

## CANTERBURY

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

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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 Canterbury with the highest levels of excess weight<sup>1</sup> across Kent.

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<sup>1</sup> 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 Other<sup>2</sup> 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.**

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<sup>2</sup> 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
E05004903	Barton	E01024044	Canterbury 016A	4		year six
		E01024047	Canterbury 014A	1		reception/ year six
		E01024049	Canterbury 014B	1		reception/ year six
E05004906	Chestfield & Swalecliffe	E01024055	Canterbury 007A	4		reception
E05004907	Gorrell	E01024061	Canterbury 007B	1	3	reception
		E01024063	Canterbury 007C	4		reception
E05004908	Greenhill & Eddington	E01024066	Canterbury 003B	1		reception/ year six
E05004911	Herne & Broomfield	E01024075	Canterbury 006C	2		year six
		E01024076	Canterbury 006D	4		year six
E05004912	Heron	E01024078	Canterbury 001A	1	4	reception
		E01024080	Canterbury 001B	1	4	reception/ year six
		E01024081	Canterbury 001C	1	4	reception
E05004914	Marshside	E01024087	Canterbury 010D	2		year six
E05004916	Northgate	E01024090	Canterbury 014C	2		reception
		E01024091	Canterbury 011A	1	3	reception/ year six
		E01024092	Canterbury 014D	1		reception
		E01024093	Canterbury 014E	1		reception
E05004917	Reculver	E01024096	Canterbury 002B	3		year six
		E01024098	Canterbury 002D	4		reception
E05004918	St Stephens	E01024099	Canterbury 013A	2		year six
		E01024103	Canterbury 013E	1		reception/ year six
E05004919	Seasalter	E01024108	Canterbury 009D	1	3	reception

Ward Code	Ward Name	LSOA Code	LSOA Name	IMD Kent weighted quintile	Mind the Gap Type	Upper quartile excess weight
E05004920	Sturry North	E01024110	Canterbury 011B	3		reception
		E01024112	Canterbury 011D	5		year six
E05004923	West Bay	E01024118	Canterbury 003E	2		reception
E05004924	Westgate	E01024122	Canterbury 020C	2		year six
		E01032807	Canterbury 020F	3		year six
		E01032808	Canterbury 020G	2		year six
E05004925	Wincheap	E01024128	Canterbury 019A	1	3	reception

### WARDS:

- Chestfield & Swalecliffe,
- Gorrell\*,
- Seasalter\*

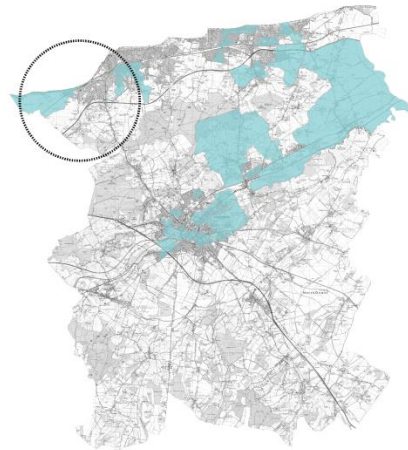
Parts\* in most deprived decile Type 3

### ETHNICITY:

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

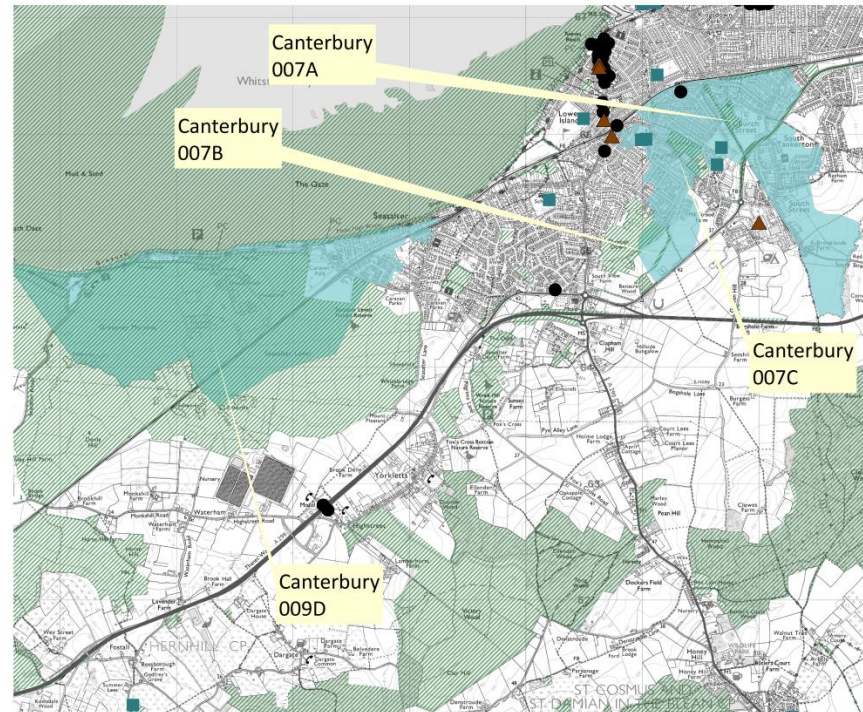
**Not** an area with high concentrations of black individuals within the population.

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



#### Canterbury

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



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

\*LSOAs 007B in Gorrell & 009D in Seasalter

### THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban.
- Some evidence for lower access to supermarkets in Seasalter, driven by greater distance to nearest supermarket.
- Generally greater than 50% of the population with access to greenspace.
- Shorter distances to nearest food outlet in Gorrell ward.

### WARDS:

- Barton,
- Northgate\*,
- St. Stephens,
- Westgate,
- Wincheap\*,

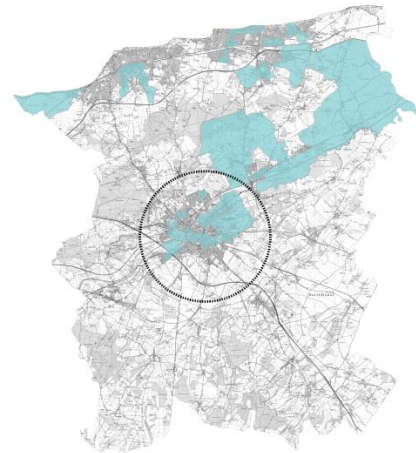
Parts\* in most deprived decile Type 3

### ETHNICITY:

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

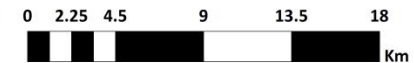
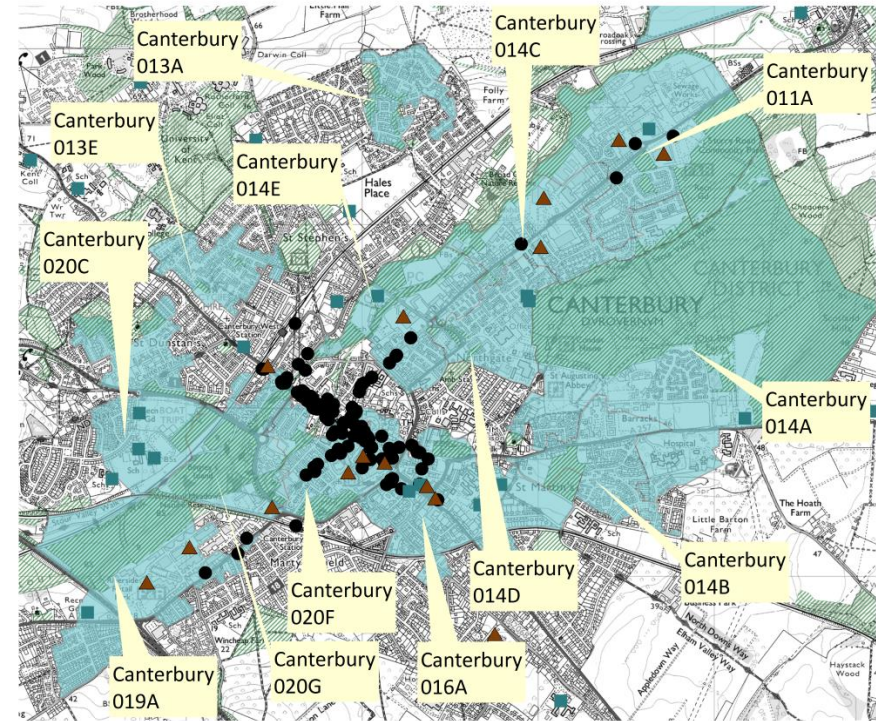
**Barton & Northgate** have high concentration of

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



#### Canterbury

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



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

\*LSOAs 011A in Northgate & 019A in Wincheap

### THE LIVING ENVIRONMENT:

- Rural and urban classification is Urban.
- Some evidence for lower access to supermarkets, driven by lower car access.
- Generally good access to greenspace.
- Shorter distances to nearest food outlet nearer to Canterbury town centre.



### WARDS:

- Greenhill & Eddington,
- Heron\*,
- Herne & Broomfield,
- Reculver,
- Marshside,
- Sturry North,
- West Bay,

\*most deprived decile  
Type 4

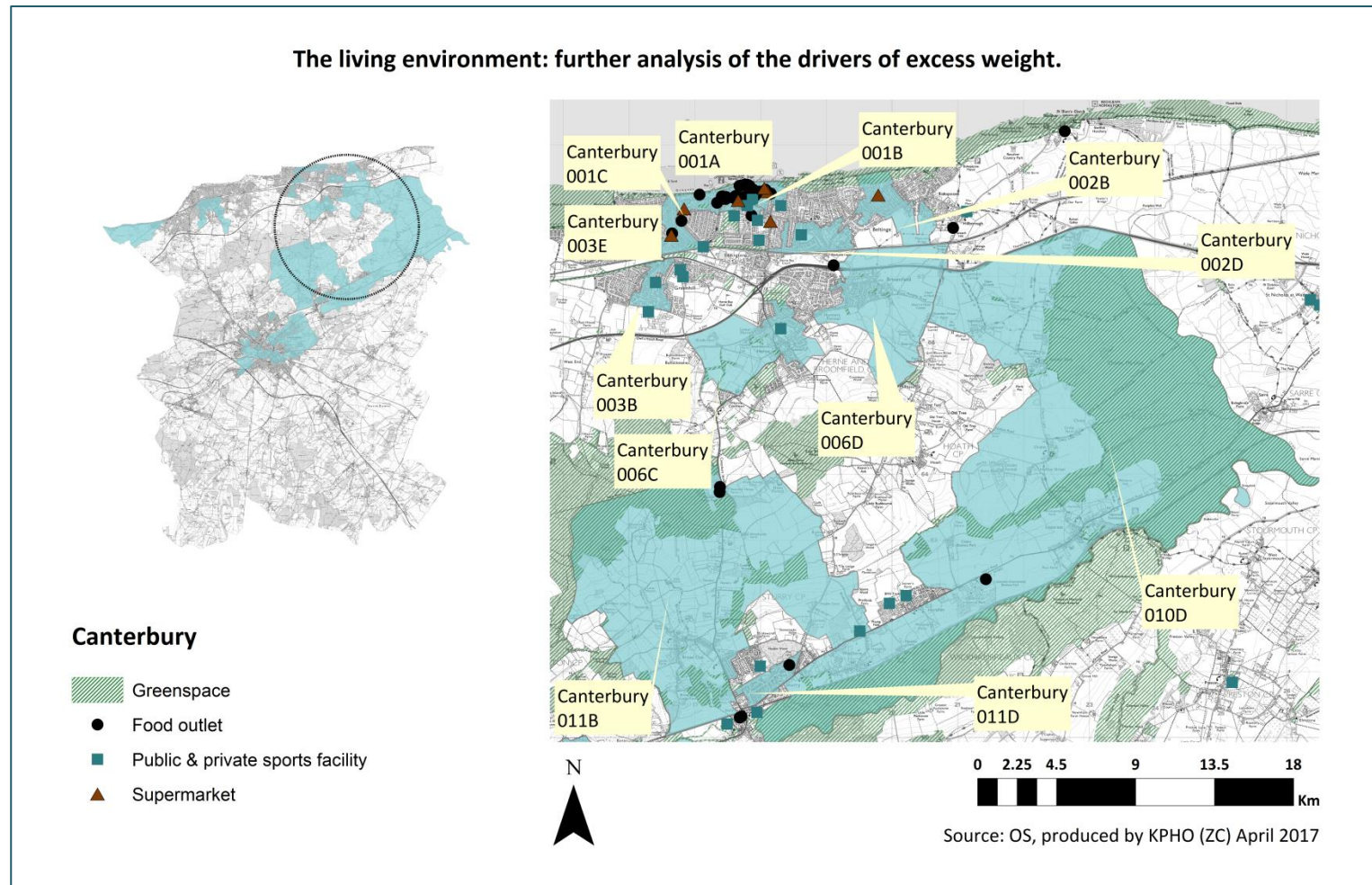
### ETHNICITY:

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

### THE LIVING ENVIRONMENT:

- Rural and urban classification is generally Urban, whereas, Town & Fringe or Village in the Sturry North LSOAs.
- Lower access to supermarkets in parts of Heron & Sturry North wards. Sturry North driven by lower car access.
- Less than 50% of the population with access to greenspace within parts of Reculver and Herne & Broomfield.
- Smaller distances to nearest food outlet in LSOAs closer to Whitstable town.

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



## | 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 25<sup>th</sup> 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 10<sup>th</sup> percentile of distances (roughly equivalent to distances greater than 1km)