National Childhood Measurement Programme (NCMP) Obesity Report

Analysing Five Years of Data

2017-2022

For any queries please contact

Data and Analysis

Planning, Performance and Insight

Gloucestershire County Council

March 2023

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Introduction to the National Childhood Measurement Programme (NCMP)

The National Child Measurement Programme (NCMP) measures the height and weight of children in reception class (aged 4 to 5) and year 6 (aged 10 to 11), to better understand and assess levels of children who have excess weight or are living with obesity within state maintained primary schools.

Local authorities are asked each year to collect data on children's height and weight from all state-maintained schools within their area. The data are submitted to NHS Digital and all of the returns are collated and validated centrally. Heights and weights are measured and used to calculate a Body Mass Index (BMI) centile. The measurement process is overseen by trained healthcare professionals in schools.

The NCMP data can be used nationally to support local public health initiatives and locally to inform the planning and delivery of services for children. The programme is recognised internationally as a world-class source of public health intelligence.

The NCMP was set up in line with the government's strategy to tackle obesity and to:

- inform local planning and delivery of services for children
- gather population-level data to allow analysis of trends in growth patterns and obesity
- increase public and professional understanding of weight issues in children
- Be a vehicle for engaging with children and families about healthy lifestyles and weight issues through feedback of individual results to families

BMI Classification	For Population Monitoring BMI Centile Range	For Individual (Clinical) monitoring BMI Centile Range
Obese/Very Overweight	Equal to/Greater than **95th** centile	Equal to/Greater than **98th** centile
Overweight	Equal to/Greater than **85th** and less than **95th** centile	Equal to/Greater than **91st** and less than **98th** centile
Healthy Weight	Greater than **2nd** and less than **85th** centile	Greater than **2nd** and less than **91st** centile
Underweight	Less than/Equal to **2nd** centile	Less than/Equal to **2nd** centile

Figure 1 – Body Mass Index Classifications for NCMP [1]

[1] National Child Measurement Programme guidance: https://www.gov.uk/government/publications/national-child-measurement-programme-data-sharing-and-analysis

The NCMP publishes prevalence data use the British 1990 growth reference (UK90) for BMI and the 2nd, 85th and 95th centiles to define children who are living with underweight, overweight or obesity according to age and sex. This definition is the most commonly used in England for population monitoring – for example in Health Survey for England (HSE) figures.

In clinical settings or when monitoring the BMI of individual children, the 2nd, 91st and 98th centiles of the UK90 reference are used in the UK to classify the BMI of individual children as underweight, healthy, overweight or obese taking into account the expected variation in BMI by age and sex. The NCMP parental feedback letters issued by NHS Integrated Care Boards use these clinical cut-offs to assign children to a BMI classification.

In children, BMI is adjusted for a child's age and gender against reference charts to give a BMI percentile (or centile). This compares the child's BMI to other children of the same age and gender. For example, if a boy is ten years old and his BMI falls at the 60th percentile, that means that 40% of ten-year old boys have a higher BMI and 60% have a lower BMI than that child.

The following analysis focusses on obesity [2] only (not overweight) which include children measured being equal or over the 95th centile on the British 1990 growth reference (UK90) for population monitoring in Gloucestershire over the last five years. This is highlighted yellow in Figure 1. Throughout this report, an effort is taken to use non-stigmatising language regarding this subject.

The Gloucestershire Health and Wellbeing Strategy [3] and Interim Integrated Care Strategy [4] both highlight addressing health and wellbeing inequalities as a priority/focus area, this reflects rising obesity rates and the serious health and financial consequences obesity brings. Of particular concern is the increasing number of children and young people who are living with overweight and obesity, with estimates suggesting that by 2050 nearly 25% of children in the UK will have obesity and nearly 40% will be living with being classed as overweight. [5]

The effects of obesity on children's current and future health such as type 2 Diabetes, asthma, sleep apnoea and musculoskeletal problems are just some of the medical conditions more common in children living with obesity and young people. Children who have a BMI classed as overweight or very overweight are also more likely to become adults with obesity, have a higher risk of morbidity,

[2] Obesity may also be referred to as *Very Overweight.*

[3] https://www.gloucestershire.gov.uk/council-and-democracy/gloucestershire-health-and-wellbeing-board/our-focus/

[4] https://www.gloucestershire.gov.uk/media/2120443/interim-integrated-care-strategy-v11.pdf

[5] Tackling Obesities: Future Choices – Project Report, Foresight, 2007 and Obesity Trends for Children Aged 2-11 Analysis from the Health Survey for England 1993 – 2007, National Heart Forum, 2009, Http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/22_11_07_modelling_fat.pdf

disability and premature mortality in adulthood. Obesity in childhood and adolescence is also associated with low self-esteem and depression. [6]

A word about data quality

School closures caused by the pandemic disrupted the NCMP annual cohort study in 2019/20 and more markedly 2020/21. In 2019/20 only around 70% of children were measured (85% coverage is required to have a high level of confidence that the data reflects the true prevalence). In 2020/21 local authorities were advised to complete measurements in a representative 10% sample of schools so that we could make estimates about all children. In this report, the 10% sample for Reception Year and Year 6 collected in 2020/21 has not been included in the 5-year combined indicator rates. The 10% sample did not enable the production of comprehensive and robust small geography level data. To ensure that large enough numbers are available for analysis, an additional year of NCMP data is included instead of 2020/21; data for 2017/18-21/22 uses 2016/17 data instead of 2020/21. This reflects the same method used by the Office for Health Improvement and Disparities on the Fingertips website. [7]

1. Gloucestershire Obesity Rates and National/Regional Obesity Rates

National Comparison:

For each of the past ten years of recording NCMP data (since 2008/09), the obesity rate of Reception age children in Gloucestershire has been *not significantly different to the England average* except for the most recent year (2021/22) where Gloucestershire is *significantly better than the England average*. [8]

The latest available national prevalence (2021/22) of obesity in Reception age children is 8.7% in Gloucestershire, 8.9% in the South West Region and 10.1% in England. [9]

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[6] https://health.ucsd.edu/specialties/surgery/bariatric/weight-loss-surgery/adolescent-weight-loss/Pages/health-risks.aspx

[7] https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/6/gid/8000011/pat/6/par/E12000009/ati/402/are/E10000013/iid/92026/age/200/sex/4/cat/-1/ctp/-1/yrr/5/cid/4/tbm/1/page-options/car-do-0

[8] https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/4/gid/8000011/pat/6/par/E12000009/ati/402/are/E10000013/iid/90319/age/200/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/page-options/car-do-0

[9] *ibid*

Since local collection of NCMP data began in 2007/08, the obesity rate of Year 6 children for each year going forward to 2021/22 in Gloucestershire has been *significantly better than the England average*. [10]

The current prevalence (2021/22) of obesity in Year 6 age children is 20.7% in Gloucestershire, 19.8% in the South West Region and 23.4% in England.

Regional Comparison:

When comparing Gloucestershire against the South West region, the prevalence of Reception age children living with obesity was *not significantly different* to the regional average in 2021/22. [11]

For Year 6 children in Gloucestershire, rates have alternated each year between being *significantly worse* to *not significantly different* in the county for the last decade compared against the South West region. For four of the six previous recording years, prevalence has been *significantly worse* than the South West regional average. Currently (2021/22 rates) show the county to be *not significantly different* rates to the regional average.[12]

Further to the section earlier around data quality, the following charts show the 95% confidence intervals (black error bars) for each area over the last few years. Longer error bars imply that there is less confidence in the rate based on the sample used for that year. This is evident in Figure 2 and Figure 3 with Gloucestershire's error bars for the 10% sample in 2021 much longer than in previous years. The error bars represent that we can have 95% confidence that the true obesity rate falls somewhere between the error bar.

[10] https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/4/gid/8000011/pat/6/par/E12000009/ati/402/are/E10000013/iid/90323/age/201/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/page-options/car-do-0

[11] https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/4/gid/8000011/pat/6/par/E12000009/ati/402/are/E10000013/iid/90319/age/200/sex/4/cat/-1/ctp/-1/yrr/1/cid/1/tbm/1/page-options/car-do-0

[12] https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/4/gid/8000011/pat/6/par/E12000009/ati/402/are/E10000013/iid/90323/age/201/sex/4/cat/-1/ctp/-1/yrr/1/cid/1/tbm/1/page-options/car-do-0

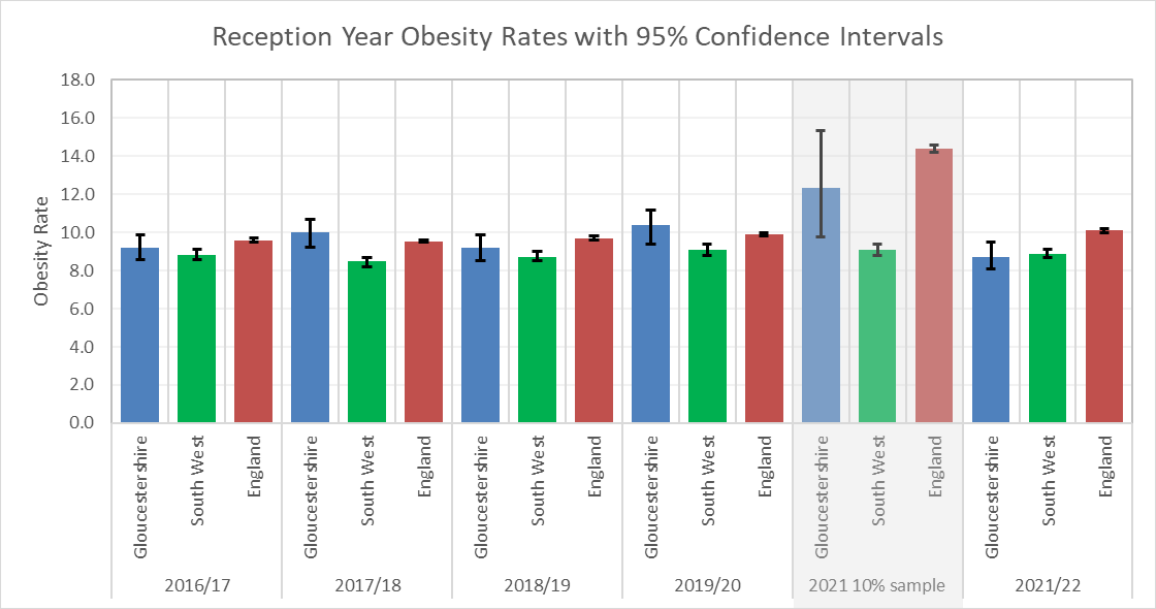


Figure 2 – Reception Year Obesity Rates with Confidence Intervals (95%)

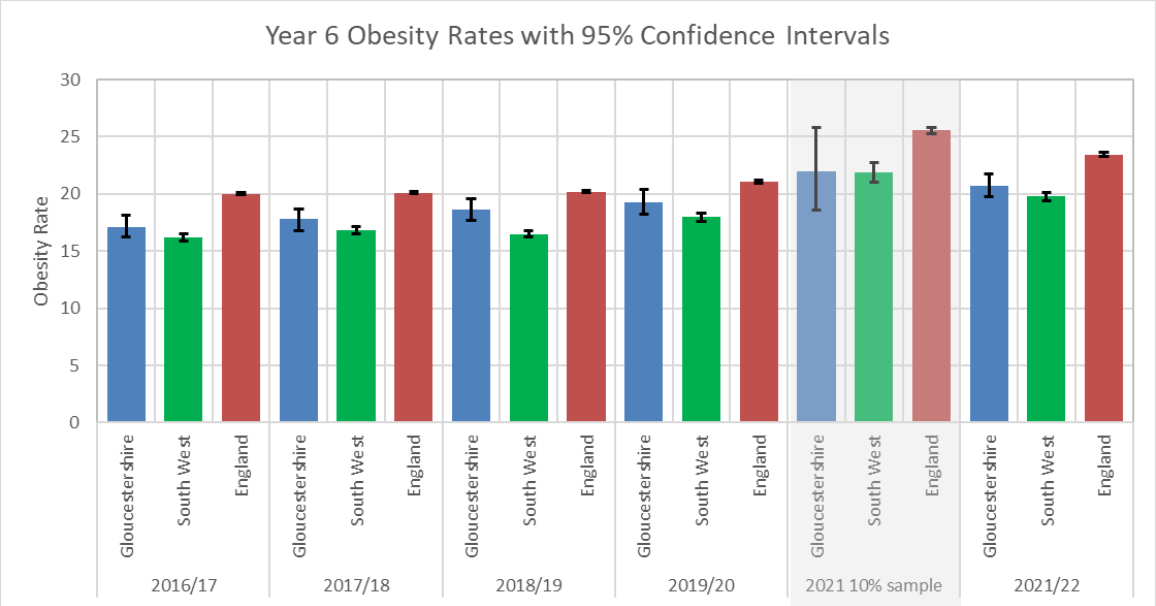


Figure 3 – Year 6 Obesity Rates with Confidence Intervals (95%)

2. Gloucestershire's Most Similar Areas

CIPFA, the Chartered Institute of Public Finance and Accountancy, is the professional body for people in public finance, and they manage a *Nearest Neighbours* model which seeks to measure similarity between Local Authorities for benchmarking exercises based around a range of socio-economic indicators.[13]

The following section considers five years of pooled data with Gloucestershire's rate significantly higher than the CIPFA average rate for both Reception age children and Year 6 children. Gloucestershire has the second highest rate in obesity prevalence in reception age children among the other fifteen local authorities deemed as a *nearest neighbour* to Gloucestershire and is just below the England rate (but not significantly).

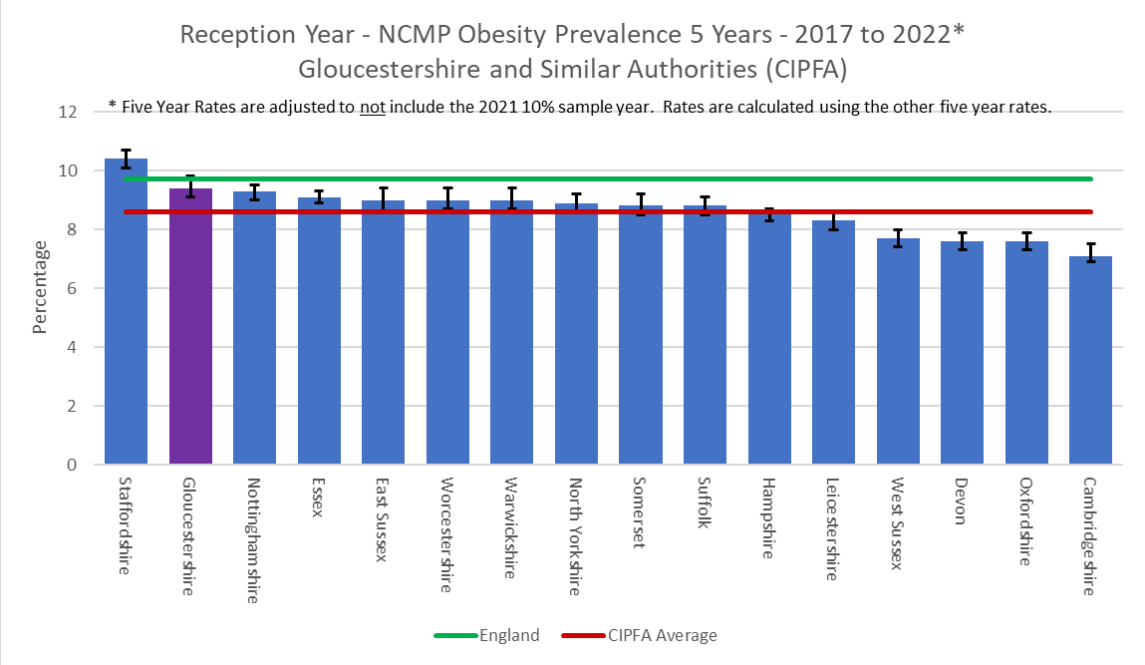


Figure 4 – Obesity in Reception Age 2017-22 Gloucestershire and their Nearest CIPFA Neighbours*

Rates of obesity rise among all areas when children reach Year 6. Gloucestershire has the sixth highest rate of obesity when compared against its peers. The Year 6 local rate is significantly higher the CIPFA average as seen for Reception Age children so we can have a high level of confidence that the rate in Gloucestershire is higher than the average rate of Gloucestershire's most

[13] Source: CIPFA Stats Publisher and http://www.cipfa.org/services/cipfastats/nearest-neighbour-model

similar authorities. Figure 5 also shows the Gloucestershire rate to be significantly lower than the England rate. [14]

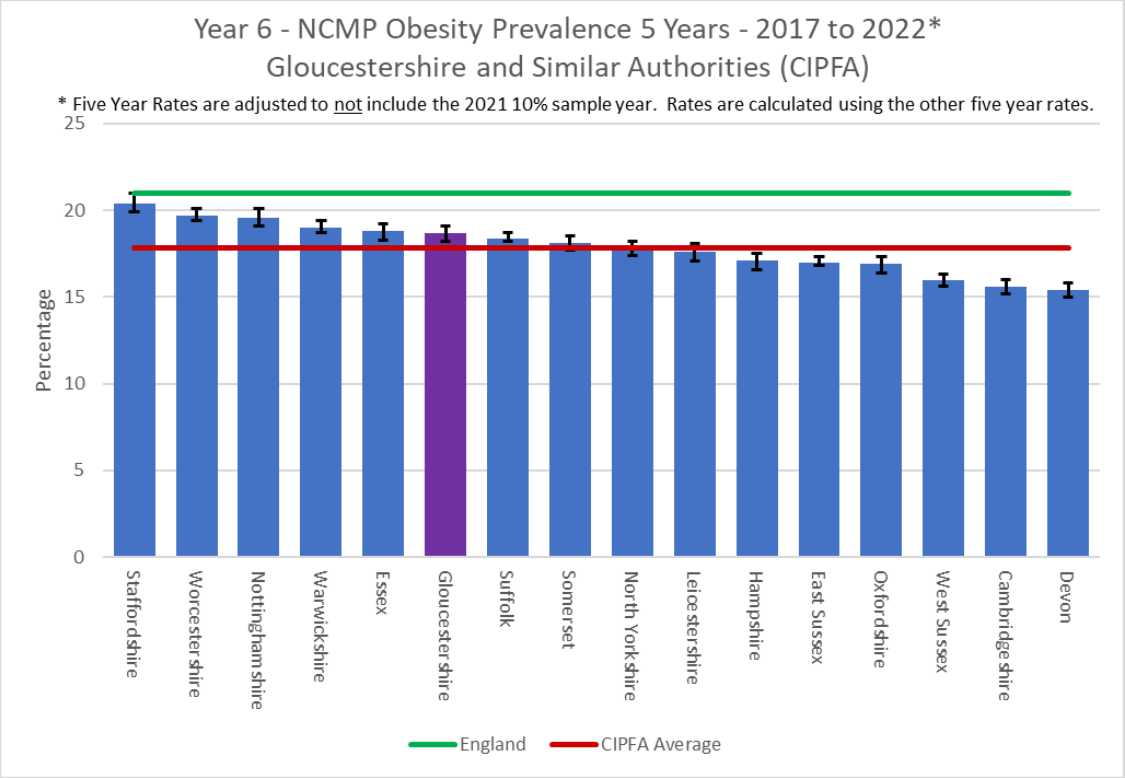


Figure 5 - Obesity in Year 6 Children 2014-19 Gloucestershire and their Nearest CIPFA Neighbours

3. District/Borough

There are six local authorities within Gloucestershire. Two predominantly urban authorities – Cheltenham and Gloucester – and four predominantly rural authorities – Cotswold, Forest of Dean, Stroud and Tewkesbury.

Figure 6 shows rates of Reception age children recorded as *very overweight/obese* for each district comparing each recording year with the County rate, South West regional rate and England rate. Each recording year represents a different cohort of Reception age children. Gloucester City has consistently had high obesity rates among reception age children when compared to the county, region and nation. Forest of Dean and Tewkesbury have also experienced similarly high rates for three out of the five years of the study.

[14] Rates for CIPFA neighbours taken from Fingertips Public Health Data - https://fingertips.phe.org.uk/profile/national-child-measurement-programme

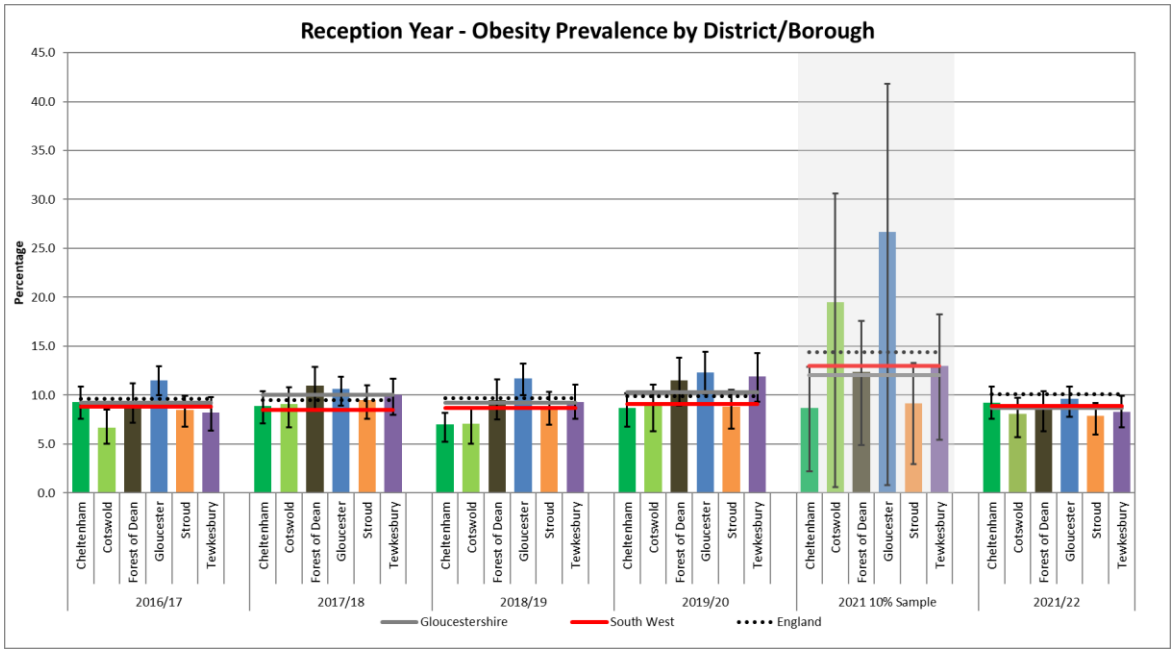


Figure 6 - Obesity Rates by District/Borough in Reception Age Children by year

Rates of Year 6 children recorded as living with very overweight/obesity have risen each year nationally while regionally the rates have increased for the last 3 years. In the six districts of Gloucestershire, Gloucester City has the highest rate each year. Forest of Dean District also has a steadily increasing rate each year and has the second highest rate in Gloucestershire in 2021/22 (Figure 7).

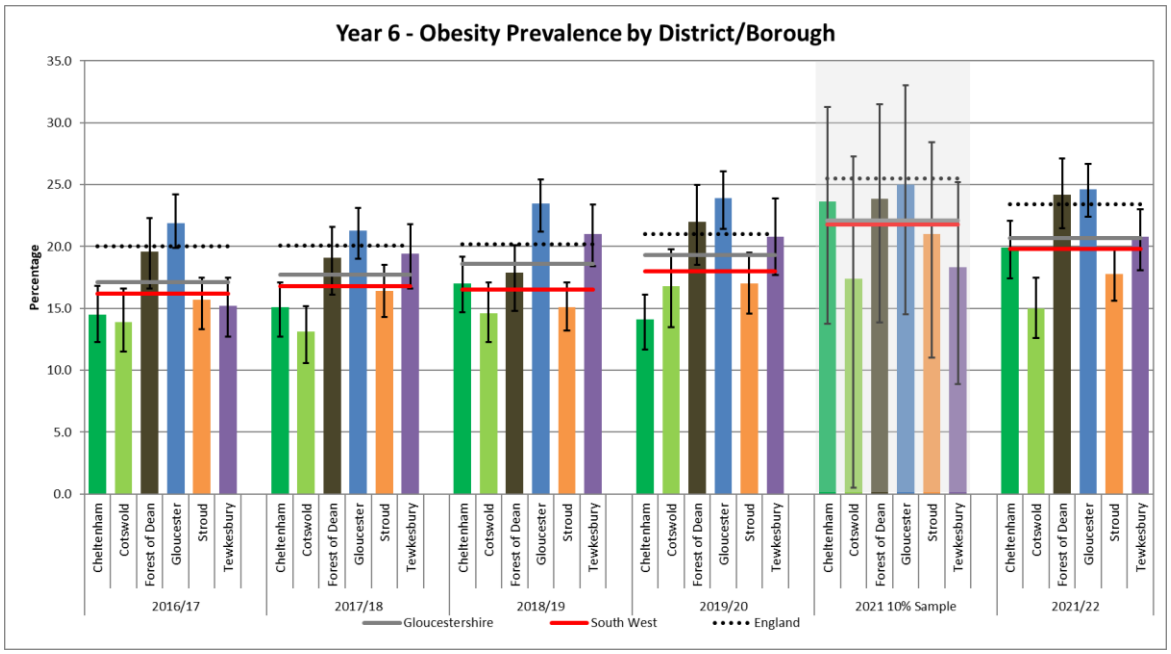


Figure 7 - Obesity Rates by District/Borough in Year 6 Age Children by year

4. Mapping Childhood Obesity at a Local Level

The following two maps show NCMP obesity prevalence in Reception and Year 6 across Gloucestershire over a five year period (zoom-ins for Cheltenham and Gloucester in the Appendix).

Latest Index of Multiple Deprivation[15] lower super output areas are brought into more focus in the maps. Gloucestershire areas within the most deprived 20% of England have a smaller black border around them (31 areas in total).

The colours on the map are linked to NCMP prevalence of obesity in Reception and Year 6 children – red and orange areas have a prevalence greater than the England rate of obesity.

The table on the map lists the thirty-one lower super output area neighbourhoods that rank in the top 20% most deprived neighbourhoods nationally. [16]

In Gloucester there is a strong correlation between areas in high deprivation and having rates of obesity higher than the national average – three-quarters of Gloucester City's most deprived neighbourhoods have recorded higher than national rates of Reception age children and the proportion of the same neighbourhoods rises to 85% of Gloucester City's deprived neighbourhoods recording higher than national rates of Year Six children living with obesity when pooling five years' worth of data together. Gloucester neighbourhoods such as CONEY HILL 2 and WESTGATE 5 experience a notable increase between obesity prevalence of Reception to Year 6 children – during Reception year in these areas the obesity prevalence is relatively low but for Year 6 children, the prevalence is higher than the national rate.

In Cheltenham, areas with considerably (red areas) high rates of Year 6 obesity in are also a deprived neighbourhood or neighbour of the most deprived neighbourhoods (except for an area around Whaddon). Six of Cheltenham's eight most deprived neighbourhoods have recorded higher than national rates of obesity in Year 6 children over the same five year period.

KINGSHOLM AND WOTTON 3 and TEWKESBURY SOUTH 3 neighbourhoods each have the highest rate of obesity in the county's most deprived neighbourhoods for Year 6 children – 38.8% of Year 6 children measured living in these areas over the last five years are recorded as living with obesity. BARTON AND TREDWORTH 1 has the highest obesity rate in a deprived neighbourhood for Reception age children – 23% recorded as living with obesity over the same five years.

[15] https://inform.gloucestershire.gov.uk/deprivation/

[16] *Ibid*

Reception Year NCMP Recorded as Very Overweight (Obese)
5 Years Pooled Data 2017-2022*
Prevalence in Gloucestershire

Reception Year Prevalence - Gloucestershire Rate 2017-2022* = **9.4%**
Reception Year Prevalence - South West Region Rate 2017-2022* = **8.8%**
Reception Year Prevalence - England Rate 2017-2022* = **9.7%**

Key

Most Deprived LSOAs (National IMD19 Quintile)

District Boundaries

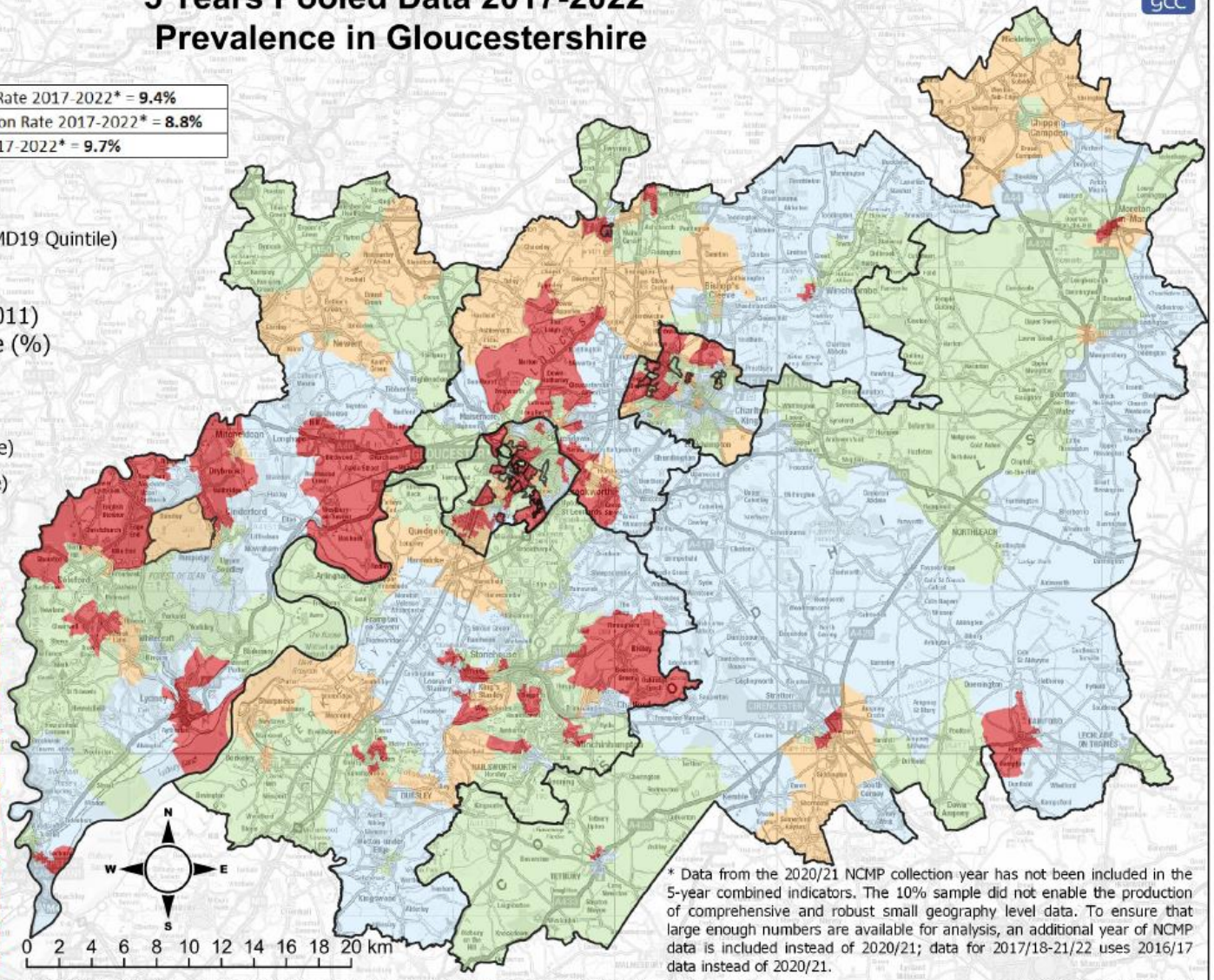
By Lower Super Output Areas (2011)
Reception Year Obese Prevalence (%)

0 - 5.9

5.9 - 9.7

9.7 - 11.8 (above England average)

11.8 - 24 (above England average)



Most Deprived Quintiles (Index of Multiple Deprivation 2019 National Quintiles)

LSOA Local Name	LA NAME	Obesity Prevalence 2017-22*	Total Number Measured for NCMP 2017-22*	Number Measured as Very Overweight
HESTERS WAY 1	Cheltenham	8.8	115	10
HESTERS WAY 3	Cheltenham	15.7	134	21
OAKLEY 1	Cheltenham	8.2	110	9
OAKLEY 3	Cheltenham	11.7	94	11
SPRINGBANK 2	Cheltenham	12.7	157	20
St MARK'S 1	Cheltenham	10.9	129	14
St PAUL'S 2	Cheltenham	12.0	92	11
SWINDON VILLAGE 2	Cheltenham	8.4	83	7
CINDERFORD WEST 1	Forest of Dean	11.4	114	13
BARTON AND TREDWORTH 1	Gloucester	23.0	135	31
BARTON AND TREDWORTH 2	Gloucester	16.4	116	19
BARTON AND TREDWORTH 3	Gloucester	8.0	100	8
BARTON AND TREDWORTH 4	Gloucester	14.1	125	18
BARTON AND TREDWORTH 5	Gloucester	10.0	70	7
CONEY HILL 1	Gloucester	14.4	90	13
CONEY HILL 2	Gloucester	8.0	75	6
KINGSHOLM AND WOTTON 3	Gloucester	10.1	109	11
MATSON AND ROBINSWOOD 1	Gloucester	15.1	199	30
MATSON AND ROBINSWOOD 2	Gloucester	11.8	110	13
MATSON AND ROBINSWOOD 4	Gloucester	8.9	79	7
MATSON AND ROBINSWOOD 5	Gloucester	15.6	141	22
MATSON AND ROBINSWOOD 6	Gloucester	17.9	140	25
MORELAND 3	Gloucester	7.4	81	6
MORELAND 4	Gloucester	13.7	131	18
MORELAND 7	Gloucester	15.1	119	18
PODSMEAD 1	Gloucester	14.6	81	12
TUFFLEY 4	Gloucester	19.0	100	19
WESTGATE 1	Gloucester	6.5	77	5
WESTGATE 4	Gloucester	12.3	81	10
WESTGATE 5	Gloucester	7.1	suppressed	<5
TEWKESBURY SOUTH 3	Tewkesbury	13.5	96	13

* Data from the 2020/21 NCMP collection year has not been included in the 5-year combined indicators. The 10% sample did not enable the production of comprehensive and robust small geography level data. To ensure that large enough numbers are available for analysis, an additional year of NCMP data is included instead of 2020/21; data for 2017/18-21/22 uses 2016/17 data instead of 2020/21.

D Carr - 08/03/2023

Year 6 NCMP Recorded as Very Overweight (Obese)
5 Years Pooled Data 2017-2022*
Prevalence in Gloucestershire

Year 6 Prevalence - Gloucestershire Rate 2017-2022* = **18.7%**
Year 6 Prevalence - South West Region Rate 2017-2022* = **17.5%**
Year 6 Prevalence - England Rate 2017-2022* = **21.0%**

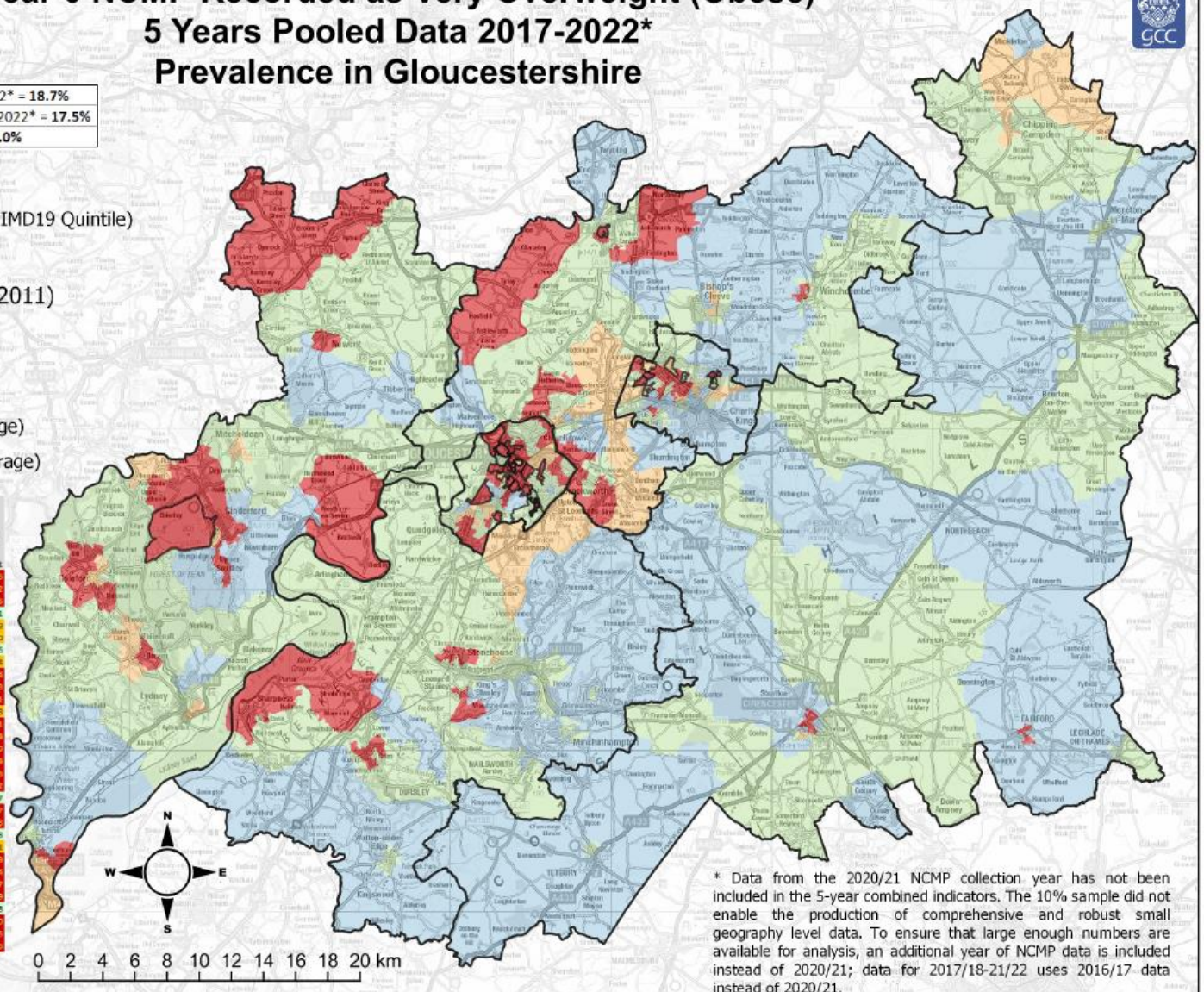
Key

Most Deprived LSOAs (National IMD19 Quintile)

District Boundaries

By Lower Super Output Areas (2011)
Year 6 Obese Prevalence (%)

- 0 - 13.3
- 13.3 - 21
- 21 - 23.3 (above England average)
- 23.3 - 38.8 (above England average)



Most Deprived Quintiles Index of Multiple Deprivation 2019 National Quintiles)

LSOA Local Name	LA NAME	Obesity Prevalence 2017-22*	Total Number Measured for NCMP 2017-22*	Number Measured as Very Overweight
HESTERS WAY 1	Cheltenham	35.6	101	36
HESTERS WAY 5	Cheltenham	29.4	109	32
OAKLEY 1	Cheltenham	31.7	82	26
OAKLEY 3	Cheltenham	18.4	114	21
SPRINGBANK 2	Cheltenham	21.3	136	29
ST MARK'S 1	Cheltenham	22.0	91	20
ST PAUL'S 2	Cheltenham	20.5	78	16
SWINDON VILLAGE 2	Cheltenham	23.1	104	24
CINDERFORD WEST 1	Forest of Dean	31.2	109	34
BARTON AND TREDWORTH 1	Gloucester	31.9	166	53
BARTON AND TREDWORTH 2	Gloucester	26.1	119	31
BARTON AND TREDWORTH 3	Gloucester	21.7	106	23
BARTON AND TREDWORTH 4	Gloucester	27.9	111	31
BARTON AND TREDWORTH 5	Gloucester	34.0	100	34
CONEY HILL 1	Gloucester	23.5	81	19
CONEY HILL 2	Gloucester	29.3	116	34
KINGSHOLM AND WOTTON 3	Gloucester	38.8	87	28
MATSON AND ROBINSWOOD 1	Gloucester	29.4	109	32
MATSON AND ROBINSWOOD 2	Gloucester	20.7	82	17
MATSON AND ROBINSWOOD 4	Gloucester	33.3	81	27
MATSON AND ROBINSWOOD 5	Gloucester	31.7	157	50
MATSON AND ROBINSWOOD 6	Gloucester	18.9	95	18
MORELAND 3	Gloucester	27.3	95	26
MORELAND 4	Gloucester	25.8	151	39
MORELAND 7	Gloucester	25.5	94	24
PODSMEAD 1	Gloucester	27.6	98	27
TUFFLEY 4	Gloucester	37.0	104	39
WESTGATE 1	Gloucester	18.6	43	8
WESTGATE 4	Gloucester	27.0	74	20
WESTGATE 5	Gloucester	26.3	19	5
TEWKESBURY SOUTH 3	Tewkesbury	38.8	87	28

* Data from the 2020/21 NCMP collection year has not been included in the 5-year combined indicators. The 10% sample did not enable the production of comprehensive and robust small geography level data. To ensure that large enough numbers are available for analysis, an additional year of NCMP data is included instead of 2020/21; data for 2017/18-21/22 uses 2016/17 data instead of 2020/21.

D Carr - 08/03/2023

5. Inequalities in NCMP Obesity in Gloucestershire

In Gloucestershire there are differences in being very overweight in childhood depending on your gender, level of deprivation, ethnicity and rurality in both Reception and Year 6. This is particularly marked by deprivation level and ethnicity. From reception to year 6 the gaps appear to widen with rates becoming markedly higher in more deprived areas – for instance, in Reception Year the gap in obesity rates between most deprived and least deprived in the last 5 years of recording (2016-21) stands at 5.5% in Figure 8, however at Year 6 this gap is 15.5% in Figure 9.

During Reception Year in Gloucestershire, there are *statistically significant differences* in obesity prevalence between urban and rural, most to least deprived deciles as well as significant differences depending upon what ethnicity a pupil is.

These significant differences become more pronounced in Year 6 where the gaps in prevalence from most to least deprived are greater than at Reception age. In Year 6 there are also *statistically significant differences* between male and female obesity, level of rurality and those of non-white ethnicity when compared to white ethnicity.

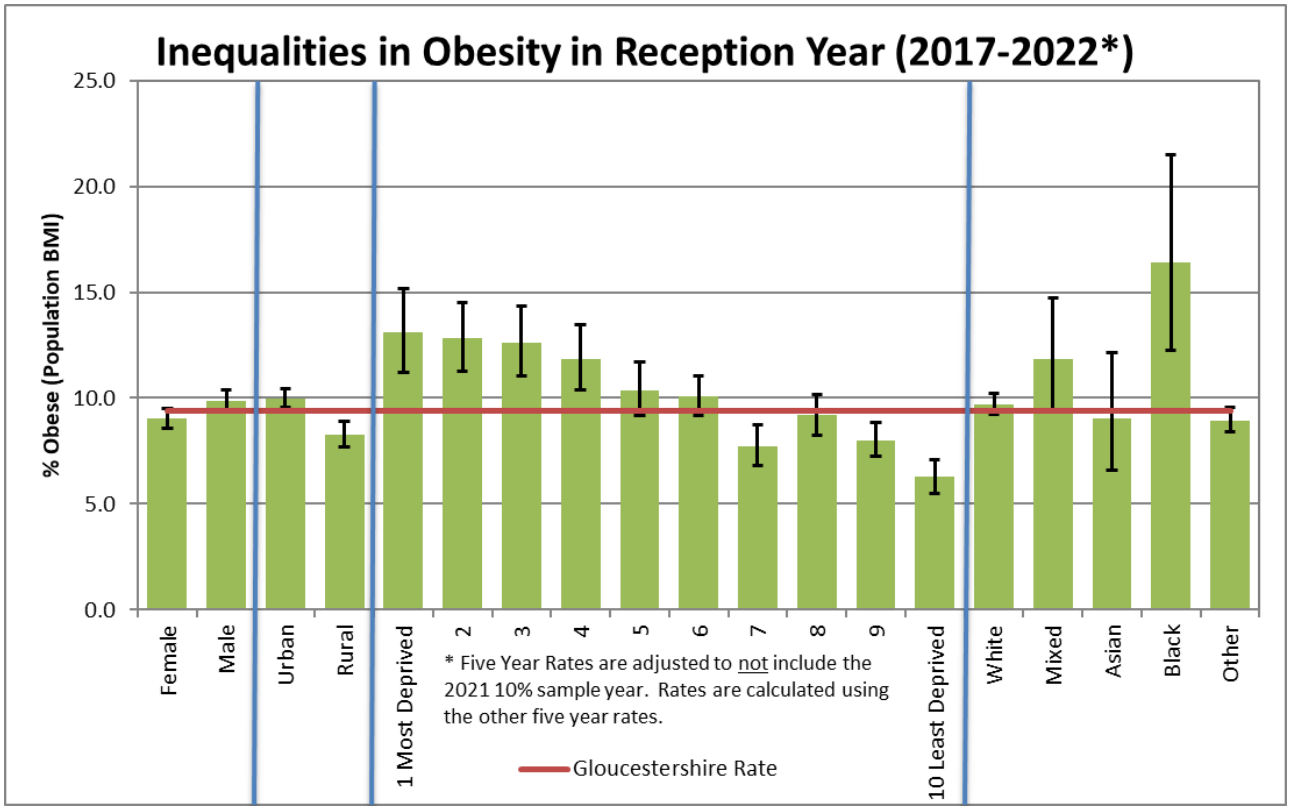


Figure 8 – Inequalities in Obesity in Reception Age children (Summary Chart, 5 years pooled)

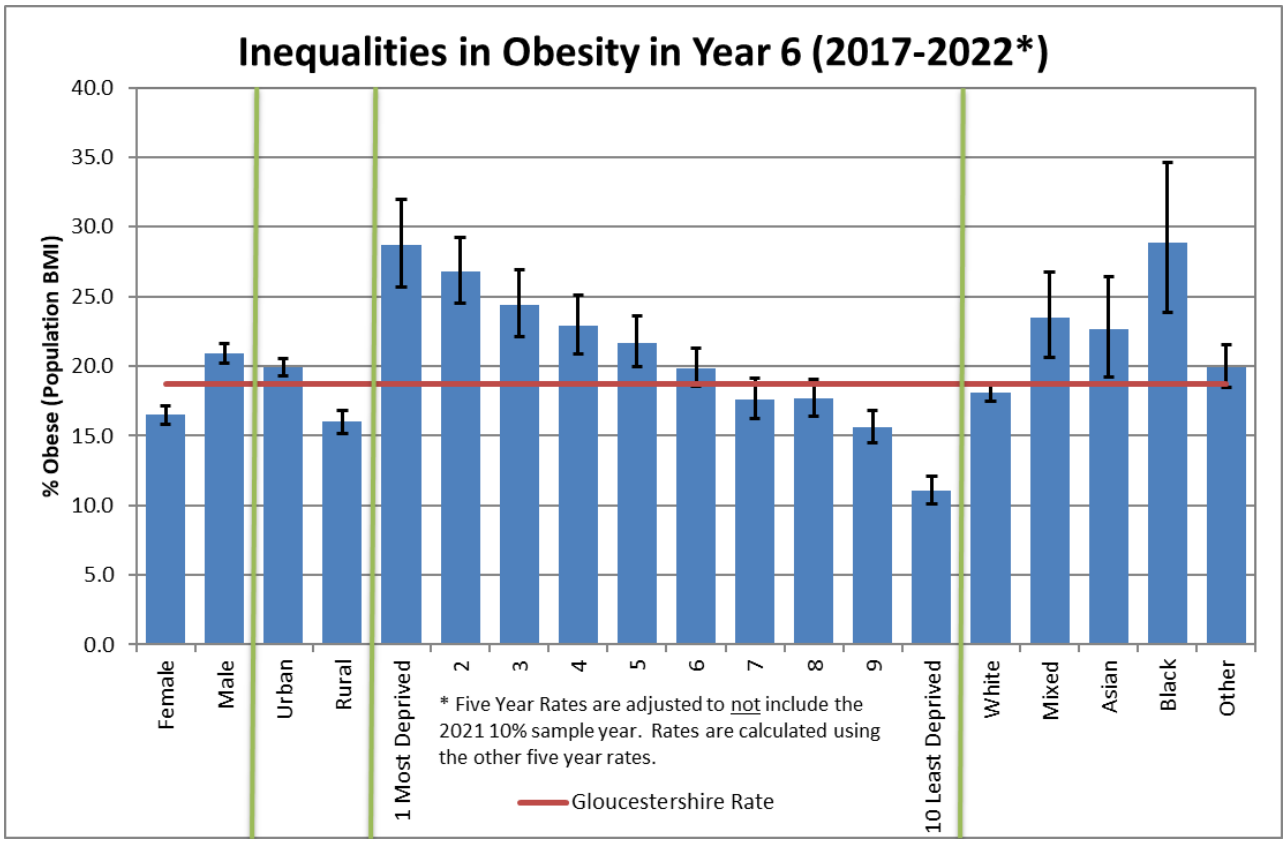


Figure 9 – Inequalities in Obesity in Year 6 children (Summary Chart, 5 years pooled)

The following sections explore each theme in further detail. The focus is on the latest year of recording – 2021/22. For the year covering 2020/21, a 10% representative sample has been used (shown as a grey area on each chart) but this year has not been included on any trend lines shown on the charts as mentioned in the data quality section on page 4.

6. Gender

Reception obesity (2021/22) rates:	Year 6 obesity (2021/22) rates:
9.3% of boys	23.8% of boys
8.2% of girls	17.9% of girls

In Reception Year there is no clear evidence to suggest that there is any gender inequality in obesity rates. In Year 6, boys in Gloucestershire are more likely to live with obesity than girls over the past 5 years.

The gap between obesity in boys/girls is evident in Year 6 and recorded NCMP data shows that this gap is widening slightly from 3.3% in 2016/17 to 5.9% in 2021/22. When looking at the confidence intervals in Figure 9 for gender this inequality is statistically significant over the five year period.

Nationally, obesity rates are slightly higher than Gloucestershire for reception age children and the gap in gender inequality has been narrowing over the last 15 years of recording[17]. National rates for Year 6 obesity in males and females are also slightly higher than Gloucestershire rates each year. The Year 6 inequality gap for England (6%)[18] is comparable to Gloucestershire (5.9%).

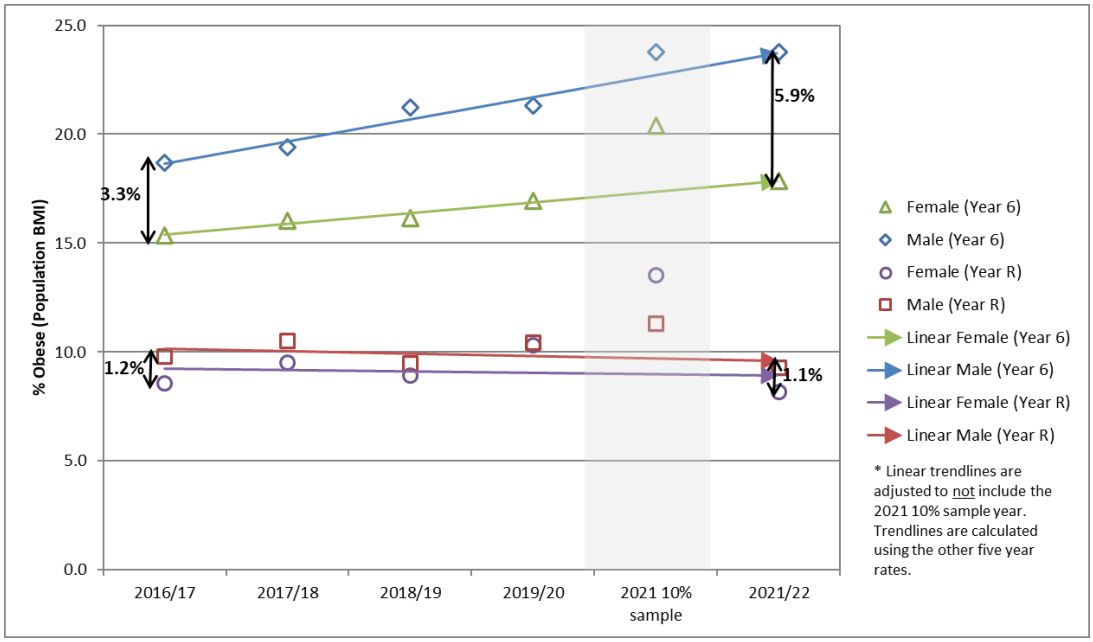


Figure 10 – Obese Inequalities (Gender) in Gloucestershire by year

[17] Obesity Profile - Data - OHID (phe.org.uk) (Display "Trends" above chart and "Partition data by Sex" to the right of the chart, if no data is displayed select a different "Geography version" from the dropdown list)

[18] Obesity Profile - Data - OHID (phe.org.uk) (Display "Trends" above chart and "Partition data by Sex" to the right of the chart)

7. Deprivation

Reception obesity current (2021/22) rates:	Year 6 obesity current (2021/22) rates:
11.6% of pupils living in most deprived areas	29.5% of pupils living in most deprived areas
6.1% of pupils living in least deprived areas	14.0% of pupils living in least deprived areas

In both Reception Year and Year 6, children living in the most deprived (decile) areas in Gloucestershire are significantly more likely to have obesity than those living in the least deprived areas. The gap between most to least deprived obesity rates is wider in Year 6 than Reception. Further information is available on the maps in section *4 Mapping Childhood Obesity at a Local Level*. National data for Reception and Year 6 children reflects what has been seen locally over the last five years and can be found here:

- Reception Year – England Trend Data. [19]
- Year 6 – England Trend Data. [20]

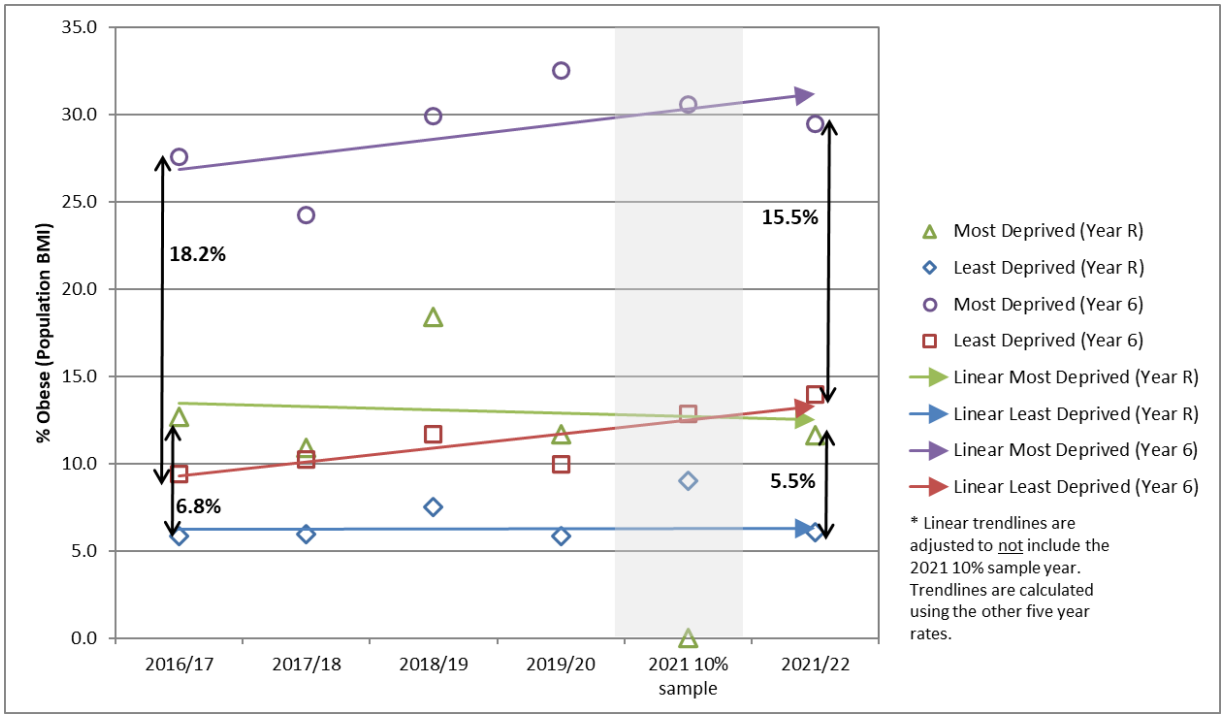


Figure 11 – Obese Inequalities (Deprivation) in Gloucestershire by year

[19] Obesity Profile - Data - OHID (phe.org.uk) (Display "Trends" above chart and "Partition data by LSOA11 Dep…" to the right of the chart)

[20] Obesity Profile - Data - OHID (phe.org.uk) (Display "Trends" above chart and "Partition data by LSOA11 Dep…" to the right of the chart)

8. Rural/Urban

Reception obesity current (2021/22) rates:	Year 6 obesity current (2021/22) rates:
9.2% urban	22.3% urban
7.6% rural	17.5% rural

For both Reception Year and Year 6, children living in urban areas are more likely to live with obesity than those living in rural areas with the inequality gap staying relatively similar over the last five years during year 6. This gap in year 6 is statistically significant as shown in Figure 9.

National inequality data for 2021/22 has slightly higher rates than Gloucestershire for obesity prevalence for both school year groups in urban and rural areas. [21] Rural/Urban inequality data combined for 5 years is currently not available on the Public Health Outcomes Framework website.

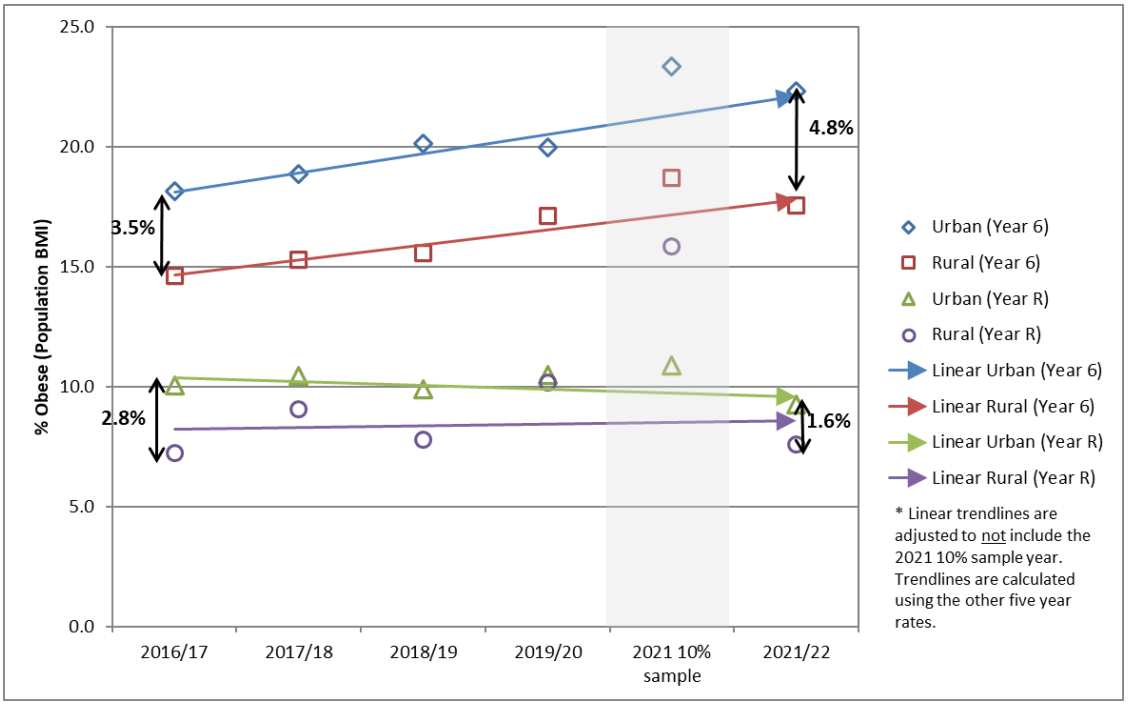


Figure 12 – Obese Inequalities (Rural/Urban) in Gloucestershire by year

[21] https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2021-22-school-year/region#rurality

9. Ethnicity

Reception obesity current (2021/22) rates:	Year 6 obesity current (2021/22) rates:
4.2% Asian	20.1% Asian
10.0% Black	34.5% Black
6.7% White	20.2% White

From looking at NCMP results over time, children of Black or Asian ethnicity are more likely to live with obesity than classmates of White ethnicity. It is in Year 6 where this appears more prevalent. Obesity among Reception aged Asian children have fluctuated above and below the obesity rate of White children. Over the last 5 years national data has reflected very similar obesity rates in Asian and Black children and higher rates of obesity amongst White children than Gloucestershire[22] [23]. Nationally, obesity prevalence is slightly higher for all ethnic groups except for Black children in Year 6 where rates are comparable to local rates.[24]

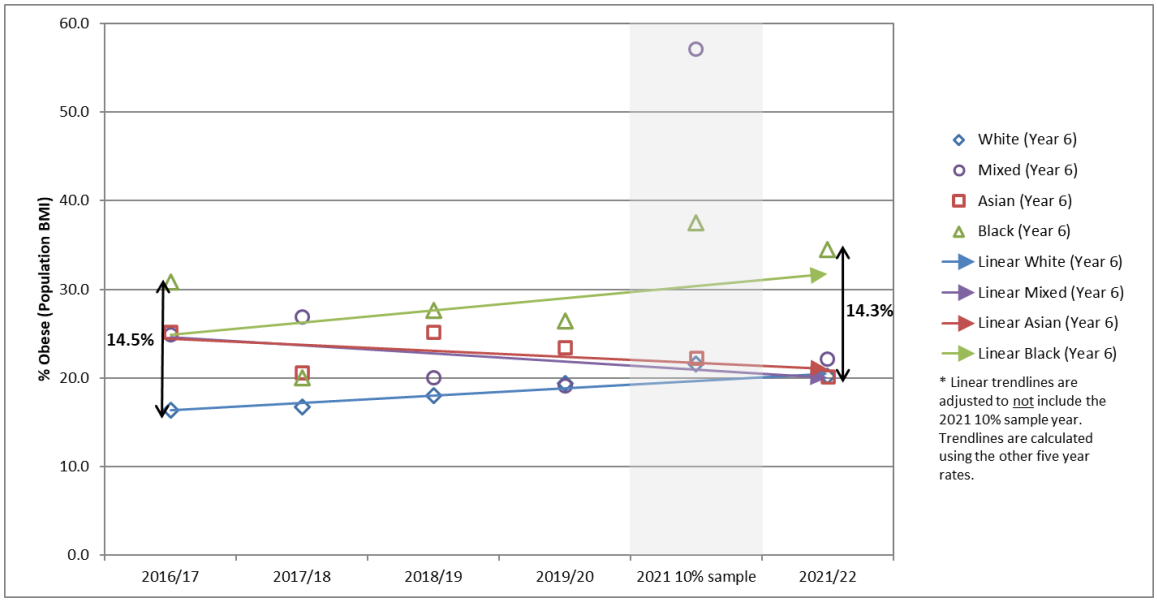


Figure 13 – Obese Inequalities (Ethnicity) in Gloucestershire by year (Year 6 only)

[22] Obesity Profile - Data - OHID (phe.org.uk) (Display "Trends" above chart and "Partition data by Ethnic Group" to the right of the chart)
[23] Obesity Profile - Data - OHID (phe.org.uk) (Display "Trends" above chart and "Partition data by Ethnic Group" to the right of the chart)
[24] https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2021-22-school-year/ethnicity

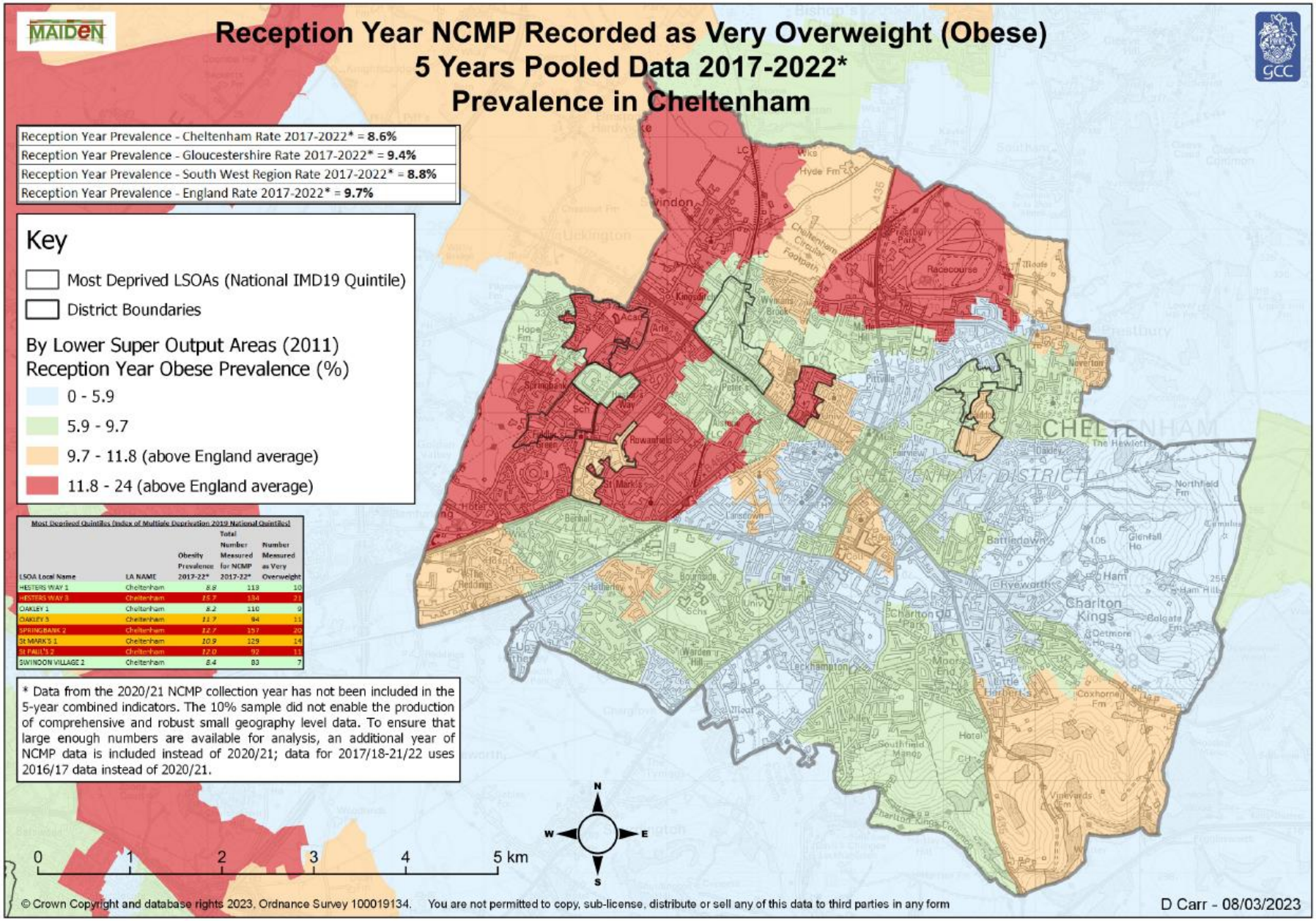
10. Appendix – Map zoom ins for Cheltenham and Gloucester

Order of Maps:

- Cheltenham: Year Reception Obesity Prevalence 2017-2022 by Lower Super Output Area
- Gloucester: Year Reception Obesity Prevalence 2017-2022 by Lower Super Output Area
- Cheltenham: Year 6 Obesity Prevalence 2017-2022 by Lower Super Output Area
- Gloucester: Year 6 Obesity Prevalence 2017-2022 by Lower Super Output Area

Reception Year NCMP Recorded as Very Overweight (Obese)
5 Years Pooled Data 2017-2022*
Prevalence in Cheltenham

Reception Year Prevalence - Cheltenham Rate 2017-2022* = **8.6%**
Reception Year Prevalence - Gloucestershire Rate 2017-2022* = **9.4%**
Reception Year Prevalence - South West Region Rate 2017-2022* = **8.8%**
Reception Year Prevalence - England Rate 2017-2022* = **9.7%**



Most Deprived Quintiles (Index of Multiple Deprivation 2019 National Quintiles)

LSOA Local Name	LA NAME	Obesity Prevalence 2017-22*	Total Number Measured for NCMP 2017-22*	Number Measured as Very Overweight
HESTERS WAY 1	Cheltenham	8.9	113	10
HESTERS WAY 3	Cheltenham	15.7	134	21
OAKLEY 1	Cheltenham	8.2	110	9
OAKLEY 3	Cheltenham	11.7	94	11
SPRINGBANK 2	Cheltenham	12.7	157	20
St MARK'S 1	Cheltenham	10.9	129	14
St PAUL'S 2	Cheltenham	12.0	92	11
SWINDON VILLAGE 2	Cheltenham	8.4	83	7

* Data from the 2020/21 NCMP collection year has not been included in the 5-year combined indicators. The 10% sample did not enable the production of comprehensive and robust small geography level data. To ensure that large enough numbers are available for analysis, an additional year of NCMP data is included instead of 2020/21; data for 2017/18-21/22 uses 2016/17 data instead of 2020/21.

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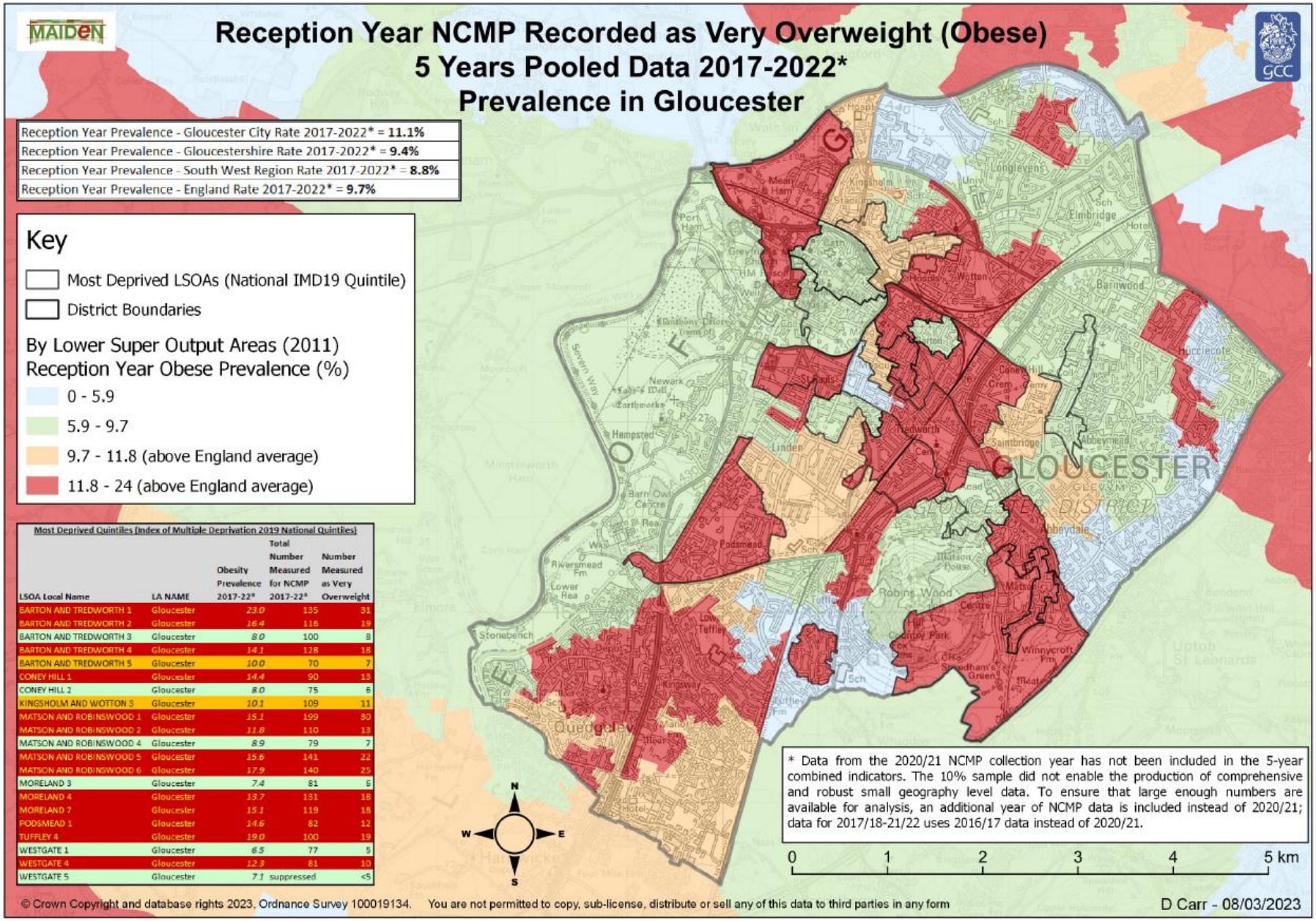
Reception Year NCMP Recorded as Very Overweight (Obese)
5 Years Pooled Data 2017-2022*
Prevalence in Gloucester

Reception Year Prevalence - Gloucester City Rate 2017-2022* = **11.1%**
Reception Year Prevalence - Gloucestershire Rate 2017-2022* = **9.4%**
Reception Year Prevalence - South West Region Rate 2017-2022* = **8.8%**
Reception Year Prevalence - England Rate 2017-2022* = **9.7%**



Most Deprived Quintiles (Index of Multiple Deprivation 2019 National Quintiles)

LSOA Local Name	LA NAME	Obesity Prevalence 2017-22*	Total Number Measured for NCMP 2017-22*	Number Measured as Very Overweight
BARTON AND TREDWORTH 1	Gloucester	23.0	135	31
BARTON AND TREDWORTH 2	Gloucester	16.4	116	19
BARTON AND TREDWORTH 3	Gloucester	8.0	100	8
BARTON AND TREDWORTH 4	Gloucester	14.1	128	18
BARTON AND TREDWORTH 5	Gloucester	10.0	70	7
CONEY HILL 1	Gloucester	14.4	90	13
CONEY HILL 2	Gloucester	8.0	75	6
KINGSHOLM AND WOTTON 3	Gloucester	10.1	109	11
MATSON AND ROBINSWOOD 1	Gloucester	15.1	199	30
MATSON AND ROBINSWOOD 2	Gloucester	11.8	110	13
MATSON AND ROBINSWOOD 4	Gloucester	8.9	79	7
MATSON AND ROBINSWOOD 5	Gloucester	15.6	141	22
MATSON AND ROBINSWOOD 6	Gloucester	17.9	140	25
MORELAND 3	Gloucester	7.4	81	6
MORELAND 4	Gloucester	13.7	131	18
MORELAND 7	Gloucester	15.1	119	18
PODSMEAD 1	Gloucester	14.6	82	12
TUFFLEY 4	Gloucester	19.0	100	19
WESTGATE 1	Gloucester	6.5	77	5
WESTGATE 4	Gloucester	12.3	81	10
WESTGATE 5	Gloucester	7.1	suppressed	<5

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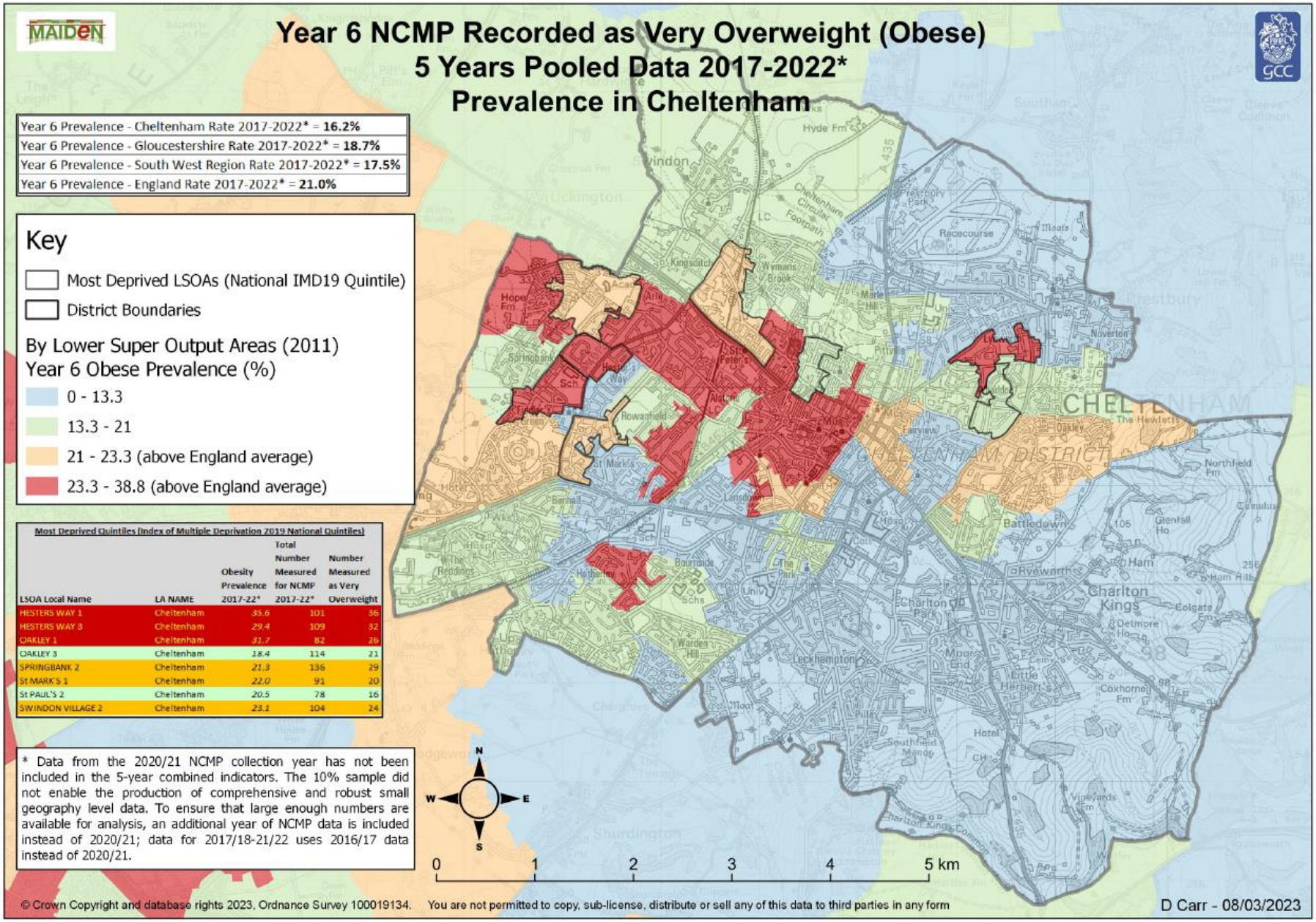
Year 6 NCMP Recorded as Very Overweight (Obese)
5 Years Pooled Data 2017-2022*
Prevalence in Cheltenham

Year 6 Prevalence - Cheltenham Rate 2017-2022* = **16.2%**
Year 6 Prevalence - Gloucestershire Rate 2017-2022* = **18.7%**
Year 6 Prevalence - South West Region Rate 2017-2022* = **17.5%**
Year 6 Prevalence - England Rate 2017-2022* = **21.0%**



Most Deprived Quintiles (Index of Multiple Deprivation 2019 National Quintiles)

LSOA Local Name	LA NAME	Obesity Prevalence 2017-22*	Total Number Measured for NCMP 2017-22*	Number Measured as Very Overweight
HESTERS WAY 1	Cheltenham	35.6	101	36
HESTERS WAY 3	Cheltenham	29.4	109	32
OAKLEY 1	Cheltenham	31.7	82	26
OAKLEY 3	Cheltenham	18.4	114	21
SPRINGBANK 2	Cheltenham	21.3	136	29
St MARK'S 1	Cheltenham	22.0	91	20
St PAUL'S 2	Cheltenham	20.5	78	16
SWINDON VILLAGE 2	Cheltenham	23.1	104	24

* Data from the 2020/21 NCMP collection year has not been included in the 5-year combined indicators. The 10% sample did not enable the production of comprehensive and robust small geography level data. To ensure that large enough numbers are available for analysis, an additional year of NCMP data is included instead of 2020/21; data for 2017/18-21/22 uses 2016/17 data instead of 2020/21.

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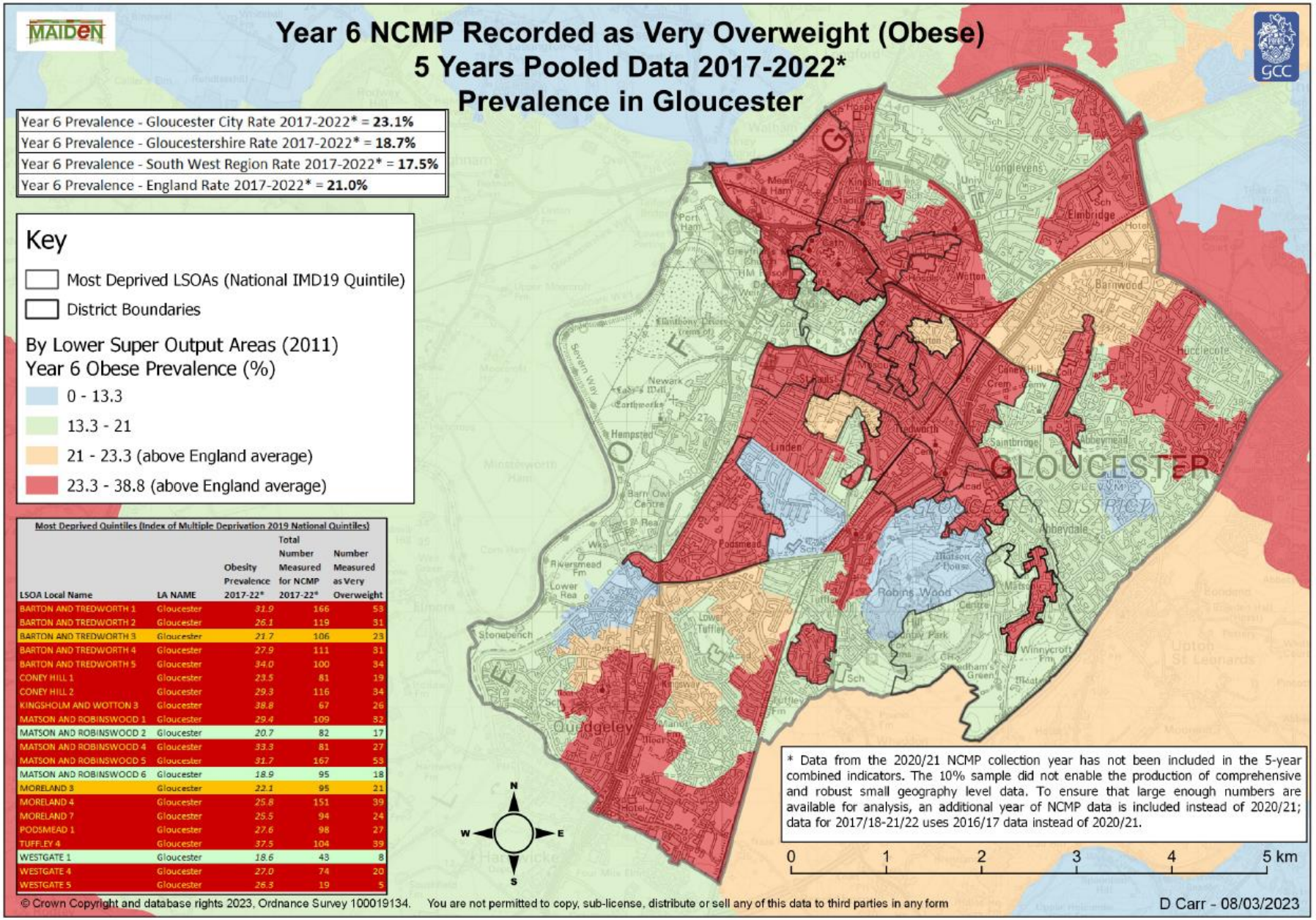
Year 6 NCMP Recorded as Very Overweight (Obese)
5 Years Pooled Data 2017-2022*
Prevalence in Gloucester

Year 6 Prevalence - Gloucester City Rate 2017-2022* = **23.1%**
Year 6 Prevalence - Gloucestershire Rate 2017-2022* = **18.7%**
Year 6 Prevalence - South West Region Rate 2017-2022* = **17.5%**
Year 6 Prevalence - England Rate 2017-2022* = **21.0%**



* Data from the 2020/21 NCMP collection year has not been included in the 5-year combined indicators. The 10% sample did not enable the production of comprehensive and robust small geography level data. To ensure that large enough numbers are available for analysis, an additional year of NCMP data is included instead of 2020/21; data for 2017/18-21/22 uses 2016/17 data instead of 2020/21.

Most Deprived Quintiles (Index of Multiple Deprivation 2019 National Quintiles)

LSOA Local Name	LA NAME	Obesity Prevalence 2017-22*	Total Number Measured for NCMP 2017-22*	Number Measured as Very Overweight
BARTON AND TREDWORTH 1	Gloucester	31.9	166	53
BARTON AND TREDWORTH 2	Gloucester	26.1	119	31
BARTON AND TREDWORTH 3	Gloucester	21.7	106	23
BARTON AND TREDWORTH 4	Gloucester	27.9	111	31
BARTON AND TREDWORTH 5	Gloucester	34.0	100	34
CONEY HILL 1	Gloucester	23.5	81	19
CONEY HILL 2	Gloucester	29.3	116	34
KINGSHOLM AND WOTTON 3	Gloucester	38.8	67	26
MATSON AND ROBINSWOOD 1	Gloucester	29.4	109	32
MATSON AND ROBINSWOOD 2	Gloucester	20.7	82	17
MATSON AND ROBINSWOOD 4	Gloucester	33.3	81	27
MATSON AND ROBINSWOOD 5	Gloucester	31.7	167	53
MATSON AND ROBINSWOOD 6	Gloucester	18.9	95	18
MORELAND 3	Gloucester	22.1	95	21
MORELAND 4	Gloucester	25.8	151	39
MORELAND 7	Gloucester	25.5	94	24
PODSMEAD 1	Gloucester	27.6	98	27
TUFFLEY 4	Gloucester	37.5	104	39
WESTGATE 1	Gloucester	18.6	43	8
WESTGATE 4	Gloucester	27.0	74	20
WESTGATE 5	Gloucester	26.3	19	5

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