

TONBRIDGE & MALLING

National Child Measurement Programme: Further Analysis of the Drivers of Excess Weight

February 2017



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Version: 01

Last Updated: February 2017

| 1. Background

This paper provides a high level summary of the results of in-depth analyses exploring the drivers of excess weight among reception and year six children, a [full report](#) has been published.

The following analyses of local childhood weight data have also been produced:

- Local authority level [trend analysis of data up to 2015/16](#), with comparisons to Kent, the South East and England.
- Kent [analysis of the inequalities](#) in childhood obesity.

The above analyses have established that overweight and obesity prevalence is higher in children resident within areas of deprivation. Further, there is evidence for a widening gap in obesity prevalence between the most and the least deprived groups across Kent during 2008/09 to 2014/15.

The following paragraphs summarise the key findings from the [full report](#). Maps have also been presented for the LSOAs in Tonbridge & Malling with the highest levels of excess weight¹ across Kent.

¹ defined as the upper quartile of excess weight across Kent between 2008/09 to 2014/15

| 2. Ethnicity

The association between deprivation and high levels of obesity and excess weight in childhood is well documented. There is also a strong body of evidence indicating that certain ethnic groups are at greater risk of excess weight.

Our analysis used statistical methods to enable comparison to White children and demonstrated **higher odds of excess weight among:**

- **Black children** within reception year in Kent
- **Black, Asian and Other² children** within year six in Kent

This remained even after accounting for deprivation.

We were able to show that the strength of the association between excess weight and Black populations varies across localities in Kent. The [full report](#) details the statistical methods used.

This identifies areas where:

- the **association** between black ethnicity and excess weight is **strong**
- and there is a **high** concentration of **black** individuals within the **population**.

KEY FOCUS:

Identifying these areas may help the effective targeting of public health interventions.

² Arab and any other ethnic category

| 3. Living Environment

There is a high level of interest in the influence of the living environment on excess weight. But, unpicking the key features of an obesogenic environment is challenging as the factors that guide food choice and physical activity are complex.

Using appropriate statistical techniques we were able to demonstrate **higher odds of excess weight** for areas with:

- **shorter distances to food outlets (takeaways)**
- **lower access to food supermarkets**

We also found **lower odds of excess weight** for areas with:

- **lower access to greenspace**
- **longer distances to public & private sports facilities**

But, all findings were only before adjustment for deprivation, ethnicity and urban/rural environment.

KEY FOCUS:

Locality mapping of the main assets and vulnerabilities may guide understanding of some of the possible determinants of obesity within the local context.

Table 1: Areas with highest levels of childhood excess weight.

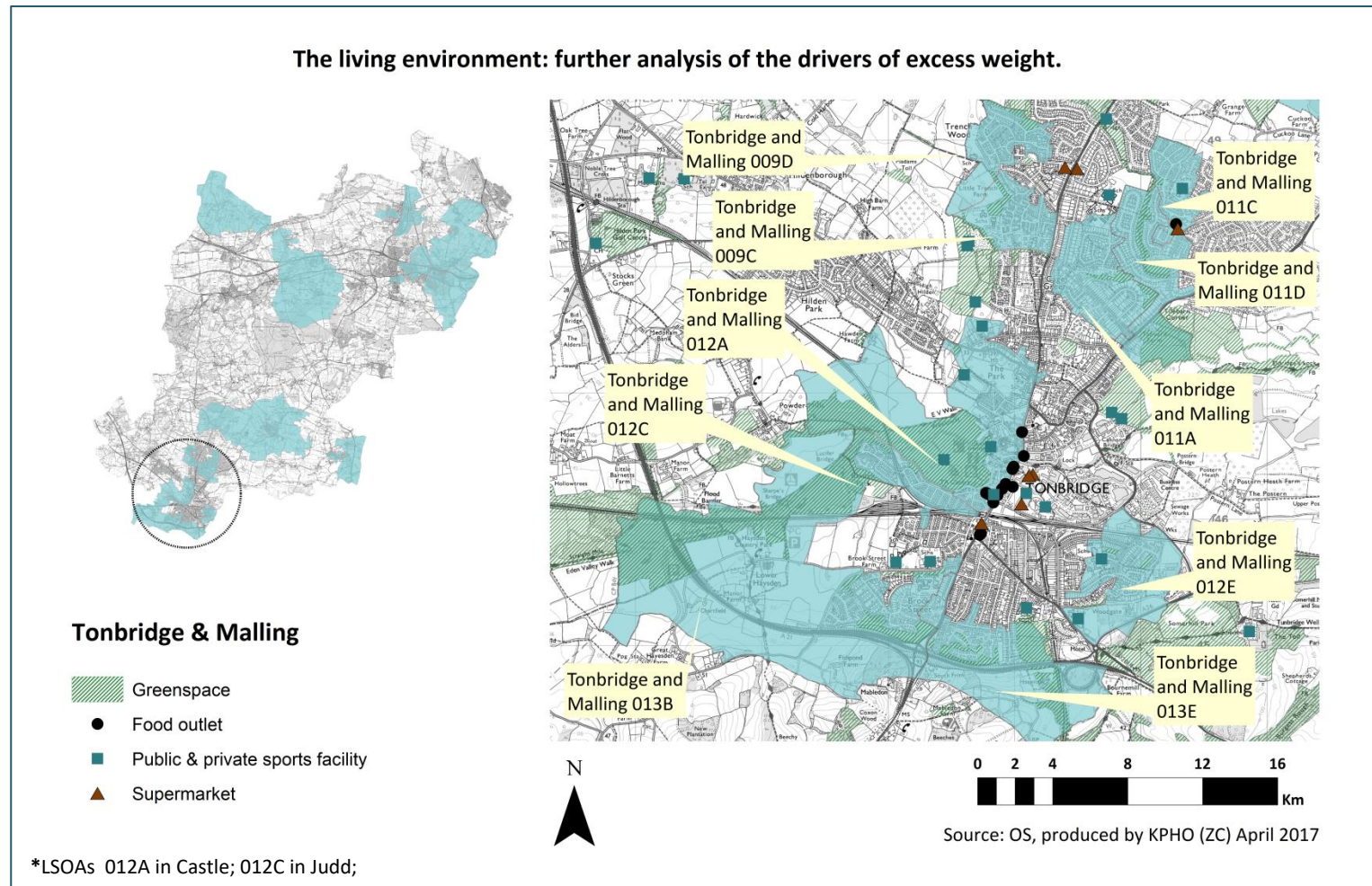
Ward Code	Ward Name	LSOA Code	LSOA Name	IMD Kent weighted quintile	Mind the Gap Type	Upper quartile excess weight
E05005104	Aylesford	E01024717	Tonbridge and Malling 005A	1		reception/ year six
		E01024718	Tonbridge and Malling 005B	5		year six
		E01024719	Tonbridge and Malling 001A	4		year six
E05005107	Burham, Eccles & Wouldham	E01024728	Tonbridge and Malling 001F	3		reception/ year six
E05005108	Cage Green	E01024729	Tonbridge and Malling 011A	3		reception
E05005109	Castle	E01024732	Tonbridge and Malling 012A	3		reception
E05005111	Downs	E01032620	Tonbridge and Malling 014E	4		year six
E05005112	East Malling	E01024741	Tonbridge and Malling 003A	1		year six
E05005113	East Peckham & Golden Green	E01024743	Tonbridge and Malling 008A	4		year six
E05005114	Hadlow, Mereworth & West Peckham	E01024745	Tonbridge and Malling 008C	5		reception
		E01024747	Tonbridge and Malling 008D	2		reception
E05005115	Higham	E01024749	Tonbridge and Malling 011C	3		reception/ year six
		E01024750	Tonbridge and Malling 011D	5		reception
E05005118	Judd	E01024756	Tonbridge and Malling 012C	3		reception
		E01024758	Tonbridge and Malling 013B	4		year six
E05005121	Larkfield South	E01024765	Tonbridge and Malling 003F	5		year six
E05005122	Medway	E01024767	Tonbridge and Malling 012E	2		year six
E05005123	Snodland East	E01024771	Tonbridge and Malling 002C	2		reception
		E01032830	Tonbridge and Malling 002G	2		reception
E05005124	Snodland West	E01024773	Tonbridge and Malling 002E	5		year six
E05005125	Trench	E01024775	Tonbridge and Malling 009C	1		reception
		E01024776	Tonbridge and Malling 009D	2		reception
E05005126	Vauxhall	E01024780	Tonbridge and Malling 013E	4		reception
E05008540	Ditton	E01024735	Tonbridge and Malling 005C	5		year six
		E01024737	Tonbridge and Malling 005E	4		year six

WARDS:

- Cage Green,
- Castle,
- Higham,
- Judd,
- Trench,
- Vauxhall,

ETHNICITY:

Some association between black ethnicity and excess weight. **Parts* of Castle & Judd** have a high concentration of black individuals in the population.



THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban.
- Good access to supermarkets.
- Good access to greenspace.
- Distance to nearest food outlet within 1200m within Cage Green, Castle, Higham, Judd and Vauxhall.

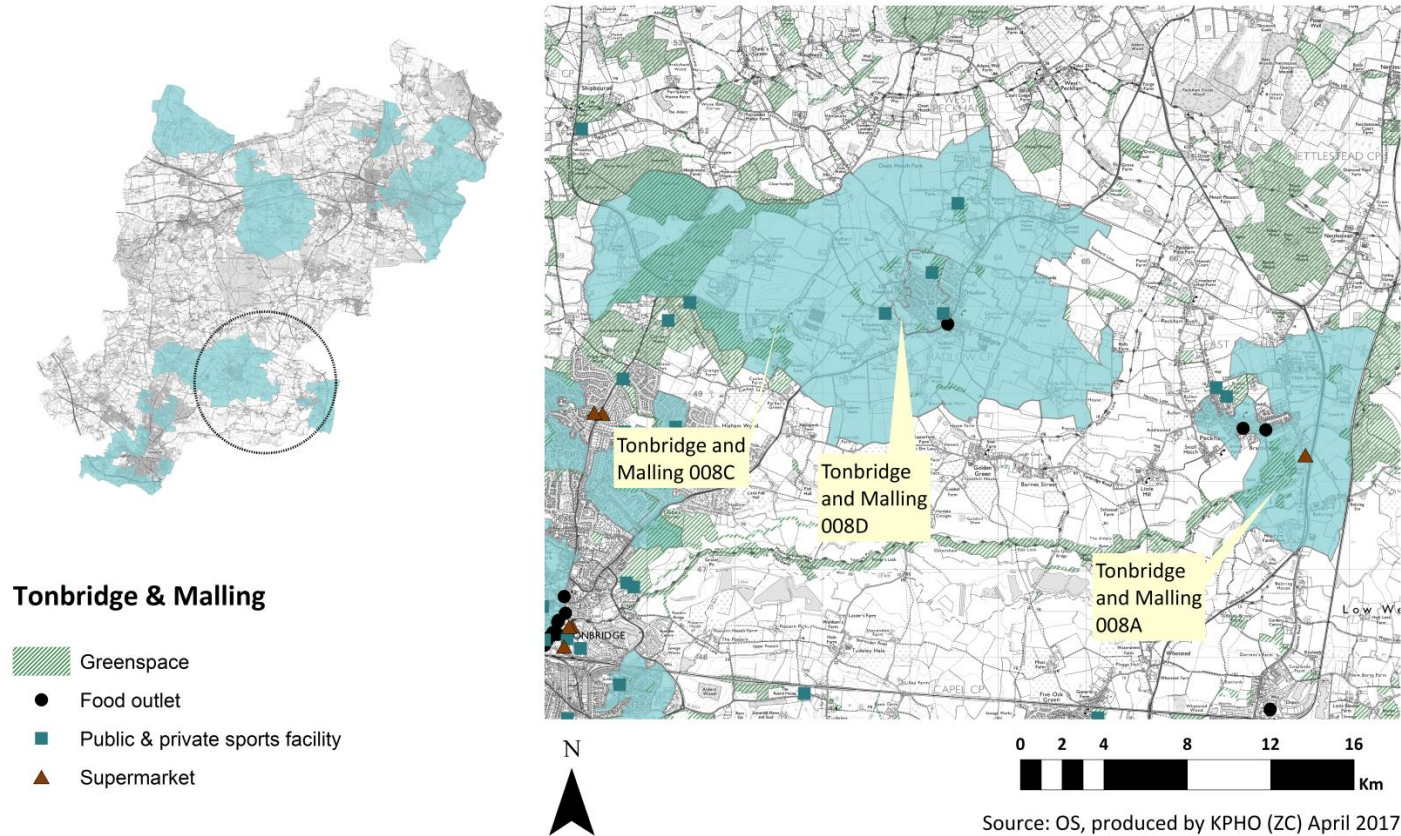
WARDS:

- East Peckham & Golden Green,
- Hadlow, Mereworth & West Peckham,

ETHNICITY:

Weak association between black ethnicity and excess weight.

The living environment: further analysis of the drivers of excess weight.



THE LIVING ENVIRONMENT:

- Rural and urban classification is Town & Fringe.
- Evidence for low access to supermarkets within Hadlow, Mereworth & West Peckham (008C & 008D), driven by greater distance to nearest supermarket.
- Less than 50% of LSOA populations have access to greenspace. Distance to nearest food outlet within 1200m.

WARDS:

- Downs,

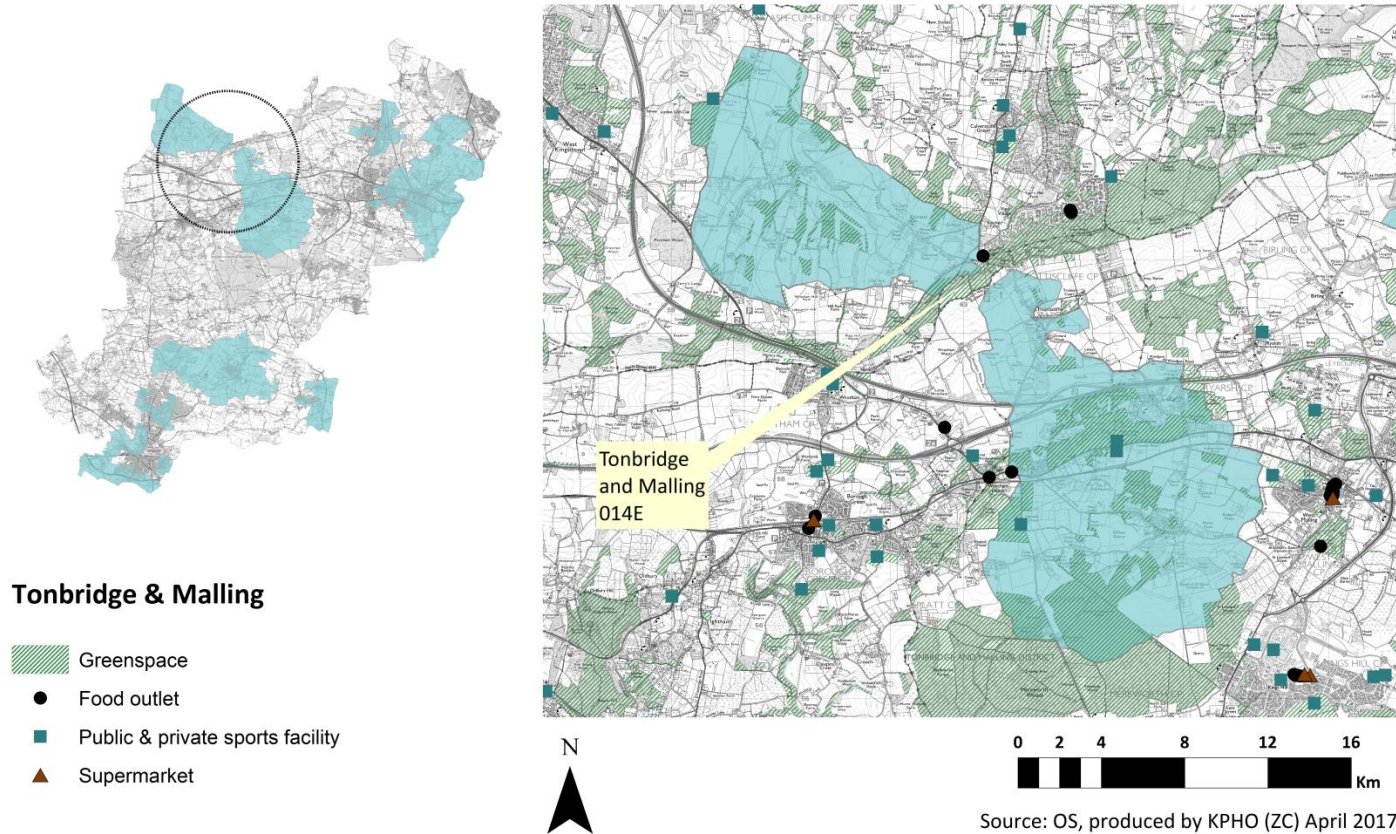
ETHNICITY:

Weak association between black ethnicity and excess weight.

THE LIVING ENVIRONMENT:

- Rural and urban classification is Village.
- Good access to supermarkets.
- 43% of the LSOA population are estimated to have access to greenspace.
- Distance to nearest food outlet greater than 1200m.

The living environment: further analysis of the drivers of excess weight.



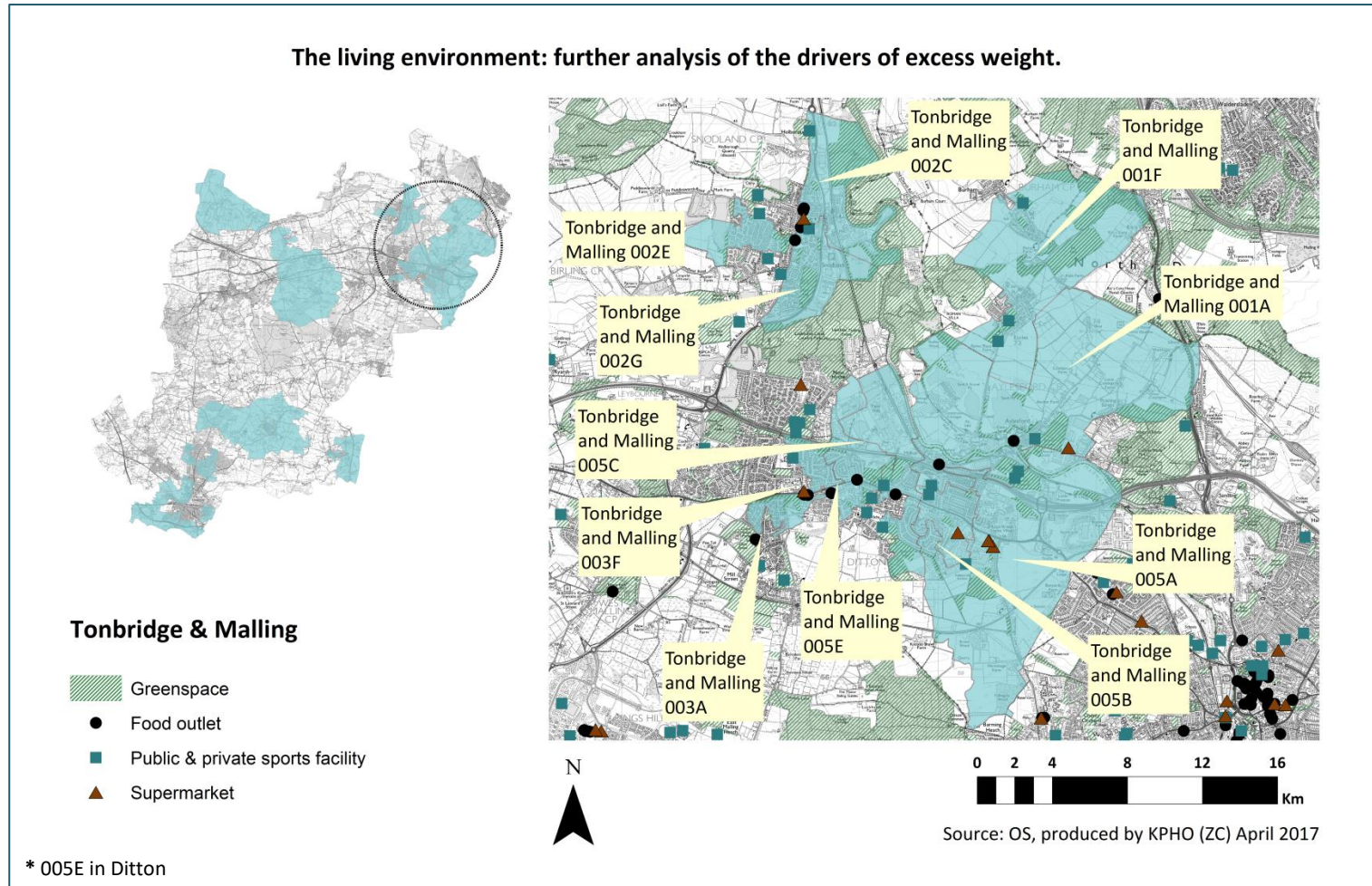
*in most deprived decile: 003D in Salmestone; 003E in Westbrook; 005A in Garlinge

WARDS:

- Aylesford,
- Burham, Eccles & Wouldham,
- Ditton,
- East Malling,
- Larkfield,
- Snodland East,
- Snodland West,

ETHNICITY:

Some association between black ethnicity and excess weight. **Parts of Ditton*** have a high concentration of black individuals in the population.



THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban, except for Burham, Eccles & Wouldham which is Town & Fringe.
- Good access to supermarkets.
- Less than 50% of the population with access to greenspace in Aylesford, Larkfield, Snodland East & West.
- Distance to nearest food outlet within 1200m, except for Burham, Eccles & Wouldham (001F).

| Appendix A: Indicators Used

Lower super output areas with **high levels of excess weight** defined as:

- upper quartile of overweight or obesity as measured by the National Child Measurement Programme 2008-2014

Geographically weighted regression performed using the following variables:

- percentage overweight or obese as measured by the National Child Measurement Programme 2008-2014
- percentage of total population from a Black ethnic group, all ages, as measured by the 2011 Census

Areas with **high Black ethnic group concentration** have been defined as:

- upper quintile of local authority Black population resident within lower super output area as measured by the 2011 Census

The **living environment variables** used:

- mapping the locations of greenspace, food outlets, public & private sports facilities and supermarkets
- straight line distance from LSOA population weighted centroid to nearest takeaway, with emphasis on takeaways within 1200m
- bottom 25th percentile of index scores for supermarket access, combined using arithmetic mean of:
 - straight line distance from LSOA population weighted centroid to supermarket
 - the percentage of LSOA households with no car access for families with dependent children or lone parents was extracted from the 2011 Census
- LSOAs with less than 50% population access to greenspace
 - 1 site greater than 2ha (using ANGSt naturalness 1,2 & 3) within 300m of where people live
- straight line distance from LSOA population weighted centroid to nearest public & private sports facility, with emphasis on the bottom 10th percentile of distances (roughly equivalent to distances greater than 1km)