

DOVER

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 Dover 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
E05004943	Aylesham	E01024190	Dover 006A	2		reception/ year six
E05004944	Buckland	E01024193	Dover 011A	1	3	reception/ year six
		E01024196	Dover 011D	1	3	reception/ year six
E05004946	Castle	E01033209	Dover 012E	1		year six
		E01033211	Dover 012F	1	4	year six
E05004947	Eastry	E01024201	Dover 005A	2		reception
E05004948	Eythorne & Shepherdswell	E01024205	Dover 008C	3		reception
E05004951	Maxton, Elms Vale & Priory	E01024212	Dover 014B	3		reception/ year six
		E01024214	Dover 013A	1	1	year six
		E01024215	Dover 013B	1	4	reception/ year six
		E01024216	Dover 013C	3		reception/ year six
E05004952	Middle Deal & Sholden	E01024218	Dover 007A	1		reception/ year six
		E01024219	Dover 003A	2		reception
		E01024220	Dover 003B	3		year six
E05004953	Mill Hill	E01024225	Dover 005D	3		reception
E05004954	North Deal	E01024229	Dover 003E	2		year six
E05004956	River	E01024234	Dover 014D	3		reception
		E01024235	Dover 010D	4		reception/ year six
E05004957	St Margaret's-at-Cliffe	E01024238	Dover 012B	3		reception/ year six
E05004958	St Radigunds	E01024240	Dover 011F	1	3	reception
E05004959	Sandwich	E01024243	Dover 002C	2		year six
E05004960	Tower Hamlets	E01024247	Dover 012D	1	1	year six
		E01024248	Dover 011H	1	3	reception/ year six
E05004961	Town & Pier	E01024249	Dover 013E	1	3	reception/ year six
E05004963	Whitfield	E01024254	Dover 010E	2		reception
		E01024255	Dover 008D	4		reception/ year six
E05004950	Lydden & Temple Ewell	E01033210	Dover 010G	4		reception

WARDS:

- Eastry,
- Middle Deal & Sholden,
- Mill Hill,
- North Deal,
- Sandwich,

ETHNICITY:

The association between black ethnicity and excess weight was **weak, and not an area** with high concentrations of black populations.

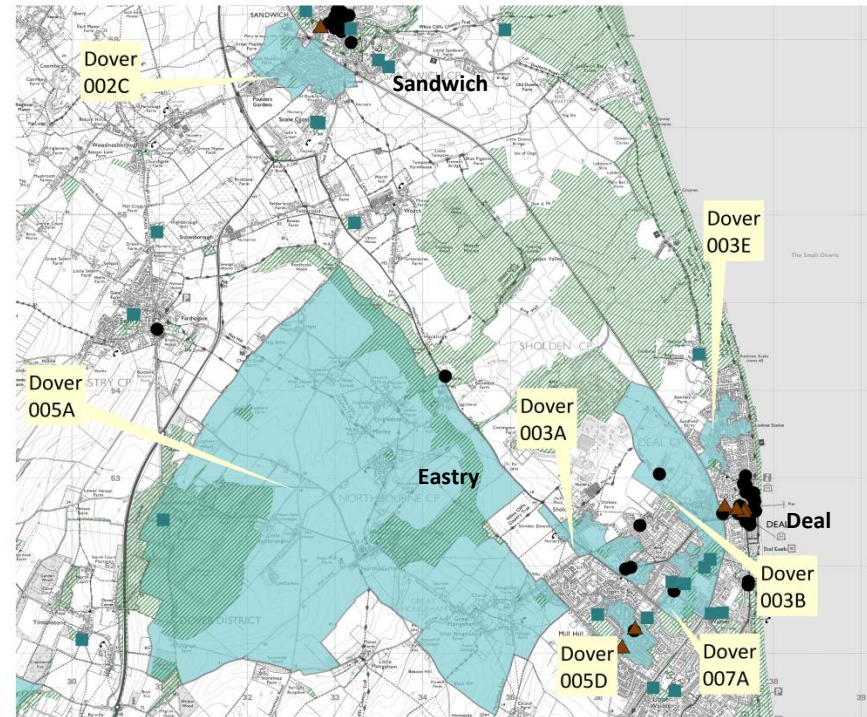
The living environment: further analysis of the drivers of excess weight.



Dover

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

*LSOAs 003A & 007A in Middle Deal & Sholden



Source: OS, produced by KPHO (ZC) April 2017

THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban in Deal, as well as, Town & Fringe in Sandwich.
- Some evidence for lower access to supermarkets in Sandwich and parts of Middle Deal & Sholden* wards.
- Generally less than 50% of the population with access to greenspace.
- Generally distance to nearest food outlet within 1200m, except for Eastry ward.

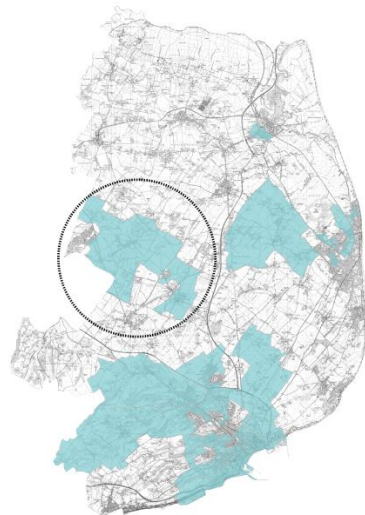
WARDS:

- Aylesham
- Eythorne & Shepherdswell

ETHNICITY:

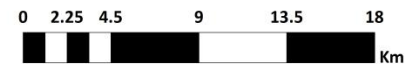
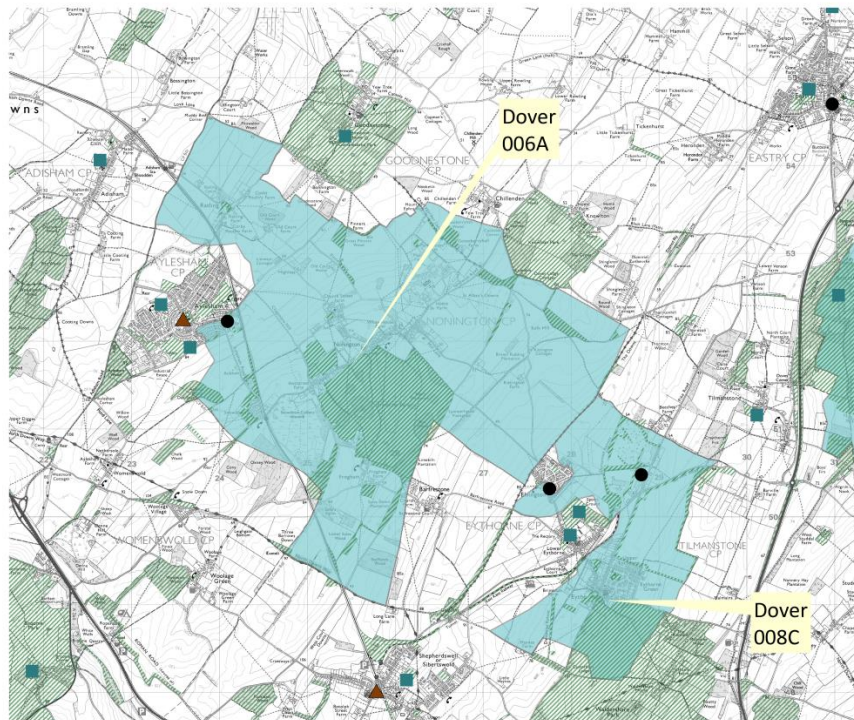
The association between black ethnicity and excess weight was **weak, and not an area** with high concentrations of black populations.

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



Dover

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Source: OS, produced by KPHO (ZC) April 2017

*LSOAs 001A in Joyce Green & 001D in Littlebrook

THE LIVING ENVIRONMENT:

- Rural and urban classification is Town & Fringe.
- Some evidence for lower access to supermarkets in Eythorne & Shepherdswell, driven by greater distances to nearest supermarket.
- Approximately 50% of LSOA populations have access to greenspace.
- Distance to nearest food outlet around 1200m.

WARDS:

- Buckland*,
- Lydden & Temple Ewell,
- River,
- St. Margaret's at Cliffe,
- Whitfield,

*in most deprived decile Type 3

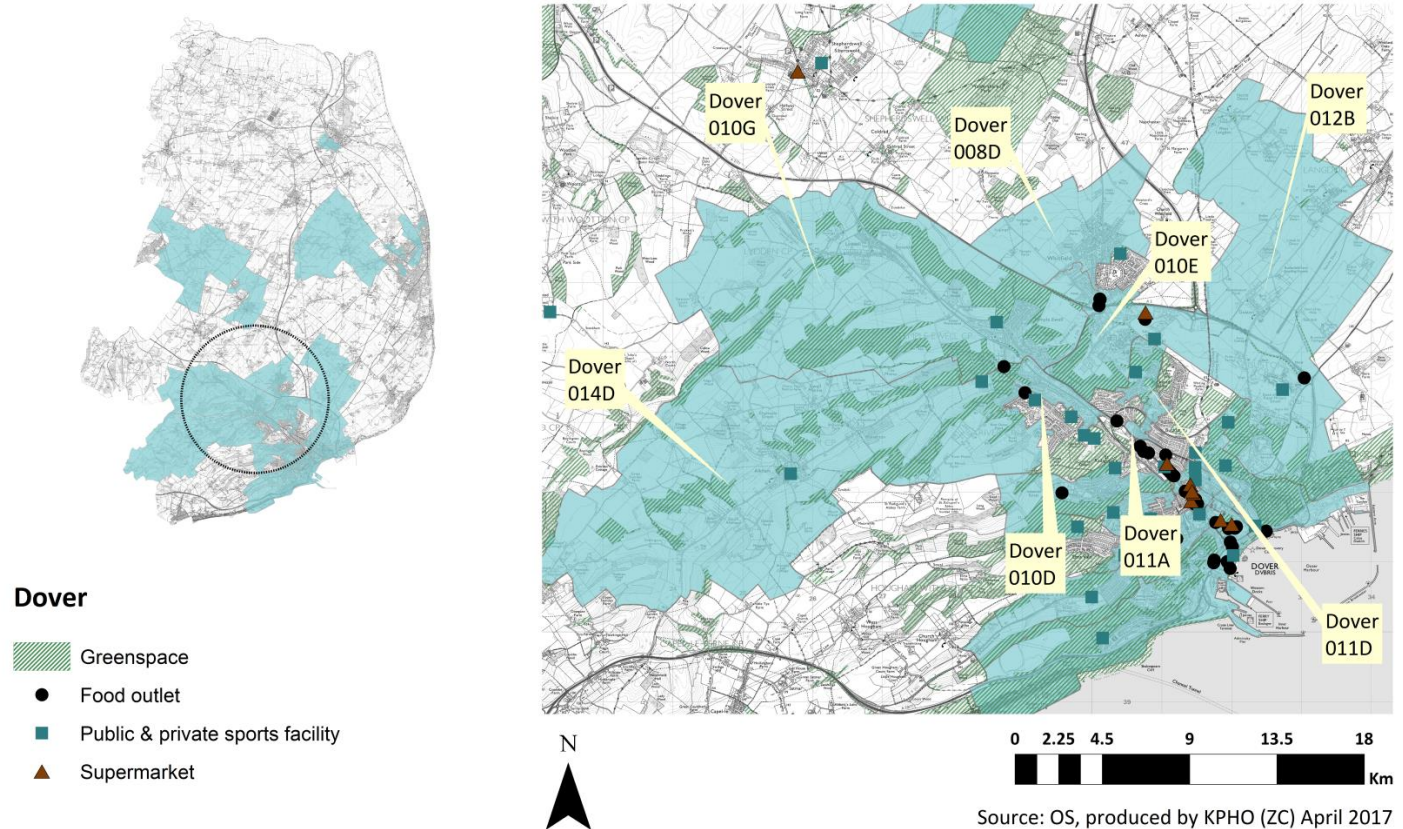
ETHNICITY:

Strong association between black ethnicity and excess weight. Parts of Buckland & St Margaret's at Cliffe* has high concentration of black populations.

THE LIVING ENVIRONMENT:

- Rural and urban classification is generally Urban, except for parts of St. Margaret's at Cliffe ward classified as Village.
- Low access to supermarkets within Buckland ward, driven by low car ownership.
- Generally greater than 50% of the population with access to greenspace, except for Whitfield ward.
- Distance to nearest takeaway generally within 1200m, except for parts of River ward (014D)

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



*LSOAs 012B in St Margaret's at Cliffe & 011A in Buckland

WARDS:

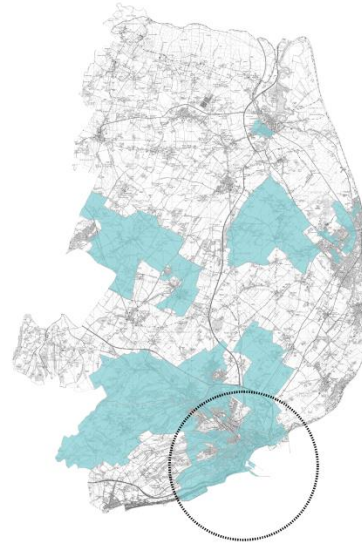
- Castle,
- Maxton, Elms Vale & Priory,
- Tower Hamlets,
- Town & Pier,
- St. Radigunds,

Several LSOAs in most deprived decile.

ETHNICITY:

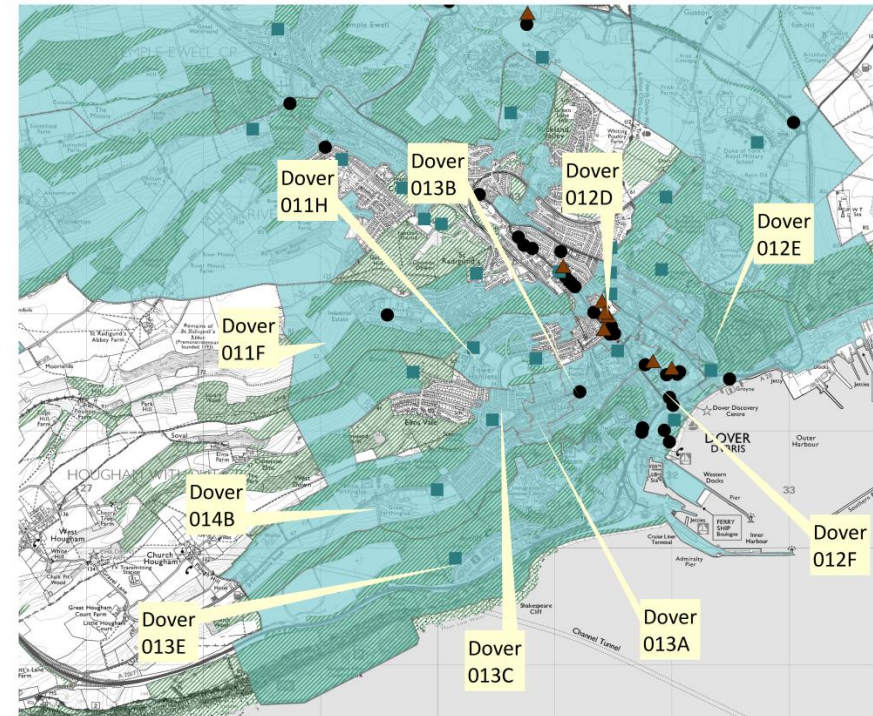
Strong association between black ethnicity and excess weight. Parts of **Castle, Maxton, Elms Vale & Priory, Tower Hamlets, Town & Pier,*** have high concentration of black populations.

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



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- ▨ Greenspace
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Source: OS, produced by KPHO (ZC) April 2017

*LSOAs 012D in Castle, 0013A & 0013B in Maxton, Elms Vale & Priory, 011H in Tower Hamlets, 013E in Town & Pier

THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban.
- Lower access to supermarkets driven by low car access.
- Generally greater than 50% of the population with access to greenspace.
- Distance to nearest food outlet generally within 1200m, with higher densities of food outlets near to Dover 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)