

DARTFORD

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

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Produced by

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| 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 Dartford 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
E05004926	Bean & Darenth	E01024132	Dartford 012A	2		reception
		E01024133	Dartford 008A	4		reception
		E01024134	Dartford 012B	2		reception
E05004927	Brent	E01024138	Dartford 008D	2		year six
E05004928	Castle	E01024140	Dartford 002A	4		year six
E05004930	Heath	E01024145	Dartford 007B	5		year six
E05004931	Joyce Green	E01024148	Dartford 001A	1	3	reception/ year six
		E01024149	Dartford 001B	1		year six
E05004933	Littlebrook	E01024154	Dartford 001C	1	3	reception
		E01024155	Dartford 001D	1		reception/ year six
		E01024156	Dartford 005A	3		year six
E05004934	Longfield, New Barn & Southfleet	E01024159	Dartford 013C	5		reception
E05004935	Newtown	E01024163	Dartford 005D	3		reception
		E01024164	Dartford 005E	2		reception/ year six
E05004936	Princes	E01024165	Dartford 009A	1	3	year six
		E01024166	Dartford 009B	1		reception/ year six
		E01024167	Dartford 009C	2		year six
E05004937	Stone	E01024169	Dartford 006A	1		reception
		E01024170	Dartford 006B	1		reception/ year six
		E01024171	Dartford 006C	3		year six
E05004938	Sutton-at-Hone & Hawley	E01024173	Dartford 011A	3		year six
		E01024174	Dartford 012D	3		reception
		E01024175	Dartford 012E	5		reception/ year six

Ward Code	Ward Name	LSOA Code	LSOA Name	IMD Kent weighted quintile	Mind the Gap Type	Upper quartile excess weight
E05004939	Swanscombe	E01024176	Dartford 004B	2	3	reception/ year six
		E01024177	Dartford 004C	1		year six
		E01024178	Dartford 004D	2		reception/ year six
		E01024179	Dartford 002D	2		reception/ year six
E05004940	Town	E01024180	Dartford 003A	3		reception
		E01024181	Dartford 003B	2		reception/ year six
E05004941	West Hill	E01024184	Dartford 003E	4		year six
E05004942	Wilmington	E01024187	Dartford 011B	3		reception
		E01024189	Dartford 011D	3		year six

WARDS:

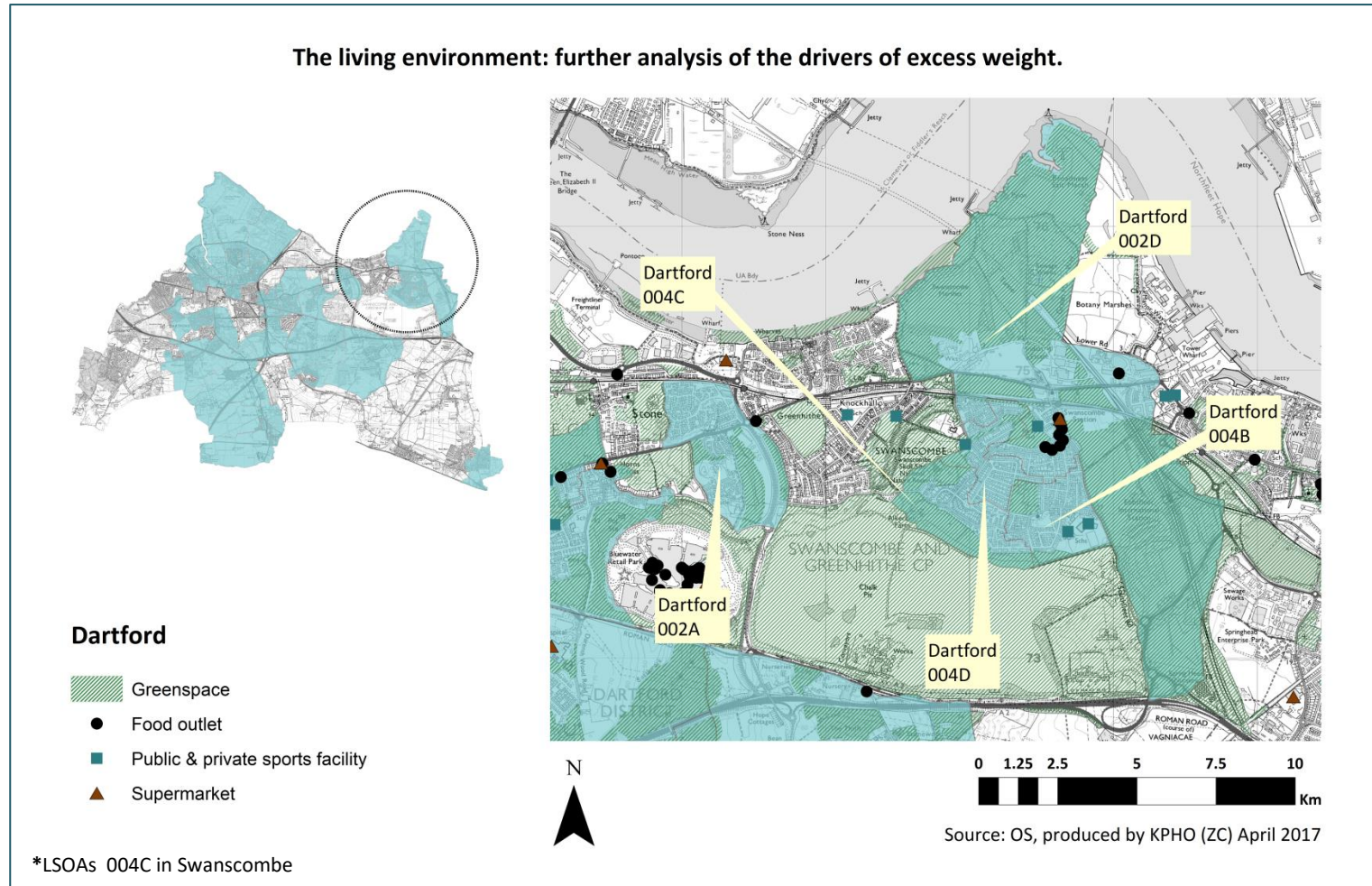
- Castle,
- Swanscombe*,

Parts of Swanscombe* in most deprived decile Type 3

ETHNICITY:

The association between black ethnicity and excess weight was **strong**.

Swanscombe is an area with high concentrations of black populations.



THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban.
- Some evidence for lower access to supermarkets in Swanscombe.
- Generally greater than 50% of the population with access to greenspace.
- Distance to nearest food outlet within 1200m.

WARDS:

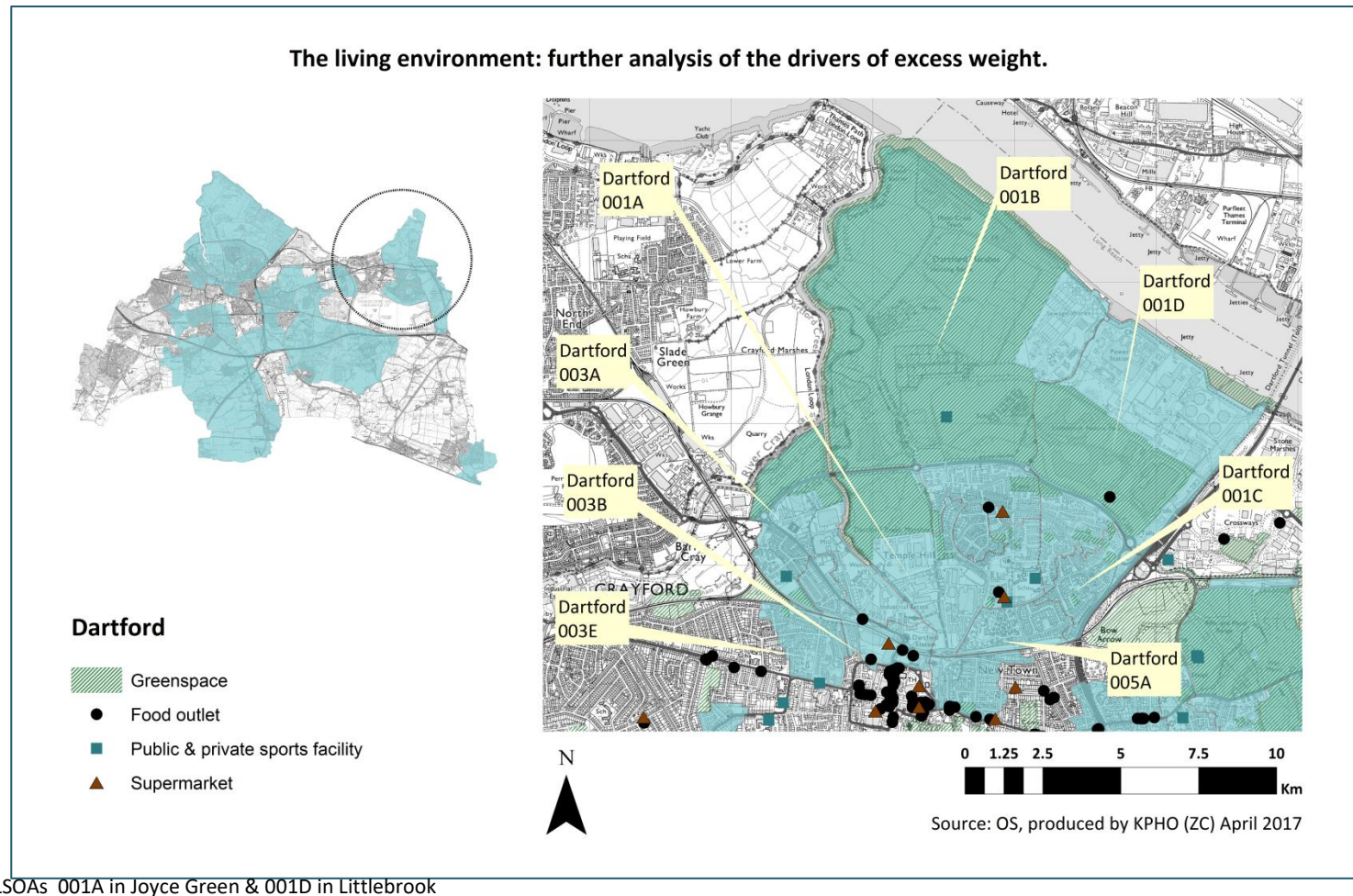
- Joyce Green*,
- Littlebrook*,
- Town,
- West Hill,

Parts* in most deprived decile Type 3

ETHNICITY:

The association between black ethnicity and excess weight was **strong** for reception year.

Joyce Green, Littlebrook & West Hill have high concentration of black populations.



THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban.
- Some evidence for lower access to supermarkets in Joyce Green & Littlebrook, driven by lower car access.
- Generally poor access to greenspace within Littlebrook, Town & West Hill.
- Distance to nearest food outlet within 1200m, with higher densities of food outlets near to Dartford town.

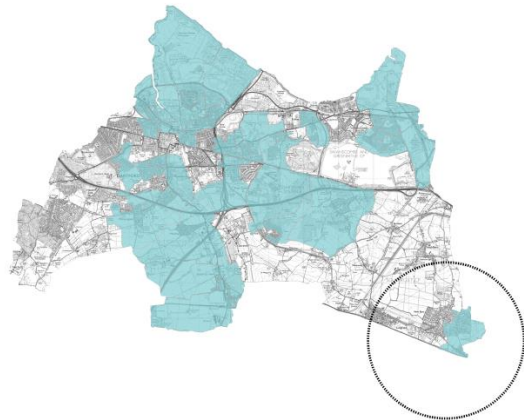
WARDS:

- Longfield, New Barn & Southfleet,

ETHNICITY:

Strong association between black ethnicity and excess weight. Not an area with high concentration of black populations.

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Dartford

- Greenspace
- Food outlet
- Public & private sports facility
- Supermarket



0 1.25 2.5 5 7.5 10 Km
Source: OS, produced by KPHO (ZC) April 2017

THE LIVING ENVIRONMENT:

- Rural and urban classification is generally Urban.
- Good access to supermarkets.
- Less than 50% of the population with access to greenspace.
- Distance to nearest food outlet greater than 1200m.

WARDS:

- Bean & Darenth,
- Brent,
- Heath,
- Princes*,
- Sutton at Hone & Hawley
- Wilmington

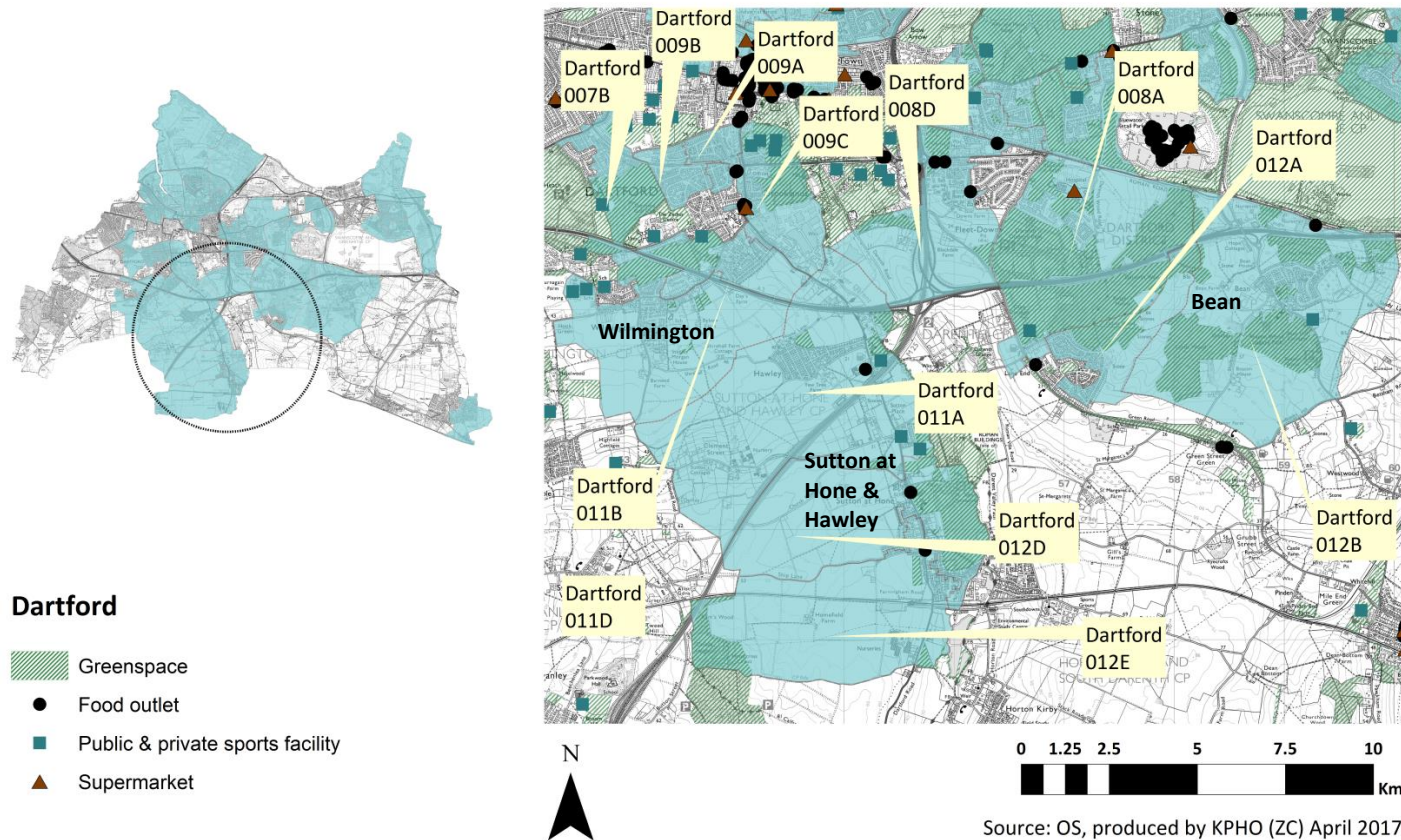
Parts* in most deprived decile Type 3

ETHNICITY:

The association between black ethnicity and excess weight was **strong**.

But not identified as an area with high concentration of black populations.

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



*LSOAs 009A in Princes

THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban, as well as, Town & Fringe around Bean and Sutton at Hone & Hawley.
- Lower access to supermarkets within Princes (driven by low car access) and Sutton at Hone & Hawley (greater distance to supermarket).
- Generally greater than 50% of the population with access to greenspace.
- Distance to nearest food outlet within 1200m, with higher densities of food outlets near to Dartford town.

WARDS:

- Stone
- Newtown

ETHNICITY:

The association between black ethnicity and excess weight was **strong**.

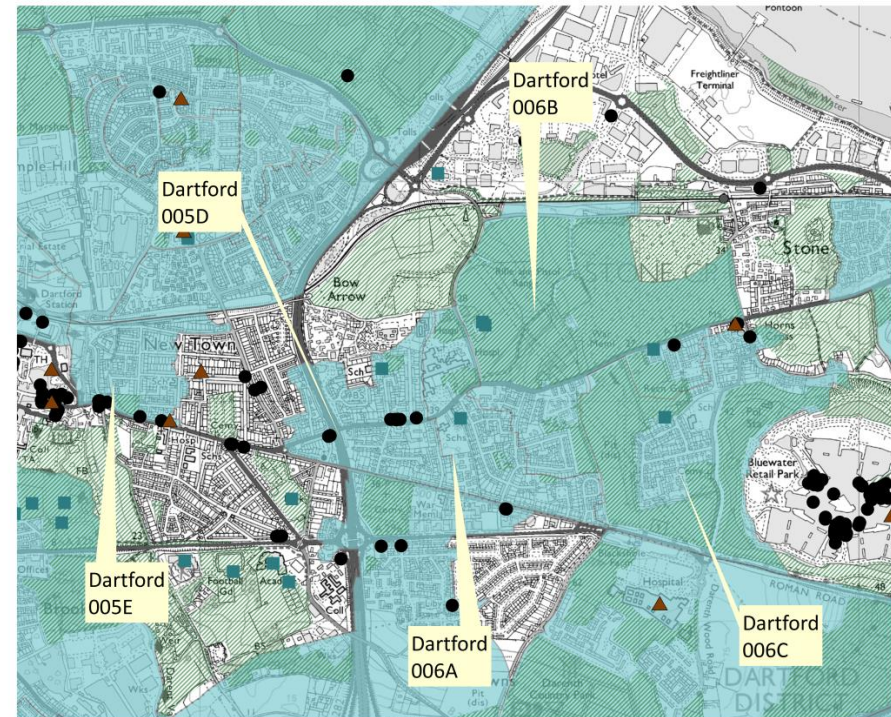
Parts of Newtown* has high concentration of black populations.

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



Dartford

- Greenspace
- Food outlet
- Public & private sports facility
- ▲ Supermarket



*LSOAs 005D in Newtown

THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban.
- Good access to supermarkets.
- Generally greater than 50% of the population with access to greenspace within Stone. Lower greenspace access in Newtown.
- Distance to nearest food outlet within 1200m, with higher densities of food outlets near to Dartford town.

| 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)