020 saw a decline. Theft in the Central ward remains high and is the most

reported crime in the area. The area surrounding Teesside University is ranked in the top 5% most deprived with regards to crime.

Barriers to Housing and Services

7. Significant improvements were seen in relation to access to housing and services, with low house prices and an abundance of housing stock for rental. The largest proportion of households in this ward are rented from private landlords or letting agencies.

Living Environment

8. Over 3,700 people residing in Central could be living in poor conditions with almost 3% of all residents living without central heating. Both of these are considered to be contributing factors for poor health conditions such as Asthma, which links directly into Health domain of deprivation and the higher rates of COPD admissions.

Income Deprivation Affecting Children

9. Central had the seventh worst IDACI rank within the town, Middlesbrough having the worse rank in England. Over 2,500 children are estimated to be living in Income Deprivation in Central, with a third of these children living in LSOAs ranking in the top seven percent most deprived.

Income Deprivation Affecting Older People

10. Central has the worst IDAOPI in Middlesbrough with all LSOA neighbourhoods being in the top five percent most deprived. A significant proportion of older people in Central are living in Income Deprivation, ward level data would suggest that the majority of residents are in receipt of some kind of income-based benefit.

Introduction

The Index of Multiple Deprivation (IMD) is used to provide a set of relative measures of deprivation (ranks) for small geographical areas (Lower-layer Super Output Areas (LSOA)). ***Movement in ranks between the IMD in 2015 and 2019 does not necessarily imply that an LSOA has improved or declined between the reporting periods, rather it may imply that other LSOAs have improved/declined at a greater rate. The ranks are only in relation to each other.*** The IMD is derived from seven different domains, based on data from a multitude of sources, from the most recent time point available (e.g. population data from August 2012 for the 2015 IMD and from August 2015 for the 2019 IMD). It is not possible to access all the data sources for raw data, therefore this report is based on data from the IMD websites and, where possible, supplemented with data from other sources.

The seven domains are:

- Income deprivation
- Employment deprivation
- Education, skills and training deprivation
- Health deprivation and disability
- Crime
- Barriers to housing and services
- Living environment deprivation

These are constructed and weighted to create the overall IMD, using the factors given in Figure 1[1] below.

In addition to the seven domains, there are two supplementary indices: The Income Deprivation Affecting children index (IDACI) and the Income Deprivation Affecting Older People Index (IDAPOI).

[1] Data for all tables/figures can be obtained from the UK government websites https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019 and https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015

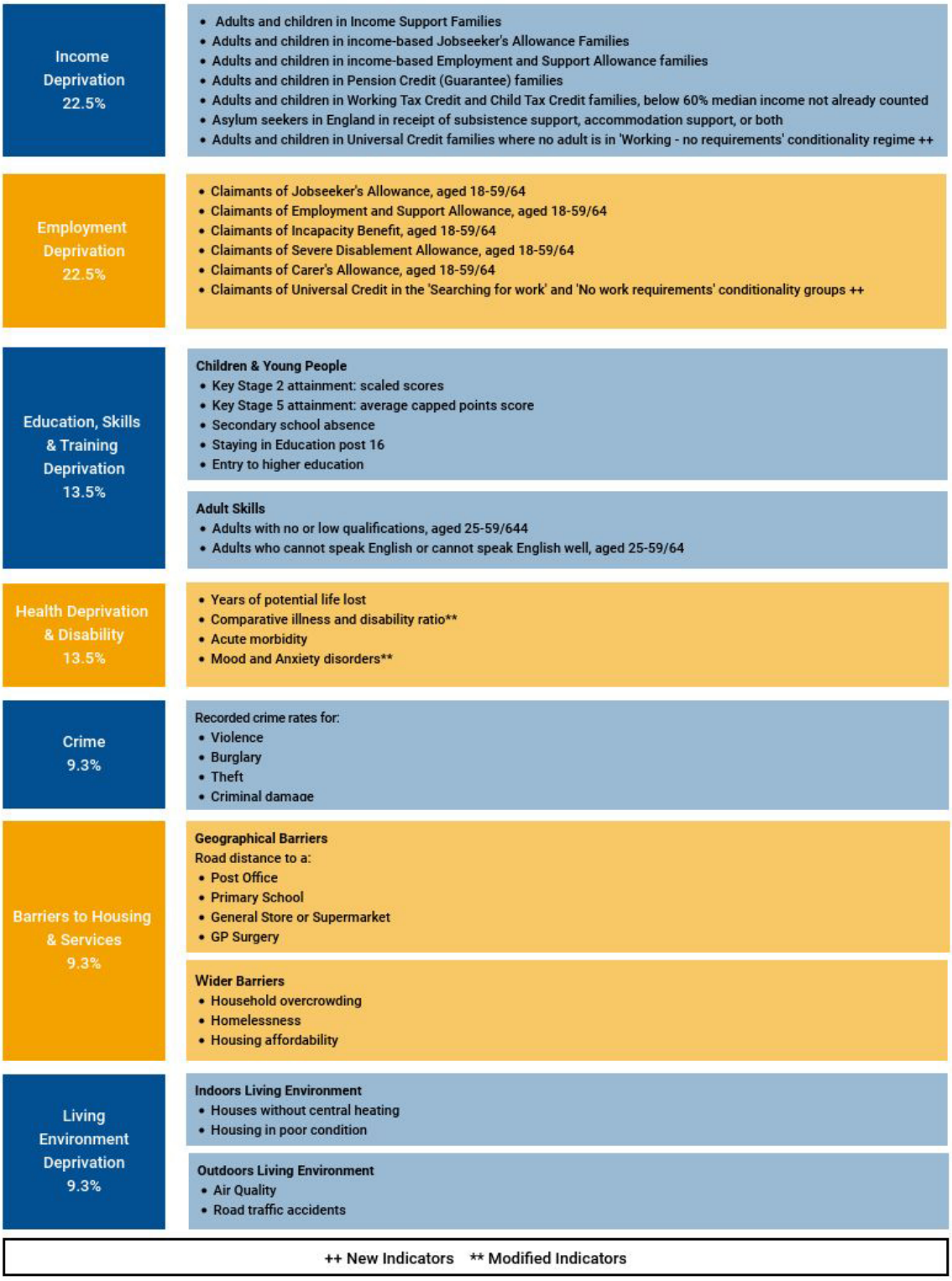


Figure 1: Domain factors

Context

This ward-based report will look into each domain and supplementary indices in more detail for the electoral ward of Central.

Central is comprised of five LSOAs; the makeup of the ward by LSOA has some inconsistencies, for example, E01012068 is split across two wards (with Newport) and will be included in this report, due to a large proportion of residential properties in the Central ward. Therefore the LSOAs covered in this ward report can be seen below:

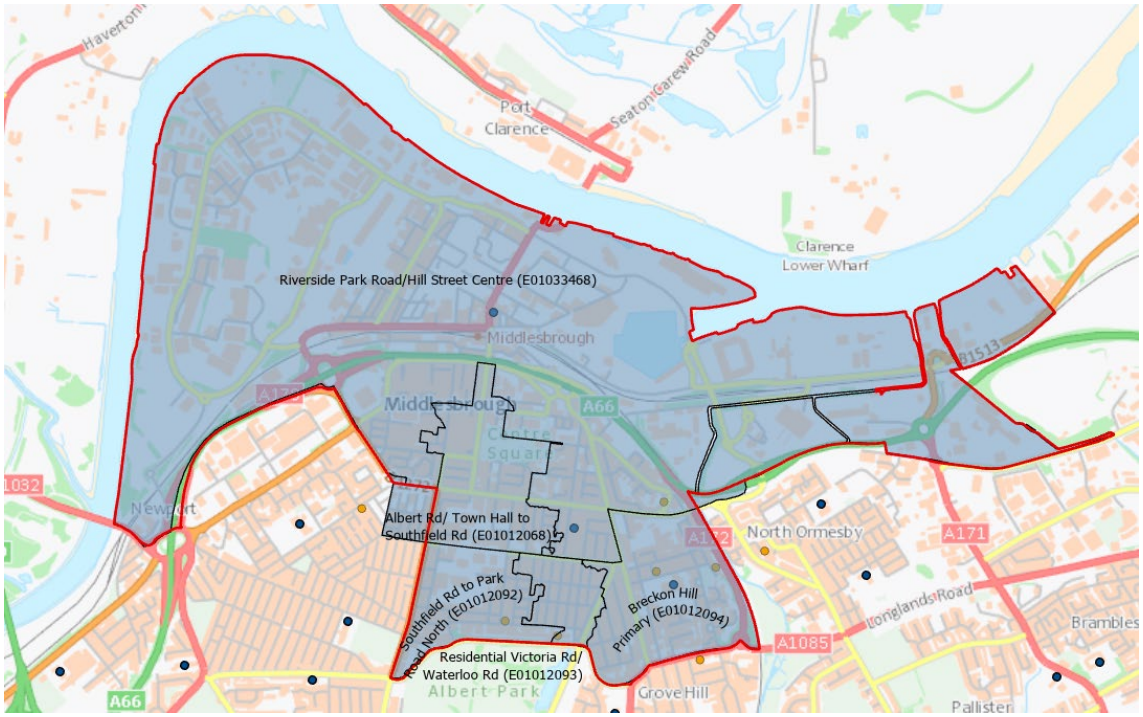


Figure 2: Central LSOA Map

The LSOAs used to calculate the ward based estimates rank between 244th most deprived and 2,979th most deprived in the Indices of Multiple Deprivation 2019, with almost 33,000 LSOAs in England, all five in Central ward are within the most deprived 10% in England.

All LSOAs in Central saw a slight improvement in their ranking since IMD 2015.

The overall population of Central ward was 12,701 according to the Mid-year Population estimates 2018, with 19.43% (2,468) being Dependent Children aged 0 to 15 years, 70.84% (8,997) working age 16 to 59 years and 9.73% (1,236) aged over 60 years.

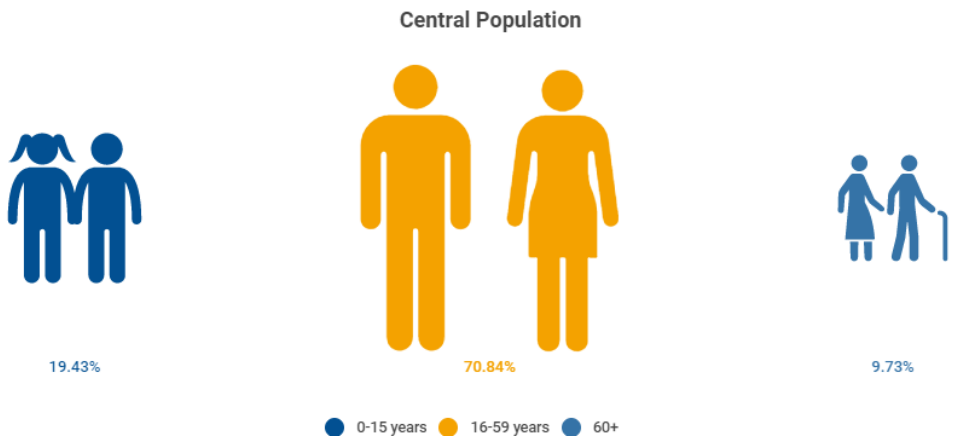


Figure 3: Period: 2018 - Source: Mid-year Population Estimates - ONS

Central

Central ward is located in the north of Middlesbrough; the area has the main town centre shopping area, huge industrial parks and Teesside University.

For the purposes of this analysis, each LSOA used to comprise the IMD has been given a name based on geographical areas within the neighbourhood; they can be seen on the following map.

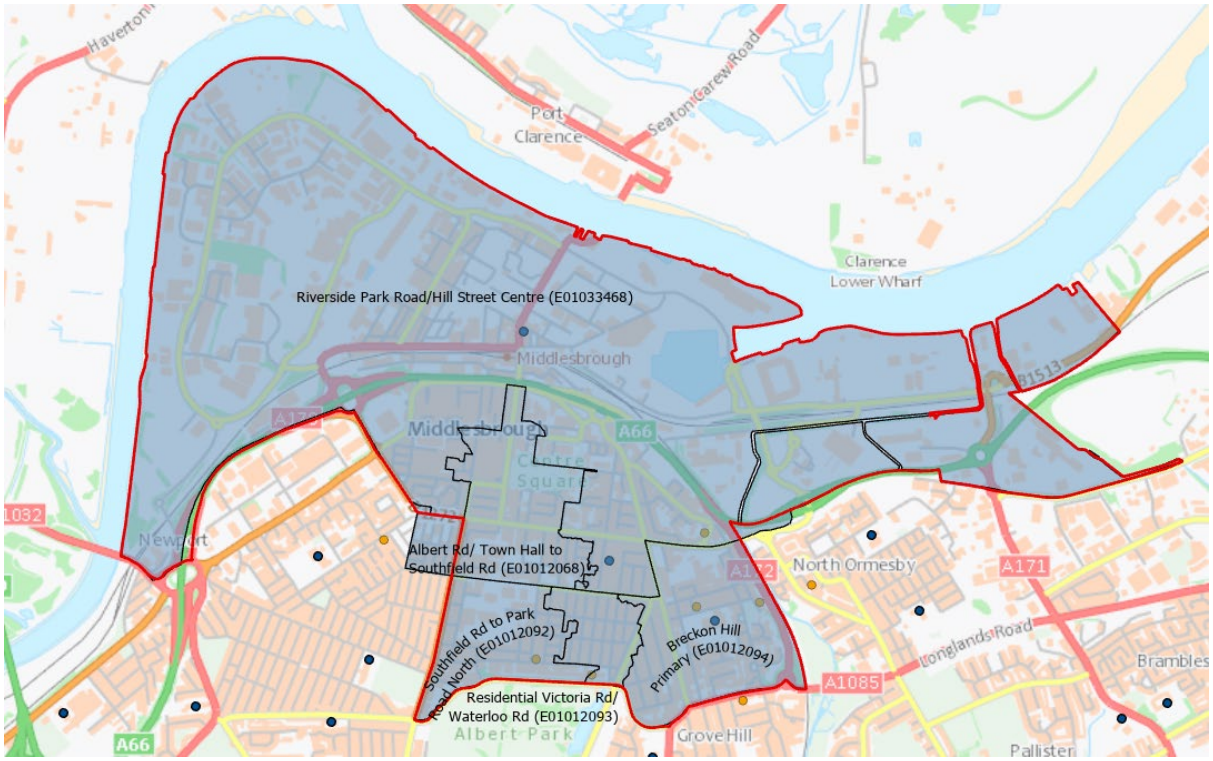


Figure 4: Central LSOA Map included in report

The area covered by E01033468 is the largest LSOA in Middlesbrough, it incorporates the riverside industrial park, Boho Zone, Police HQ, Hill Street and Dundas arcade shopping centres, Riverside stadium, the railway station, Abingdon Primary school and the newly created Outwood Academy Riverside. Although the area is large, it is primarily non-residential and therefore the deprivation associated with residents in this LSOA distorts the actual deprivation of the whole area.

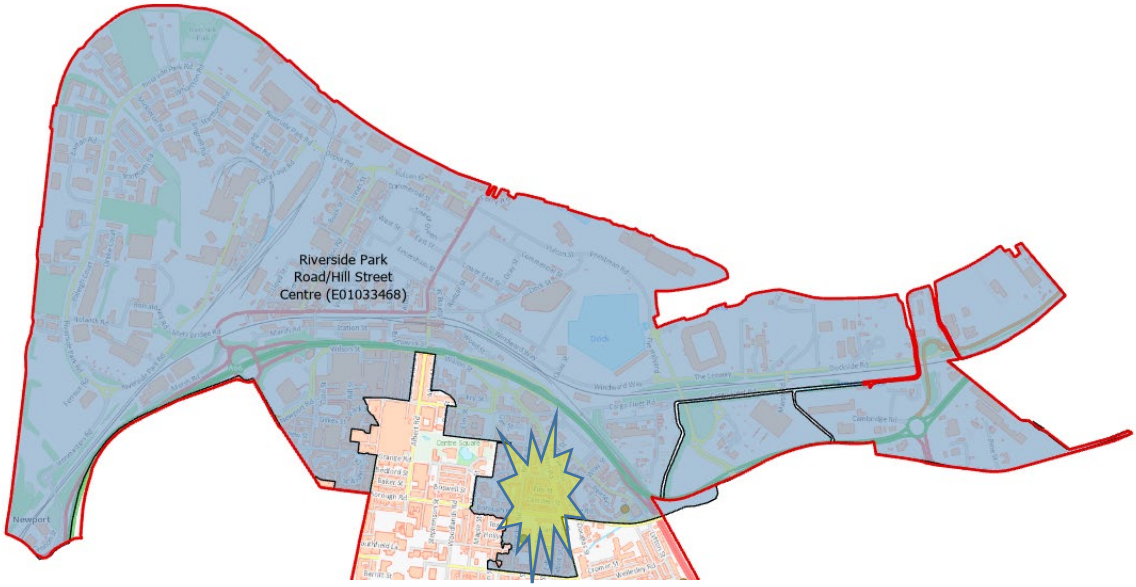


Figure 5: Residential Area of LSOA

The majority of the residents in this LSOA, used within the two IMD calculations, reside in the area from the A66 in the streets surrounding Marton road (see highlighted). This area contains some of the most deprived houses in Middlesbrough. The impact of residents in the new Boho accommodation will be included in future IMD releases.

Ward Analysis

11. In 2015, out of 7,219 wards, Central was the 40th most deprived ward in the country and this improved by 35 making it the 75th most deprived ward at IMD 2019[2]. Central is ranked the sixth most deprived ward in Middlesbrough.

12. The ward rank changes below show that all but one (Health Deprivation and Disability) have seen an increase in deprivation rank, however the deprivation levels in Central still remain high. This has been largely driven by low income and unemployment, and high crime rates, all of which have a causal effect on the Income Deprivation affecting Children (IDACI) and Income Deprivation affecting Older People (IDAOPI). In contrast, there has been a significant improvement in Barriers to Housing and Services of 11,029 positions between 2015 and 2019.

Central Ward Rankings

Domain	2019	2015	Movement	
Overall	1,843	1,366	477	↑
Income	1,949	1,861	88	↑
Employment	3,572	3,294	278	↑
Education, Skills and Training	2,103	995	1,108	↑
Health Deprivation and Disability	682	921	-239	↓
Crime	2,419	2,206	212	↑
Barriers to Housing and Services	25,196	14,167	11,029	↑
Living Environment	13,322	11,482	1,839	↑
Income Deprivation Affecting Children Index (IDACI)	2,546	1,821	725	↑
Income Deprivation Affecting Older People (IDAOPI)	2,546	780	1,766	↑

The following pages look at these domains in more detail for the LSOAs given above.

[2] Based on the national ward rank of the average overall rank per ward

IMD Overall Ranks

Overall Deprivation	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	2,348	1,914	+434	
Breckon Hill Primary	2,979	2,911	+68	
Residential Victoria Rd/ Waterloo Rd	1,594	873	+721	
Riverside Park Road/Hill Street Centre	244	81	+163	
Southfield Rd to Park Road North	2,051	1,052	+999	

13. Breckon Hill Primary was identified as the least deprived neighbourhood in Central in the IMD 2019, with an increase of 68 places in the ranking from 2,911 to 2,979.

14. Albert Rd/ Town Hall to Southfield Rd was identified as the second least deprived neighbourhood in Central Ward, ranking 2,348th nationally, with an improvement of 434 places in the ranking from 1,914 in 2015.

15. Southfield Rd to Park Road North was identified as the third least deprived neighbourhood, with a rank of 2,051st nationally, with an improvement of 999 places in the ranking from 1,052 in 2015.

16. Residential Victoria Rd/ Waterloo Rd was fourth in the ranking for the ward of Central, with a rank of 1,594 nationally in 2019, an improvement of 721 places in the ranking from 873 in 2015.

17. Riverside Park Road/ Hill Street Centre was the worst ranked neighbourhood in Central in the IMD 2019 at 244th most deprived nationally, an improvement of 163 places from 81 in 2015.

Income Deprivation

18. The Income Deprivation domain accounts for 22.5% of the overall ranking for the Indices of Multiple Deprivation. This is calculated using the total number of claimants for any of the benefits listed below[3] as a proportion of the total population for that area[4]. Shrinkage was adopted to construct the overall domain score, which was then used to determine the rank.

    - Adult and Children in Income Support families
    - Adults and children in income-based Jobseeker's Allowance families
    - Adults and children in income-based Employment and Support Allowance families
    - Adults and children in Pension Credit (Guarantee) families
    - Adults and children in Universal Credit families where no adult is classed within the 'Working - no requirements' conditionality group[5]
    - Adults and children in Working Tax Credit and Child Tax Credit families not already counted, that is those who are not in receipt of Income Support, income-based Jobseeker's Allowance, income-based Employment and Support Allowance, Pension Credit (Guarantee), and whose equivalised income (excluding housing benefit) is below 60 per cent of the median before housing costs
    - Asylum seekers in England in receipt of subsistence support, accommodation support, or both.

19. The neighbourhood rankings for income deprivation can be seen on the following table.

Income	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	2,456	3,124	-668	⌄
Southfield Rd to Park Road North	2,552	2,340	212	⌃
Residential Victoria Rd/ Waterloo Rd	1,566	674	892	⌃
Breckon Hill Primary	3,131	3,113	18	⌃
Riverside Park Road/Hill Street Centre	40	54	-14	⌄

20. Whilst overall the Income deprivation for the ward has improved there are two LSOAs where ranking has decreased. Riverside Park Road/ Hill Street Centre is amongst the lowest in Middlesbrough and ranked 40th nationally. All LSOAs are in the top 10% most deprived nationally.

21. Overall there is little implied change in unemployment, in Central; however, there has been a consistent year on year reduction in the unemployment rate since 2012 across

[3] IMD Tech 2019 – Page 30
[4] Population data for 2019 is based on 2015 claimants (IMD Tech 2019, Appendix A), population data for 2015 is based on 2012 claimants (IMD Tech 2015, Appendix A)
[5] Due to the roll-out of Universal Credit in Middlesbrough taking place in 2018, this indication of Deprivation will not be included in the 2015 or 2019 rankings

Middlesbrough, therefore it could also be assumed that other areas nationally have seen a more significant reduction, or generally lower rates contributing.

22. Whilst Middlesbrough has seen a consistent downward trend since 2011/12[6] and this has been largely in line with that seen nationally; however Middlesbrough's unemployment rate remains significantly higher than the national average. The North East region saw a slight increase of unemployment rates in 2018/19, a trend that is likely to continue through 20/21 due to the impact of Covid-19. Unemployment rates are not available at a ward level.

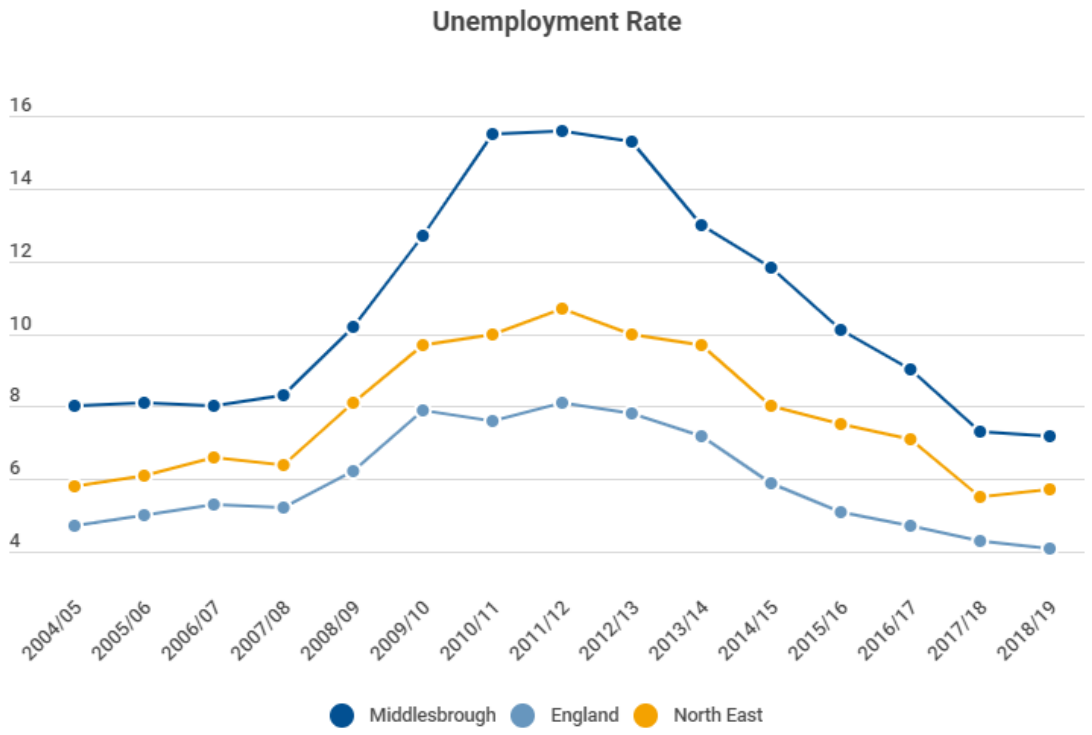


Figure 6: Period: 2004/05 to 2018/19 - Source: Office for National Statistics

23. Other factors to consider when looking at income deprivation contrasting with a reduction in unemployment is the growing trend of zero hours contracts. These contracts are included in the employment figures and so, whilst more of the population may be in employment, their income could be low, or variable and therefore showing an area as more income deprived.

24. While not used in the calculation of the IMD, the Households Below Average Income (HBAI) is a good indicator of deprivation within an area.

25. In the North East, there has been a consistently higher rate of HBAI before housing costs than seen in England, in the period 2015/16 to 2017/18 the average rate was 23%.

[6] Data shown is from April to March

26. Figure 7 shows the trend in HBAI before Housing Costs, for the North East compared to the whole of England.

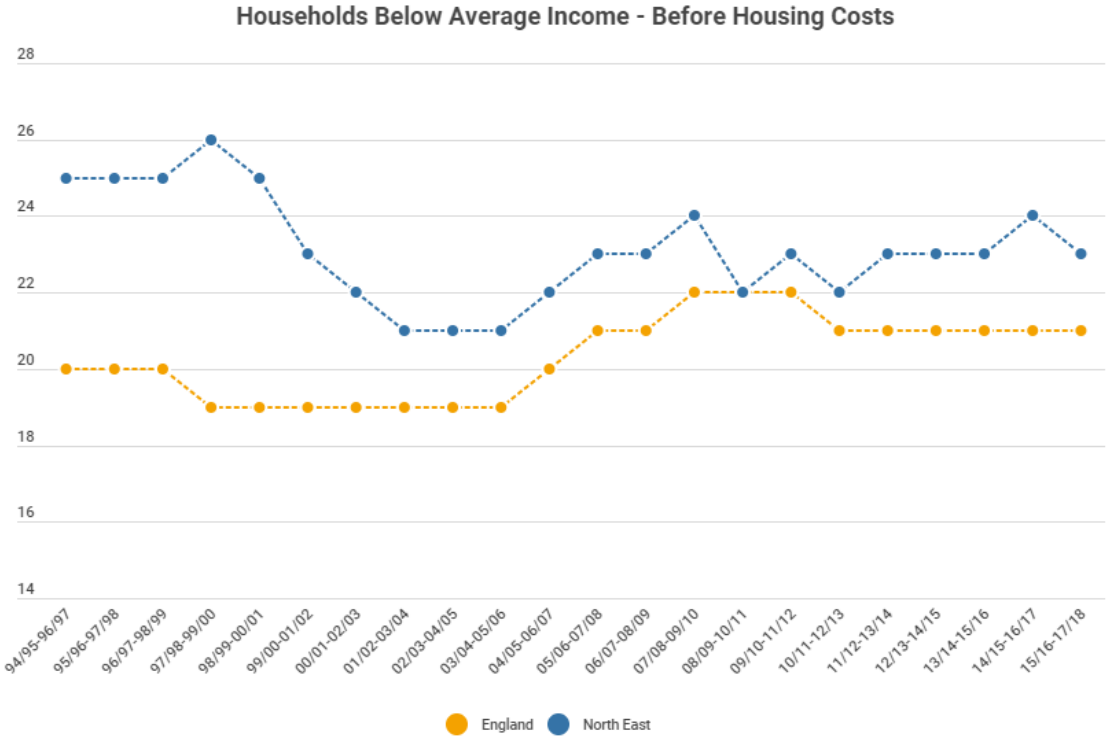


Figure 7: Period: 94/95-96/97 to 15/16-17/18 - Source: Office for National Statistics

27. In Middlesbrough, this might affect around 13,000 households; the average household size in Middlesbrough is 2.38 people and would put an estimated 31,383 people living below the average income.

28. Using an internally derived weighting towards the more deprived areas of Middlesbrough, in Central there are an estimated 1,300 households below the average income before housing costs, with an average household size of 3.16 people there could be an estimated 4,150 people in the ward.

29. Households Below Average Income – After Housing Costs is a secondary measure that looks at households below the 60% average income after their housing costs are paid.

30. In the North East there has been a consistently higher rate of HBAI after housing costs, than seen in England. In the period 2015/16 to 2017/18 this accounted for 18%[7] of all households

[7] The same cohort is used for both, the 18% is not exclusive of the previous 23%

31. Figure 8 shows the trend in HBAI after housing costs for the North East, nationally and regional comparators.

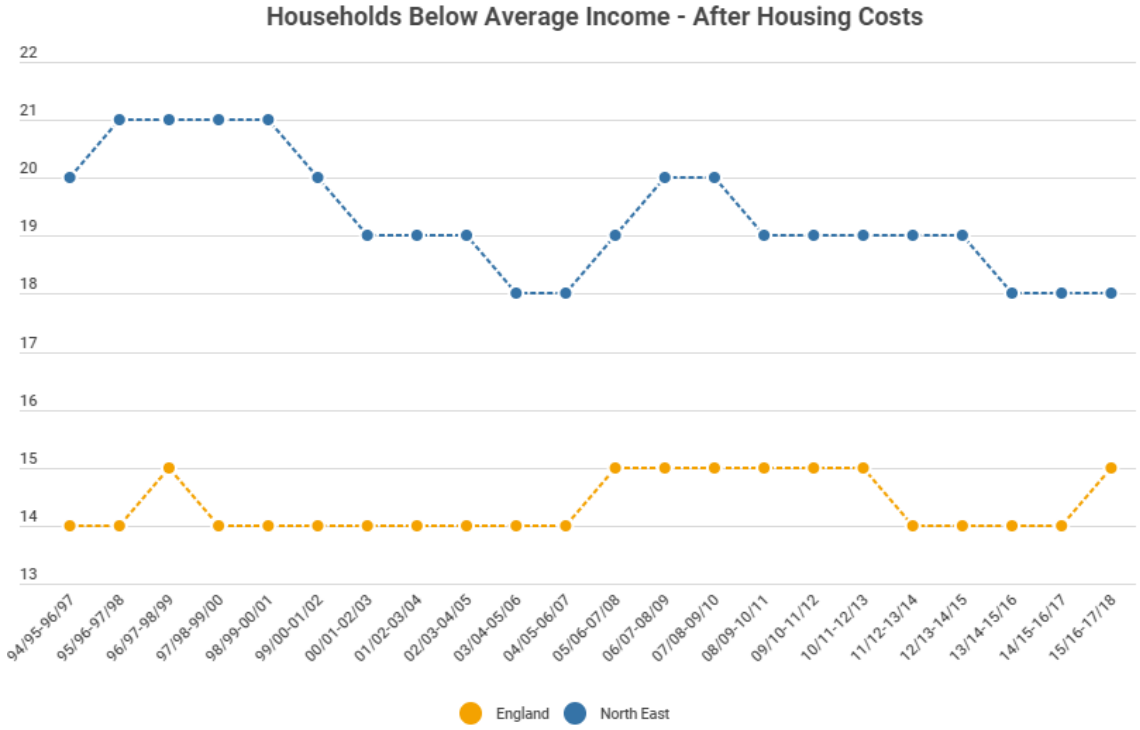


Figure 8: Period: 94/95-96/97 to 15/16-17/18 - Source: Office for National Statistics

32. In Middlesbrough, this might affect around 10,296 households, with the average household size being 2.38 people this could mean an estimated 24,562 people in the town were living in households of this type.

33. Using an internally derived weighting towards the more deprived areas of Middlesbrough, in Central, there are around 1,030 households that may be affected by this measure, taking the average household size of 3.16 people into account; we can estimate that approximately 3,250 people would be living in households below average income after housing costs.

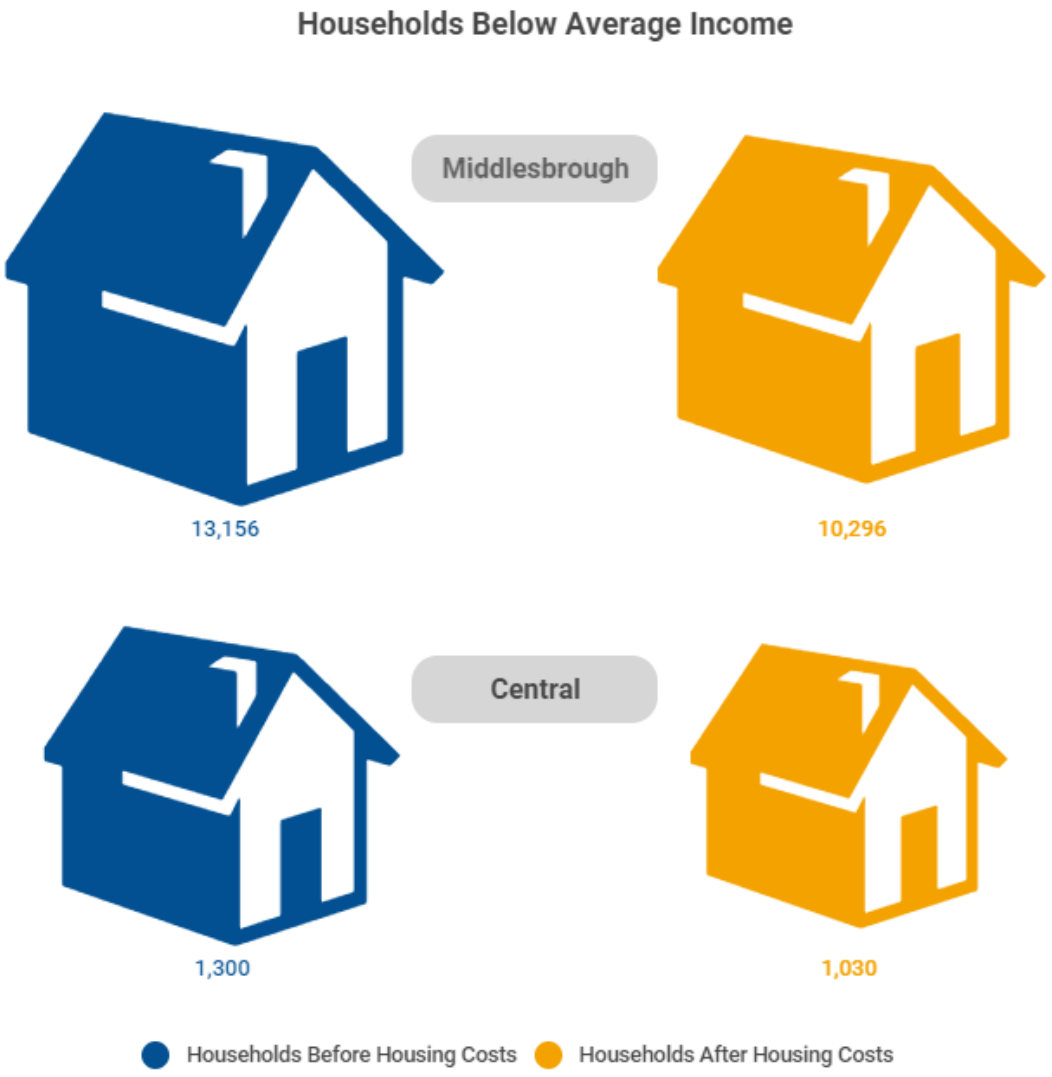


Figure 9: Period: 2018/19 - Source: Department for Work and Pensions

34. Benefit claimants are another cohort of the population used to determine income deprivation. In Central there were around 2,500 income related benefit claimants at August 2019, this is a slight increase to the rate seen in February 2012 (when the records became available). The number of claimants in Central has remained steady and constantly above 2,000; however, the current trend is upwards and is expected to remain this way for a while due to the economic effects of Covid-19.

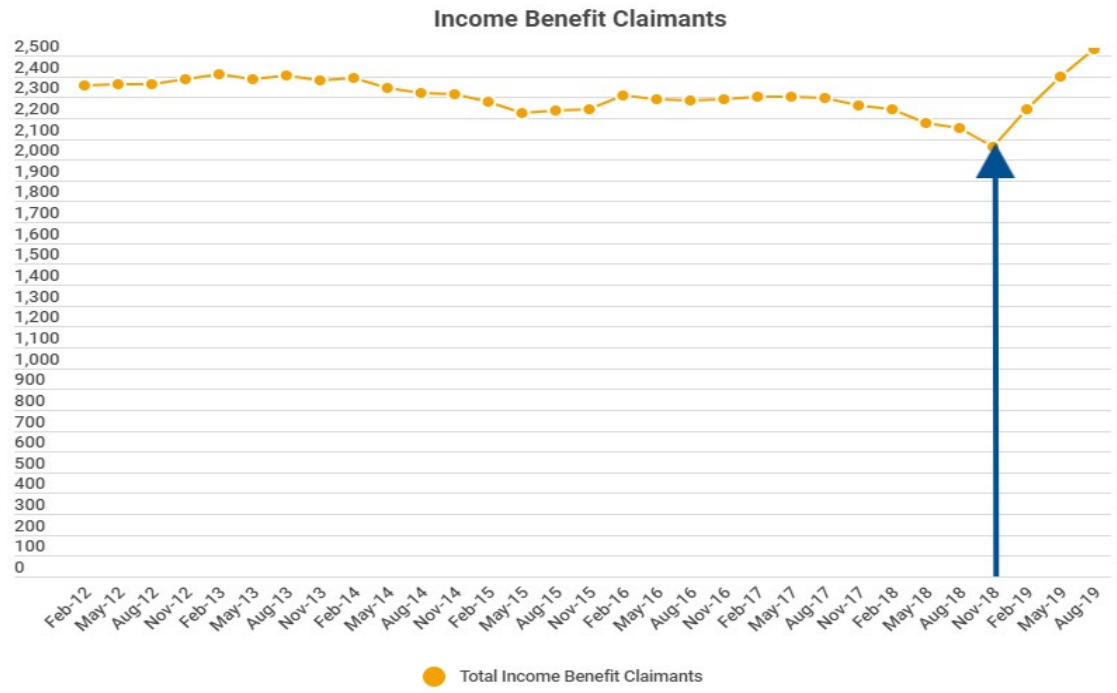


Figure 10: Period: February 2012 to August 2019 – Source: DWP

35. Figure 11 shows the rate of claimants of the relevant income deprivation benefits, there has been a reduction in Jobseekers Allowance and Income Support, however this was to be expected with the advent of Universal Credit and the correlation between the reduction of JSA and IS and the increase in UC is clear.

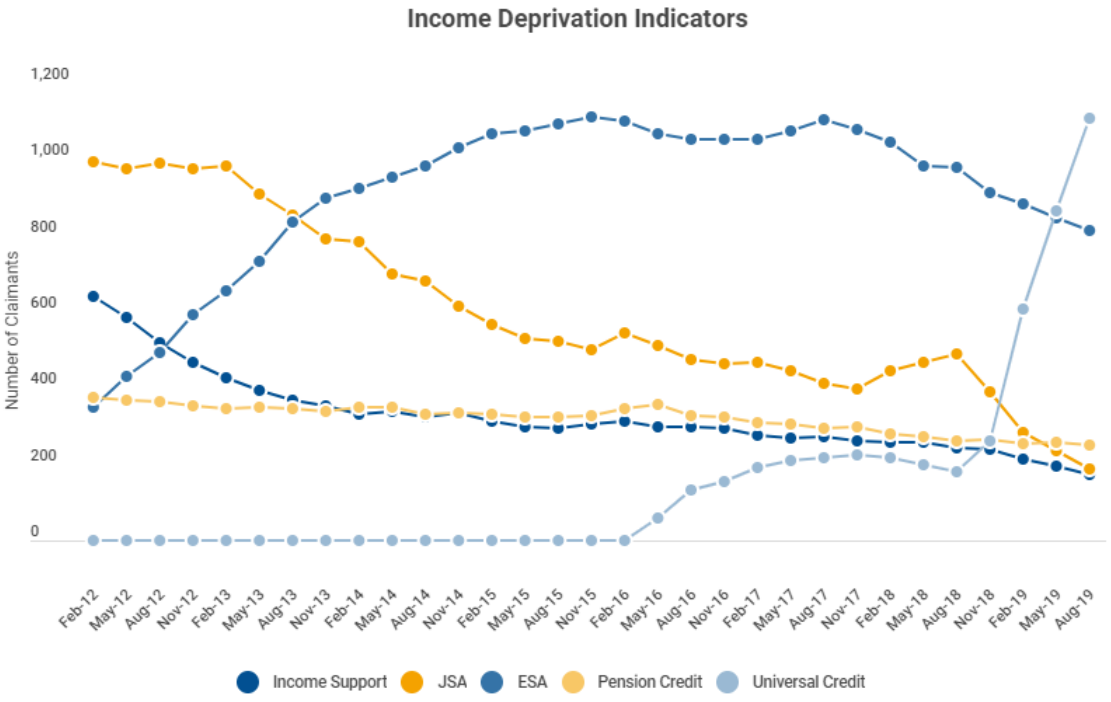


Figure 11: Period: February 2012 to August 2019 - Source: DWP

36. The IMD factors in the rate of Asylum Seekers claiming Section 95 Benefit[8], whilst there is no data available at ward level, the trend of Asylum Seekers claiming Section 95 Benefit for the whole of Middlesbrough shows a significant reduction over the five-year period from 2014 to November 2018. Middlesbrough ranked as having the fourth highest proportion of Asylum Seekers resident in March 2015, and this reduced to having the 28th highest proportion in December 2019.

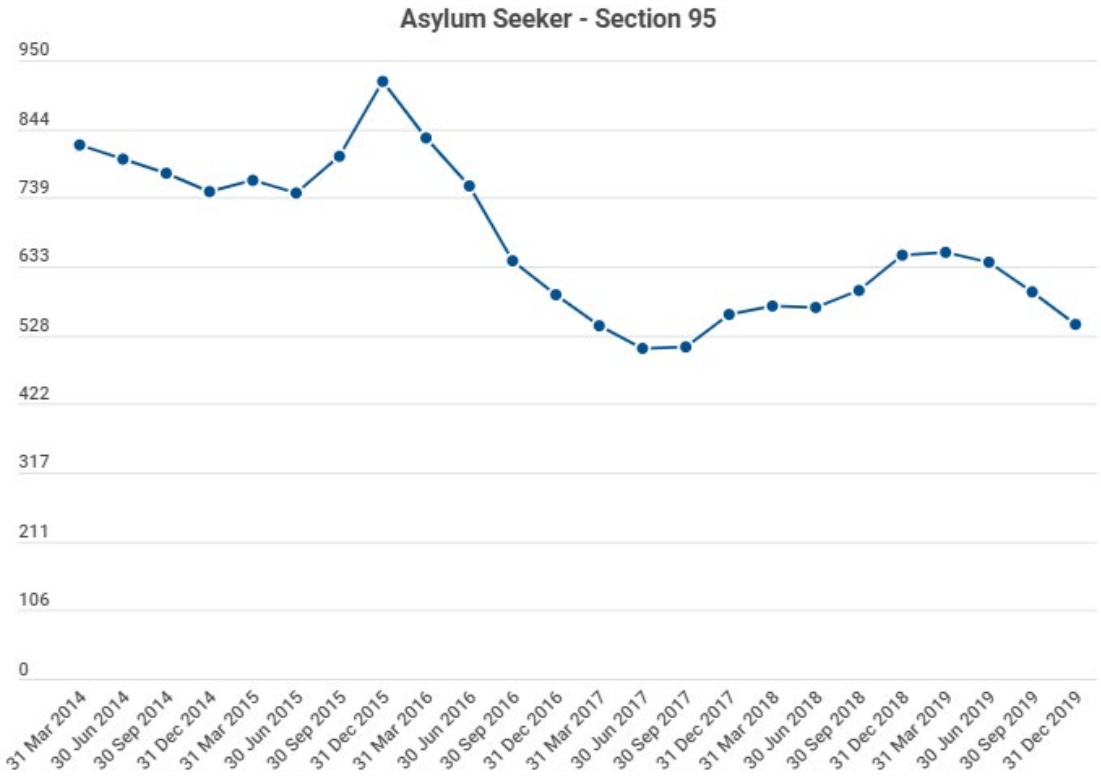


Figure 12: Period: February 2012 to December 2019 - Source: DWP

37. In conclusion, the indicators used to demonstrate income deprivation show a significant trend of deprivation across the ward and highlights that a significant proportion of people resident in Central are living in deprivation and drawing on income related benefits. This is further demonstrated by considering the proportion of the population living in households below average income, both before and after housing costs.

[8] Section 95 provides support for asylum seekers who have an asylum claim or appeal outstanding and failed asylum seekers who had children in their household when their appeal rights were exhausted, and includes those in receipt of:
a) Dispersed accommodation - those in receipt of accommodation only, or both accommodation and subsistence.
b) Subsistence only - whereby the applicant receives cash to support themselves but who have found their own accommodation.

Employment Deprivation

38. The Employment Deprivation domain accounts for 22.5% of the overall ranking for the Indices of Multiple Deprivation and is calculated using the proportion of the working-age population in an area involuntarily excluded from the labour market. This includes people who would like to work but are unable to do so due to unemployment, sickness or disability; or caring responsibilities. The indicators used for this measure are as follows:

    - Claimants of Jobseeker's Allowance (both contribution-based and income-based), women aged 18 to 59 and men aged 18 to 64
    - Claimants of Employment and Support Allowance (both contribution-based and income-based), women aged 18 to 59 and men aged 18 to 64
    - Claimants of Incapacity Benefit, women aged 18 to 59 and men aged 18 to 64
    - Claimants of Severe Disablement Allowance, women aged 18 to 59 and men aged 18 to 64
    - Claimants of Carer's Allowance, women aged 18 to 59 and men aged 18 to 64
    - Claimants of Universal Credit in the 'Searching for work' and 'No work requirements' conditionality groups.

39. The neighbourhood rankings for Central Ward can be seen on the following table:

Employment	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	5,842	6,166	-324	
Southfield Rd to Park Road North	5,070	4,513	557	
Residential Victoria Rd/ Waterloo Rd	3,564	2,745	819	
Breckon Hill Primary	3,192	2,995	197	
Riverside Park Road/Hill Street Centre	191	49	142	

40. Of the five neighbourhoods in Central, only Albert Rd/Town Hall to Southfield Rd did not see an improvement in the rankings for the Employment domain, with only two areas lying within the top 10% most deprived areas nationally, for employment deprivation.

41. The rate of employment benefits claimants has reduced slightly across the period from February 2012 to November 2018, before it began to rise again to August 2019. The impact of Covid-19 could see this upward trend continue for some time.

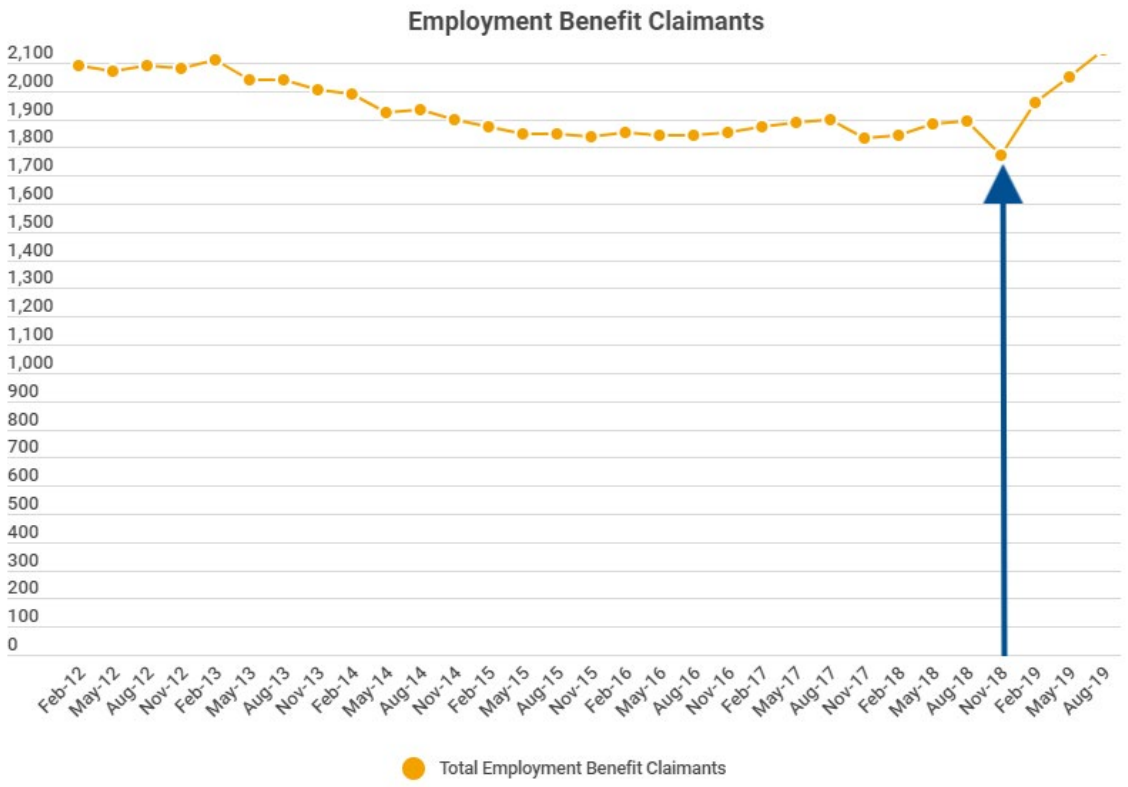


Figure 13: Period: February 2012 to December 2019 - Source: DWP

42. The rate of claimants for each of the benefits making up the measure used in the employment domain are broken down Figure 14. As was previously seen in the Income Deprivation section, benefit combinations have changed as a result of the rollout of Universal Credit. There was a slight increase in Carers Allowance over the period and this may be indicative of an increase in carers who may have had to leave employment to facilitate their caring duties.

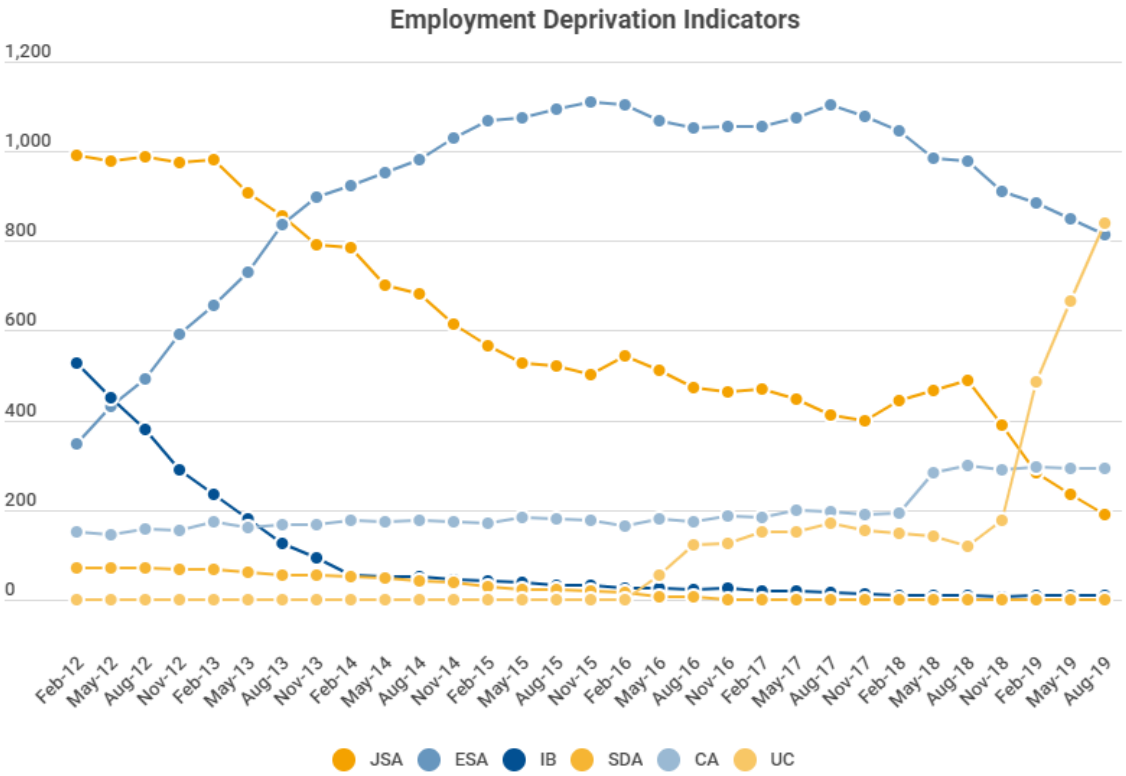


Figure 14: Period: February 2012 to August 2019 - Source: DWP

43. Middlesbrough has had a consistently higher unemployment rate than both the regional and national averages since 2008/09; however, it has been consistently reducing since 2013/14 and is now more in line with comparators.

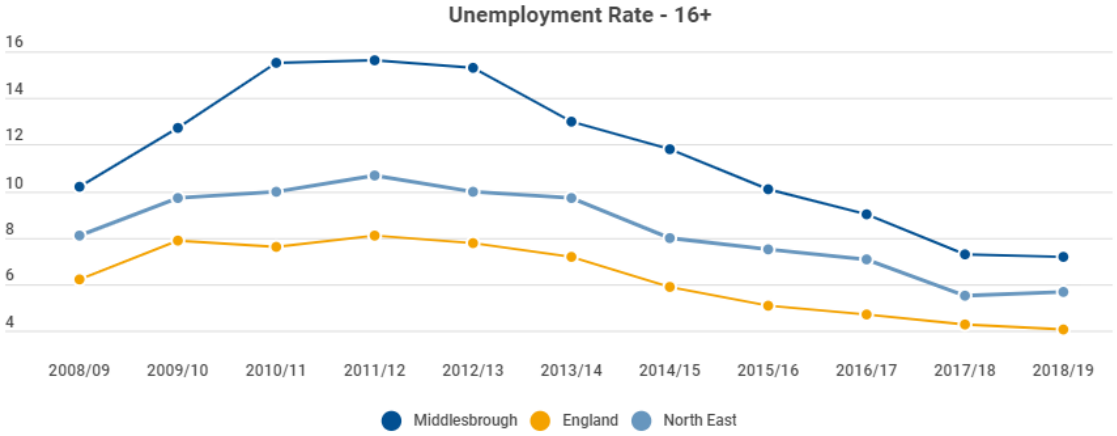


Figure 15: Period: 2008/09 to 2018/19 - Source: Office for National Statistics

44. Whilst the IMD does not factor in the unemployment rate, it is another indicator of possible deprivation causes. A falling unemployment rate indicates a rise in employment, naturally, however this does not necessarily equate to a decrease in deprivation as many people could now be classed as employed but on part-time or zero hour contracts and therefore relying on income related benefits.

45. Over the last decade, there has been a national trend in the increase of zero hour contracts, Figure 16 shows the trend in Middlesbrough, the North East and England for people in employment working less than 10 hours per week. Middlesbrough has seen an overall higher rate in this measure between 2008/19 and 2018/19. It also identifies a trend that women in Middlesbrough are more likely to be working less than 10 hours per week than men.

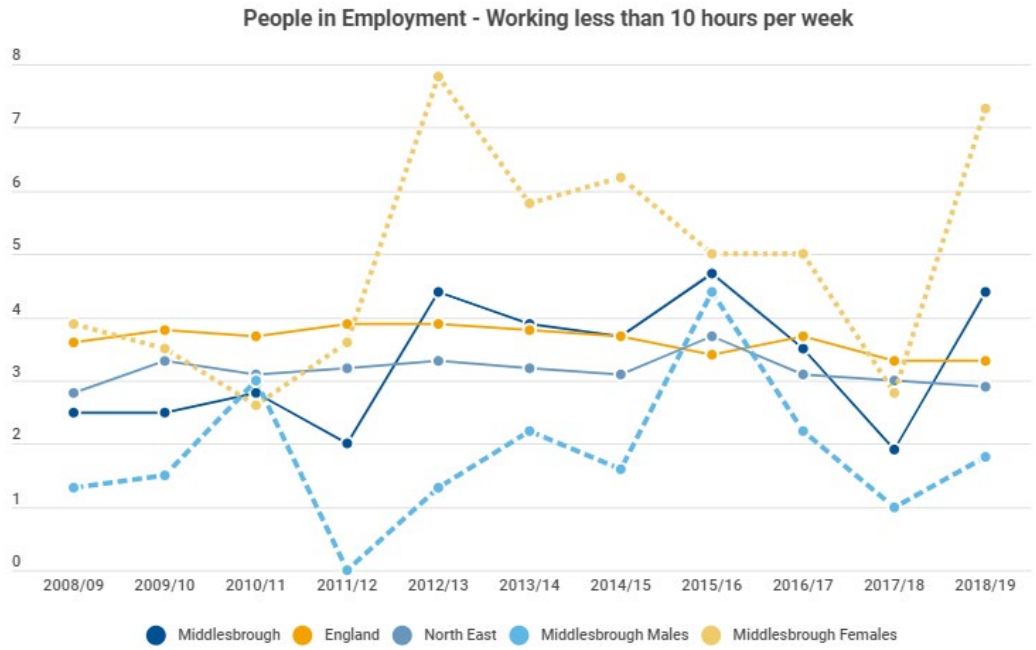


Figure 16: Period: 2008/09 to 2018/19 - Source: Office for National Statistics

46. Figure 17 shows the disparity in people working less than 10 hours by gender and location, and highlights that not only is a higher proportion of the workforce in Middlesbrough employed in these contracts but that it is significantly more likely for females than males.

Figure 17: Period: 2018/19 - Source: Office for National Statistics

47. Figure 18 shows the proportion of the resident workforce in Middlesbrough in the 2018/19 financial year, by their hours worked. This highlights that whilst the most significant proportion of the population in employment are working full-time hours or more, that there is also a significant proportion working part-time hours.

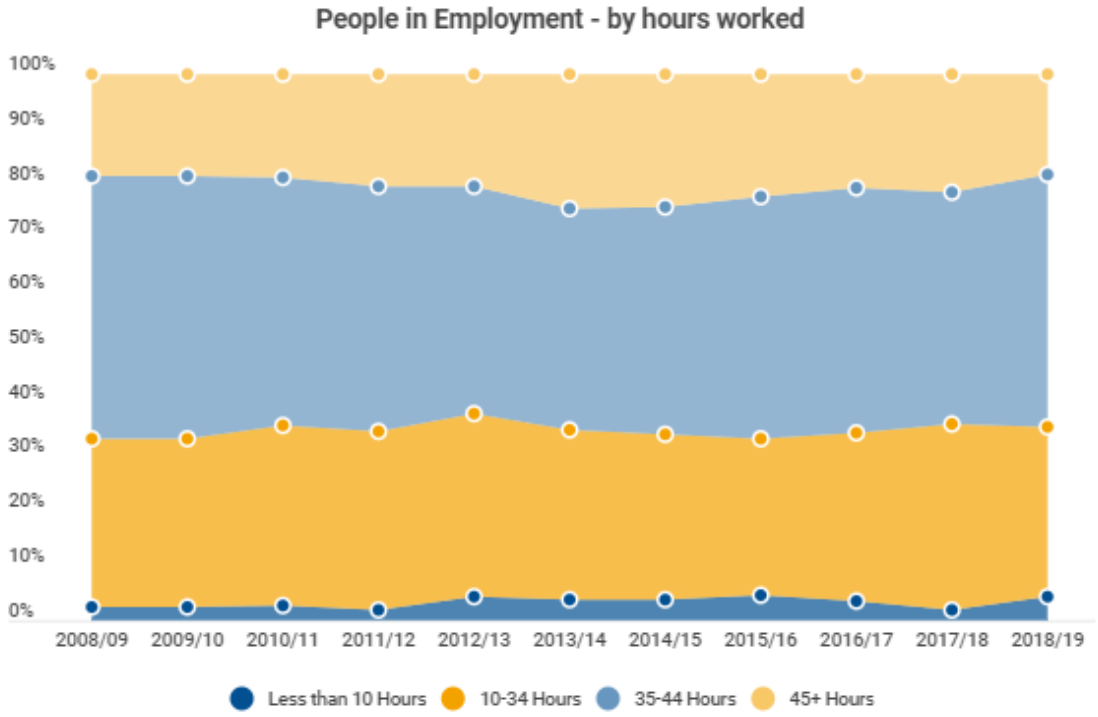


Figure 18: Period: 2008/09 to 2018/19 - Source: Office for National Statistics

48. In conclusion, the employment deprivation domain highlights that a significant number of the population in Central are either out of work, or on low incomes and therefore drawing on employment related benefits.

Education, Skills and Training Deprivation

49. The Education, Skills and Training Deprivation domain accounts for 13.5% of the overall ranking for the Indices of Multiple Deprivation, and is calculated by dividing the data into two sub-domains, one relating to Children and Young People and the other relating to Adult Skills. These sub-domains are designed to reflect the 'flow' and 'stock' of educational disadvantage within an area respectively, that is the 'children and young people' sub-domain measures the attainment of qualifications and associated measures, identifying *flow*; while the 'skills' subdomain measures the lack of qualifications in the working age resident population identifying *stock*. The indicators used for this measure are as follows:

Children and Young People

- Key Stage 2 attainment: The scaled score of pupils taking Mathematics, English reading and English grammar, punctuation and spelling Key Stage 2 exams
- Key Stage 4 attainment: The average capped points score of pupils taking Key Stage 4 (GCSE or equivalent) exams
- Secondary school absence: The proportion of authorised and unauthorised absences from secondary school
- Staying on in education post 16: The proportion of young people not staying on in school or non-advanced education above age 16[9]
- Entry to higher education: A measure of young people aged under 21 not entering higher education

Adult Skills

- Adult skills: The proportion of working-age adults with no or low qualifications, women aged 25 to 59 and men aged 25 to 64
- English language proficiency: The proportion of working-age adults who cannot speak English or cannot speak English well, women aged 25 to 59 and men aged 25 to 64

50. The neighbourhood rankings for the ward can be seen on the following table

Education, Skills and Training	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	2,536	696	1,840	▲
Southfield Rd to Park Road North	1,731	463	1,268	▲
Residential Victoria Rd/ Waterloo Rd	957	1,112	-155	▼
Breckon Hill Primary	3,709	2,282	1,427	▲
Riverside Park Road/Hill Street Centre	1,584	422	1,162	▲

51. All neighbourhoods in Central saw an increase in the rankings for Education, Skills and Training, with the exception of the residential area of Victoria Rd/Waterloo Rd; as the rankings remain low, the increases may be attributed to improvements in this ward or a

[9] Due to a law change in 13/14, requiring all under 18s to remain in education or an alternative work-based learning such as an apprenticeship, the score for the post-16 contribution to the IMD was retained in 2019 from the 2015 indicator.

further decline in education elsewhere. Only Breckon Hill Primary area lies outside the top 10% most deprived for Education, Skills and Training.

52. Despite having the third highest population of children aged 0-15 in Middlesbrough, there are only two primary schools within the boundaries of Central Ward: Abingdon Primary and Breckon Hill Primary, along with one further education college, Middlesbrough College. In the surrounding wards children have easy access to Newport Primary School and Ayresome Primary School in the Newport ward and North Ormesby Primary School and St Alphonsus' RC Primary in the North Ormesby ward. The latest Ofsted ratings for schools in this ward are rated "good" for most primary schools with North Ormesby Primary rated as "Outstanding" and Ayresome Primary rated as "Requires Improvement".

Local School Attainment

	2016		2017		2018		2019
Primary	Rate	Change	Rate	Change	Rate	Change	Rate
Abingdon Primary School	42.00%	↑	50.00%	↓	47.27%	↑	48%
Ayresome Primary School	22.00%	↑	31.00%	↑	38.16%	↑	44%
Breckon Hill Primary School	34.00%	↑	48.00%	↓	35.85%	↑	52%
Newport Primary School	35.00%	↓	34.00%	↑	41.94%	↓	21%
North Ormesby Primary Academy	37.00%	↑	40.00%	↑	56.52%	↑	61%
St Alphonsus' RC Primary School	46.00%	↑	80.00%	↓	45.83%	↓	43%
National	53.40%	↑	61.10%	↑	64.40%	↑	65%

53. Whilst these schools cater for pupils outside of the ward, they are predominantly local pupils and the attainment rates are indicative of the level of education for the children and young people of Central. All schools in and around the Central ward are not meeting the national average levels for attainment.

54. The 2011 Census shows that Central has a high proportion of residents with Level 1 (GCSE grades 1-3 or D-G)[10] or lower qualifications, however there is also a significant proportion of residents in the central ward with Level 3 or higher qualifications (e.g. AS/A-level qualifications). The number of residents with higher qualification can be attributed, in part, to the migration of university students from other locations, studying at Teesside University in the town centre. The breakdown of Educational Qualifications at Census 2011 can be seen in Figure 19.

[10] https://www.gov.uk/what-different-qualification-levels-mean/list-of-qualification-levels

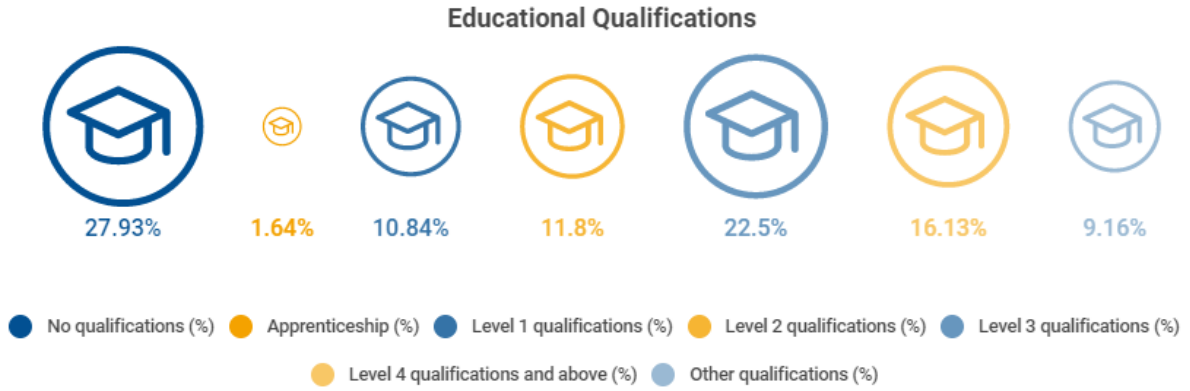


Figure 19: Period: 2011 - Source: Office for National Statistics – Census 2011

55. At Census 2011, the total working age population was 89,718 in Middlesbrough. Of this the most significant proportion had English as a first language, with a total of 83,856 (93.47%). 1,772 did not have English as a first language but spoke English Very Well (1.98%), 2,484 spoke English Well (2.77%), 1,422 could not speak English Well (1.58%) and the remaining 184 (0.21%) did not speak English.

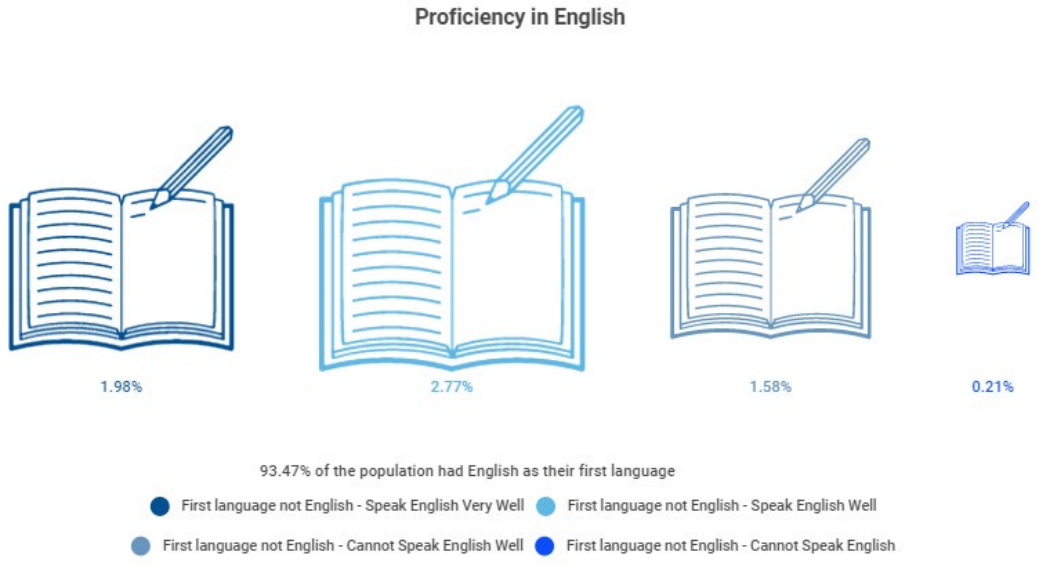


Figure 20: Period: 2011 – Source: Office for National Statistics Census 2011

56. In conclusion, the Employment, Skills and Training domain highlights that the children and young people resident in Central ward have lower attainment rates than expected, and that adults resident in the ward also have lower educational outcomes than comparators. This indicates that the children and young people in the ward may not aspire to gain a higher education than their parents or family members.

Health Deprivation and Disability

57. The Health Deprivation and Disability domain accounts for 13.5% of the overall ranking for the Indices of Multiple Deprivation and measures the risk of premature death and the impairment of quality of life through poor physical or mental health. The domain does this by measuring morbidity, disability and premature mortality but not aspects of behaviour or environment that may be predictive of future health deprivation. The indicators used for this measure are as follows:

- Years of potential life lost: An age and sex standardised measure of premature death
- Comparative illness and disability ratio: An age and sex standardised morbidity/disability ratio
- Acute morbidity: An age and sex standardised rate of emergency admission to hospital
- Mood and anxiety disorders: A composite based on the rate of adults suffering from mood and anxiety disorders, derived from hospital episodes data, prescribing data and suicide mortality data.

58. The neighbourhood ranking for this domain can be seen in the following table:

Health Deprivation and Disability	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	1,115	1,991	-876	
Southfield Rd to Park Road North	332	246	86	
Residential Victoria Rd/ Waterloo Rd	554	516	38	
Breckon Hill Primary	1,363	1,842	-479	
Riverside Park Road/Hill Street Centre	48	11	37	

59. All LSOAs in Central are ranked in the top 5% most deprived with regards to Health Deprivation and Disability. The LSOA of Riverside Park Road/ Hill Street Centre is the third most deprived in Middlesbrough.

60. Assuming that the average age of death is 75, the NHS calculates the years of potential life lost for people who have died without reaching this age, i.e. prematurely. In Central, 46% of recorded deaths since 2001 were premature, the average number of years of potential life lost for these residents is 9 years.

61. Figure 21 shows the average number of years of potential life lost per premature death in Central, between 2001 and 2018. Central has a consistently higher rate than that seen in the whole of Middlesbrough, with the highest difference being 5.9 years in 2013 and the lowest being 1.09 years in 2016.

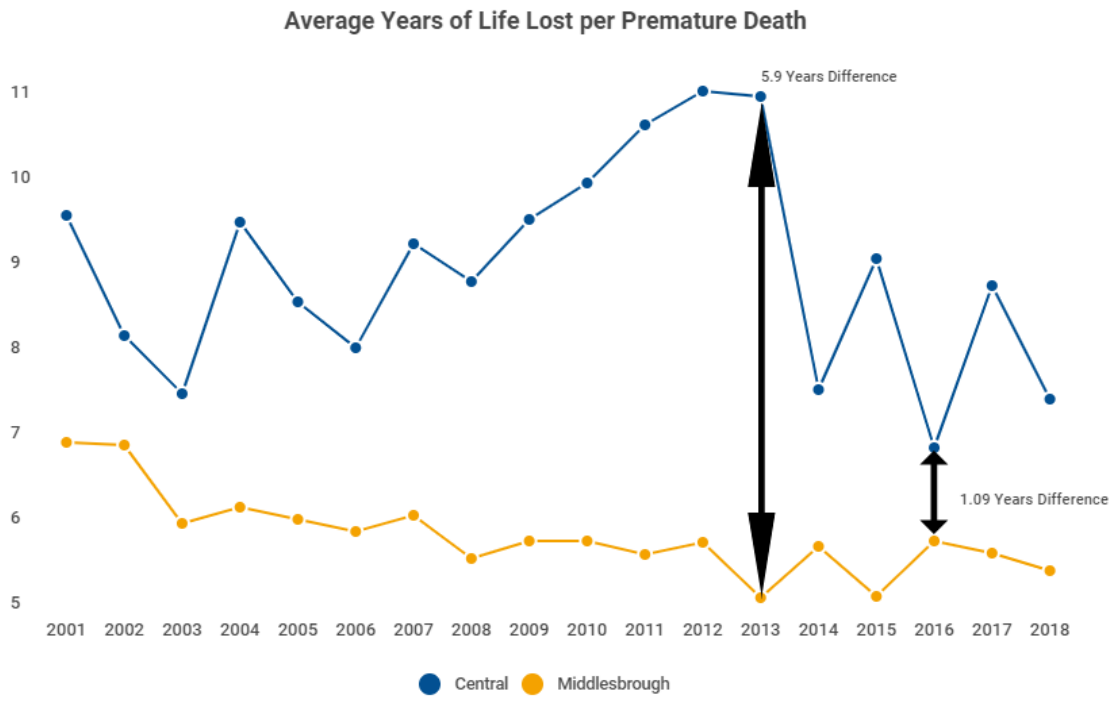


Figure 21: Period: 2001 to 2018 - Source: Public Health England

62. Whilst Life Expectancy is not a measure in the indices, it is a further important measure of possible deprivation within the ward. There are inequalities seen in Middlesbrough and across gender, with the life expectancy at birth for females in Central being 76.6 years and males being 71.4 years, both of which are lower than across the town with females at 79.8 years and males at 75.7 years. Middlesbrough, and Central ward have lower rates than seen in England, with a female life expectancy at birth rate of 83.1 years and males 79.5 years.

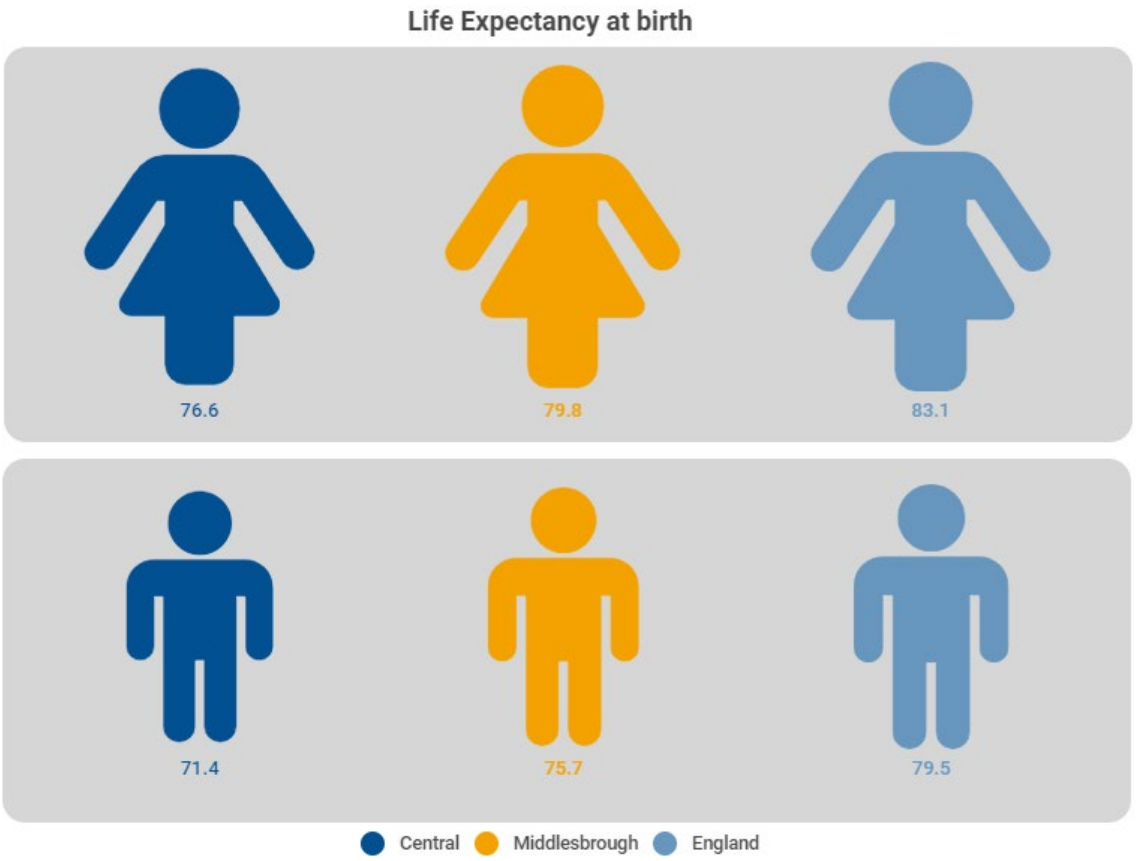


Figure 22: Period: 2015-17 - Source: PHE Fingertips - ONS

63. The comparative illness and disability ratio is an indicator of work limiting morbidity and disability, based on those receiving benefits due to inability to work through ill health. Benefits such as Employment Support Allowance (ESA), Income Benefit (IB), Severe Disability Allowance (SDA), Attendance Allowance (AA), Disability and Living Allowance (DLA) and Personal Independence Payment (PIP) are shown on the chart below. It is important to note that that PIP has now replaced DLA for all new applicants, therefore the rate of DLA has been reducing over time while PIP is rising. There is a significant rate of claimants in Central.

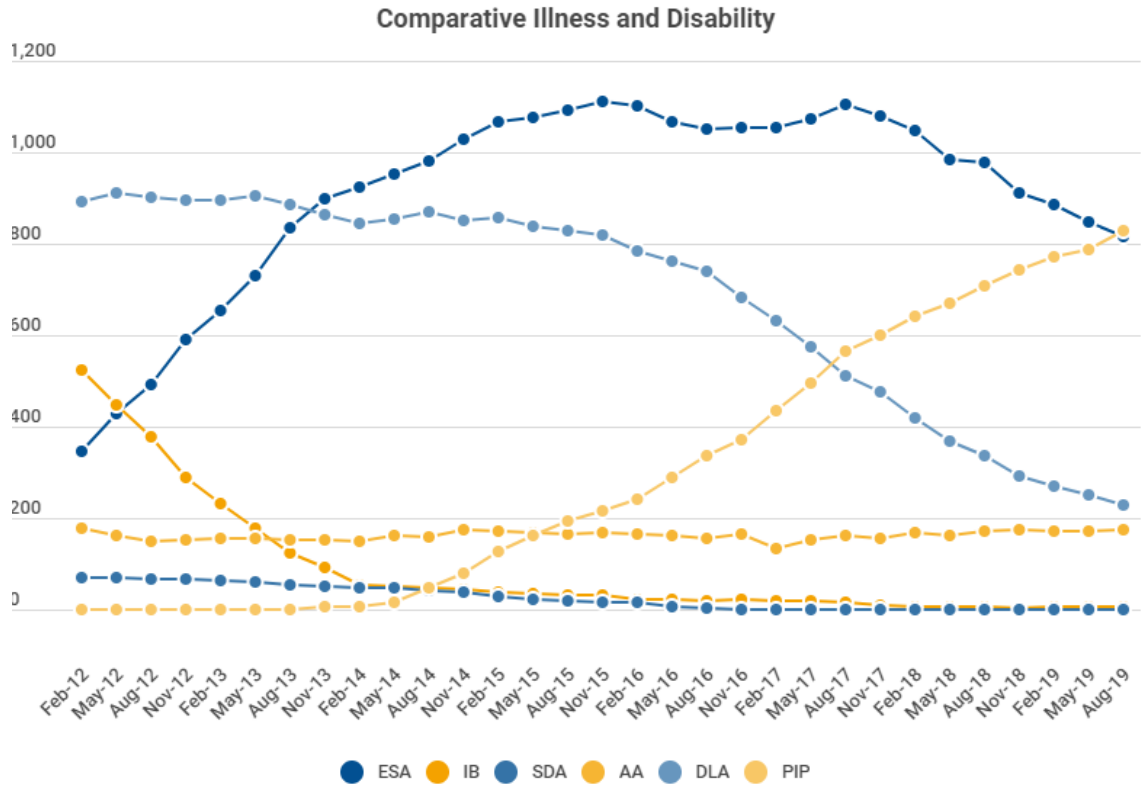


Figure 23: Period: Feb 2012 to Aug 2019 - Source: DWP

64. There is limited information for emergency admissions to hospital and whilst exact numbers are not available, the standardised admission ratios have been given at ward level. The standardised admission ratio for England is 100 for all areas, rates below 100 imply better health than nationally, whilst rates over 100 imply poorer health.

65. Figure 24 shows the ratios for the total population of Central ward and Middlesbrough for those that are available. Central ward has consistently higher ratios across all types of Emergency admissions than the overall Middlesbrough ratios for admissions for all causes, admissions for coronary heart disease, admissions for stroke, admission for myocardial infarction and admissions for Coronary Obstructive Pulmonary Disease.

66. When looking at admissions due to self-harm the ratios show a much higher prevalence in Central than the Middlesbrough ratios. This can be seen in Figure 25. Public Health England states that self-harm is an expression of personal distress and that there are varied reasons for people to carry out self-harm. This could be linked to deprivation in some cases.

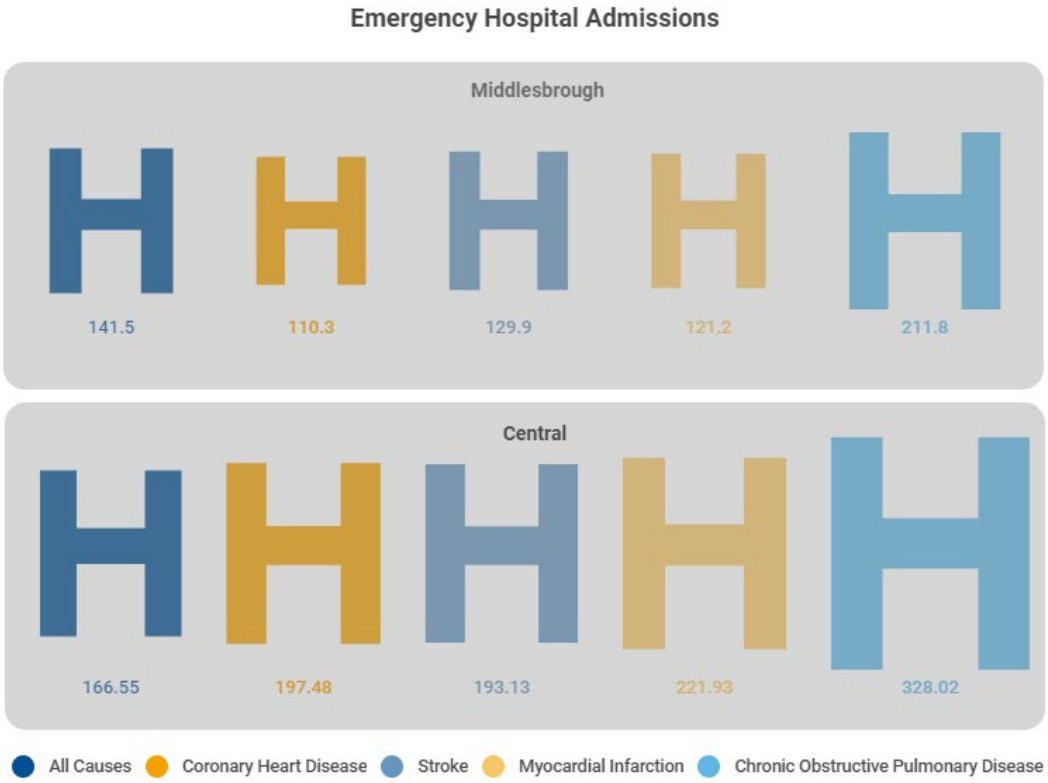


Figure 24: Period: 2013/14 to 2017/18 - Source: Public Health England

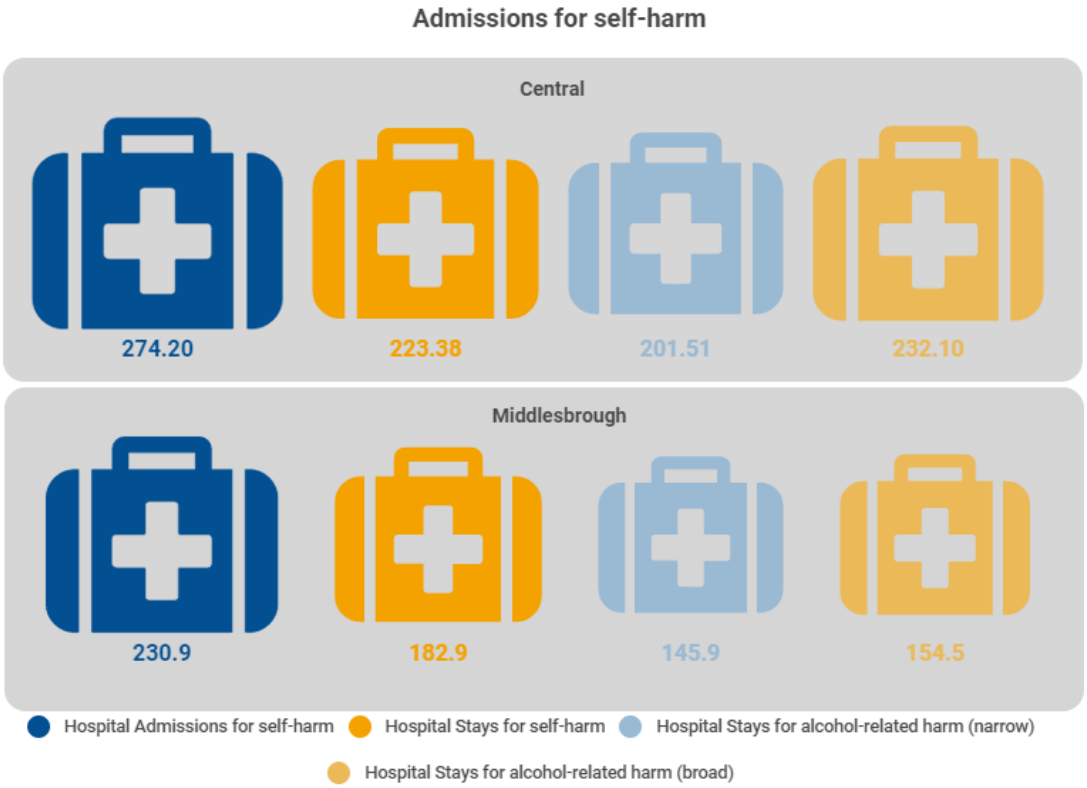


Figure 25: Period: 2010/11 to 2014/15 - Source: Hospital Episode Statistics

67. In conclusion, the measures in the Health Deprivation domain highlight that people resident in Central ward have a lower life expectancy than their town, and national counterparts and this is especially evident in males in the ward. They are also more likely to have an emergency hospital admission or self-harm.

Crime

68. The Crime domain accounts for 9.5% of the overall ranking for the Indices of Multiple Deprivation and is calculated using crime rates of certain types of crime that may be directly correlated with deprivation. Civitas.org.uk has published a report on Crime and Poverty[11], stating that not only are the poor more likely to commit crime to fund their lifestyle, but that the poor are also more likely to be a victim of crime. This theory can be traced as far back as Aristotle and this theory that *'Poverty is the parent of crime'*. The indicators used in this domain can be found below:

- Violence: The rate of violence per 1,000 at-risk population
- Burglary: The rate of burglary per 1,000 at-risk properties
- Theft: The rate of theft per 1,000 at-risk population
- Criminal Damage: The rate of criminal damage per 1,000 at-risk population.

69. The neighbourhood rankings for this domain can be seen in the table below:

Crime	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	1,070	579	491	^
Southfield Rd to Park Road North	1,294	522	772	^
Residential Victoria Rd/ Waterloo Rd	2,822	1,294	1,528	^
Breckon Hill Primary	3,344	5,218	-1,874	v
Riverside Park Road/Hill Street Centre	3,563	3,418	145	^

70. All but one of the neighbourhoods in Central saw an improvement in the ranking for the Crime domain of the IMD, with Breckon Hill Primary seeing a significant reduction in rank (consequently leading to a higher deprivation rate) of 1,874 places. All of the LSOAs in Central are within or near the top 10% most deprived LSOAs with regards to crime nationally.

71. Figure 26[12] shows that since May 2012 theft has been the most reported crime in the Central ward. The rate of reported violent crimes has more than doubled since May 2012 and has steadily increased to January 2020. With Central being covered by the new TS1 crime prevention initiative, it is hoped that these figures will show a decline going forward.

72. Due to the low numbers of sexual offences, this crime is grouped with violence to give an indication of the number of more serious crimes against a person.

[11] https://www.civitas.org.uk/content/files/povertyandcrime.pdf
[12] Due to confidentiality numbers under 5 have been reported as 5 within any references to crime rates

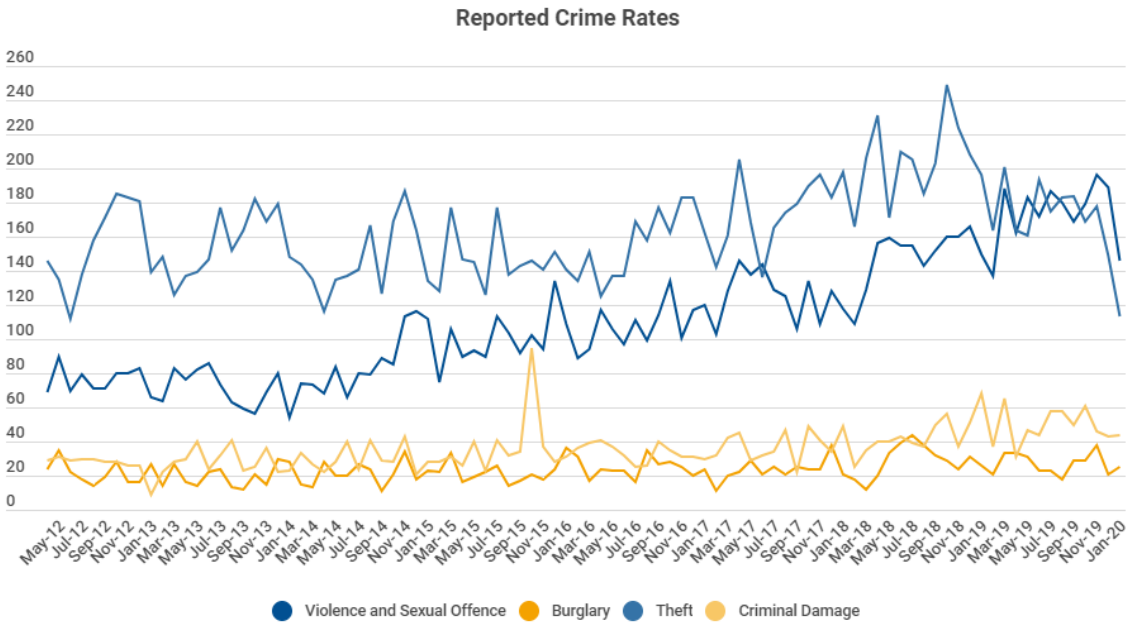


Figure 26: Period: May 2012 to Jan 2020 - Source: Cleveland Police

73. As with the previous chart, Figure 27 shows that there has been a consistent trend in the highest proportion of all crimes reported being 'theft' and 'Violence and Sexual Offence'. The data for this chart has been grouped into Quarters.

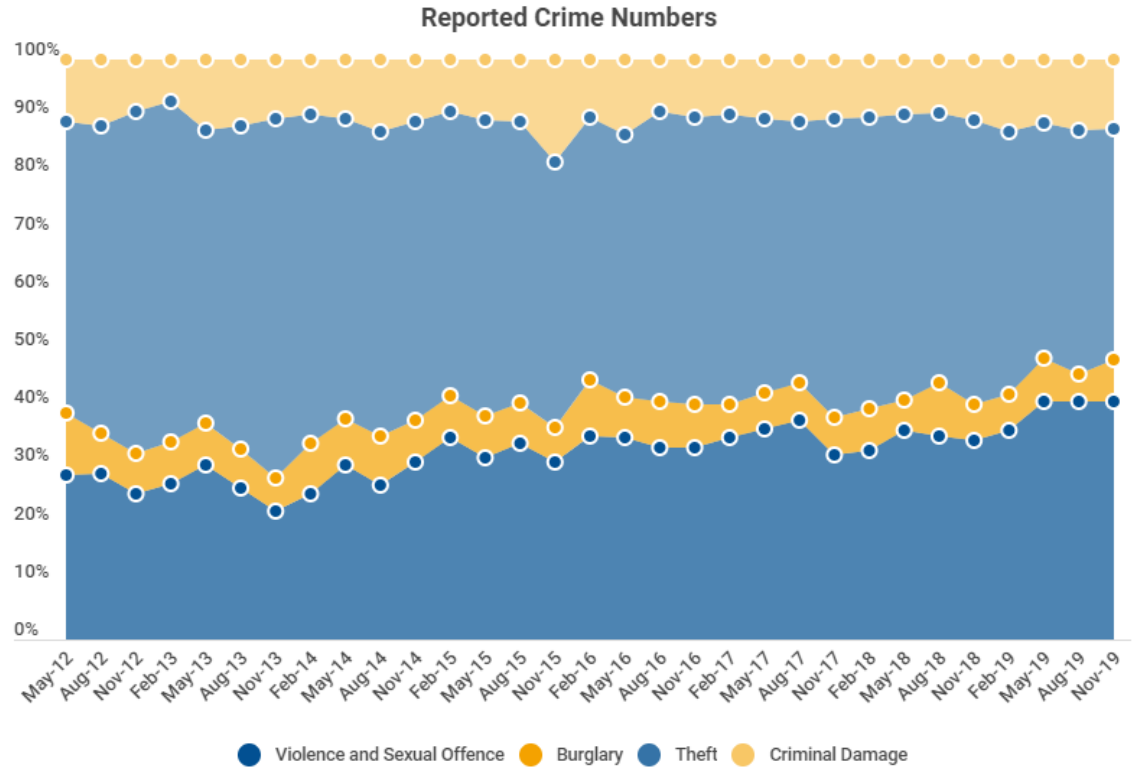


Figure 27: Period: May 2012 to Jan 2020 - Source: Cleveland Police

74. Racially motivated crime in the Central ward has tripled since 2012, with a continuously increasing trend (See figure 28). The Central ward is one of two wards in Middlesbrough with a significant number of racially motivated crimes. Numbers for the first six months of 2020 are on par with the first six months of 2019.

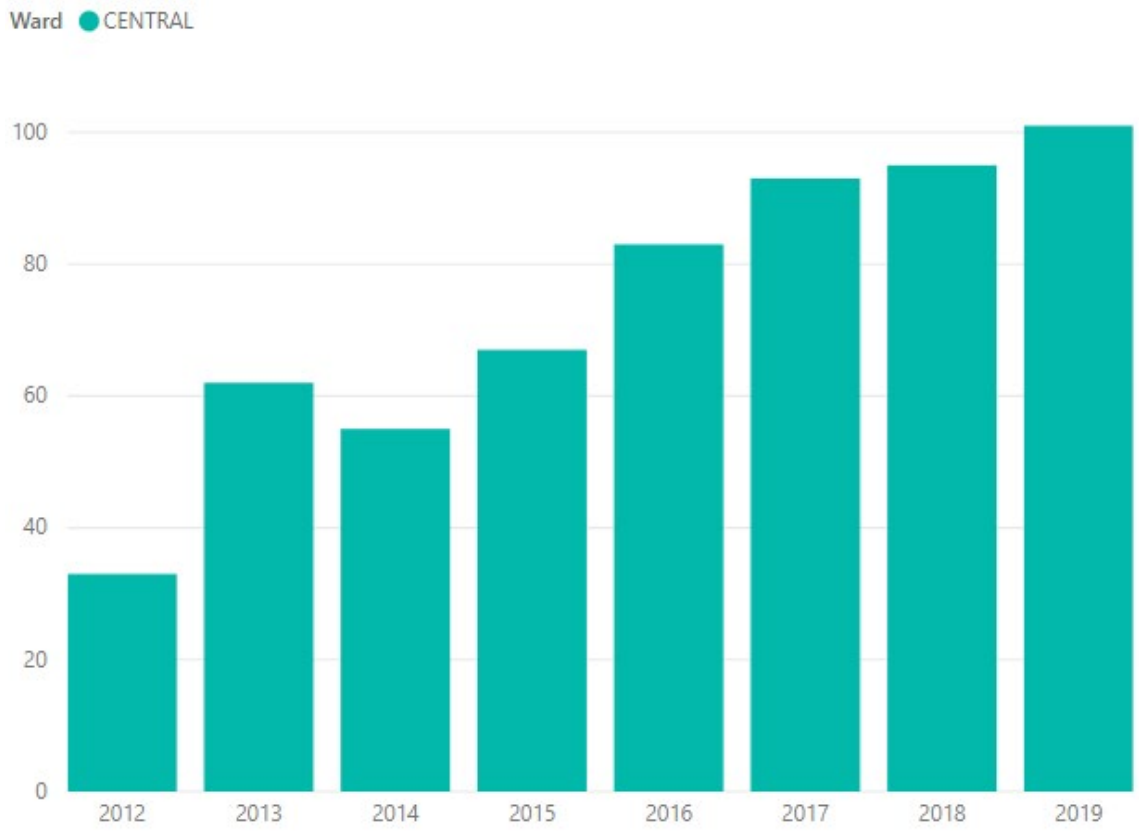


Figure 28: Period Apr 2012 to Dec 2019 - Source: Cleveland Police

75. During the period 1st February 2018 to 31st January 2020, Central ward had the highest rate of Anti-Social Behaviour (ASB), racially motivated crime and other crime in Middlesbrough. During this period there were 3,825 ASB reports, 192 racially motivated crimes, 428 fires and a total of 11,251 crime reports.

76. Data from Cleveland Police (See Figure 29) illustrates a downward trend in ASB from October 2019 to January 2020, bringing the ASB rate (blue line) well below the average of the two year period. The number of fires reported monthly during this period has remained stable (black line); whilst the overall crime rate for Central remains high (red line). Middlesbrough Council has an online reporting tool for residents to report different activities; Firmstep numbers (yellow line) are those where the activity can be deem as criminal but are not directly reported to the police (e.g. fly tipping).

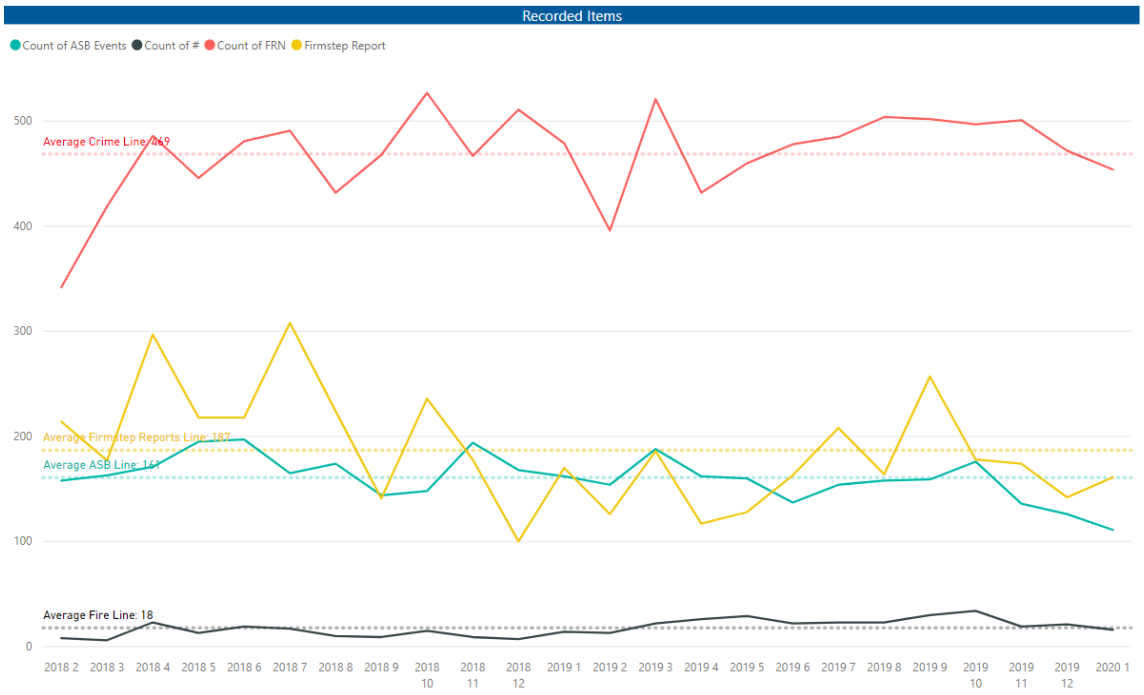


Figure 29: Period 1st February 2018 to 31st January 2020 - Source: Cleveland Police, Cleveland Fire and Middlesbrough Council

77. In Conclusion, violent crime rates in Central are steadily increasing and theft in the Central ward remains high. All of the LSOAs in Central are within or near the top 10% most deprived LSOAs with regards to crime nationally; with the LSOAs surrounding Teesside University lying in the top 5% most deprived LSOAs with regards to crime. Crime and anti-social behaviour in the Central ward remains high, and the number of racially motivated crimes in this ward is the highest in Middlesbrough.

Barriers to Housing and Services

78. The Barriers to Housing and Services domain accounts for 9.3% of the overall domain and is calculated using a range of indicators which fall into two sub-domains around 'Geographical Barriers' and 'Wider Barriers'. The indicators used to calculate this domain are listed below:

Geographical Barriers sub-domain

- Road distance to a post office: A measure of the mean road distance to the closest post office for people living in the Lower-layer Super Output Area
- Road distance to a primary school: A measure of the mean road distance to the closest primary school for people living in the Lower-layer Super Output Area
- Road distance to a general store or supermarket: A measure of the mean road distance to the closest supermarket or general store for people living in the Lower-layer Super Output Area
- Road distance to a GP surgery: A measure of the mean road distance to the closest GP surgery for people living in the Lower-layer Super Output Area.

Wider Barriers sub-domain

- Household overcrowding: The proportion of all households in a Lower-layer Super Output Area which are judged to have insufficient space to meet the household's needs
- Homelessness: Local Authority District level rate of acceptances for housing assistance under the homelessness provisions of the 1996 Housing Act, assigned to the constituent Lower-layer Super Output Areas
- Housing affordability: Difficulty of access to owner-occupation or the private rental market, expressed as the inability to afford to enter owner-occupation or the private rental market.

79. The neighbourhood rankings for this measure can be seen in the table below:

Barriers to Housing and Services	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	27,474	16,397	11,077	
Southfield Rd to Park Road North	27,409	9,707	17,702	
Residential Victoria Rd/ Waterloo Rd	24,150	12,857	11,293	
Breckon Hill Primary	25,207	17,639	7,568	
Riverside Park Road/Hill Street Centre	21,740	14,236	7,504	

80. All neighbourhoods in Central saw significant improvements in their ranking for the Barriers to Housing and Services domain of the IMD with Southfield Rd to Park Road North having a huge increase of 17,702 ranks from 9,707 to 27,409. This significant increase may be attributed the building of new affordable student accommodation in the area; the other demographics of the area have not changed significantly in recent years.

81. House prices in Central are amongst the lowest in Middlesbrough with a high proportion of rented properties[13].

82. In September 2019 the mean house price for all properties sold in Central was £66,891, this was almost half of the Middlesbrough rate and almost a fifth of the national average.

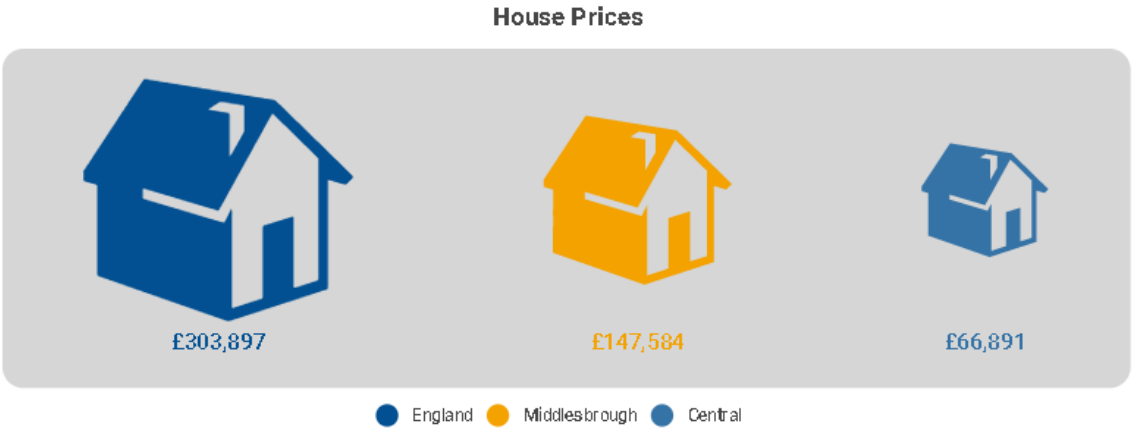


Figure 30: Period: September 2019 - Source: Office for National Statistics

83. Central has seen mean house prices, over the period between y/e September 1996 and y/e September 2019, more than double from the lowest price seen in 2001. The dip from 2008 follows the national housing market crash in 2008/2009 and since then the house prices have continued to decline.

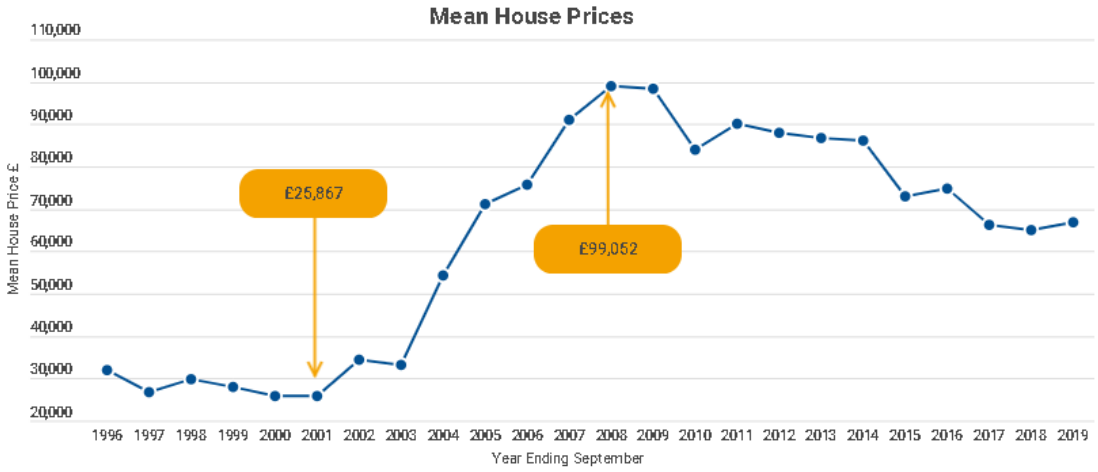


Figure 31: Period: 1996 to 2019 - Source: ONS

84. At Census 2011, the highest proportion of households were rented from private landlord or letting agency 35.86%, this was followed by 25.32% of households rented from other social landlords and the lowest proportion of households were in shared ownership. Figure 32 shows the breakdown of household tenure.

[13] 2011 Census data, taken from IG Inform

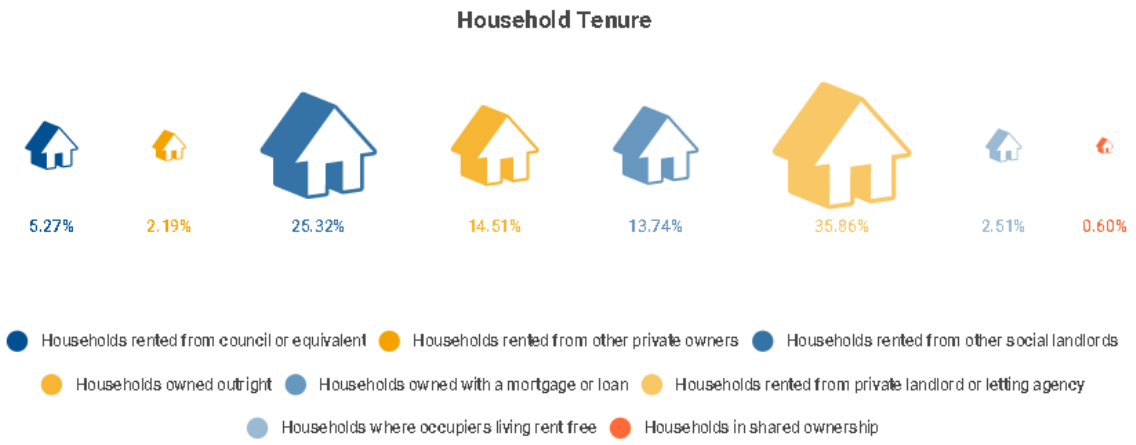


Figure 32: Period: 2011 - Source: Office for National Statistics

85. In September 2020, 6.80% of properties in the Central ward were empty and two-thirds of these had been empty for more than six months. Central had Middlesbrough's second highest outstanding council tax balance in September 2020, with over £600,000 due. In September 2019, 7.91% of properties were empty and over £400,000 council tax arrears were due; this can imply more residents are facing financial difficulties and are unable to pay their council tax bill.

86. In conclusion, the barriers to housing and services domain shows that people living in Central ward are well placed to access the variety of services and infrastructure detailed in the indices. House prices have reduced in the last 10 years and remain lower than those seen across the town and nationally. Less than one third of households are owned outright or with a mortgage.

Living Environment Deprivation

87. The Living Environment Deprivation domain accounts for 9.3% of the overall ranking for the Indices of Deprivation and is calculated using a range of indicators which fall into two sub-domains, *Indoors Sub-domain* and *Outdoors sub-domain*. The indicators used to calculate this domain are listed below:

Indoors sub-domain

- Houses without central heating: The proportion of houses that do not have central heating.
- Housing in poor condition: The proportion of social and private homes that fail to meet the Decent Homes standard.

Outdoors sub-domain

- Air quality: A measure of air quality based on emissions rates for four pollutants.
- Road traffic accidents involving injury to pedestrians and cyclists.

88. The neighbourhood rankings for this domain can be seen below:

Living Environment	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	6,037	4,060	1,977	^
Southfield Rd to Park Road North	11,973	10,327	1,646	^
Residential Victoria Rd/ Waterloo Rd	12,339	12,614	-275	v
Brecken Hill Primary	14,852	14,284	568	^
Riverside Park Road/Hill Street Centre	21,408	16,127	5,281	^

89. Whilst the majority of neighbourhoods in Central saw an increase in ranking at IMD 2019, Residential Victoria Rd/ Waterloo Rd saw a slight decrease in rank.

90. Houses without Central Heating was last measured in the Census 2011 and data was made available by LG Inform at ward level. Central had a rate of 3.0% of households without central heating, this was higher than the national rate of 2.7% and over one and a half times the overall Middlesbrough rate of 1.8%.

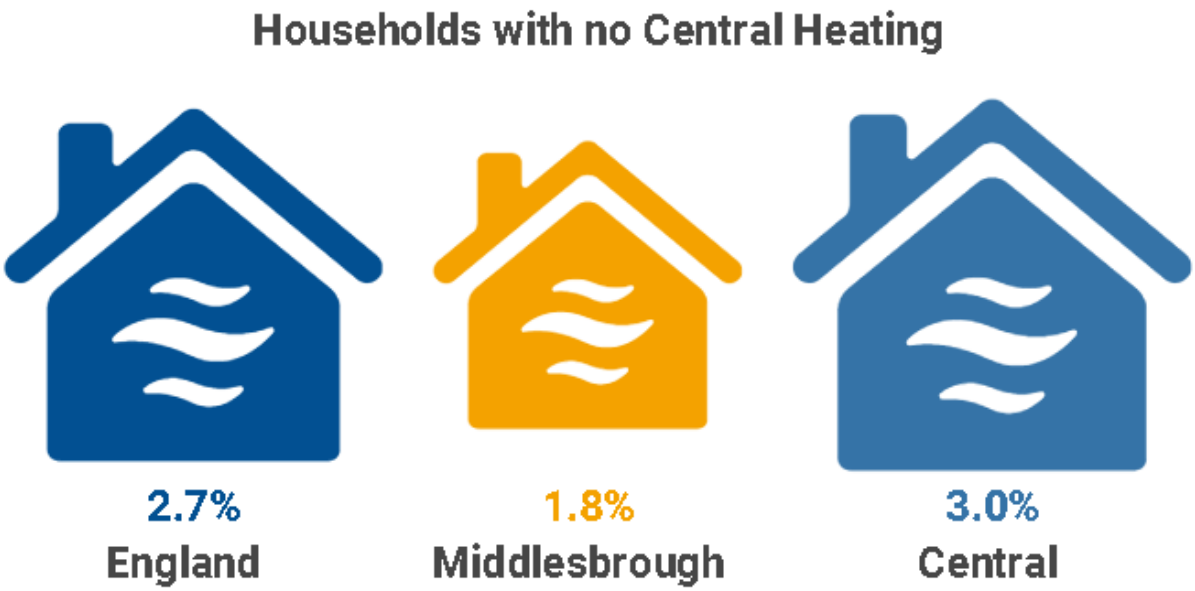


Figure 33: Period: 2011 - Source: Office for National Statistics - Census 2011

91. Poor housing conditions are associated with a wide range of health conditions, including respiratory infections, asthma, lead poisoning, injuries and mental health[14]. Ward level data is not available for housing in poor condition, however Shelter[15] have published a report *'People living in bad housing'*, which indicates that around three in ten people live in bad housing conditions. Using an internally derived weighting towards the more deprived areas of Middlesbrough, Figure 34 below shows the number of people in Central that may be living in poor housing stock.

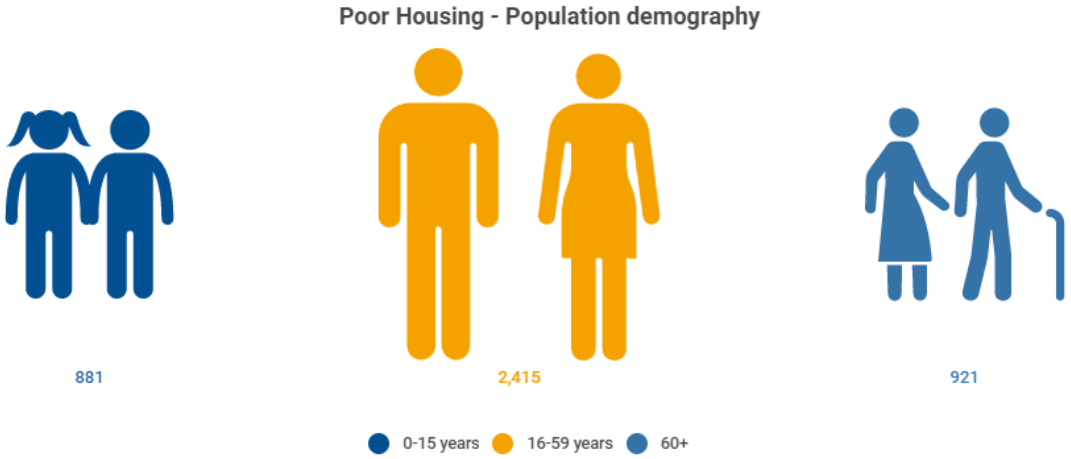


Figure 34: Period: 2018 - Source: Modelled Estimates using the Mid-Year Population Estimates

92. Air pollution is associated with a number of adverse health impacts and is recognised as contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society; children and older people

[14] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447157/

[15] https://england.shelter.org.uk/professional_resources/policy_and_research/policy_library/policy_library_folder/people_living_in_bad_housing_-_numbers_and_health_impacts

and those with pre-existing heart and respiratory conditions. There is also often a strong correlation with equality issues because areas with poor air quality are also often the less affluent areas.

93. The concentration of air pollution is measured in micrograms per cubic meter air or µg/m3. Middlesbrough has seen a significant reduction in this rate over the period from 1995 to 2017. Whilst this has been changeable with some increases, it has remained significantly lower than the target of 40 µg/m3.

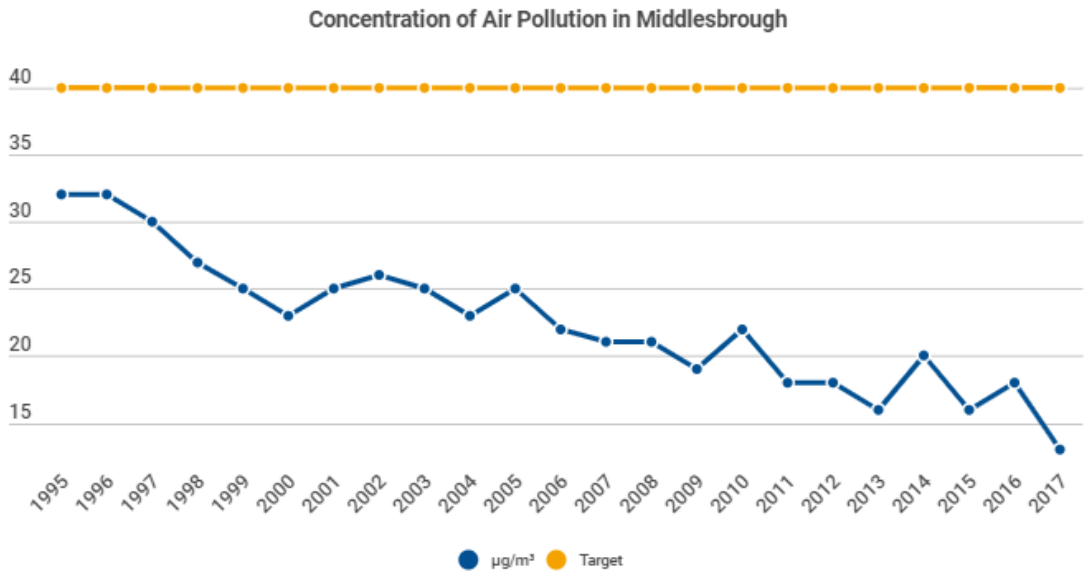


Figure 35: Period: 1995 to 2017 - Source: Middlesbrough Council Data

94. Across Middlesbrough there has been a consistent downward trend in the rate of Road Traffic Accidents of all severity, from 542 in 2000, to 220 in 2018.

Figure 36: Period: 2000 to 2018 - Source: Department for Transport

95. Whilst the overall rate of RTA's has reduced over time, the severity of those accidents has remained largely the same, with the highest proportion consistently being Slight, and a low rate of Serious ranging between 9% and 17%, whilst the rate of Fatal has remained consistently the lowest severity, between 0% and 1.7%.

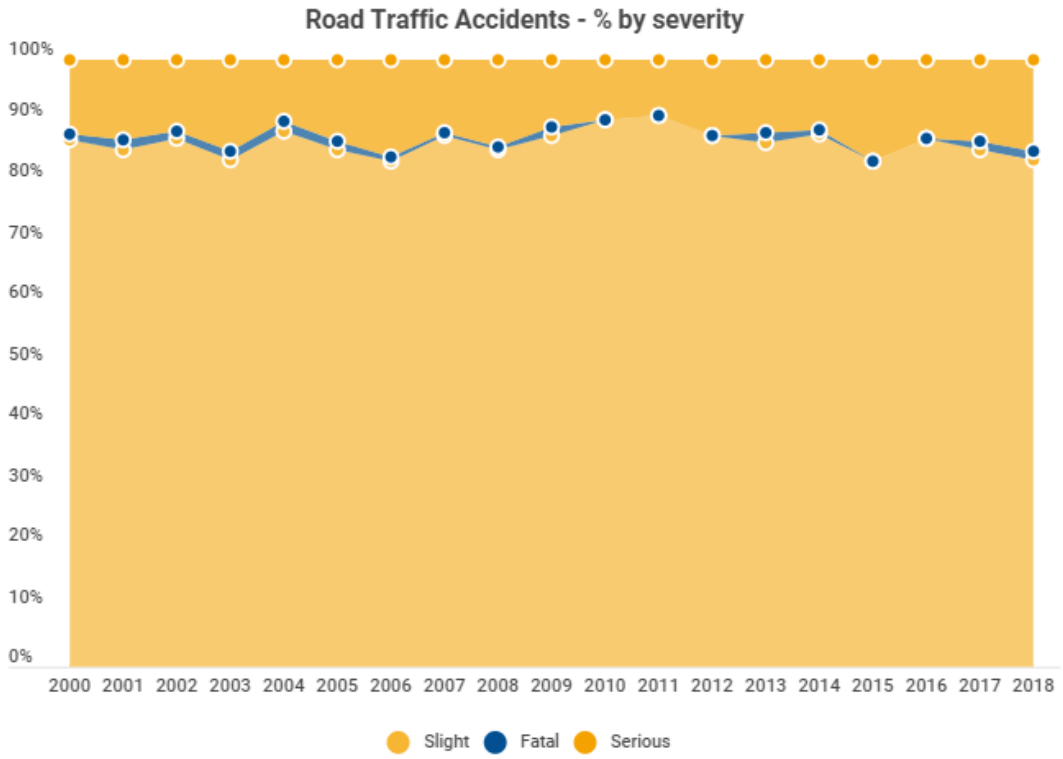


Figure 37: Period: 2000 to 2018 - Source: Department for Transport

96. In conclusion, the living environment domain indicates that people in Central are able to access affordable housing (Barriers to Housing and Services) and the quality of this housing stock is of lower quality to houses in other parts of Middlesbrough and nationally.

Income Deprivation Affecting Children Index (IDACI)

97. The Income Deprivation Affecting Children Index measures the proportion of all children aged 0-15 living in income deprived families. Family is used here to indicate a 'benefit unit', that is the claimant, any partner and any dependent children for whom Child Benefit is received. This is a sub-set of the Income Deprivation domain.

98. Middlesbrough had the worst rate of IDACI nationally, a decline from second worst at IMD 2015.

99. Central has the seventh worst rank of IDACI in Middlesbrough and 124th nationally.

Income Deprivation Affecting Children	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	2,346	2,212	134	^
Southfield Rd to Park Road North	1,036	472	564	^
Residential Victoria Rd/ Waterloo Rd	3,529	736	2,793	^
Breckon Hill Primary	5,065	4,910	155	^
Riverside Park Road/Hill Street Centre	754	774	-20	v

100. Five of the six neighbourhoods in Central saw an improvement in rank at IMD 2019, with only Riverside Park Road/ Hill Street Centre (-20) seeing a slight reduction. The residential area of Victoria Rd/Waterloo Rd has seen a significant improvement of 2,793 ranks, which takes it just outside the top 10% most deprived LSOAs for IDACI.

101. Figure 38 shows the number of children affected by income deprivation in each neighbourhood in the ward.

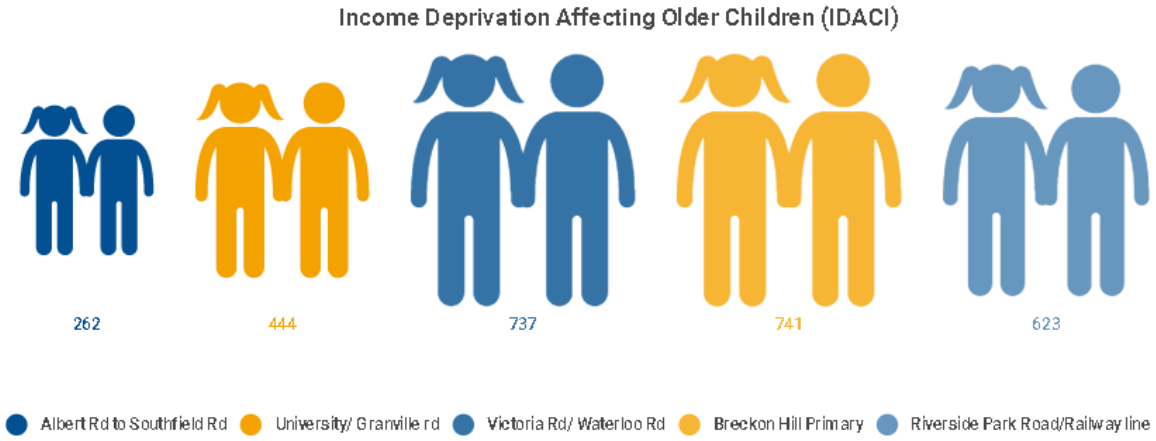


Figure 38: Period: 2018 - Source: Modelled Estimates using the Mid-Year Population Estimates

102. Children's Services data has a trend of a higher number of cases in the more deprived areas in Middlesbrough. In June 2020, Middlesbrough's Children's Services recorded 6.72% of all early help cases, 8.00% of all Children in need cases, 8.91% of all child

protection cases and 8.83% of all children looked after cases for children whose home postcode is in the Central ward. Although this is a significant proportion of Middlesbrough's Children's Services cases, in the region of 10% of Central's children are known to Social Care.

103. In conclusion, the IMD 2019 highlights that nearly half of the children resident in Central are living in the most deprived 10% of the neighbourhoods in England. Central has a significant number of Middlesbrough's Children's services cases.

Income Deprivation Affecting Older People Index (IDAOPI)

104. The Income Deprivation Affecting Older People Index measures the proportion of all those aged 60 years and over who experience income deprivation. This is a sub-set of the Income Deprivation Domain.

105. Middlesbrough had the 22nd highest rank of IDAOPI in England in 2019, which remains the same as 2015.

106. Central has the worst rank for IDAOPI in Middlesbrough, with all neighbourhoods being in the top 5% most deprived LSOAs in England. Whilst three LSOAs have increased in rank since IMD 2015, their ranks in IMD 2019 are still low.

Income Deprivation Affecting Older People	2019	2015	Movement	
Albert Rd/ Town Hall to Southfield Rd	492	948	-456	
Southfield Rd to Park Road North	1,068	2,028	-960	
Residential Victoria Rd/ Waterloo Rd	234	129	105	
Breckon Hill Primary	1,418	698	720	
Riverside Park Road/Hill Street Centre	127	96	31	

107. Figure 39 shows the number of the population affected by the rates of IDAOPI in the ward.

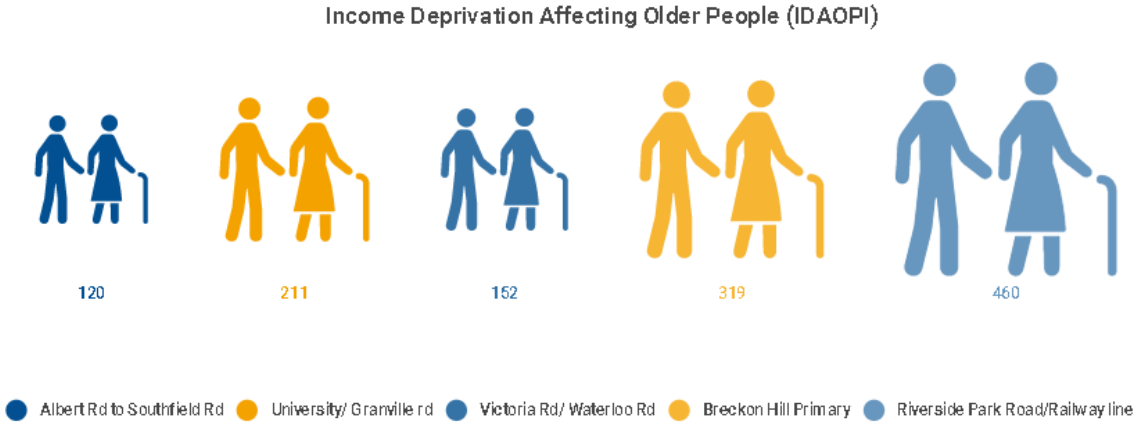


Figure 39: Period: 2018 - Source: Modelled Estimates using the Mid-Year Population Estimates

108. In conclusion, the Income Deprivation Affecting Older people highlights that Central is a deprived area for older people to be resident in, the quality of life for these people is lower than the other of areas in Middlesbrough and England.

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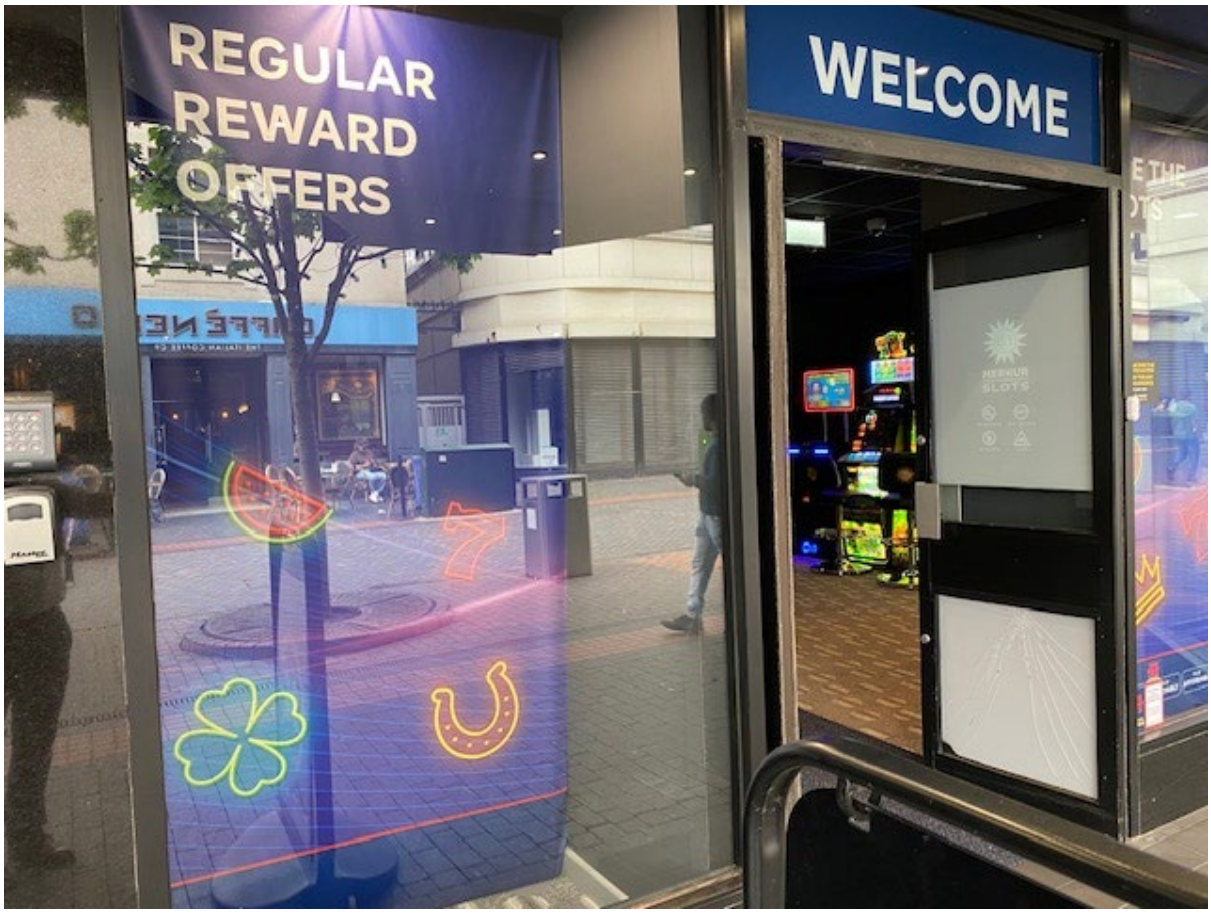
Merkur, (Bingo), 58 Linthorpe Road, TS1 1RA



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Dune Amusements, (AGC), 97 Linthorpe Road, TS1 5DD

Middlesbrough
moving forward

Address:	Created By:	Scale:	Title:
Middlesbrough Council Fountain Court 119 Grange Road Middlesbrough TS1 2DT	MIA031	1:1,750	Gambling and Alcohol Premises

Department
for Culture,
Media & Sport

High Stakes: Gambling Reform for the Digital Age

April 2023

CP 835

Chapter 6: **Land-based gambling**

Summary

- The 2005 Act sets out a range of restrictions based on the assumption that restrictions on supply (for example, casino numbers and gaming machine availability) were an important protection. However, in the light of developments in technology and the availability of online gambling, the characteristics of the product and quality of monitoring have now assumed greater importance.
- This chapter sets out a number of areas where we propose to reset regulation for land-based gambling, while maintaining or strengthening safeguards that are needed to protect vulnerable groups and communities from gambling harm.

Casinos

- We have looked at the experience of the licences created under the 2005 Act and intend to extend some of their rules to the wider casino estate.
- We propose to increase machine allowances in casinos by:
  - allowing 1968 Act casinos which meet the size and non-gambling space requirements of a 2005 Act Small casino to be entitled to the same 80 maximum machine allowance, with the machine to table ratio being equalised at 5:1 for Large and Small 2005 Act and larger 1968 Act casinos,
  - allowing smaller 1968 Act casinos which do not meet the size requirements to benefit from extra machines on a pro rata basis commensurate with their size and non-gambling space, and subject to the same machine to table ratios.
- We will consult further on the details of how casinos will be able to opt to choose this allowance and ratio over their current entitlement, with fees and mandatory licence conditions in line with 2005 Act casinos.
- We propose to permit casinos to offer sports betting alongside other activities and will take steps to free up unused 2005 Act casino licences where there is no prospect of development for reallocation to other local authorities.
- With banks withdrawing facilities for processing foreign cheques, we will make a limited change to the Gambling Act which will permit casinos to offer credit to non-UK residents, subject to thorough financial risk and anti-money laundering checks. Current use of cheques is often for wealthy overseas visitors in the high-end sector.

- We will consider further the potential for allowing a wider range of games on electronic terminals at casinos, subject to appropriate restrictions.

Electronic payments

- We recognise that substantial changes are happening to how payments are being made in society. We will work with the Gambling Commission to develop specific consultation options for cashless payments, including the player protections that would be required before we remove the prohibition.

Gaming machines and products in licensed bingo premises

- The Gambling Commission will conduct a review of gaming machine technical standards to assess the role of session limits across Category B and C machines and the role of safer gambling tools.
- We propose to adjust the 80/20 ratio which governs the balance of Category B and C/D machines in bingo and arcade venues to 50/50, to ensure that businesses can offer customer choice and flexibility while maintaining a balanced offer of gambling products.
- We support allowing specific proposals for new machine games to be tested within planned industry pilots under certain conditions with the close involvement of the Gambling Commission, and will legislate when Parliamentary time allows.
- We support allowing trials of linked gaming machines in venues other than casinos, where prizes could accrue from machines linked in a community. We will legislate when Parliamentary time allows.
- We will look further at the legislative options and conditions under which licensed bingo premises might be permitted to offer side-bets in a more flexible or expanded form within a defined set of parameters with rules to reduce the risk of harm.

Licensing authority powers

- Licensing authorities have a wide range of powers under the 2005 Act to refuse or place conditions on applications for gambling premises licences where there is cause for concern, and we fully support use of these powers.
- We will also bring the licensing regime into line with that for alcohol by legislating to introduce a formal system of cumulative impact assessments (CIAs), when Parliamentary time allows.
- We will consult on raising the cap for the fees licensing authorities can charge adult gaming centres, betting premises, bingo premises, casinos and family entertainment centres for premises licences.

Our conclusions

158. **The government fully supports licensing authorities in their role as co-regulators of the 2005 Act and appreciates the local expertise that they have which guides their regulation of gambling in their communities.** As set out in detail in section 6.1, licensing authorities have a wide range of existing powers in regards to both gambling premises licensing and planning applications. Through developing their policy statements, licensing authorities are able to set out their ambitions for gambling in their area, and this in turn informs how they assess and decide applications for new gambling premises. It is important that local leaders feel empowered to make use of their existing powers when making decisions about their areas. We will look to take forward legislation when time allows to bring the regime for gambling licensing more in line with that of alcohol licensing.

159. **The government is also clear that the 'aim to permit' requirement in section 153 of the 2005 Act does not prevent the refusal of licences or the introduction of controls as necessary or desirable to minimise risk.** This requirement is also subject to guidance issued by the Commission, the policy statement produced by the licensing authority and the three licensing objectives. Licensing authorities also have the power to attach licence conditions and remove premises licences if required.

160. We also recognise that licensing authorities, as well as the Local Government Association and the Gambling Commission, have requested that CIAs are introduced. Whilst existing powers, particularly local policy statements, do allow licensing authorities to take into account factors such as public health and crime, we recognise that licensing authorities would benefit from the introduction of CIAs, in part because they are familiar with them from alcohol licensing, and in part because it explicitly allows them to consider the cumulative impact of gambling premises in a particular area. **We accept there is merit in bringing the regime for gambling in line with alcohol and will legislate to introduce CIAs when Parliamentary time allows.**

161. CIAs will complement existing powers by supporting licensing authorities to capture and regularly review a wide range of evidence, such as density of premises in a particular area, health and crime statistics, and residents' questionnaires. Once published, CIAs place some of the ongoing analytical burden on the applicant, as the operator has the option to demonstrate that its proposals will not increase harm in a particular area. This should be more bespoke than a risk assessment and centre on particular details identified by the CIA. CIAs could allow licensing authorities to put a presumption against new premises in a particular area, based on evidence related to harm, which may take the form of 'high impact zones' being identified within a licensing authority boundary. This does not prevent the authority from granting a

licence, or allow them to issue a blanket refusal to applications, but a CIA does encourage the gathering of more evidence for assessing applications and requires the operator to evidence how it will mitigate risk.

162. We envisage that CIAs will be introduced using the same approach as applied in the Licensing Act 2003, for alcohol licensing. This would require introducing CIAs as an additional requirement of section 349 policy statements, and therefore as an additional consideration under section 153 and 'aim to permit'. Licensing authorities will still need to assess applications on a case by case basis. The findings of a CIA would not remove a licensing authority's discretion to grant applications for new licences or applications to vary existing licences, where the authority considers this to be appropriate in the light of the individual circumstances of the case. It is important to note that the approach used for gambling will inevitably differ to the approach used for alcohol, not least because of the difference between the licensing objectives for alcohol and for gambling.

163. The introduction of CIAs will require primary legislation and in advance of their introduction, we strongly encourage licensing authorities to make full use of their existing powers. **We recommend that licensing authorities update their policy statements using a wide range of data and analysis, including making use of spatial tools and public health data to identify vulnerable areas and to state their position on additional gambling premises in these areas.**

164. **We also recommend that licensing authorities make more use of their powers to attach conditions to premises licences, such as opening hours and security measures.** We propose that this activity will be supported by an increase in funding, as outlined in our conclusions below. Licensing authorities should also continue to use the Commission's Guidance to Licensing Authorities which it keeps under review, as well as the regular bulletins that it sends.

165. When Parliamentary time allows, we will also make some small changes to the 2005 Act to ensure that certain powers apply to authorities and/or licensing officers in Scotland as they do in England and Wales. These are primarily technical changes and we will continue to work on the details of these amendments ahead of the introduction of any legislation.

Report of **Professor Heather Wardle, University of Glasgow**

Specialist field: **Gambling research, policy and practice**

Subject matter: Expert report on the proposal to **relocate a converted casino licence to 22 Newport Road**

Date: **03.07.2023**

Contents

1. Introduction

1.1. My details

My name is Professor Heather Wardle

My specialist field is gambling research and policy. I have worked in this field since 2006 and was Project Director of the British Gambling Prevalence Survey Series in 2007 and 2010. This study provided official statistics on the extent and nature of gambling harms in Great Britain. I have led numerous research studies into the impact of gambling upon populations, including the Machines Research Programme in 2014-2016 and a package of work assessing and understanding area vulnerability to gambling harms, funded by Westminster and Manchester Councils and the Local Government Association (2015-2016). I am currently a Professor of Gambling Research and Policy at the University of Glasgow and an Honorary Associate Professor at the London School of Hygiene and Tropical Medicine. For five years (2015-2020), I was Deputy Chair of the Advisory Board for Safer Gambling, responsible for providing independent advice to the Gambling Commission (the industry regulator) and government on gambling policy. I am a member of the WHO panel on gambling and am currently chairing the Lancet Public Health Commission on Gambling, which seeks to develop recommendations about how best to protect the public from gambling harms. I currently lead projects on gambling with independent funding from Wellcome Trust, Economic and Social Research Council and the National Institute for Health Research.

Full details of my qualifications and experience entitling me to give expert opinion evidence are in Appendix D.

1.2. Summary background of the case

The case concerns an application to relocate a converted casino licence to operate for 24 hours per day at 22 Newport Road Middlesbrough. The casino licence is being moved from an out of town location as part of a two stage process to operate a casino licence in the town centre, located adjacent to an existing AGC.

The licence request is not for a traditional casino configuration, which would normally have a mixed economy of table games staffed by croupiers, associated Category B1 electronic gaming machines, and food and alcohol/drink entertainment spaces. Instead, the licence is sought for the premises to house 20 electronic roulette terminals in lieu of table games staffed by croupiers, with the associated number of Category B1 machines and for food and alcohol/drink to be supplied in the venue.

I have been instructed by Middlesbrough Council to consider the likely impact, if any, of the proposal on the third licensing objective, namely, protecting children and vulnerable persons from being harmed or exploited by gambling.

Summary of my conclusions

This report will show that, in my professional opinion, a casino premise licence in this location should not be granted. This is because of the increased risk of the local population of gambling harms, the known relationship between increased availability of gambling and experience of gambling harms, and the greater risk of gambling harms from electronic gaming machines.

1.3. Technical terms and explanations

I have indicated any technical terms in bold type. I have defined these terms when first used and included them in a glossary in Appendix C.

2. The issues to be addressed and a statement of instructions

I am instructed by Middlesbrough Council in respect to a licensing hearing for the submission of a converted casino premise licence application made by Double Diamond Ltd situated at 22 Newport Road, TS1 5AE.

I have been asked by Middlesbrough Council to provide a report and to give evidence in the above mentioned proceedings. They have asked that I give an opinion upon whether the grant of a casino licence in the above mentioned location entails the risk of unacceptable gambling-related harms.

For the purposes of preparing this report I have been provided with a copy of the Local Area Risk Assessment and other documentation submitted by Double Diamond Ltd. I have also been provided with representations by the licensing authority and public health.

2.1. The purpose of the report

The purpose of this report, as instructed by Middlesbrough Council, is to explain the range of gambling-related harms, the prevalence among users of electronic gaming machines (including electronic roulette), consider the association between gambling availability, machine density and harms and outline the importance of the locational context. With this in mind I am to explain the risks, if any, in this case.

Note that this report focuses on electronic gaming machines because the non-standard use to which the casino licence will be put essentially involves the premise housing forty electronic gaming machines (20 of which will be electronic roulette; 20 will be B1 slot machines). Both are forms of electronic gaming machine, though I acknowledge that electronic roulette terminals are not categorised as such by the relevant legislation. Nonetheless, these types of electronic roulette terminals have the closest parallel to machines formerly known as Fixed Odd Betting Terminals (B2 machines) located within bookmakers.

To do this, I will:

1) give an overview of the evidence relating to **electronic gaming machines** and risk of harms and its relevance for this case;

2) summarise evidence and issues relating to specific area vulnerabilities to gambling harm and its relevance for this case. This will have particular focus on young people;
3) provide an overview of the evidence around the relationship between expanding gambling provision and risk of gambling harms
4) provide an overview of key critical difference between standard casino premises operations and non-standard use, where only electronic forms of gambling will be available within the premise.

3. My investigation of the facts

This case revolves around the application to open a new casino at 22 Newport Road. The proposed location is situated directly adjacent to an existing **Adult Gaming Centre**, which is operated by Luxury Leisure and the same company is proposing ultimately to operate the casino. The licence application includes the provision for the casino to operate for 24 hours per day. Unlike standard casinos, which include a mixed economy of gambling provision of table games staffed by croupiers, electronic gambling machines and food and beverage entertainment spaces, this application will provide: 20 **electronic roulette terminals (ERT)** and 20 B1 gaming machines, with alcohol and food available onsite.

Category B1 gaming machines

Regulation of **electronic gaming machines** in Britain is conducted via a regulatory pyramid approach, whereby machines with the greatest capacity for harms (because of their higher speed, higher staking sizes and/or game focus) are limited to venues where there are the greatest regulatory controls surrounding access, availability and supervision. B1 machines are designated the highest risk form of electronic gambling machines currently available within Britain and their availability is limited to casino premises only (see Appendix A). The stake limit is £5 per spin, with a maximum prize of up to £20,000. By way of comparison, apart from in casinos, the highest stake permitted in any UK premises on machines is £2, with a maximum prize of £500.

According to the Gambling Commission, there were 3142 B1 machines housed in casinos in Britain in 2021/22. In that year, people lost £180.6 million on B1 machines within casinos. The average loss per B1 machine is £57,482. The current application contains provision for 20 B1 machines, meaning that, on average, people will likely lose £1,149,586 per annum on these twenty machines. The minimum game cycle on a Category B1 machine is 2.5 seconds.

Electronic roulette terminals

ERTs are technically not regulated as gaming machines under the terms of the Gambling Act 2005. Instead, they are considered “live gaming”, meaning that people can place bets on roulette games without being present at the actual table. This technical definition means that bets placed on these machines are not subject to the same staking restrictions as virtual electronic roulette games played on B2 machines (their nearest electronic equivalent). With regard to speed, up to 50 games per hour can be played on an ERT, meaning the average spin cycle between games is one minute and 12 seconds.

Whilst, as I say, these terminals are not officially categorised as gaming machines, they are functionally very similar to them, giving electronic access to casino games like roulette, cards and

dice games. Unlike other forms of electronic gambling machines, ERTs do not have regulatory restrictions over stake size and prize levels. The nearest parallel to ERTs are the virtual casino and roulette games provided on B2 machines in bookmakers. Formerly known as **Fixed Odd Betting Terminals,** these used virtual presentations of roulette (rather than live streams) for people to bet on. Whilst spin cycles on B2 machines were limited to one game every 20 seconds, as originally permitted under the Gambling Act, the stake and prize limits were much higher than other forms of machine gambling, with stakes of £100 and prizes of £500 permitted. These levels were deemed by the British Government to be a regulatory failure and the machines were described by government "*as a social blight..prey[ing] on some of the most vulnerable in society*" (DCMS, 2018) This was addressed in 2018, when it was announced that stake sizes would be limited to £2 on these machines. By contrast, B1 machines have a maximum stake of £5 and ERTs have no maximum stake restrictions.

With respect to ERTs, the Gambling Commission collects data by counting how many additional table places for casino games these terminals provide. According to the Gambling Commission's industry statistics, electronic gaming terminals provided an additional 3399 table places within casinos in 2021/22. People lost £143.18 million at these electronic table places, meaning that an average of £42,124 is lost per electronic table place within casinos. The current application includes a minimum of 20 of these electronic table places, meaning that on average, £842,480 per annum will likely be lost by people using these terminals at this venue.

The impacts of electronic gaming

Electronic gaming machines are highly associated with an increased risk of harms. This is related to their **structural characteristics**. **Gambling harms** are the adverse impacts from gambling on the health and wellbeing of individuals, families, communities and society. Harms are distributed unequally within communities, with certain communities being more likely to experience gambling harms. Changing access and availability to gambling is related to the total amount of harm experienced within a community.

The locational context of the proposed premises and specific issues around gambling harms and electronic gambling machine, are discussed below.

Location

The proposed location of the casino is at 22 Newport Road. This is located within Central ward within the borough of Middlesbrough, with Newport ward directly adjacent. The borough of Middlesbrough is one of the most **deprived** boroughs in England, in 2019 ranking as the 5th most deprived Local Authority in England (out of 317). Newport ward is the 36th most deprived ward (top 1% nationally) in England out of 7,180 wards, whilst Central ward is 89th most deprived (top 3% nationally). Within Central ward 11% of residents are unemployed in 2021/22 and 15.5% in Newport ward, compared to 5% in England.

Middlesbrough's Black and Minority Ethnic groups (BAME) population was 11.8% compared to 4.7% in North East in the 2011 Census. Within the Central ward, 45% were BAME and in Newport ward it was 25%. Middlesbrough has a younger population compared with other LAs. The estimated median age of the Middlesbrough population was 36.2 in 2020. This is the second youngest median age in the North East behind Newcastle upon Tyne. The North East average median age is 41.7 and the

England average median age is 40.2. For Central ward the median age is 25.6 and for Newport ward it is 28.6.

A higher proportion of Middlesbrough population are living with mental health problems, with 18.3% reporting depression or anxiety compared to 13.7% nationally. There are also significantly higher rates of hospital admissions related to mental health and self-harm.

The proposed premises location is on a high street setting. The casino will be located adjacent to an existing AGC, alongside a wide range of retail premises, cafes, bars and restaurants. Other nearby facilities include a bus station, a secondary school and the Northern School of Art. Teesside University is also located within the town centre area and student accommodation is located nearby. A cumulative impact policy (currently under review) has applied to the area where 22 Newport Road is located due to number and density of licensed premises and their negative impact on crime and disorder. It is estimated in the Central Ward there are 194 premises licensed to sell alcohol (38% of all licensed premises)(Data provide by Middlesbrough Council, Licensing Service).

Using the ONS Mid-Year Estimates 2020, the total 18+ population for Middlesbrough is 108,156. Applying the national prevalence rates found by the Public Health England gambling-related harms evidence review in 2018 showed that:

- 54% (58,404) of the adult population had gambled or 40% (43,262) excluding the National Lottery.
- 3.8% (4,110) of the population were classified as at-risk gamblers.
- However regional breakdowns showed that the North East had the highest rate of at-risk gamblers with 4.9% (5,300). 0.5% (541) had reached the threshold to be considered problem gamblers.

3.1. Assumed facts

Harms associated with Electronic Gaming Machines:

Electronic gaming machines (EGMs) and casino games, like roulette, are typically associated with higher rates of problematic and harmful gambling among those who use them. Internationally, this has been observed in several jurisdictions. A recent large scale study of gambling behaviours in Canada found that EGM participation was the primary predictor of problem gambling prevalence. They also noted that EGM participation and EGM density were strong predictors of regional rates of **problem gambling** (Williams, 2021). A review of evidence from 18 different countries (including Great Britain) concluded that "*interactive Internet gambling, casino gambling, electronic gaming machines, and high-stakes unregulated/illegal gambling are often relatively closely associated with problem gambling*" (Binde, 2011). A recent Canadian longitudinal study of the association between gambling types and problem gambling concluded that whilst gambling involvement was a strong predictor of problem gambling, playing EGMs conferred additional risk (Gooding & William, 2023).

In Britain, different types of EGMs are present in different venues (see Appendix A for typologies). However, there is no available data on the rates of gambling harms among users of B1 machines alone. Latest available data from the combined Health Surveys for England and Scotland show that 6.4% of people who play EGMs of any category in venues ranging from casinos, AGCs, bingo halls and/or pubs/clubs were classified as problem gamblers (Conolly et al, 2018). This is higher than

people who bet on sports events (5.1%), people who play bingo in a bingo hall (3.9%) and people who bet online (2.5%) and lower than people who gamble online on casino games (9.2%) or who play B2 machines in an LBO (13.7%). According to this evidence around 1 in 15 people who play EGMs in venues like casinos, AGCs, bingo halls and/or pubs/clubs experience problem gambling. In addition, a further proportion of people who play these machines will experience "moderate risk" gambling (Conolly et al, 2018). **Moderate risk gambling** is defined as: gamblers who experience a moderate level of problems leading to some negative consequences from gambling. In 2016, it was estimated that 7.2% of people playing EGMs in casinos, AGCs, bingo halls and/or pubs/clubs were moderate risk gamblers. Taken together with problem gambling rates, this suggests that around one in eight people who play machines in casinos, AGCs, bingo halls or pubs/clubs experience moderate risk or problem gambling. This may be a conservative estimate when applied to B1 machines, as this category currently includes very low stake machines such as penny pushers (viewed as lower risk, and thus permissible for children to access) to B1 machines (viewed as higher risk and only permitted for adults in casinos with stricter access and supervisory arrangements).

There is no equivalent data directly estimating the proportion of people who play ERT who experience harms. FOBTs or those playing tables games in a casino can be used as their nearest equivalent. This would estimate that between 7.4% and 13.7% of those playing ERTs may be likely to experience problem gambling, with an additional 8.1% to 13.5% experiencing moderate risk gambling.

A primary explanation for these associations is the type of gambling that EGMs and ERTs offer. As Livingstone and Francis cite (2021), EGMs combine high speed of play, continuous play, high event frequency, carefully signalled random reward events (such as near-miss effects) and multiple visual and auditory stimuli – all of which are designed to maximise the amount of time people spend gambling (Schull, 2012). Described as high levels of gambling intensity, time spent gambling and frequency of gambling are highly associated with health and wellbeing harms and problem gambling (Lin et al, 2010; Mazar et al, 2020).

Vulnerability of Emerging Adults to Gambling Harms

Emerging Adults, those aged 18-24, have been identified as being at particular risk for the experience of gambling harms. Forrest and McHale showed that rates of problem gambling increased significantly between the ages of 17 and 21 (Forrest & McHale, 2018), leading them to suggest that extra measures could be warranted to protect emerging adults from harms during this period of increased vulnerability. This became one of the key questions posed by the British government in their review of the 2005 Gambling Act. Furthermore, according to Arnett (2000), who coined the term "emerging adult", this age group is demographically distinct, with a greater propensity for risk-taking behaviour, including impulsivity, and engaging in sensation-seeking experimentation before settling into adult roles and responsibilities (Arnett, 2000). These are known risk factors for the experience of problem gambling.

Furthermore, recent evidence from a British longitudinal survey of Emerging Adults showed that playing EGMs was associated with elevated problematic gambling severity among continuing gamblers (Wardle & Tipping, 2023). In addition, the same study also estimated that the odds of attempting suicide were 9 times higher among emerging male adults who experienced problem gambling and were 4 times higher among emerging female adults than those with no problematic gambling severity (Wardle & McManus, 2021). A subsequent longitudinal analysis of the same data

demonstrated that any increase in PGSI score over time, irrespective of baseline scores, was associated with greater risk of suicide attempts among young adults. Combined, this analysis shows that not only are emerging adults with problematic gambling at higher risk of suicidality but that any increases in PGSI scores, irrespective of whether someone meets the classification of problem gambling or not, **confers additional risk of suicide attempts** among young adults (Wardle et al, 2023).

The **Local Area Risk Assessment** (LARA) submitted by the applicant acknowledges the high proportion of emerging adults within the local area, specifically highlighting the proximity of 21,000 students from Teesside University, noting that many live within the local area. However, the LARA does not specifically list any mitigating actions to prevent harms among this age group. It does not acknowledge higher risk of harms among this age group or the concurrent risk of suicidality and problematic gambling. This is a major omission.

Concentration of losses among those most harmed

A strong body of evidence shows that revenues from gambling are likely concentrated among a few heavy consumers, and that those experiencing gambling disorder disproportionately contribute the most to industry revenues. This has recently been examined by Wardle et al (2022) among a British sample of regular gamblers. Looking at table games played within a casino (which includes ERTs), they found first that 38.7% of participants playing tables games in a casino had a Problem Gambling Severity Index Score of 3 or more, suggesting that they experienced moderate risk or problem gambling. This same 38.7% of participants accounted for 61.7% of total gross expenditure on casino tables games. Among fruit/slot machines, equivalent estimates were 33.7% with a PGSI score of 3 or more, who accounted for 39.8% of gross expenditure. Whilst these activities do not focus on ERT or B1 machines alone, they do show an over-reliance on those harmed for an excess proportion of revenue for these broad types of activities. This pattern has been observed elsewhere drawing on data from Germany, France and Quebec (Fiedler et al, 2019) and previously in Great Britain, drawing on data from the 2010 British Gambling Prevalence Survey (Orford et al, 2011).

Unequal distribution of harms within communities

Gambling harms are not equally distributed between people or communities. There are certain types of people and certain types of communities which display elevated rates of gambling harms. These were systematically reviewed by Wardle in 2015 (Wardle, 2015) who concluded that there was strong evidence that the following groups were likely to experience elevated rates of gambling harms: those who were younger, those who were unemployed, those who were from Black and Minority Ethnic Groups, those living in deprived areas, those experiencing substance abuse/misuse, those with poorer mental health and those with cognitive impairments. Wardle also identified a "harms paradox" for a number of these group, which shows that some groups are less likely to gamble overall, but much more likely to experience harms if they do. This was evident for those from Black and Minority Ethnic groups, younger people and those with mental health issues. Wardle et al, (2019) have furthered this work demonstrating that the harm paradox also applies to migrant communities and that migrants should also be considered vulnerable to harm. Raybould et al (2020) have recently systematically reviewed these patterns across 59 different studies and concluded that "*Harms appear to be dependent on specific social, demographic and environmental conditions that suggests there is a health inequality in gambling related harms*". This included age profile, ethnicity and socio-economic status (measured by employment, education, deprivation etc).

Related to this, rates of problematic gambling will vary across communities who have different characteristics. In 2016, estimates of problem gambling in Leeds found that problem gambling rates were likely to be twice the national average because of its urban population profile (Kenyon et al, 2016). Evidence from the Health Survey for England 2018 shows that problem gambling rates in the most deprived areas of Britain were nine times higher than those in the least deprived areas in Britain (0.9% vs 0.1%).

Similar results have been found by a recent YouGov poll, for GambleAware. This survey of over 18,000 people in Britain has produced local area estimates of gambling harms at a Local Authority level and at individual ward level (though some care should be taken with the latter due to small base sizes) (GambleAware, 2021). The results show that Central Ward, in which the casino would be located, and Newport Ward (immediately adjacent to the proposed casino) are all in the highest quintile for the experience of gambling harms. This means that the people who live here are likely to have higher rates of problematic gambling.

Supervision of high risk gambling formats

The LARA outlines that the opening of these premises will create 40 jobs. However, it also outlines that at any given period a maximum of four members of staff will be present within the venue (excluding security door staff). One will be the receptionist, obliged to monitor the entrance to the premises, and one will be food/drink waiting staff. Therefore only two members of staff will have direct responsibility for monitoring the gaming floor and thus have an ability to conduct staff interactions. This represents a ratio of one member of staff for every 20 machines. The LARA makes reference to their staff interaction policy, which is the primary way staff will identify and intervene with those deemed at risk of harms. Evidence presented above shows that it is likely that as many as one in five customers may be experiencing moderate risk gambling, thus requiring intervention.

In its Licence Conditions and Codes of Practice (para 3.4.1) the Gambling Commission requires staff to identify customers who may be at risk of or experiencing harms associated with gambling, interact with customers who may be at risk of or experiencing harms associated with gambling and understand the impact of the interaction on the customer, and the effectiveness of the Licensee's actions and approach.

These duties require constant vigilance and time to undertake appropriate interactions. This will likely be heightened further in these premise given the availability of alcohol. Given the high prevalence of harms among users of these products we would expect a very high number of interactions to be undertaken and I do query whether the current staff ratio outlined in the LARA is sufficient to effectively fulfil these duties.

Changing gambling access and availability and its relationship with harms

Access to and availability of gambling is a necessary precursor to the experience of harms (Orford, 2019). A critical issue is the extent to which the availability of gambling is related to the level of gambling harms experienced. This is termed the "exposure" or "total consumption" hypothesis – the more a community is exposed to gambling, the more harms are generated. A recent review of twelve studies (including two British studies) has found consistent evidence that **Total Consumption Theory** (TCT) holds true for gambling (Rossow, 2019) whereby higher rates of gambling (the population mean) are correlated with higher rates of excessive gambling. Rossow (2019) concluded

that TCT has clear implications for policy: "*strategies that effectively reduce gambling at the population level will likely also reduce excessive gambling and therefore probably reduce problem gambling and related harms*". However, she also noted that governments may be unwilling to implement such measures because a large proportion of revenues is derived from problem gamblers.

Whilst TCT has not been explicitly considered in a UK context since the implementation of the Gambling Act 2005, two examples lend support for this theory. First, in 2010, the British Gambling Prevalence Survey (BGPS) recorded increases in gambling participation and increases in problem gambling compared with 2007. This was notable at the time because this was the first survey to be conducted after the full implementation of the Gambling Act 2005, which liberalised gambling laws and provisions. These trends were noted by Wardle et al (2011) though they also stated that further studies would be required to understand the fuller pattern of these trends. This data, however, was not forthcoming as the BGPS series was subsequently cancelled. More recently, the impact of COVID-19 and various national lockdowns has seen overall participation in gambling decline for the year April 2020-March 2021. This was also accompanied by a significant drop in rates of moderate risk and problem gambling (falling from 1.8% in 2019/20 to 1.1% in 2020/2021) (Gambling Commission, 2021b). This shows how restricting the availability of gambling is associated with a reduction in gambling harms, as noted by Kesaite & Wardle (2021).

In a recent review Abbott (2020) examined a second theory relating to the relationship between gambling availability and harms. This is "adaptation" theory. This posits that when new forms of gambling become available, in the short to medium term, there will be an increase in participation and therefore in harms (consistent with the exposure hypothesis), but that over time, these rates will stabilise or revert back to previous estimates as populations adapt. Support for this has been provided by two studies – one based in the USA examining the impact of a casino opening, the other examining changes in gambling behaviours in New Zealand in the 1990s. However, Abbott concludes that "*proponents of adaptation do not reject availability*" rather they propose that the following conditions may apply: (cited from Abbott, 2020):

- During exposure to new forms of gambling, particularly electronic gaming machines (EGMs) and other continuous forms, previously unexposed individuals, population sectors and societies are at high risk for the development of gambling problems.
- Over time, years rather than decades, adaptation ('host' immunity and protective environmental changes) typically occurs and problem levels reduce, even in the face of increasing exposure.
- Adaptation can be accelerated by regulatory and public health measures
- While strongly associated with problem development (albeit comparable to some other continuous forms when exposure is held constant) EGMs give rise to more transient problems.

All of these considerations apply to this application.

Finally, a further pertinent consideration is the application for the venue to be operational for 24 hrs a day. Examination of patterns of spend in British casinos on B1 machines in 2014 showed that those who gambled during the night spend significantly higher amounts of money than those gambling during the day or in the early evening. Importantly, emerging evidence suggests that those people who gamble through the night are much more likely to experience problem gambling and that those

who gamble later at night tend to place higher stakes bets.[1] No reference is made to this potential, and this is not noted within the LARA as a specific risk in need of mitigation.

3.2. Enquiries/investigation into facts by the expert

In the summary of evidence above, I have drawn on published research evidence. Where research evidence in Britain is lacking, I have primarily drawn on review data which synthesises evidence across a range of jurisdictions. If similar evidence is available across multiple jurisdictions, then we can have greater confidence in its results and its applicability to Britain, as similar results have been observed across a range of jurisdictions each of whom have differing contexts. Where reviews are not available, I have cited a number of individual studies from different jurisdictions.

I have also cited research which I have previously conducted and published. All self-citations are based on published academic work that has been subject to external peer review.

3.3. Documents

I would refer the committee to these documents:

Health Survey for England: Supplementary tables on gambling: available at: https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2018/health-survey-for-england-2018-supplementary-analysis-on-gambling

GambleAware Maps: Available at: https://www.begambleaware.org/gambleaware-gb-maps

Gambling Commission Industry Statistics: Available at: https://www.gamblingcommission.gov.uk/statistics-and-research/publication/industry-statistics-November-2022

3.4. Interview or other examination

Not Applicable

3.5 Research

Please see Appendix B for a list of research cited within this report.

4. My opinion

Having carefully considered the location of the proposed venue, the characteristics of its surrounding locality, the nature of the products provided and their relationship with likely gambling harms, my opinion is that the proposed casino in this location would not be reasonably consistent

[1] Wardle H, et al (2014) Patterns of play: analysis of data of machines in bookmakers. Available at: https://www.begambleaware.org/media/1172/patterns-of-play-analysis-of-data-from-machines-in-bookmakers.pdf; PWC (2019) Remote gambling research: interim report on phase 2. Available at: https://www.begambleaware.org/media/1549/gamble-aware_remote-gambling-research_phase-2_pwc-report_august-2017-final.pdf

with the promotion of the licensing objective of protecting vulnerable persons from being harmed or exploited by gambling. Opening these premises would introduce a significant additional number of EGMs into the local community at much higher stake and prize limits than those in the neighbouring AGC. EGMs are consistently associated with elevated rates of harm and increasing availability of gambling has a known relationship with the experience of gambling harms. The ERTs, which provide unlimited stake and prize gambling, will greatly exacerbate this effect.

Increased supply of gambling is associated with increases in gambling harms. Whilst over time, the local population may adapt to this increased provision, there will likely be a period of time where harms increase, with attendant personal and social costs, requiring protective public health interventions to prevent the wider escalation of these harms. Furthermore, the types of gambling provisions present at this venue will be associated with a high quantum of losses, which will be disproportionately generated from those most harmed. Finally, there are significant risks for the very high emerging, young, adult population, who are at greatest risk of the onset of gambling harm, at high risk for concurrent suicidality and for whom these issues have not been adequately addressed in the LARA.

Furthermore, in my opinion the precautionary principle should prevail in this case – whereby if there are serious threats to population health "*scientific uncertainty must be resolved in the favour of prevention*" (Goldstein, 2001). In this case, and as argued by Rossow, prevention involves limiting the provision of gambling within a community. These types of prevention activities are sorely needed, as I have previously argued (Wardle, 2019), and are a critical element in reducing gambling harms and improving population health.

5. Statement of compliance

I understand my duty as an expert witness is to the hearing. I have complied with that duty and will continue to comply with it. This report includes all matters relevant to the issues on which my expert evidence is given. I have given details in this report of any matters which might affect the validity of this report. I have addressed this report to the hearing. I further understand that my duty to the hearing overrides any obligation to the party from whom I received instructions.

6. Declaration of Awareness

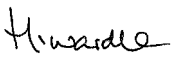
I confirm that I am aware of the requirements of CPR Part 35 and Practice Direction 35, and the Guidance for the Instruction of Experts in Civil Claims 2014.

7. Statement of truth

I confirm that I have made clear which facts and matters referred to in this report are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinions on the matters to which they refer.

8. Statement of conflicts

I confirm that I have no conflict of interest of any kind, other than any which I have already set out in this report. I do not consider that any interest which I have disclosed affects my suitability to give expert evidence on any issue on which I have given evidence and I will advise the party by whom I am instructed if, between the date of this report and the hearing, there is any change in circumstances which affects this statement.

Signed: 

Date: 03.07.2023

Appendix A: Overview of EGM types available in Great Britain

Category of machine	Maximum stake (from April 2019)	Maximum prize (from Jan 2014)
A	Unlimited – No category A gaming machines are currently permitted	Unlimited – No category A gaming machines are currently permitted
B1	£5	£10,000 †
B2	£2	£500
B3A	£2	£500
B3	£2	£500
B4	£2	£400
C	£1	£100
D – non-money prize	30p	£8
D – non-money prize (crane grab machines only)	£1	£50
D – money prize	10p	£5
D – combined money and non-money prize	10p	£8 (of which no more than £5 may be a money prize)
D – combined money and non-money prize (coin pusher or penny falls machines only)	20p	£20 (of which no more than £10 may be a money prize)

References

† With option of max £20,000 linked progressive jackpot on premises basis only

Source: Gambling Commission: https://www.gamblingcommission.gov.uk/guidance/guidance-to-licensing-authorities/appendix-b-summary-of-gaming-machine-categories-and-entitlements

Appendix B: References

Abbott, M (2020) The changing epidemiology of gambling disorder and gambling-related harm: Public health implications. *Public Health*. 184: 40-45.

Arnett JJ. Emerging adulthood: A theory of development from the late teens through the twenties. American psychologist. 2000 May;55(5):469.

Binde, P (2011) *What are the most harmful forms of gambling? Analyzing problem gambling prevalence surveys*. Center for Public Sector Research. Available at: https://core.ac.uk/reader/16330330.

Conolly, A., Davies, B, Fuller, L., Heinze, N., Wardle, H. (2018) *Gambling behavior in Great Britain in 2016.* Birmingham: Gambling Commission.

Department of Digital Culture Media and Sport (2018). Press Release. Available at: Government to cut Fixed Odds Betting Terminals maximum stake from £100 to £2 - GOV.UK (www.gov.uk)

Forrest D, McHale I. Gambling and problem gambling among young adults: insights from a longitudinal study of parents and children. 2018. GambleAware. Available at: https://www.begambleaware.org/sites/default/files/2020-12/gambling-and-problem-gambling-among-young-adults-revision-10818-final-publish-002.pdf. Accessed 10.02.2022.

Health Survey for England (2020) Supplementary tables: gambling. Available at: https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2018/health-survey-for-england-2018-supplementary-analysis-on-gambling

GambleAware (2021) GB Maps. Available at: Available at: https://www.begambleaware.org/gambleaware-gb-maps

Gambling Commission (2021) Industry Statistics. Available at: https://www.gamblingcommission.gov.uk/statistics-and-research/publication/industry-statistics-November-2022

Gambling Commission (2021b) *Statistics on participation and problem gambling for the year to June 2021.* Available at: https://www.gamblingcommission.gov.uk/statistics-and-research/publication/year-to-March-2021

Gambling Commission (2019) Customer interaction – formal guidance for premises based operators. Available at: https://assets.ctfassets.net/j16ev64qyf6l/4ae78UgfVJADGplhwuPC56/b38fcc3699189658ab8b19da18627718/Customer-Interaction-Formal-Guidance-Non-Remote-July-2019.pdf

Goldstein, B (2001) The Precautionary Principle Also Applies to Public Health Actions. *American Journal of Public Health.*91(9): 1358-1361.

Gooding, N. B., & Williams, R. J. (2023). Are There Riskier Types of Gambling?. *Journal of gambling studies*, 10.1007/s10899-023-10231-0. Advance online publication. https://doi.org/10.1007/s10899-023-10231-0

Kenyon, A., Omerod, N., Parsons, D., Wardle, H. (2017) *Problem Gambling in Leeds*. Leeds: Leeds Beckett University.

Lin et al (2010) Time and money spent gambling and the relationship with quality-of-life measures: A national study of New Zealanders. *Journal of Gambling Issues*. 33-53.

Livingstone, C., Francis, L (2021) *Impacts of gambling products in the UK: do different products produce different impacts, and levels of harm? A review.* Royal Society for Public Health. Pre publication – copy provided.

Mazar et al (2020) Gambling formats, involvement, and problem gambling: which types of gambling are more risky? *BMC Public Health*, 20, 711.

Orford, J (2018) *The Gambling Establishment: Challenging the Power of the Modern Gambling Industry and its Allies*. London: Routledge.

Raybould et al (2020) Is there a health inequality in gambling related harms? A systematic review. *BMC Public Health* 21(1): 305.

Rossow, I. (2019) The total consumption model applied to gambling: Empirical validity and implications for gambling policy. *Nordic Studies on Alcohol and Drugs*. 36 (2).

Schüll N. (2012). Addiction by design: Machine gambling in Las Vegas. New Jersey: Princeton University Press

Wardle, H., Griffiths, MD., Orford, J., Moody, A., Volberg, R (2011). Gambling in Britain: a time of change? *International Journal of Mental Health and Addiction*.doi:10.1007/s11469-011-9319-4.

Wardle, H. (2015) *Exploring area-based vulnerability to gambling-related harm: Who is vulnerable? Findings from a quick scoping review*. London: Westminster City Council.

Wardle, H., Bramely, S., Norrie, C., Manthorpe, J. (2019) What do we know about gambling-related harm affecting migrants and migrant communities. *Addictive Behaviours*. 93: 180:193.

Wardle, H., Reith, G., Langham, E., Rogers, RD. (2019) Gambling and public health: we need policy action to prevent harms. *BMJ*. 365:l1807.

Wardle H, Kolesnikov A, Fiedler I, Critchlow N, Hunt K (2022) Is the economic model of gambling dependent on problem gambling? Evidence from an online survey of regular sports bettors in Britain, *International Gambling Studies*, DOI: 10.1080/14459795.2022.2088823

Wardle H, Kesaite V, Tipping S, McManus S (2023). Changes in severity of problem gambling and subsequent suicide attempts: a longitudinal survey of young adults in Great Britain, 2018–20. *Lancet Public Health.* In press.

Wardle H, Tipping S. (2023) The relationship between problematic gambling severity and engagement with gambling products: Longitudinal analysis of the Emerging Adults Gambling Survey. Addiction. https://doi.org/10.1111/add.16125

Williams, R et al (2021) Predictors of gambling and problem gambling in Canada. *Canadian Journal of Public Health.* 112(3):521-529.

Appendix C: Glossary

Electronic gaming machines: this is the term used to describe automated gambling devices that have a screen displaying symbols on simulated reels. Cash is inserted into the machine and buttons are used to place bets. In Britain, they are commonly described as fruit machines or slot machines. There are different types of these machines available in Britain – see Appendix A.

Electronic Roulette Terminals: These are terminals on which players can play bets on live casino games, where these games are being played elsewhere**.** The definition of these machines is given by the Gambling Commission as automated casino equipment, which when housed within a casino are excluded from the definition of a gaming machine. There are two types of these terminals – one which plays lives gaming (i.e., where a person somewhere is spinning the roulette wheel) and fully automated versions which operate without human intervention. According to the Gambling Commission, this latter category would be considered a gaming machine if housed in any other premise other than a casino. The definitions given by the Gambling Commission are stated below:

> ***Automated roulette (copied from Gambling Commission definitions)***
>
> **16.27** There are two types of automated casino equipment that are excluded from the definition of a gaming machine in the Act. The first type is those linked to a live game of chance, for example, roulette. These enable the player to gamble on a live game as it happens, without actually being seated at the table, sometimes referred to as 'electronic roulette'. These are not regulated as gaming machines but as live gaming and there is no limit on the number of items of such equipment.
>
> **16.28** The second type is a machine that plays a live game but is fully automated, that is, it operates without any human intervention. For example, a roulette wheel that is electrically or mechanically operated with an air blower to propel the ball around the wheel. Again, these are not regulated as gaming machines, although casinos are bound by controls on the specification and number of player positions using such equipment. This is only the case where the machine is operated in accordance with a casino operating licence – if operated outside of a casino, the exclusion does not apply and it would be considered a gaming machine. The Act requires that equipment used to play a game of chance, for example, cards, dice and roulette wheels is 'real' and not 'virtual' if it is not to be classed as a gaming machine. Additionally the game outcome must not be determined by computer as this would normally be considered virtual.

Area deprivation: Deprivation used here refers area deprivation as measured by the Index of Multiple Deprivation in England. The English Indices of Deprivation measure relative levels of deprivation in 32,844 small areas or neighbourhoods, called Lower-layer Super Output Areas, in England. It includes a range of different living conditions, including health, income, employment, crime, living environment, housing, education. It is a relative measure of deprivation, describing deprivation where people are lacking in any type of resources.

Lower-layer Super Output Areas: Are small areas or neighbourhoods in England. They have an average population of 1500 people or 650 households.

Structural characteristics: structural characteristics are the design features of gambling products (e.g., stake size, jackpot size, illusion of control features, near miss opportunities) that can influence the way gamblers play.

Gambling harms: Gambling harms are the adverse impacts from gambling on the health and wellbeing of individuals, families, communities and society

Problem gambling: This is defined as gambling that disrupts or damages personal, family or recreational pursuits. It is typically measured using a screening instrument. In Britain the most commonly used instrument is the Problem Gambling Severity Index.

Moderate risk gambling: This is a category of gambling identified by the Problem Gambling Severity Index. It is defined as gamblers who experience a moderate level of problems leading to some negative consequences from gambling.

Licensed Betting Offices: a premises not on a racecourse where bets can be placed on horses, teams, and other competitors. Commonly called a Bookmakers or bookies in Britain.

Total consumption theory: A theory used in alcohol policy which posits that changes in the overall consumption of alcoholic beverages have a bearing on the health of the people in any society. Applied to gambling, this argues that changes in the total consumption of gambling will have a bearing on the health of people in any society.

Appendix D: Full CV for Professor Heather Wardle BA (Hons), MA, PostCert, PhD

Research and leadership: I have 20 years' experience of leading social research projects on health and wellbeing for a variety of institutions/organisations. I led NatCen Social Research's gambling research programme, supervising a team of c.10 researchers on a range of projects. At Glasgow, I lead our Gambling Research Glasgow consortium, with nine team members (including four Research Associates and one PhD student) working across eight projects, with a combined value of £1.5million.

Expertise: I am an expert in the design, implementation and analysis of large-scale national surveys and am also skilled in qualitative methods and spatial analysis. My substantive expertise is in gambling research and policy, having worked in this field for 15 years.

Research grant income: In the last 10 years, I have been awarded over 30 research grants, the majority as Principal Investigator, with an income totalling over £4 million. Awarding institutes include National Institute of Health Research, Wellcome Trust, The Department of Health (via the Public Health Research Consortium), the Economic and Social Research Council and the Gambling Commission.

Publications: I have over 100 publications, of which 32 are peer-reviewed research reports, 41 are peer-reviewed articles published in academic journals and three book chapters. My H-Index is 26. My first book, *Games without Frontiers? socio-historical perspectives at the gaming/gambling intersection* was published in 2021.

Knowledge Exchange and Impact: My work has produced national statistics on gambling behaviour in Britain. These reports have been cited over 600 times and have underpinned policy decisions (e.g., by showing elevated rates of problem gambling rates among users of fixed odd betting terminals). My work on gambling machines highlighted how industry data could be used to detect harmful gambling. This underpins gambling harm prevention efforts. My work on producing gambling-related harms risk map showed, for the first time, areas in Britain where people may be more vulnerable to gambling harms. This risk maps have been adopted by several local councils and underpin their gambling policies statements. The work was incorporated into the Local Government Association and Public Health England's joint policy "A whole council approach towards tackling gambling harms" and adopted by Public Health Wales, as highlighted in the Welsh Chief Medical Officer's annual report. In 2021, I have led a three-part documentary for the BBC World Service, called *Gambling: a sure bet?* (aired April/May 2021)

Esteem:

Policy: Co-Chair of the Lancet Public Health Commission on Gambling (2021-2023); Panel member on WHO group for gambling (2020-present). Deputy Chair, Advisory Board on Safer Gambling (2015 to 2020): Provides independent advice to government on gambling policy. Invited expert witness to the House of Lord's Select Committee inquiry into the social and economic impacts of the Gambling industry (2019); the CMS Select Committee hearing into the Gambling Act 2005 (2012); Invited speaker to All Party Parliamentary Groups on Suicide; Gaming and Betting; Gambling-related harms and to the Northern Irish All Party Group on gambling.

Keynote lectures: Current Advances in Gambling Research (2022); 4th Safer Gambling Conference, Cyprus (2021); Alberta Gambling Research Institute Conference (Banff, Canada) (2019); GambleAware Annual Conference (London) (2017).

Editorial posts: Co-editor, special edition, of Public Health on gambling studies (2019/2020); Editorial Board Member for Harvard's Brief Addiction Science Information Source (BASIS) (2017 onwards); Invited conference session producer on gambling and gaming at the Children's Media Conference (Sheffield, 2019).

Leadership: Member of Wellcome's Humanities and Social Sciences Leadership Scheme, one of 12 fellows chosen for enhanced training in impact and leadership.

Employment:

Current Post Professor of Gambling Research and Policy, University of Glasgow

Email Address heather.wardle@glasgow.ac.uk

Post held since July 2020

Previous Posts:

Institution	**Position Held**	**Dates**
University of Glasgow	Adam Smith Lord Kelvin Reader	July 2020 – Jul 2023
London School of Hygiene and Tropical Medicine	Assistant Professor	July 2017 – Jul 2020
Heather Wardle Research Ltd	Director	Feb 15 – current
Gambling & Place Research Hub, Geofutures	Head	Feb 15 - current
NatCen Social Research, Health & Wellbeing team	Research Director	Dec 07 – Feb 15
Harvard Medical School, Division on Addictions	Visiting Researcher	Mar 10 - Aug 10
NatCen Social Research, Health & Wellbeing team	Senior Researcher	Jul 05 – Dec 07
NatCen Social Research, Health & Wellbeing team	Researcher	Dec 02 – Jun 05
House of Commons Members	Senior Clerk	Sept 02 – Dec 02
Royal Holloway, University of London	Archives Assistant	Aug 01 – Aug 02

Educational Qualifications:

Degree Type	**Degree Class**	**Subject**	**University**	**Year**
PhD*	N/A	Sociology	University of Glasgow	2015
PGCERT	N/A	Social Sciences	Open University	2003
MA	N/A	Social and Religious History	University of Warwick	2001
BA	2:1	History (Hons)	University of Durham	2000

*ESRC funded studentship

Publications:

Peer-reviewed journal articles

1. **Wardle** H, Tipping S. (2023) The relationship between problematic gambling severity and engagement with gambling products: Longitudinal analysis of the Emerging Adults Gambling Survey. Addiction. https://doi.org/10.1111/add.16125
2. McGrane E, **Wardle** H, Clowes M, Blank L, Pryce R, Field M, Sharpe C, Goyder E. (2023). What is the evidence that advertising policies could have an impact on gambling-related harms? A systematic umbrella review of the literature. Public health, 215, 124–130. https://doi.org/10.1016/j.puhe.2022.11.019
3. **Wardle** H, Kesaite V, Tipping S, McManus S (2023). Changes in severity of problem gambling and subsequent suicide attempts: a longitudinal survey of young adults in Great Britain, 2018–20. *Lancet Public Health.*
4. Biggar B, Zendle D, **Wardle** H (2023) Targeting the next generation of gamblers? Gambling sponsorship of Esports Teams. *Journal of Public Health*.
5. **Wardle**, H., Critchlow, N., Brown, A., Donnachie, C., Kolesnikov, A., & Hunt, K. (2022). The association between gambling marketing and unplanned gambling spend: Synthesised findings from two online cross-sectional surveys. *Addictive behaviors*, *135*, 107440. https://doi.org/10.1016/j.addbeh.2022.107440
6. Forward C, Norrie C, Bramley S, **Wardle** H, Stewart G, Nyanda S, Parker J, Shearer J, Finch E, Manthorpe J. (2022) Assessing potential brief screening questions for use within different social care-related contexts to identify individuals experiencing gambling-related harms: A scoping review. Health and Social Care in the Community. **https://doi.org/10.1111/hsc.13976**
7. Critchlow, N., Hunt, K., **Wardle**, H., & Stead, M. (2022). Expenditure on Paid-for Gambling Advertising During the National COVID-19 'Lockdowns': An Observational Study of Media Monitoring Data from the United Kingdom. *Journal of gambling studies*, 1–15. Advance online publication.
8. **Wardle** H, Kolesnikov A, Fiedler I, Critchlow N, Hunt K (2022) Is the economic model of gambling dependent on problem gambling? Evidence from an online survey of regular sports bettors in Britain, *International Gambling Studies*, DOI: 10.1080/14459795.2022.2088823
9. Sichali JM, Dube A, Kachiwanda L, **Wardle** H, Crampin A. (2021) Case Report: A gambling-related suicide in rural Malawi [version 1; peer review: 2 approved]. *Wellcome Open Res* 2021, 6:308.
10. **Wardle** H, Reith G, Dobbie F, Rintoul A, Shiffman J (2021) Regulatory Resistance? Narratives and Uses of Evidence around "Black Market" Provision of Gambling during the British Gambling Act Review. International Journal of Environmental Research and Public Health. *18*(21), 11566.
11. **Wardle**, H., McManus S. (2021) Suicidality and gambling among young adults in Great Britain: results from a cross-sectional online survey. *Lancet Public Health*, 6(1) E39-E49.
12. **Wardle**, H., et al (2021) The impact of the initial Covid-19 lockdown upon regular sports bettors in Britain: Findings from a cross-sectional online study. *Addictive Behaviors*. 118: DOI: 106876.
13. **Wardle, H.**, Zendle, D. (2020) Loot Boxes, Gambling, and Problem Gambling Among Young People: Results from a Cross-Sectional Online Survey. *Cyberpsychology, social networking and behaviour*. Ahead of print. http://doi.org/10.1089/cyber.2020.0299.
14. **Wardle** H, Petrovskaya E, Zendle D (2020) Defining the esports bettor: evidence from an online panel survey of emerging adults, *International Gambling Studies,* 20:3, 487-499, DOI: 10.1080/14459795.2020.1826559

15. **Wardle**, H., John, A., Dymond, S., McManus, S. (2020) Problem gambling and Suicidality in England: secondary analysis of a representative cross sectional survey. *Public Health.* https://doi.org/10.1016/j.puhe.2020.03.024.
16. **Wardle, H**. (2020) The Emerging Adults Gambling Survey: study protocol [version 1; peer review: 2 approved]. *Wellcome Open Res*, 5:102
17. Hunt K, Critchlow N, Brown A, Bunn C, Dobbie F, Donnachie C, Gray CM, Purves R, Reith G, Stead M, Mitchell D, **Wardle** H. (2020) Protocol for a Mixed-Method Investigation of the Impact of the COVID-19 Pandemic and Gambling Practices, Experiences and Marketing in the UK: The "Betting and Gaming COVID-19 Impact Study" *International Journal of Environmental Research and Public Health*. 17(22):8449.
18. **Wardle**, H., Reith, G., Langham, E., Rogers, RD. (2019) Gambling and public health: we need policy action to prevent harms. *BMJ*. 365:l1807.
19. **Wardle**, H. (2019) The same or different? Convergence of skin gambling and other gambling among children. *Journal of Gambling Studies*, https://doi.org/10.1007/s10899-019-09840-5.
20. **Wardle**, H., Bramely, S., Norrie, C., Manthorpe, J. (2019) What do we know about gambling-related harm affecting migrants and migrant communities. *Addictive Behaviours*. 93: 180:193.
21. **Wardle**, H (2018) Perceptions, people and place: findings from a qualitative review of research on youth gambling. *Addictive Behaviours*. 90:99-106.
22. **Wardle,** H. (2018) Learning lessons: the need for effective evaluation of regulatory change. *International Journal of Drug Policy*, 53: 124-125.
23. **Wardle**, H., Astbury, G., Thurstain-Goodwin, M (2017). Mapping risk to gambling problems: a spatial analysis of two regions in Britain. *Addiction Research Theory.* DOI: 10.1080/16066359.2017.1318127.
24. Graham, H., Hutchinson, J., Law, C., Platt, L., **Wardle** H. (2016) Multiple health behaviours among mothers and partners: clustering, social patterning and intra-couple concordance. *Social Science and Medicine Population Health.* 2: 824-833.
25. McAloney, K., Graham, H., Law, C., Platt, L., **Wardle** H, (2014). Inter-generational concordance of smoking status between mothers and young people aged 10-15 in the UK. *Public Health*. 128(9): 831-833.
26. Francis, K.L., Dowling, N.A., Jackson, A.C., Christensen, D.R., **Wardle**, H. (2014) Gambling motives: application of the reasons for gambling questionnaire in an Australian population survey. *Journal of Gambling Studies* DOI 10.1007/s10899-014-9458-1.
27. Barnard M., Kerr J., Kinsella R., Orford., J., Reith G., **Wardle,** H. (2014). Exploring the relationship between gambling, debt and financial management in Britain. *International Gambling Studies*, 14(1).
28. **Wardle,** H., Keily, R., Astbury, G., Reith, G. (2014) Risky places?: mapping gambling machine density and socio-economic deprivation. *Journal of Gambling Studies*, 30 (1): 201-212.
29. Blanco, C., Blaszczynski, A., Clement, R., Derevensky, J., Goudriaan, A E., Hodgins, D., van Holst, R.J., Ibanez, A., Martins, S., Moersen, C., Molinaro, S., Parke, A., Peren, F.W., Petry, N., **Wardle**, H. (2013): Assessment Tool to Measure and Evaluate the Risk Potential of Gambling Products – ASTERIG. *The Journal of Gambling Business and Economics* (7):1.
30. McAloney, K., Graham, H., Law, C., Platt, L., **Wardle,** H., Hall, J. (2013). Fruit and vegetable consumption and sports participation among UK youth. *International Journal of Public Health*, 59(1):117-121.
31. Orford, J., **Wardle,** H., Griffiths, M, (2013) What proportion of gambling is problem gambling? Estimates from the British Gambling Prevalence Survey. *International Gambling Studies*,13(1): 4-18.

32. Planzer, S., **Wardle,** H. (2012) What we know about the impact of advertising on disordered gambling. *European Journal of Risk Regulation*, 4:488.
33. Planzer, S., **Wardle,** H. (2012) What we know about the comparative effectiveness of Gambling Regulation. *European Journal of Risk Regulation*, 3:410.
34. Sims, M., Mindell, J., Jarvis, M., Feverabend, C., **Wardle,** H., Gilmore, A. (2011) Did smokefree legislation in England reduce exposure to secondhand smoke among nonsmoking adults? Cotinine analysis from the Health Survey for England. *Environmental Health Perspectives*, 120(3):425-30.
35. **Wardle,** H., Moody, A., Griffiths, M., Orford, J., Volberg, R. (2011). Defining the online gambler and patterns of behaviour integration: Evidence from the British Gambling Prevalence Survey. *International Gambling Studies;* 11:336-359.
36. Forrest, D., **Wardle,** H. (2011) Gambling in Asian communities in Great Britain *Asian Journal of Gambling Studies*; 2(1):2-16.
37. **Wardle,** H., Griffiths, MD., Orford, J., Moody, A., Volberg, R (2011). Gambling in Britain: a time of change? *International Journal of Mental Health and Addiction*.doi:10.1007/s11469-011-9319-4.
38. Orford, J., **Wardle**, H., Griffiths, M.D., Sproston, K., Erens, B. (2010). The role of social factors in gambling: Evidence from the 2007 British Gambling Prevalence Survey. *Community, Work and Family*. 13 (3);257-271.
39. Griffiths, M.D., **Wardle**, H., Orford, J., Sproston, K., Erens, B. (2010).Gambling, alcohol consumption, cigarette smoking and health: findings from the 2007 British Gambling Prevalence Survey. *Addiction Research and Theory* 18 (2) 208-223.
40. Orford, J., **Wardle**, H., Griffiths, M.D., Sposton, K., Erens, B. (2010). PGSI and DSM-IV in the 2007 British Gambling Prevalence Survey: Reliability, item response, factor structure and inter-scale agreement. *International Gambling Studies* 10 (1) 31-4.
41. Griffiths, M.D., **Wardle**, H., Orford, J., Sproston, K., Erens, B. (2009). Internet gambling, health. smoking and alcohol use: Findings from the 2007 British Gambling Prevalence Survey. *International Journal of Mental Health and Addiction*
42. Griffiths, M.D., **Wardle**, H., Orford, J., Sproston, K., Erens, B. (2009). Socio-demographic correlates of internet gambling: findings from the 2007 British Gambling Prevalence Survey. *CyberPsychology and Behavior*, 12, 199-202.
43. Orford, J., Griffiths, M.D., **Wardle**, H., Sproston, K., Erens, B. (2009). Negative public attitudes towards gambling: findings from the 2006/07 British Gambling Prevalence Survey using a new attitude scale. *International Gambling Studies*, 9, 39-54.
44. Roth, M.A., Aitsi-Selmi, A., **Wardle,** H., Mindell, J. (2009) Under-reporting of tobacco use among Bangladeshi women in England. *Journal of Public Health*. 10.1093/pubmed/fdp060.
45. Zaninotto, P., Head, J., Stamatakis, E., **Wardle,** H., Mindell, J. (2008) Trends in obesity among adults from 1993 to 2004 by age and social class and projections of prevalence to 2012. *Journal of Epidemiology and Community Health* 2008: 0 (1-7).

Peer reviewed research reports

46. **Wardle,** H., Dymond, S., John, A., McManus, S. (2019) *Problem gambling, suicidal thoughts, suicidal attempts and non-suicidal self-harm. Evidence from the Adult Psychiatric Morbidity Survey 2007.* GambleAware: London.
47. John, A., Lee, S.C., **Wardle** H., McManus, S., Dymond, S. (2019) Exploring problem gambling, loneliness and lifetime suicidal behaviours: a cross-sectional study using the Adult Psychiatric Morbidity Survey 2007. GambleAware: London.
48. John, A., **Wardle**, H., McManus, S., Dymond, S. (2019) *Scoping Current Evidence and Evidence-Gaps in Research on Gambling-Related Suicide.* GambleAware: London.

49. Rogers, R.D., **Wardle,** H., Sharp, C., Dymond, S., Davies, T.J., Hughes, K., Astbury, G., (2019). *Framing a public health approach to gambling harms in Wales: Challenges and opportunities.* Bangor University: Bangor.
50. Robert D. Rogers, **Wardle**, H., Sharp, C., Wood, S., Hughes, K., Davies, T., Dymond, S., Bellis, M. (2019) *Gambling as a public health issue in Wales*. Public Health Wales: Bangor.
51. Graham, H. M., **Wardle**, H., Law, C., Platt, L. & Philo, D. (2019). *Health behaviour and health behaviour change among adults in England*. Public Health Research Consortium: University of York.
52. Conolly, A., Davies, B, Fuller, L., Heinze, N., **Wardle**, H. (2018) *Gambling behavior in Great Britain in 2016.* Birmingham: Gambling Commission.
53. Conolly, A., Fuller, L., Jones, H., Maplethorpe, N., Sondaal, A., **Wardle**, H. (2017) *Gambling behavior in Great Britain in 2015.* Birmingham: Gambling Commission.
54. Kenyon, A., Omerod, N., Parsons, D., **Wardle**, H. (2017) *Problem Gambling in Leeds*. Leeds: Leeds Beckett University.
55. **Wardle**, H. Fuller, E., Maplethorpe, N., Jones, H. (2017) *Follow-up study of loyalty card customers: gambling behaviour over time.* London: GambleAware.
56. Forrest, D., McHale, I., **Wardle**, H. (2016) *Examining the impact of the uplift of stakes and prizes on B1 gambling machines in casinos*. London: Responsible Gambling Trust.
57. **Wardle**, H., Welch, G., Bollen, A., Kennedy, J., Gariban, S. (2016) *Problem gambling in licensed bingo premises*. London: Responsible Gambling Trust.
58. **Wardle**, H. (2016) *People who play machines in bookmakers: secondary analysis of the loyalty card survey data*. London: Responsible Gambling Trust.
59. Astbury, G., Wardle, H. (2016) *Examining the effect of proximity and concentration of B2 machines on gambling play.* London: Responsible Gambling Trust.
60. **Wardle**, H, Astbury, G, Thurstain-Goodwin, M, Parker, S. (2016) *Exploring area based vulnerability to gambling-related harm: developing the gambling-related harm risk index*. London: Westminster City Council
61. Salis, S., **Wardle**, H., Morris, S., Excell, E., (2015) *ABB code for responsible gambling and player protection: evaluation of early impact among machine gamblers*. London: Responsible Gambling Trust.
62. Bridges, S., **Wardle**, H., Husain, F. (2015) *Developing a logic model for the ABB code for responsible gambling and player protection*. London: Responsible Gambling Trust.
63. **Wardle,** H. (2015) *Exploring area-based vulnerability to gambling-related harm: Who is vulnerable? Findings from a quick scoping review*. London: Westminster City Council.
64. **Wardle**, H., Parke, J., Excell, D., (2014) *Report 1: Theoretical markers of harm for machines in bookmakers: a rapid scoping review.* London: Responsible Gambling Trust.
65. **Wardle**, H., Excell, D., Ireland, E., Iliac, N., Sharman, S., (2014) *Report 2: Identifying problem gambling: findings from a survey of loyalty card customers.* London: Responsible Gambling Trust.
66. Excell, D., Bobashev, G., **Wardle**, H., Gonzalez-Ordonez, D., Whitehead, T., Morris, R., Ruddle, P. (2014). *Report 3: Predicting Problem Gambling: Analysis of industry data.* London: Responsible Gambling Trust.
67. **Wardle**, H., Philo, D. (2014) *Changes in machine gambling behaviour. Headline findings from a follow-up study of participants to the Health Survey for England 2012, Scottish Health Survey 2012 and the British Gambling Prevalence Survey 2010.* London: Responsible Gambling Trust.
68. **Wardle**, H., Ireland, E., Sharman, S., Excell, D., Gonzalez-Ordonez, D. (2014) *Patterns of play: analysis of data from machines in bookmakers.* London: Responsible Gambling Trust.
69. Collins, D., Green, S., d'Ardenne, S., **Wardle**, H., (2014) *Understanding of Return to Player messages: Findings from user testing.* Responsible Gambling Trust: London.

70. **Wardle,** H., Seabury, C., Ahmed, H., Payne, C., Byron, C., Corbett, J., Sutton, R. (2014) *Gambling behaviour in England and Scotland*. Gambling Commission: Birmingham.
71. **Wardle,** H., Seabury, C., Ahmed, H., Coshall, C. (2013) *Scoping the use of industry-held data on category B gaming machines.* Responsible Gambling Trust: London.
72. Husain, F., **Wardle,** H., Kenny, T., Balarajan, M., Collins, D. (2013) *Examining machine player behaviour: a qualitative exploration*. Responsible Gambling Trust: London.
73. **Wardle,** H., Sutton, R., Philo, D., Hussey, D., Nass, L. (2013) *Examining machine gambling in the British Gambling Prevalence Survey*. Gambling Commission: Birmingham.
74. **Wardle,** H., Moody, A., Spence, S., Orford, J., Volberg, R., Griffiths, M., Jotangia, D., Hussey, D., Dobbie, F. (2011) *British Gambling Prevalence Survey 2010*. Gambling Commission: Birmingham.
75. **Wardle** H, Pickup D, Lee L, Hall J, Pickering K, Moodie C, Mackintosh A (2010). *Evaluating the impact of picture health warnings on cigarette packets*. Public Health Research Consortium: York.
76. **Wardle,** H., Sproston, K., Orford, J., Erens, B., Griffiths, M., Constantine, R., Piggot, S. (2007) *British Gambling Prevalence Survey 2007*. Gambling Commission: Birmingham.
77. Zaninotto, P., **Wardle,** H., Stamatakis, E., Mindell, J., Head, J. (2006), *Forecasting obesity to 2010* Department of Health. Available at: http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsStatistics/PublicationsStatisticsArticle/fs/en?CONTENT_ID=4138630&chk=XVZ/60.

Non-peer reviewed research reports

78. LOOT BOX REVIEW
79. HARMS REPORT
80. Ashford R, Bates B, Bergli C, Purdon S, Bryson C, **Wardle** H. (2022) Gambling participation and the prevalence of problem gambling survey: Pilot stage Methodology review report. Gambling Commission: Birmingham.
81. **Wardle**, H., Reith, G., Best, D., McDaid, D., Platt, S. (2018) *Measuring gambling-related harms: a framework for action.* Gambling Commission: Birmingham
82. Bridges, S., Fuller, E., Ahmed, H., **Wardle,** H. (2014) *Fairness and the GMC: Doctors' views of the General Medical Council*. General Medical Council: London
83. Seabury, C., **Wardle,** H. (2014) *Gambling in England and Scotland: Headline findings*. Gambling Commission: Birmingham.
84. **Wardle,** H.(2013) 'Gambling behaviour' in Rutherford, L., Hinchliffe, S., Sharpe, C. (eds) *Scottish Health Survey 2012.* Scottish Government: Edinburgh.
85. **Wardle,** H., Seabury, C. (2013) 'Gambling behaviour' in Craig, R., Mindell, J. (eds) *Health Survey for England 2012*. Information Centre for Health and Social Care: Leeds.
86. Parke, J., **Wardle,** H., Parke, A., Rigbye, J. (2013) *Exploring social gaming: scoping, classification and evidence*. Gambling Commission: Birmingham.
87. Gray, M., **Wardle,** H. (2013) *Observing gambling behaviour using video technology and think aloud techniques. A methodological review*. NatCen Social Research: London.
88. **Wardle,** H. (2010) 'Smoking, drinking and drug use' in Fuller L, Sanchez M (eds). *Smoking Drinking and Drug Use 2010.* Information Centre for Health and Social Care: Leeds.
89. **Wardle,** H. (2010) 'Adult cigarette smoking' in Craig, R., Hirani, V. (eds) Health Survey for England 2009. Information Centre for Health and Social Care: Leeds.
90. **Wardle,** H. (2009) 'Adult cigarette smoking' in Craig, R., Mindell, J., Hirani, V. (eds) *Health Survey for England 2008*. The Information Centre for Health and Social Care: Leeds.

91. **Wardle,** H., Dobbie, F., Kerr, J., Reith, G. (2009). *Questionnaire development for a longitudinal study of gamblers: phase 1*. Gambling Commission: Birmingham.
92. **Wardle,** H., D'Souza, J., Farrell, M. (2009) 'Gambling Behaviour' in McManus, S., Meltzer, H., Brugha, T., Bebbington, P., Jenkins, R. (eds). *Adult Psychiatric Morbidity in England*. Information Centre for Health and Social Care: Leeds.
93. Griffiths, M., **Wardle,** H., Orford, J., Sproston, K., Erens, B. (2008) *Internet gambling: a secondary analysis of findings from the 2007 British Gambling Prevalence Survey.* Gambling Commission: Birmingham.
94. Scholes, S., **Wardle,** H., Griffiths, M., Orford, J., Sproston, K., Erens, B. (2008) *Understanding Non-response to the British Gambling Prevalence Survey*, Gambling Commission: Birmingham.
95. **Wardle,** H., Mindell, J. (2008) 'Adult Cigarette Smoking' in Craig, R., Mindell, J. (eds.) *Health Survey for England 2007*, The Information Centre for Health and Social Care: Leeds.
96. **Wardle,** H. (2007) 'Cigarette Smoking' in Craig, R., Mindell, J. (eds.) *Health Survey for England 2006*, The Information Centre for Health and Social Care: Leeds.
97. **Wardle,** H. (2006) 'Chapter 5: Overview' in Craig, R., Mindell, J. (eds.) *Health Survey for England 2005: Mental Health and Wellbeing: The health of older people.* The Information Centre for Health and Social Care: Leeds.
98. **Wardle,** H. (2006) 'Chapter 4: Self reported health state (EQ-5D)' in Craig, R., Mindell, J. (eds.) *Health Survey for England 2005: Mental Health and Wellbeing: The health of older people*. The Information Centre for Health and Social Care: Leeds.
99. **Wardle,** H. (2006) 'Chapter 4: Use of Tobacco Products' in Mindell, J., Sproston, K., (eds) *Health Survey for England 2004: The health of minority ethnic groups*. NatCen: London.
100. MacGregor, A., **Wardle,** H. (2005) 'Chapter 2: Smoking' in Bromley, C., Sproston, K., Shelton, N. (eds) *The Scottish Health Survey. Volume 2: Adults.* Scottish Executive: Edinburgh.
101. Speight, S., **Wardle,** H., Bromley, C. (2005) '*Chapter 3: Fruit and Vegetable consumption and Eating Habits'* in Bromley, C., Sproston, K., Shelton, N. (eds) *The Scottish Health Survey. Volume 2: Adults* Scottish Executive: Edinburgh.
102. **Wardle,** H. (2005) 'Smoking' in Bromley, C., Sproston, K., Shelton, N. (eds) *The Scottish Health Survey*.Scottish Executive: Edinburgh.
103. **Wardle,** H. (ed) *Obesity among children under 11 Department of Health, 2005* http://www.dh.gov.uk/PublicationsAndStatistics/Publications/fs/en.
104. **Wardle,** H. (2004) 'Cigarette Smoking' in Primatesta, P., Sproston, K. (eds) *Health Survey for England 2003: risk factors for cardiovascular disease.* The Stationery Office: London.
105. Hedges, B., **Wardle,** H. (2003) '*Chapter 2: Cigarette smoking'* in Primatesta, P., Sproston, K. (eds) *Health Survey for England 2002: the health of children and young people. Volume 1.* The Stationery Office: London.

Books

106. Wardle, H. (2021) Games without Frontiers? Socio-Historical Perspectives on the Gaming/Gambling intersection. Palgrave MacMillen. In press.

Book chapters

107. Biggar B, Ukhova D, Kesaite V, Wardle WOMEN'S SPORTS
108. Wardle H, Laidler F WOMEN GAMBLING

109. Reith G, Wardle H. The Framing of Gambling and the Commercial Determinants of Harm: Challenges for Regulation in the UK in Nikkenen et al (eds) *The Global Gaming Industry*. Springer.
110. **Wardle**, H (2017) 'The 'Re-feminisation' of gambling: social, cultural and historical insights into female gambling behaviour in Great Britain' in Bowden Jones, H & Prever, F (eds). *Gambling Disorders in Women: an international female perspective on treatment and research*. Routledge: Oxford.
111. **Wardle,** H. (2014) 'Chapter 1: Gambling Behaviour in Britain' in Bowden Jones, H & Sanju G (eds). *Clinicians guide to working with problem gambling*. Routledge. London.

Comments/editorials

112. Kesaite V, **Wardle** H. (2022) Changes in gambling harms show need to consider the relationship between harms and availability. Lancet Regional Health – Europe. http://doi.org/10.1016/j.lanepe.2021.100288
113. **Wardle**, H., Degenhardt, L., Ceschia, A., Saxena, S (2021) The Lancet Public Health Commission on gambling. *Lancet Public Health* 6 (1): E2-E3.
114. **Wardle** et al. (2020) Open letter from UK based academic scientists to the secretaries of state for digital, culture, media and sport and for health and social care regarding the need for independent funding for the prevention and treatment of gambling harms. *BMJ*; 370:m2613
115. **Griffiths, S**., Reith, G., Wardle, H., Mackie, P. (2020) Pandemics and epidemics: gambling and public health. *Public Health.* 184: 1-2.
116. Patel JA, Nielsen FBH, Badiani AA, Assi S, Unadkat VA, Patel B, Ravindrane R, **Wardle** H. (2020) Poverty, inequality and COVID-19: the forgotten vulnerable. *Public Health.* 183:110-111.
117. Zendle,D., **Wardle,** H., Reith, G., Bowden-Jones, H. (2019) A new public body is necessary to effectively regulate the UK video game industry. BMJ. https://blogs.bmj.com/bmj/2019/10/09/a-new-public-body-is-necessary-to-effectively-regulate-the-uk-video-game-industry/
118. Reith, G., **Wardle**, H., Gilmore I. (2019) Gambling harm: A global problem requiring global solutions. *Lancet*. doi: 10.1016/S0140-6736(19)31991-9.
119. **Wardle,** H. (2015). *What the data from gambling machines tells us about betting behaviour.* Significance: The Royal Statistical Society.
120. **Wardle,** H., Griffiths, M. (2011) *Defining the online gambler: the British perspective*. World Online Gambling Review.
121. **Wardle,** H., Deverill, C. (2007) *The impact of unconditional incentives on response: The Health Survey for England* Proceedings of XXIII International Methodology Symposium, Ottawa.
122. **Wardle,** H., Robinson, C. (2007) *Choosing web surveys: mode choices among Youth Cohort Study respondents* Proceedings of the Association of Survey Computing Annual Conference, Southampton.

Recent research grants (last 10 years):

1. Gambling Prevalence and Problem Gambling Survey, Co-principal investigator. Gambling Commission. £1,000,000.
2. Evidence review on the impact of gambling advertising. Co-investigator. Greater London Authority. £20,000.

3. Modelling treatment need for gambling harms. Co-investigator. Office for Health Improvements and Disparities. £150,000.
4. Modelling gambling harms in Greater Manchester. Principal Investigator. Greater London Combined Authorities. £25,000.
5. Can a 'trigger' question to identify gambling harms to individuals or affected others be validated and used in three local authority (LA) Adult services departments (ASDs)? Co-investigator. NIHR. £238,658 2021-2023.
6. Rapid Review of evidence on Loot Boxes. Co-investigator. £40,000. Department of Digital Culture Media and Sport. 2021.
7. Gambling Harms in Greater Manchester: Data Scoping Project. **Principal Investigator.** Greater Manchester Combined Authority. £9,900. 2020-2021.
8. Betting and gaming: the Covid-19 impact study. **Co-PI**. ESRC. £580,000. 2020-2021.
9. Football Fans and Betting: a feasibility study and randomised pilot trial of a group-based intervention to reduce gambling involvement among male football fans. Co-investigator. Funded by the National Institute for Health Research. £629,765.79. 2020-2021.
10. Wellcome Humanities and Social Sciences Research Fellowship. Funded by Wellcome. **Principal Investigator**. £215,000. 2017-2021.
11. Longitudinal scoping study. Co-**Principal Investigator**. Funded by the Gambling Commission. £15,000. 2019.
12. Gambling-related harm among migrant communities: an urban phenomenon. **Principal Investigator.** Funded by LSHTM/King's joint fund. £15,000. 2018.
13. Suicidality and gambling behaviour. **Principal Investigator.** Funded by GambleAware. £35,000. 2018.
14. Review of gambling as a public health issue. Co-**Principle Investigator**. Funded by Public Health Wales. £75,000. 2017/18.
15. Evaluation of Prostate Cancer UK's training programme. Co-investigator. Funded by Prostate Cancer UK. £20,000. 2016-17.
16. Problem gambling in Leeds. Co-investigator. Funded by Leeds City Council. £30,000. 2016.
17. Follow-up study of loyalty card holders. **Principal Investigator**. Funded by Responsible Gambling Trust. £140,000. 2016.
18. Study of problem gambling among bingo patrons. Co-investigator. Funded by Responsible Gambling Trust. £125,000. 2016
19. Secondary analysis of loyalty card survey. **Principal Investigator**. Funded by Responsible Gambling Trust. £15,000. 2016
20. Exploring area-based vulnerability to gambling-related harm. **Principal Investigator**. Funded by Westminster and Manchester City Councils. £79,000. 2015.
21. Gambling among professional sports people. **Principal Investigator**. Funded by the Professional Players Federation. £4000. 2015.
22. Health behaviours and health behaviour change among adults in England. Co-investigator. Funded by Department of Health. £350,000. 2015-2018.
23. Evaluation of the Association of British Bookmaker's code of responsible practice. **Principal Investigator.** Funded by the Responsible Gambling Trust. £127,000. 2014-2015
24. Evaluation of the uplift of stakes and prizes on B1 casino machines. Co-investigator. Funded by the Responsible Gambling Trust. £70,000. 2014-2015.
25. Survey of gambling machine players, **Principal Investigator**. Funded by the Responsible Gambling Trust. £130,000. 2014.
26. Survey of bookmaker's loyalty card holders, **Principal Investigator**. Funded by the Responsible Gambling Trust. £156,000. 2014.
27. Gambling behaviour in Britain, 2012, **Principal Investigator**. Funded by the Gambling Commission. £37,000. 2014.

28. Machines research strategy. Core phase 1. **Principal Investigator**. Funded by the Responsible Gambling Trust. £67,000. 2014
29. Scoping the use of gambling industry data for research, **Principal Investigator**. Funded by the Responsible Gambling Trust. £47,000. 2013.
30. Social gaming: scoping, classification and evidence review, Co-investigator. Funded by the Gambling Commission. £27,000. 2013
31. Fairness and the General Medical Council. **Principal Investigator**. Funded by the General Medical Council. £111,000. 2012-2014.
32. Secondary analysis of machine gambling behaviour in Britain. **Principal Investigator**. Funded by the Gambling Commission. £15,000. 2012-2013.
33. Exploring machine player behaviour. Co-investigator. Funded by the Responsible Gambling Trust, £55,000. 2012-2013.
34. Understanding bingo play, **Principal Investigator**. Funded by the Bingo Association. £9,000. 2012.
35. Multiple risk factors for Cardiovascular Disease: examining relationships between parents and children. Co-investigator with Prof Hilary Graham, University of York. Funded by the Department of Health. £250,000. 2011-2015.

Conference papers and presentations:

Wardle H (2022) Exploring the commercial, political and economic determinants of gambling harms. Current Advances in Gambling Research. (Invited Keynote).

Wardle H (2022) Learning lessons? Britain's experiment with the liberalization of gambling. National Council of Problem Gambling, USA. Boston (invited speaker).

Wardle H (2022) Learning lessons? Britain's experiment with the liberalization of gambling. National Council of Problem Gambling. California Problem Gambling Council. (invited speaker)

Wardle H (2021) Gambling as a public health issue. Glasgow Gambling Summit (invited speaker).

Wardle H (2021) Global solutions to a global problem: The Lancet Public Health Commission on Gambling. 4th Safer Gambling Conference. Cyprus. (invited keynote).

Wardle H (2021) Global gambling harms: commercial, political and commercial drivers and implications for prevention. European Gambling Harms Prevention Network. (invited Keynote)

Wardle H (2021) Global solutions to a global problem: The Lancet Public Health Commission on Gambling. French Gambling National Authority Seminar. (invited speaker)

Wardle H. (2021) *Measuring Gambling Harms: the challenge of converting theory into practice*. New Horizons in Responsible Gambling; Vancouver. (Invited speaker)

Wardle H. (2020) *Gambling during Covid-19: findings from the Betting and Gambling Covid-19 impact study.* Society for the Study of Addiction Annual Conference.

Wardle H (2020) *Public Health perspectives on Gambling.* John Hopkins Fall Institute/Institute of Public Health, Barcelona. Half Day seminar. (invited seminar leader)

Wardle H. (2019) *British Gambling Regulation: Context and Challenges.* WHO Panel on Gambling, Istanbul. (Invited speaker)

Wardle H. (2019) *When gaming become gambling*. British Science Festival. Coventry.

Wardle H. (2019) *Gambling and gaming*. Children's Media Conference. Sheffield. (Invited panelist and conference session producer)

Bramley, S, **Wardle** H (2019) *Migrants and gambling.* Current advances in gambling research. London.

Wardle H, (2019) *Mapping harms: current applications and future directions – a case study of Newham*. Current advances in gambling research. London

Wardle H, Miller T (2019) *Making Harms Matter.* 17th International Conference on Gambling and Risk Taking. Las Vegas.

Wardle H, (2019) *Gambling harms.* Sporting Resolution conference. London. (Invited panelist)

Wardle H (2019) *Socio-historical perspectives on the blurring boundaries between games and gambling*. Albert Gambling Research Institute Conference: Banff.

Wardle H (2019) *Developing a picture of gambling harms locally*. Local Government Association's Annual Licensing Conference (invited speaker)

Wardle H (2019) *Gambling and suicide.* All Party Parliamentary Group on Suicide and Self Harm. House of Commons. London (invited speaker)

Wardle H (2018) *Gambling advertising and marketing*. Gambling Commission Raising Standards Conference (invited speaker)

Wardle H (2018) *Putting women first…* European Association of Study of Gambling. Malta.

Wardle H (2018) *Rites of passage: the changing role of gambling in the lives of children*. European Association for the Study of Gambling. Malta.

Wardle H (2018) Gambling harms: implications for treatment, policy and practice. Treating Addiction Conference. London. Invited speaker.

Wardle H (2018) *Understanding gambling-related harms.* Local Government Association Launch of a Towards a Whole Council Approach to tackling gambling-related harms (invited speaker)

Reith G, **Wardle** H (2018) *Understanding gambling-related harms*. Public Health England Annual Conference. Invited speakers.

Wardle H (2017) *Technological change and the health of wellbeing of youth: a case study of gambling.* GambleAware Annual Conference. Invited Keynote.

Wardle H (2017) *Is it all in the mind? Historical and social perspectives of gambling.* All Party Parliamentary Group: Betting and Gaming seminar. House of Commons, London. Invited speaker.

Wardle H (2016) Changes in gambling behaviour over time. Annual conference of the Responsible Gambling Trust.

Wardle H (2016) Mapping vulnerability to gambling-related harm: a British case study. 16th International Conference on gambling and risk taking. Las Vegas.

Wardle H (2016) Who loses? Losing money on machines in boomakers: Evidence from Great Britain. 16th International Conference on gambling and risk taking. Las Vegas.

Wardle H (2016) Gambling and vulnerable people. Regulatory Briefing on Greece. Athens. Invited speaker.

Wardle H (2015) "There is no evidence" – Use of evidence and research practice in contested spaces: A case study of gambling. Annual Conference of the Social Research Association. London.

Wardle H (2015) *Identifying Harm Among Machine Players: Findings From a Multicomponent Research Study.* New Horizons Conference 2015: Vancouver, Canada.

Wardle H (2014) *Gambling, gaming and youth: should we be concerned?* Institute of Child Health seminar series (invited speaker)

Wardle H (2014) *The challenges of convergence: a case study of gambling, gaming and the digital world.* British Sociological Association Annual Conference: Leeds

Wardle H, Sharp C (2014) *Gambling behaviour and health in Scotland: findings from the Scottish Health Survey 2012.* 3rd International Symposium of excessive gambling. Neuchatel: Switzerland.

Wardle H (2014) *Women and gambling: understanding behaviours, attitudes and motives*. 3rd International Symposium of excessive gambling. Neuchatel: Switzerland.

Wardle H, (2013) *UK social gaming: policy and perspective*. Social Gambling Conference: London (invited speaker)

Wardle H (2013) *The challenges of convergence: a case study of gambling, gaming and the digital world.* European Association for the Study of Gambling seminar: Social gaming: threat or opportunity. Brussels: Belgium (invited speaker).

Wardle H, Graham H, Law C, Platt L. (2013) *The health behaviours of mothers in England: A Latent Class Analysis*. Society and Social Medicine Annual Conference: Brighton.

Parke J, **Wardle** H (2013) *Player insights using player data: Scoping research opportunities for understanding risk in gaming machines in Great Britain. 15th International Conference on Gambling and Risk.* Las Vegas: USA.

Wardle H (2012) *Understanding self-exclusion: people, processes and procedures. 9th European Conference on Gambling Studies and Policy.* Loutraki: Greece

Wardle H (2012) *Understanding self-exclusion: findings of a research study.* Discovery Conference: Toronto: Canada

Wardle H (2011) *What have we learnt from gambling prevalence research and how do we measure prevalence of problem gambling?* Romanian Association for the Study of Gambling 1st conference: Cluj Napoca: Romania (invited speaker)

Wardle H. (2011) *Gambling in Britain: Past, present and Future.* Global Gaming Management Series. Macau Polytechnic Institute. (Invited speaker)

Wardle H. (2011) *Gambling behaviour, policy and practice: perspectives from other jurisdictions*. 1st Pan European Gaming and Social Responsibility Forum: Corporate Culture or State Coercion?. Athens: Greece (Invited speaker).

Wardle H. (2010) *Measuring gambling involvement: towards a consensus? New directions from the British Gambling Prevalence Survey*. 8th European Conference on Gambling Studies and Policy. Vienna: Austria.

Moody A, **Wardle** H (2010).*Gambling subtypes: A tale of two methods.* 8th European Conference on Gambling Studies and Policy. Vienna: Austria.

Wardle H. (2010) Introduction to Framework. Comparing approaches to qualitative data analysis. One day seminar on qualitative research methods. Harvard University: USA

Wardle H, Hussey (2009) Positioning Problem Gambling: Findings from the English Adult Psychiatric Morbidity Survey 2007. 14th International Conference of Gambling and Risk Taking. Lake Tahoe: USA

Wardle H. (2008) *Who uses the internet to gamble? Findings the 2007 British Prevalence Study.* 7th European Conference on Gambling Studies and Policy. Nova Gorica: Slovenia.

Other public engagement and impact activity:

Blogs and podcasts (most recent)
The Guardian: Britain need not be a nation of gamblers. We have to rein in this industry. https://www.theguardian.com/commentisfree/2021/oct/04/britain-nation-gamblers-industry-profits-review.
Sky News Podcast: Rolling the dice? Has Covid-19 caused a gambling pandemic? https://news.sky.com/story/rolling-the-dice-has-covid-19-caused-a-gambling-pandemic-12239976
The Cynic podcast: football and gambling. https://twitter.com/90MinuteCynic/status/1234554220612812800
***BMJ Podcast*: "tackling gambling"** to support our article "gambling and public health". Listened to over 16,000 times: https://www.bmj.com/content/365/bmj.l1807
***The Conversation*:** New gambling tax is moving up the agenda: here's how it needs to work. https://theconversation.com/new-gambling-tax-is-moving-up-the-agenda-heres-how-it-needs-to-work-118648
Huffington Post: Gambling With Our Future: Betting Industry Football Sponsorship Needs Tackling Head-On. https://www.huffingtonpost.co.uk/entry/football-gambling-premier-league_uk_5b7434f6e4b0182d49af791e
LSE Digital Parenting Blog: The tale of iggle-piggle and the slot machine: children's exposure to gambling: http://blogs.lse.ac.uk/parenting4digitalfuture/2018/06/27/childrens-exposure-to-gambling/
***Harvard BASIS blog*:** Rites of passage: changing engagement in risky behaviours. https://www.basisonline.org/2017/09/rites-of-passage-changing-engagement-in-youth-risk-behaviours.html
LSHTM blog: The end of the experiment? Labour's new position on gambling policy and practice. https://www.lshtm.ac.uk/newsevents/expert-opinion/end-experiment-labours-new-position-gambling-policy-and-practice
LSHTM feature on gambling: Gambling is a public health issue (video blog): https://www.youtube.com/watch?v=nTmk2Wv4GeQ
Blog to support Channel 4 Dispatches documentary: http://www.channel4.com/programmes/dispatches/articles/2012/britains-high-street-gamble-how-where-why

Television and radio:
2022: Appeared in documentary series with Darren McGarvey on gambling. Interviewed for Newsnight. Several print interviews.
2021: Interviewed for Sky News about the Gambling Act Review (March); Interviewed for BBC Radio Scotland and Go Radio on Betting during Covid (March); Interviewed for Daily Mail article on gambling and suicide (Jan); Three-part documentary series for BBC World Service airing April – May.

2020: Interviewed for Sky News looking at gambling during covid (May); Interviewed on BBC Football Focus about gambling and football (Jan); interviewed by The Guardian on need for funding change (July)
2019: Featured in BBC Panorama investigation on gambling (August); interviewed for BBC Radio 4 The Long View (gambling and technological change); Interviewed on BBC Radio 4 You and yours (gambling and credit).
2018: Interviewed for BBC Radio 4 Women's Hour (skin gambling and betting); interviewed for Five Live (world cup betting)
2017: Interviewed on BBC Radio 4's Women's Hour (gambling and children).
2016: Gambling risk maps discussed on BBC 6 o'clock news; gambling risk maps discussed on Victoria Derbyshire show; interviewed on BBC Breakfast Berkshire; interviewed on Share Radio.
2015: Consultant on BBC Panorama "Britain at the Bookies".
2014: Interviewed on BBC Breakfast; interviewed on BBC Five Live.
2013 and earlier: Interviewed on BBC Radio Wales; BBC Radio Northampton and various other radio appearances. Interviewed on Channel 4 Dispatches programme (2012).

Other:

- Presented evidence to the House of Lords Select Committee enquiry into the Social and Economic Impact of the Gambling Industry
- Presented evidence to the All Party Parliament Groups on gambling harms; suicide and fixed odd betting terminals; Northern Irish All Party Group on Gambling
- Presented evidence to the Culture, Media and Sport Select Committee hearing about the impact of the Gambling Act 2005. November 2011.
- Various print media interviews.
- Sole nominee from LSHTM for British Science Festival Award Lectures (2019)