PUBLIC HEALTH

National Child Measurement Programme (NCMP)

2018/19 update for the East Riding of Yorkshire

Part of the East Riding of Yorkshire Joint Strategic Needs Assessment (JSNA)

Public Health Intelligence Team
October 2020

EAST RIDING OF YORKSHIRE COUNCIL

National Child Measurement Programme (NCMP)

Summary of results for East Riding of Yorkshire, updated to include 2018/19

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National Child Measurement Programme (NCMP)

Summary of results incorporating 2018/19

1. Introduction

1.1 Background

The National Child Measurement Programme (NCMP) measures the height and weight of children in reception (aged 4 to 5 years) and year 6 (aged 10 to 11 years) to assess, observe and monitor overweight and obesity levels in primary school children. It was established in 2006/07 and this document provides a summary, explanation and exploration of the NCMP results for the school year 2018/19. This document is also one of many components of the East Riding of Yorkshire Joint Strategic Needs Assessment (JSNA).

Childhood obesity is a global, national, regional and local problem and can lead to children developing type 2 diabetes, respiratory problems, high blood pressure and liver disease. East Riding of Yorkshire Council (ERYC) is committed to providing and commissioning services to help reduce the prevalence of childhood obesity, reduce health inequalities and ensure a healthy future.

As the NCMP data for 2018/19 within this report shows, the majority of children in year 6 and reception year in the East Riding of Yorkshire were a healthy weight. However, despite this, a fifth of reception age (20.1%) and nearly a third (31.7%) of year 6 children in the East Riding of Yorkshire were overweight or obese in 2018/19. There was a higher prevalence of overweight and obese children in the most deprived communities, particularly in year 6 children.

1.2 The East Riding approach to tacking obesity

East Riding of Yorkshire Council intends to reduce children's overweight and obesity prevalence and further improve the long term trends through a holistic range of universal and targeted school based, family focussed and individual programmes, promotions and initiatives.

For example

1. The Healthier Schools Programme, delivered by the Council's Sport and Play team, aims to reduce obesity, increase children's and parents physical activity and awareness of healthy eating and both increase confidence and enhance emotional wellbeing and self-esteem. As the case study below shows, this is a very popular programme with children, parents, teachers and schools.
2. The Public Health Team commission local theatre company 'Dramatic' to perform the 'Big Difference' play to whole school audiences as an effective and innovative way of transmitting the Change 4 Life messages around healthy eating and healthy activity to children and teachers.
3. The Young Live Well programme delivered by the Health and Wellbeing team (Facilities Leisure Services) is a 16 week healthy lifestyle programme that addresses weight management and physical activity for those individual children and young people aged 11 - 18 who are overweight.

All of the many programmes are continually evaluated and improved through engagement with schools, parents and pupils. The NCMP data alongside qualitative data is harnessed annually to fine tune these

activities to ensure that resources are focussed on the areas of greatest need and are used effectively, efficiently and economically.

Since this document was first undertaken, the COVID-19 pandemic has adversely affected millions of people's lives with the introduction of preventive measures such as lockdowns and quarantines that were necessary to stem the spread of the virus. It is entirely possible that future cohorts of children may look different from the 2018/19 cohort described in this document and that schools are presently operating in a very different model from what they are used to. It is therefore imperative to continue to work closely with schools as they navigate the 'post-COVID' world and help deliver the best outcomes for children.

1.3 An East Riding case study - Healthier Schools Programme: Aldborough Primary School

When asked about what the biggest benefit of the Healthier Schools Programme at Aldbrough school, the Head Teacher's response was;

> "Definitely the Family Bootcamp. We don't ever do anything other than maybe three times a year which involves the parents and the children together, I didn't know whether they would buy into it at all but they really did".

Over the course of six weeks, the Sport and Play team delivered family boot camps to 11 different families with 31 participants taking part overall. The boot camps provided a great opportunity for the School to engage with parent's, every week there was a different family who had heard about it and wanted to take part. One parent decided to put it on Facebook explaining how good the boot camps were, and how she loved doing it with her children. Another parent who works in the local post office stopped me in the shop and asked if I was still aching from the boot camp which had taken place the evening before, this then led to other customers asking about it also, this shows what a really strong community link things like this can have.

Aldbrough Primary are now looking to continue to run the Family Bootcamps with the support of parents after the demand from the families was for it to continue.

The Head Teacher stated;

> "It doesn't seem too difficult to replicate ourselves with a bit of support and allowing something to be free is a big benefit for the families, I can't praise the girls who delivered it enough".

1.4 Other notes about this document

Please note that this document uses 'school years' throughout (e.g. 2018/19) and they should not be confused with financial years. The majority of analysis reports on the single school year of 2018/19, but for smaller geographic areas the latest 3 school years have been pooled together to provide a more robust source of data.

The analysis in this document uses 'population' body mass index (BMI) categories, as opposed to clinical BMI categories. Population thresholds are used for most published obesity and overweight prevalence figures whilst clinical cut-offs are recommended by NICE for use in clinical settings with

individual children and also used for the NCMP parental feedback letters and the NHS choices BMI calculator.

As well as comparing against other local authorities within the Yorkshire and the Humber (Y&H) region, this document compares the East Riding with local authorities elsewhere in the country who have similar socio-economic characteristics. This has been based on the Chartered Institute of Public Finance and Accountancy (CIPFA) 'Nearest Neighbours model'.

Annual updates to national and local authority level information, can be found on the Public Health England (PHE) 'NCMP and Child Obesity Profile Fingertips website' (accessible here: https://fingertips.phe.org.uk/profile/national-child-measurement-programme). The source of the East Riding ward data in this document has come directly from the record level data provided by NHS Digital and differs to the estimates produced by PHE Local Health, owing to the different methodology used.

2. Key points

2.1 Healthy weight

- In 2018/19 the majority of children weighed and measured were a healthy weight, this applied to 8 in 10 reception year children (79.3%) and almost 7 in 10 year 6 children (67.3%). *See section 4.2.*

2.2 Obesity prevalence

- In 2018/19, the prevalence of obesity in males was higher than females in both reception year and year 6, however the difference was not statistically significant. *See section 4.3.*
- The prevalence of obesity in 2018/19 for both reception year (8.7%) and year 6 (18.0%) was lower than the England average (9.7% and 20.2% respectively). The year 6 prevalence was significantly lower. Since 2006/07 the East Riding prevalence has usually been lower or similar to the England average and never significantly higher. *See section 4.4 and 5.1.*
- The trend of obesity prevalence in East Riding reception year and year 6 children has remained similar (statistically) over the past 5 years. *See section 5.1.*
- Compared to other local authorities East Riding reception year children had the lowest obesity prevalence within the region and 5th lowest compared to the nearest 15 CIPFA neighbours. Year 6 children in the East Riding had the 3rd lowest prevalence regionally and the 7th highest compared to the nearest 15 CIPFA neighbours (placing it approximately in the middle). *See section 5.2.*
- Goole North and Goole South (10.7% and 10.5% respectively) were the only wards with a significantly higher prevalence of reception year obesity compared to the East Riding average (7.5%) in 2016/17-18/19. In year 6, for the same period. Goole South (27.3%) and Bridlington Central and Old Town (23.7%) were both significantly higher than the 17.1% prevalence of the East Riding. *See section 5.3.*
- There was a higher prevalence of obesity in the most deprived communities, particularly in year 6 children where the rate of obesity was almost twice as high in the most deprived deprivation quintile (23.3%) compared to the least deprived quintile (12.7%). The obesity gap between the most deprived and least deprived year 6 children has increased over time from 6.7% (2006/07-08/09) to 10.6% (2016/17-18/19). *See section 5.4.*

2.3 Prevalence of underweight

- In 2018/19 East Riding children in both reception year and year 6 had a significantly lower (i.e. better) prevalence of underweight when compared to the England average. This has been the case for most years previously despite an unexplained 'blip' in 2017/18, when it was significantly higher. *See section 6.1.*
- The East Riding 2018/19 prevalence of underweight were amongst the lowest in the region, but the reception year prevalence was one of the highest amongst CIPFA neighbours. *See section 6.2.*
- Unlike for England overall, there wasn't found to be any significant difference in prevalence between the most and least deprived communities of the East Riding. *See section 6.3.*

3. Recommendations

This document provides a 'quantitative heavy' snapshot of the results of the 2018/19 NCMP and has not been produced with the specific aim of making recommendations. However, the authors would like to highlight these general recommendations gained from knowledge and experience from within the Public Health team, other colleagues within East Riding of Yorkshire Council and our partners.

1. All partners should prioritise health and wellbeing education in the school setting as part of their agenda (including pupils, families, and school staff). This includes incorporating wider health perceptions of sleep, screen time and emotional wellbeing.

2. The encouragement to creatively incorporate a physical activity element in all subjects and seek opportunities for children to be physically active during the school day.

3. Support pupils and families to make healthier food choices through education.

4. Summary statistics for 2018/19

4.1 Participation rates in East Riding schools

During 2018/19, there were 3,194 reception year children and 3,521 year 6 children measured within East Riding schools as part of the NCMP programme. This equated to overall participation rates of 98.9% for reception year (19th highest out of 150 local authorities) and 97.8% for year 6 (27th highest). The East Riding rates were higher than the England average participation rates of 95.3% and 94.5% for reception year and year 6 respectively.

Unlike the paragraph above, which summarised the number of children weighed and measured in East Riding schools (whether they East Riding residents or not), the rest of the document is specifically about children who reside within the East Riding of Yorkshire boundary. The total number of East Riding *resident* children weighed and measured were 3,078 (reception year) and 3,378 (year 6).

4.2 Population BMI category: numbers and prevalence within the East Riding

The proportion of East Riding children within each BMI category for 2018/19 is displayed within charts 4.2.1 and 4.2.2. In both year groups the prevalence of healthy weight overwhelmingly dominates all of the other categories at 79.3% and 67.3% for reception year and year 6 respectively. However, as seen in recent years, the prevalence of obesity in Year 6 (18%, n=609) is over twice that of the reception year children (8.7%, n=268), although these are obviously two different cohorts of children.

*Chart 4.2.1 BMI categories for ERY **reception year** children, 2018/19. Source: NHS Digital*

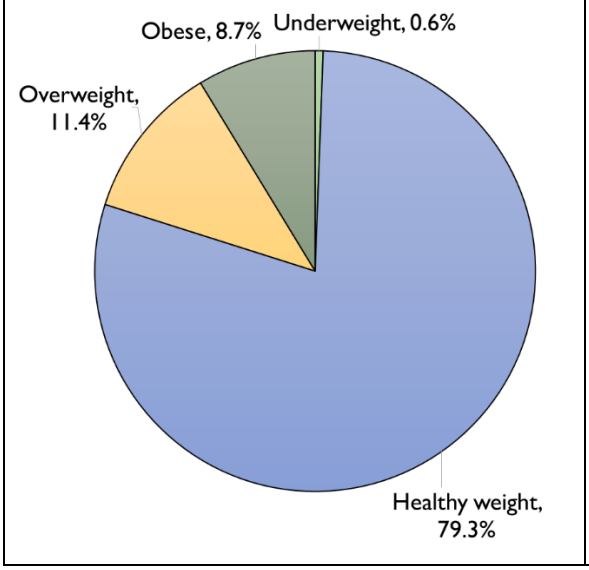
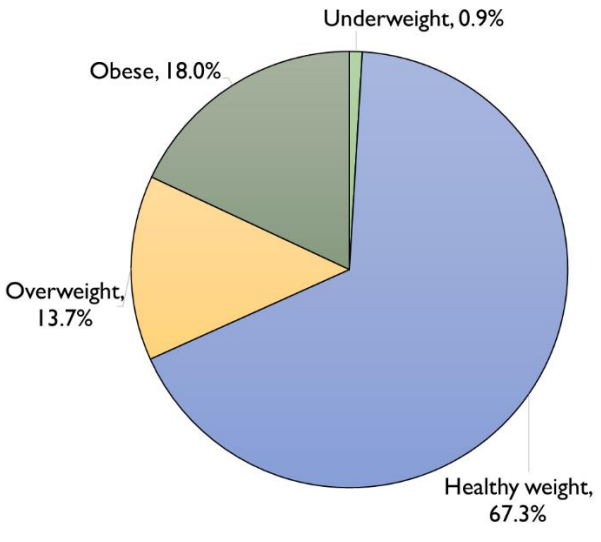


*Chart 4.2.2 BMI categories for ERY **year 6** children, 2018/19. Source: NHS Digital*



The bullet points below provide some general points regarding prevalence and numbers of children within each of the other categories in 2018/19:

- **Underweight:** the East Riding prevalence for underweight children in reception year and year 6 was 0.6% (n=18 children) and 0.9% (n=32 children) respectively;
- **Overweight:** East Riding children in the overweight category numbered 351 in reception year and 463 year 6, giving a respective prevalence of 11.4% and 13.7%;

- **Obese:** 8.7% (n=268) of East Riding reception year children and 18.0% (n=609) of year 6 children were categorised as obese.

Table 4.2.3 provides a summary of the numbers of children (and respective prevalence) within each category, for each school year.

Table 4.2.3 BMI categories for ERY children, 2018/19. Source: NHS Digital

	Reception Year		Year 6	
BMI category	**Number**	**Prevalence**	**Number**	**Prevalence**
Underweight	18	0.6%	32	0.9%
Healthy weight	2,441	79.3%	2,274	67.3%
Overweight	351	11.4%	463	13.7%
Obese (including severely obese)	268	8.7%	609	18.0%
Total number of children measured	3,078	100%	3,378	100%

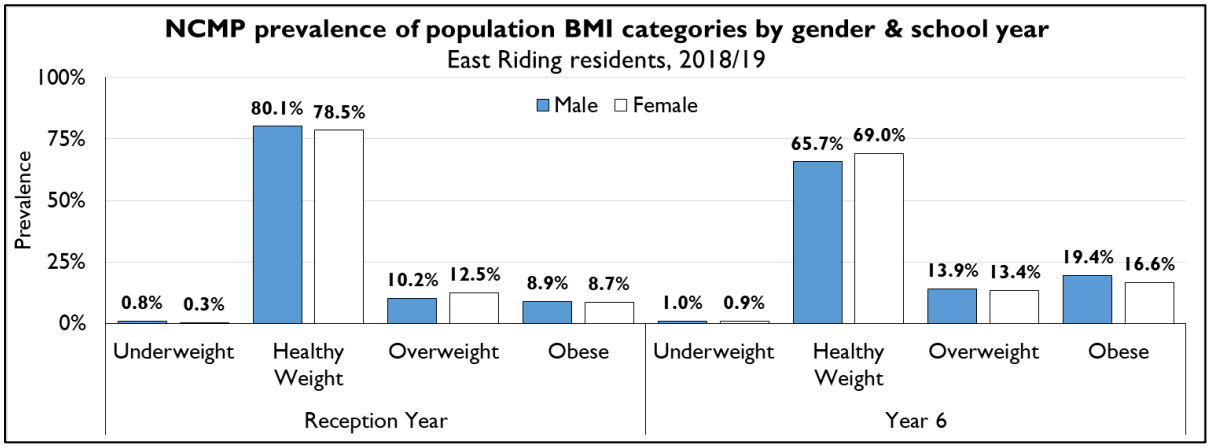
	Reception Year		Year 6	
Other categories (subsets of above)	**Number**	**Prevalence**	**Number**	**Prevalence**
Severely obese only	66	2.1%	133	3.9%
Overweight and obese combined	619	20.1%	1072	31.7%

4.3 Prevalence of each population BMI category by gender

During 2018/19 within England as a whole, the prevalence of obesity was significantly higher in males, compared to females for both reception year and year 6. Nationally, 10% of reception year males were obese, compared to the female prevalence of 9.4%. In year 6, these proportions rose to 22.5% and 17.8% for males and females respectively. In the East Riding, whilst the male obesity prevalence was higher than females for both school years, it wasn't a significant difference.

Chart 4.3.1 illustrates the prevalence of each BMI category by gender for East Riding pupils during 2018/19. In reception year females recorded a higher overweight prevalence and a lower healthy weight compared to males; but by year 6 the male prevalence of underweight, overweight and obesity were all higher than the female equivalents. However, there were no significant differences between the genders in the BMI categories.

Chart 4.3.1 Prevalence of population BMI category by gender in ERY reception year and ERY year 6, comparing males and females. 2018/19. Source: NHS Digital/ERY PHI



4.4 Prevalence of each population BMI category, a comparison with region and England

During 2018/19, the East Riding experienced favourable NCMP results compared to England and the Y&H region, for both reception year and year 6.

Table 4.4.1 provides a comparative summary for each BMI category. The coloured cells in the table indicate statistical differences between the East Riding and England. Most of the table cells are coloured green, indicating that a significantly better (or more preferred) prevalence was experienced in the East Riding. Last year, the East Riding prevalence of underweight children which was found to be significantly higher (i.e. less favourable) in both school years when compared to England. One year on however, in both years, the East Riding prevalence of underweight is significantly lower (i.e. better) than England.

Key points from the table include:

- The East Riding had a significantly higher (i.e. better) proportion of children at a healthy weight than England in both reception year (79.3% versus 76.5% in England) and year 6 (67.3% compared to 64.3%).
- The prevalence of obesity is lower (i.e. better) in the East Riding than England, for both school years (8.7% versus 9.7% in reception year and 18% versus 20.2% in year 6).
- The underweight prevalence in both reception year (0.6%) and year 6 (0.9%) is significantly lower than the England averages (1% and 1.4% respectively).

Table 4.4.1 NCMP summary statistics for 2018/19. Coloured cells indicate ERY statistical comparison with England, see key below table. Source: PHE Fingertips

	Reception Year			Year 6		
BMI Category	**ERY**	**Y&H**	**England**	**ERY**	**Y&H**	**England**
Underweight	0.6%	0.9%	1.0%	0.9%	1.3%	1.4%
Healthy weight	79.3%	75.4%	76.5%	67.3%	63.6%	64.3%
Overweight	11.4%	13.5%	12.9%	13.7%	14.1%	14.1%
Obese (including severely obese)	8.7%	10.2%	9.7%	18.0%	21.0%	20.2%
Total	100%	100%	100%	100%	100%	100%

	Reception Year			Year 6		
Other categories (subsets of above)	**ERY**	**Y&H**	**England**	**ERY**	**Y&H**	**England**
Severely obese only	2.1%	2.7%	2.4%	3.9%	4.7%	4.4%
Overweight and obese combined	20.1%	23.7%	22.6%	31.7%	35.1%	34.3%

Significantly better than England | Similar to England | Significantly worse than England

5. The prevalence of obesity

5.1 Past trends of obesity with the East Riding, compared to England

The prevalence of obesity between 2006/07 and 2018/19 is shown for both reception year and year 6 in chart 5.1.1 and 5.1.2. It compares the East Riding prevalence against the England average (shown by the black line and black circular markers) for the duration of this period. As already highlighted in section 4.4, in 2018/19, the East Riding had a similar prevalence to England in reception year and a significantly lower prevalence of obesity in year 6 compared to England. As a result the markers are coloured amber and green respectively in charts 5.1.1 and 5.1.2. None of the periods indicate that the East Riding has had a significantly higher prevalence of obesity compared to England, due to the absence of a red marker on the chart.

Between 2017/18 and 2018/19, the reception year prevalence of obesity in the East Riding has increased from 5.7% to 8.7% and the year 6 prevalence has increased from 15.5% to 18%. Whilst this might appear disappointing, the results for 2018/19 are more in line with the prevalence figures of previous years (pre-2017/18). Viewing the charts below, it appears that 2017/18 was an abnormal year, with a sudden drop in prevalence going against the trend seen before. Statistical analysis by PHE indicates that for both reception year and year 6 children there has been no significant change over the most recent 5 periods. Looking at the whole period (2006/07-18/19), the East Riding and England reception year prevalence appears to have remained similar (marginally decreasing over this period) and for year 6 (again, both England and the East Riding) the prevalence has been gradually increasing.

Chart 5.1.1 ERY reception year obesity prevalence trend, compared to England. Source: PHE Fingertips

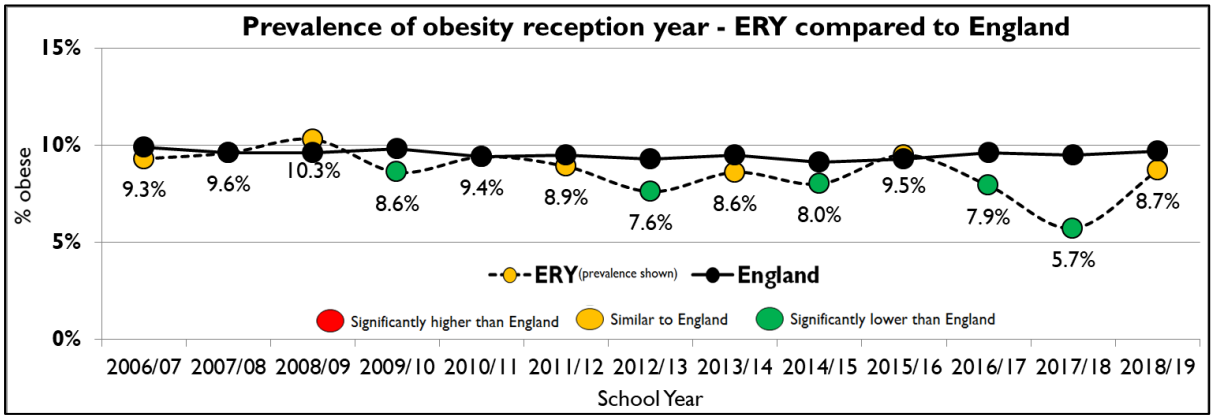
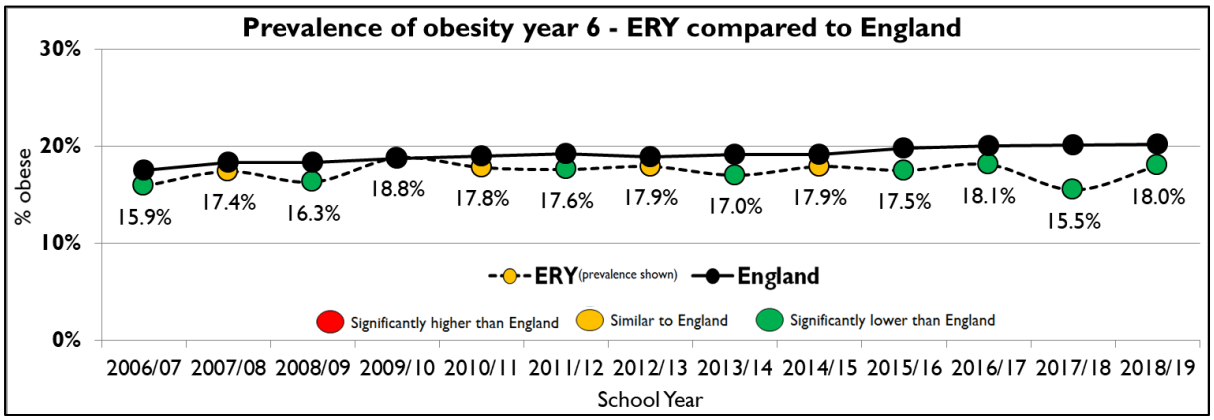


Chart 5.1.2 ERY year 6 obesity prevalence trend, compared to England. Source: PHE Fingertips



5.2 The prevalence of obesity in the East Riding compared to other local authorities

Earlier in this document the prevalence of obesity in East Riding was compared with the regional average and whilst this is a convenient comparison to make because of the location of the East Riding it might not be the most suitable. A number of East Riding characteristics differ from its regional neighbours, therefore an alternative method of comparison would be appropriate. The Chartered Institute of Public Finance and Accountancy (CIFPA) nearest neighbours methodology compares the East Riding with the 15 other councils calculated to have the most similar statistical characteristics in terms from a social and economic perspective. These neighbours are usually recalculate annually and so may differ from those that appear in previous versions of this document.

Charts 5.2.1 and 5.2.2 below, compare the 2018/19 East Riding prevalence of reception year obesity against other local authorities within the region and against the nearest 15 CIPFA neighbours respectively. The East Riding had the lowest prevalence within region and 5th lowest amongst CIPFA neighbours. Similarly, charts 5.2.3 and 5.2.4 show the prevalence for year 6, where the East Riding had the 3rd lowest prevalence in region and 7th highest amongst CIPFA neighbours.

*Chart 5.2.1 Prevalence of obesity in **reception year**, 2018/19. ERY compared to region. Source: PHE Fingertips*

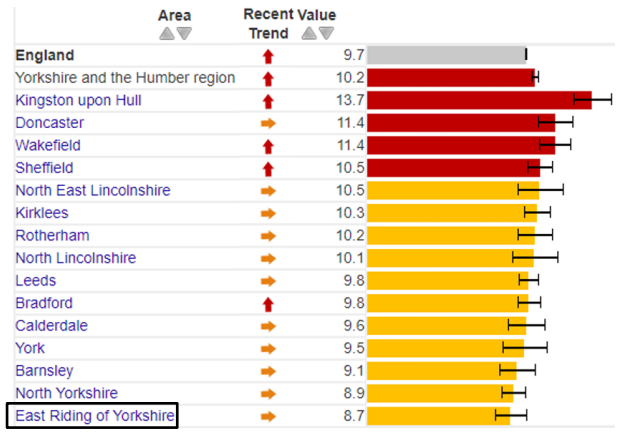


*Chart 5.2.2 Prevalence of obesity in **reception year**, 2018/19. ERY compared to CIPFA neighbours. Source: PHE Fingertips*

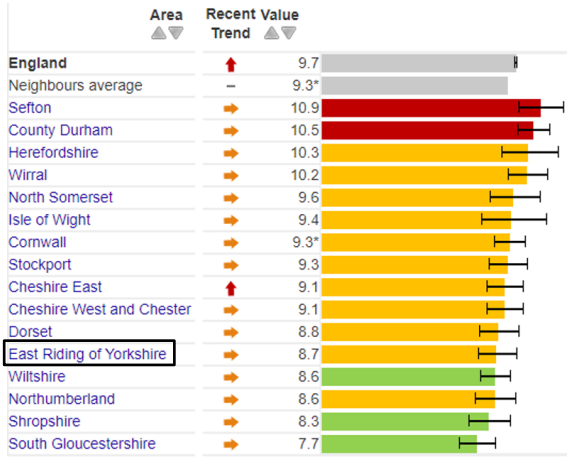


*Chart 5.2.3 Prevalence of obesity in **year 6**, 2018/19. ERY compared to region. Source: PHE Fingertips*

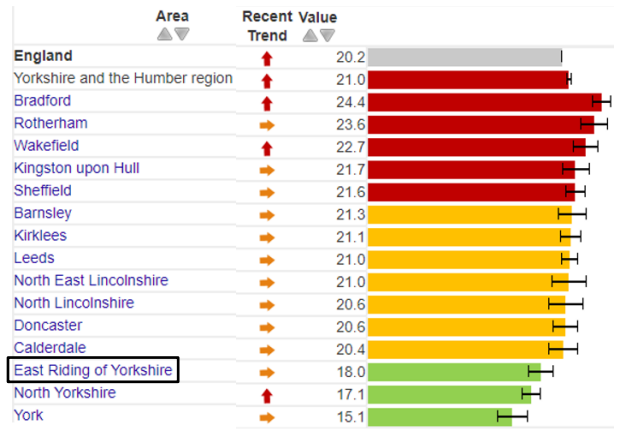
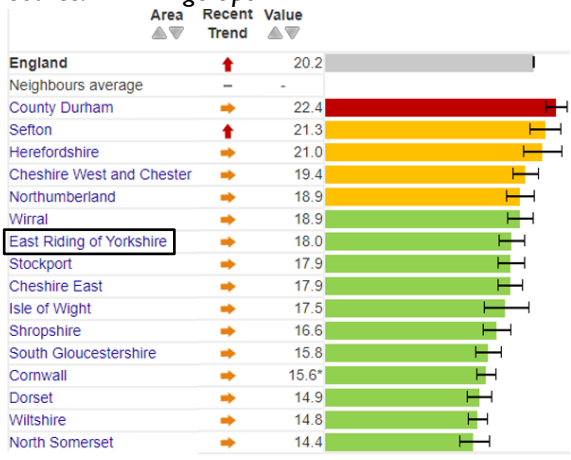


*Chart 5.2.4 Prevalence of obesity in **year 6**, 2018/19. ERY compared to CIPFA neighbours. Source: PHE Fingertips*



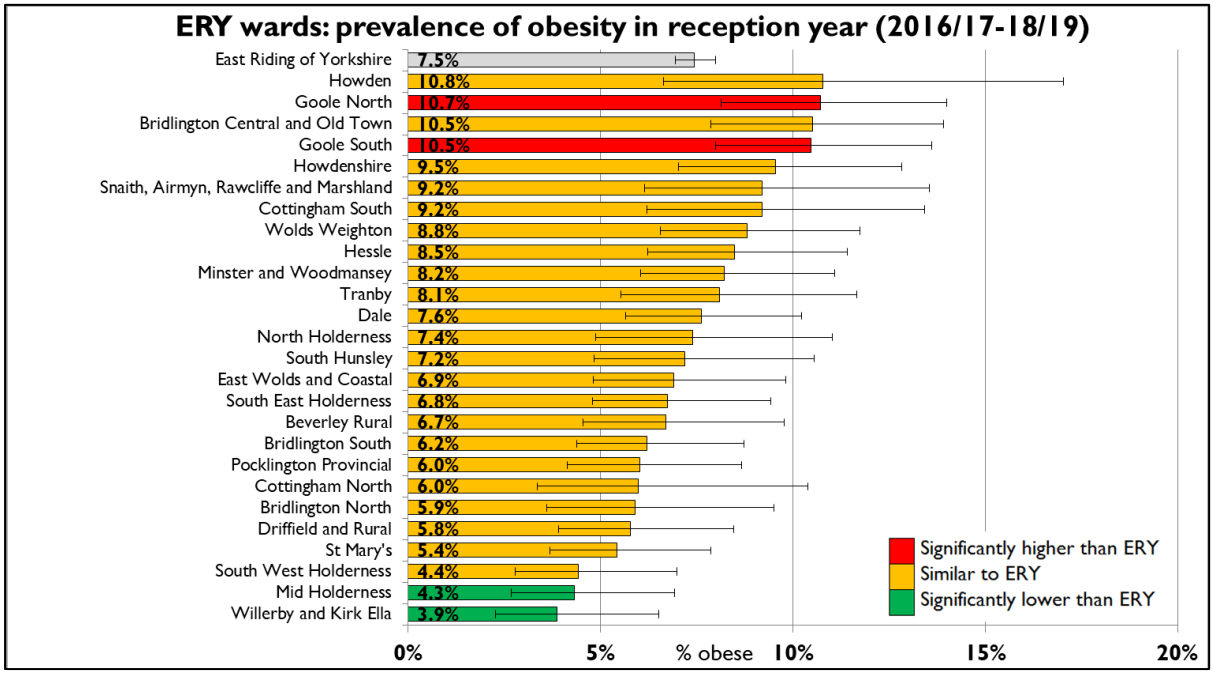
A comparison of the prevalence of **severe obesity** is not illustrated within this document, however in 2018/19 the East Riding prevalence in reception year (2.1%) was 3rd lowest in region and 7th highest compared to CIPFA neighbours. The East Riding year 6 prevalence (3.9%) was 3rd lowest and 5th highest (compared to region and CIPFA neighbours respectively).

5.3 Obesity prevalence within the wards of the East Riding

So far, this document has examined the prevalence of different child weight categories at a local authority level and whilst this shows the East Riding in a favourable light when compared to England and other similar local authorities, it masks the inequalities experienced within the local authority. Electoral wards have been a natural choice of geography for analysis below local authority level for some time; service professionals and members of the public are generally familiar with them and they are also politically relevant too. There are 26 wards within the East Riding and similarly to deprivation bands (as shown in the next section) they can be used to view inequalities within different areas.

Charts 5.3.1 and 5.3.2 display the prevalence of obesity with the wards of East Riding, for reception year and year 6; both charts highlight which wards are significantly higher than the East Riding average (red bars) and those that are significantly lower (green bars). Unlike the other analysis so far used in this document (which has concentrated solely on the latest NCMP year), the ward charts use a 3 year pooled period (2016/17-18/19) to try to provide a more robust set of data to calculate the prevalence. Maps in appendix 8.1 and 8.2 also display the same results, but use a map format.

Chart 5.3.1 Prevalence of obesity in Reception Year, East Riding of Yorkshire wards. 2015/16-17/18 (3 years pooled). Based on postcode of child. Source: NHS Digital/ERY PHI (see map in appendix 8.1)



In chart 5.3.1, Howden was the ward with the highest prevalence of obesity (10.3%) in reception year but was not significantly higher than the East Riding average of 7.5% (note the length of the confidence intervals of the ward). Goole South and Goole North were the only wards significantly higher than the local authority average (at 10.7% and 10.5% respectively). Willerby and Kirk Ella had the lowest

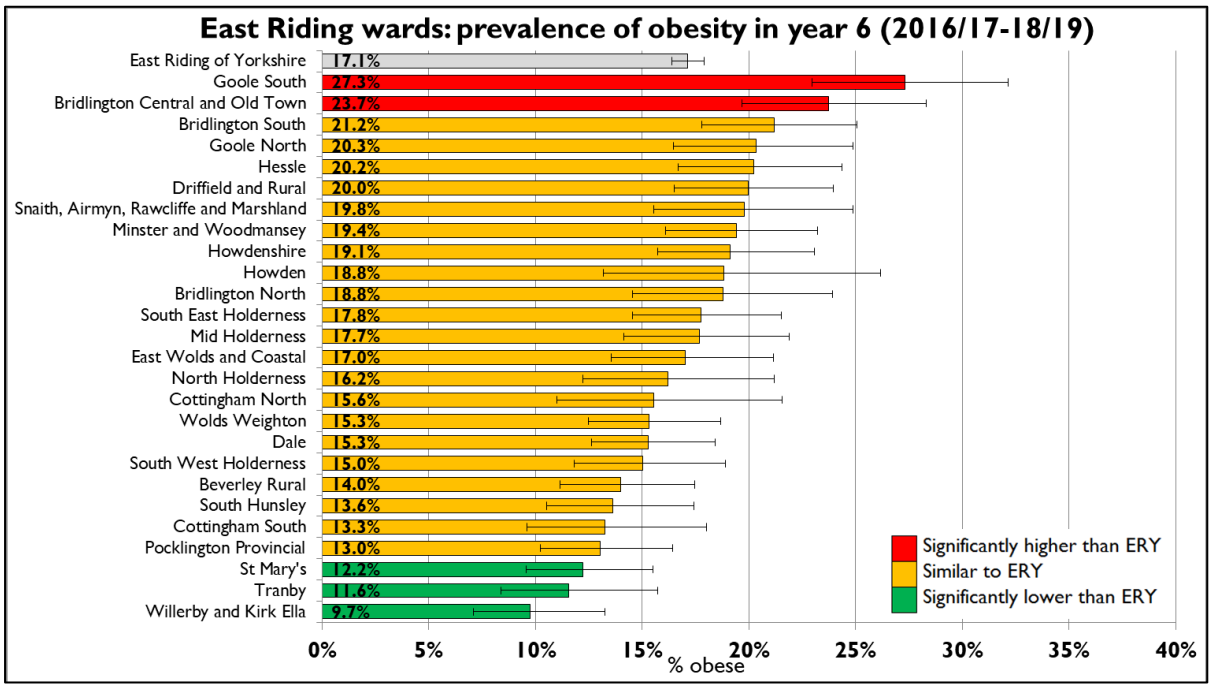
prevalence (3.9%) and was one of only two wards significantly lower than the local authority reception year average (the other being Mid Holderness at 4.3%).

The ranking of the wards based on the reception year obesity prevalence, appears to show some of the East Riding more deprived wards with a higher prevalence of obesity (e.g. Goole South, Goole North, and Bridlington Central and Old Town) than some of the least deprived wards at the bottom (e.g. Willerby and Kirk Ella and St. Marys). However there was no conclusive pattern regarding deprivation and this is reflected more accurately later in chart 5.4.1 which is based on groupings of Lower Super Output Areas (LSOAs).

For year 6 children (chart 5.3.2 below) Goole South recorded the highest prevalence of obesity at 27.3% and was one of 2 wards that were significantly higher than the East Riding prevalence of 17.1% (the ward being Bridlington Central and Old Town at 23.7%). In contrast the lowest prevalence was seen within Willerby and Kirk Ella (9.7%), which (along with Tranby and St. Mary's) were the 3 wards with a significantly lower prevalence than the local authority average.

Whilst the reception year results appeared not to show any noticeable pattern in their ranking from a deprivation perspective, it was slightly more apparent for year 6 children. Of the 4 wards with the highest prevalence of obesity, 3 of them are considered to be amongst the most deprived in the East Riding. In contrast, the wards with a lower prevalence (Willerby and Kirk Ella, St. Marys and Pocklington Provincial) are amongst the least deprived wards of the local authority. Chart 5.4.2, in the next section, illustrates obesity prevalence in the most and least deprived communities more clearly, as it based on groupings of LSOAs in deprivation bands

Chart 5.3.2 Prevalence of obesity in Year 6, East Riding of Yorkshire wards. 2015/16-17/18 (3 years pooled). Based on postcode of child. Source: NHS Digital/ERY PHI (see map in appendix 8.2)



5.4 Obesity prevalence by local deprivation bands

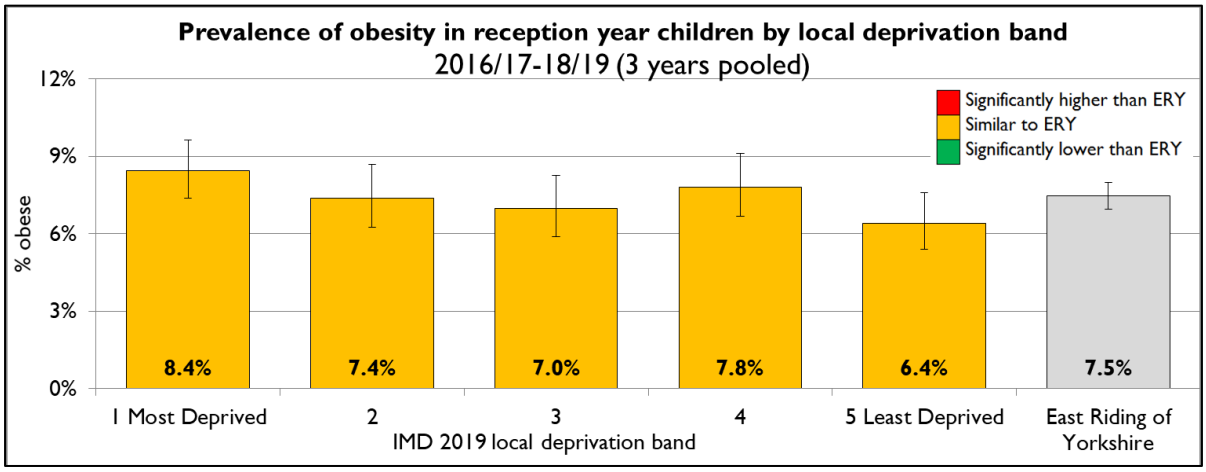
The previous section touched on deprivation, however wards are not officially given a deprivation score as they are simply too large and different areas within the same ward can have completely different characteristics relating to deprivation. Therefore it is more appropriate to use groupings of LSOAs, which do have Index of Multiple Deprivation (IMD) scores attached to them, to perform deprivation analysis.

Nationally, there is a strong relationship between deprivation and childhood obesity historically and this is still the case in 2018/19. The PHE Fingertips inequality tool informs us that 13.3% of reception year children living in the most deprived decile (i.e. the most deprived 10% of LSOAs in England) are obese, compared with almost 6% in the least deprived decile. In Year 6 the prevalence of obesity in the most deprived decile rises to almost 27%, compared to 11.4% in the least deprived decile. There is a consistent decrease in the prevalence of obesity from the most deprived decile through to the least deprived decile in both school year groups.

For the deprivation analysis of the East Riding, a slightly different methodology has been used. This is because (in general) the East Riding is less deprived than England as a whole and there are fewer areas within the East Riding that fall within the most deprived national deciles. Therefore in this section 'local deprivation quintiles' have been used, where the 210 East Riding LSOAs have been ranked based on their IMD 2019 score and then divided into fifths to form equal local quintiles. Whilst the local quintiles are based on the same IMD 2019 scoring system as the national deciles (as mentioned above), they are not comparable.

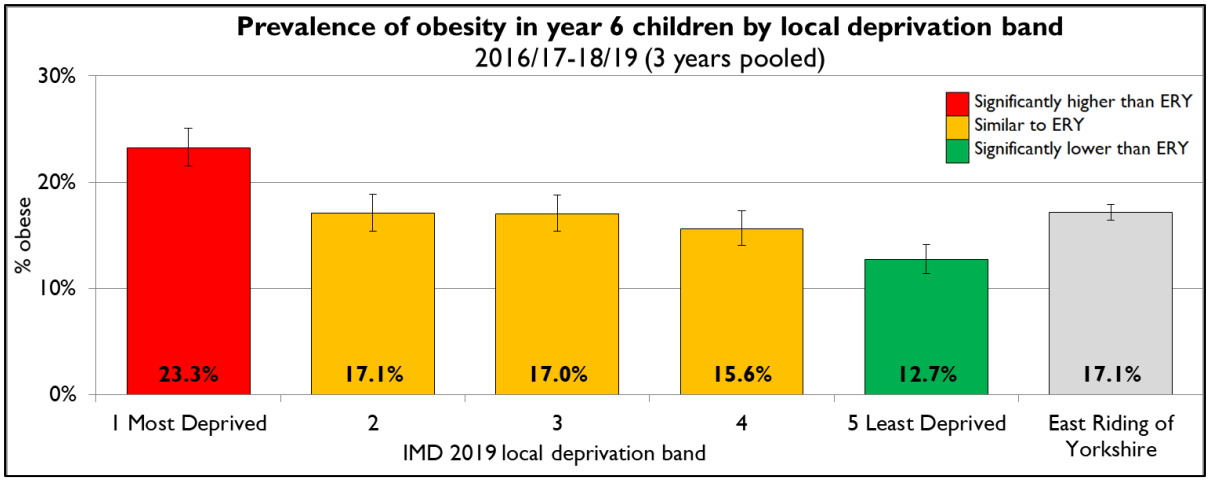
Charts 5.4.1 and 5.4.2 reveal the obesity prevalence for the different local deprivation quintiles of the East Riding for reception year and year 6 respectively, during the 3 year pooled period 2016/17 to 2018/19 (using IMD 2019 for all 3 years). In reception year, all of the deprivation quintiles were found to statistically similar to the East Riding local authority average of 7.5%. The difference in obesity prevalence between the most and least deprived quintiles was also not significantly different (8.4% compared to 6.4% respectively). Unlike England overall, the deprivation quintiles did not uniformly decrease in prevalence. The most deprived quintile did have a higher prevalence compared to quintiles 2 and 3, however quintile 4 was found to have a higher prevalence than 2 and 3. Quintile 5 (the least deprived) had the lowest prevalence overall (6.4%).

Chart 5.4.1 Prevalence of obesity in reception year children, ERY IMD 2019 local deprivation quintiles. 2016/17-18/19 (3 years pooled). Based on postcode of child. Source: NHS Digital/ERY PHI



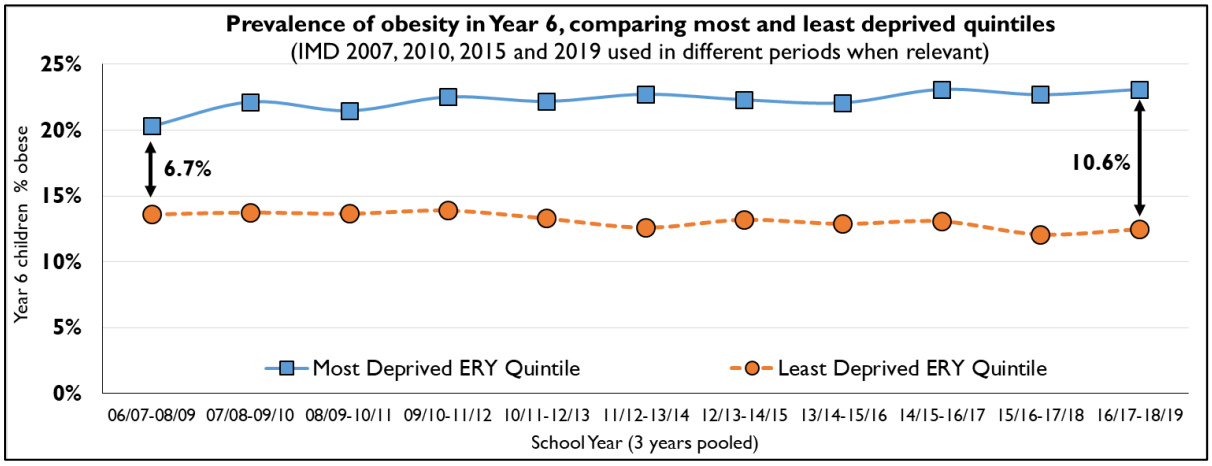
For year 6 pupils (chart 5.4.2), there is a more noticeable stepped reduction in the prevalence of obesity, between the most and least deprived quintiles. In the most deprived quintile 23.3% of year 6 pupils were classed as obese and the prevalence gradually decreases with each quintile until reaching the least deprived quintile (12.7%). The chart shows the most deprived quintile was significantly higher than the East Riding average (17.1%), whilst the least deprived quintile was significantly lower. The difference between the most deprived (23.3%) and least deprived (12.7%) quintiles was also significantly different.

Chart 5.4.2 Prevalence of obesity in year 6 children, ERY IMD 2015 local deprivation quintiles. 2016/17-18/19
(3 years pooled). Based on postcode of child. Source: NHS Digital/ERY PHI



Over time, there has been an increase in the prevalence of obesity between the most and least deprived East Riding IMD quintiles, concerning year 6 pupils. This is illustrated in chart 5.10. In the 3 year period 2006-09 the difference was 6.7%, but by the 2016-19 the difference had increased to 10.6%

Chart 5.4.3 Obesity prevalence in year 6. ERY IMD most deprived versus least deprived local deprivation quintiles 2015/16-18/19 (3 years pooled). Based on postcode of child. Source: NHS Digital/ERY PHI

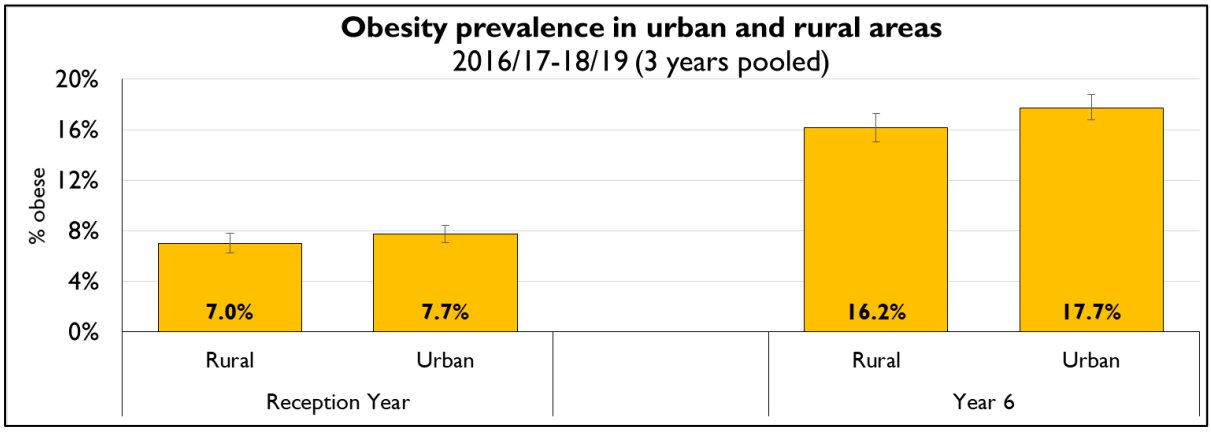


For the duration of the chart, the East Riding prevalence has used versions of the IMD that was relevant to the time period shown. IMD 2007, 2010 and 2015 have all been used previously, whilst the latest 3 year period uses IMD 2019.

5.5 Prevalence of obesity in rural and urban areas

Chart 5.5.1 compares the prevalence of obesity between those children living in urban areas and those living in rural areas, for both reception year and year 6. In both school years, urban children recorded a higher obesity prevalence but the differences were not statistically significant. Neither urban or rural categories were significantly different from the East Riding average in either pupil year, as indicated by the amber bars. The urban and rural categories used in the analysis are defined by Defra Rural Statistics (2017).

Chart 5.5.1 Prevalence of obesity in urban and rural areas, 2016/17-18/19 (3 years pooled). Source: NCMP



6. Prevalence of underweight children

6.1 Past trends of underweight prevalence with the East Riding, compared to England

Historically, the prevalence of underweight reception year and year 6 children in the East Riding, has been lower than the England average and this is illustrated in charts 6.1.1 and 6.1.2 respectively. However, in 2017/18 the prevalence in both school year groups increased so that they both became significantly higher (i.e. worse) than the England average. A year later, in 2018/19, the prevalence in both pupil years has reduced again to rates that are more in line with those recorded pre-2017/18 and are both significantly lower than the England average. Between 2017/18 and 2018/19, the East Riding reception year prevalence reduced from 2.3% to 0.6% (compared to a 1.0% for England in 2018/19) and the year 6 prevalence decreased from 2.4% to 0.9% (England was 1.4% in 2018/19). In terms of actual numbers of children, the count of underweight reception year children reduced by 75% between 2017/18 and 2018/19 (from 73 to 18), whilst year 6 children reduced by 60% (from 80 to 32).

Chart 6.1.1 ERY reception year underweight prevalence trend, compared to England. Source: PHE Fingertips

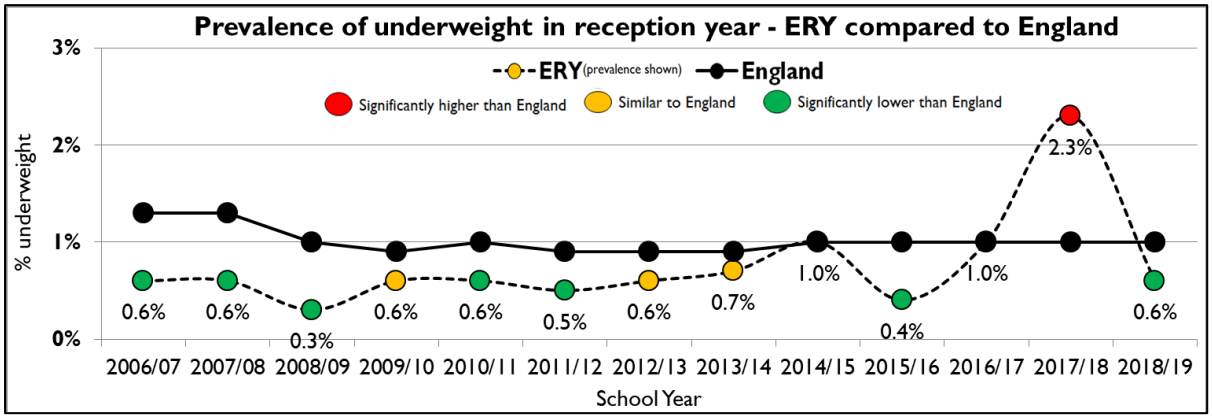
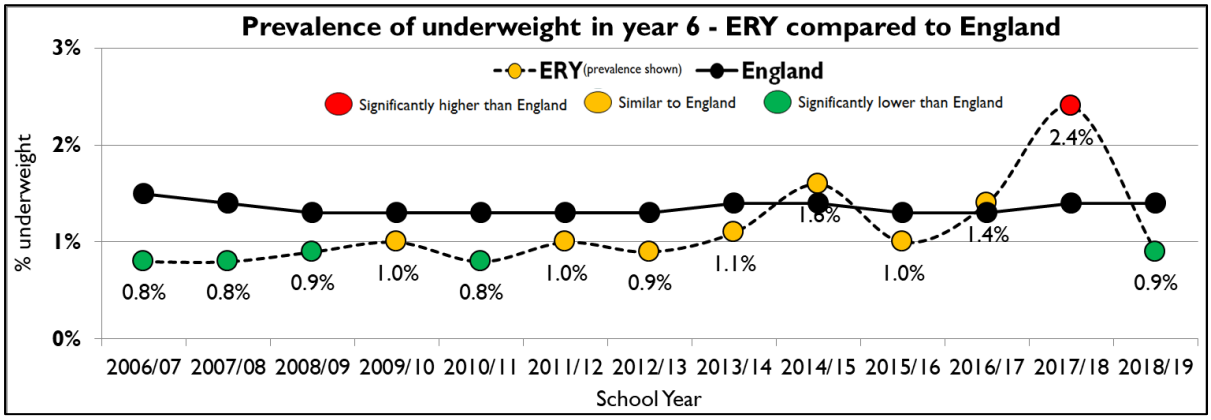


Chart 6.1.2 ERY year 6 underweight prevalence trend, compared to England. Source: PHE Fingertips



6.2 Prevalence of underweight children in the East Riding, compared to other local authorities

Charts 6.2.1 to 6.2.2 compare the East Riding prevalence of underweight children in a similar way as charts 5.2.1 to 5.2.4 compared obesity, showing values for local authorities within the Y&H region and the nearest 15 CIPFA neighbours.

In reception year the East Riding underweight prevalence is one of the lowest within the region (4th lowest) but one of the highest amongst CIPFA neighbours (4th highest). The green bar of the East Riding confirms that has a significantly lower prevalence than the England average, as already stated in section 4.4.

*Chart 6.2.1 Prevalence of underweight children in **reception year**, 2018/19. ERY compared to region. Source: PHE Fingertips*

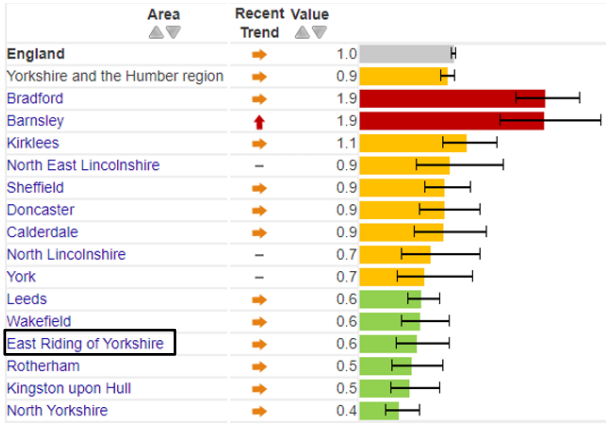
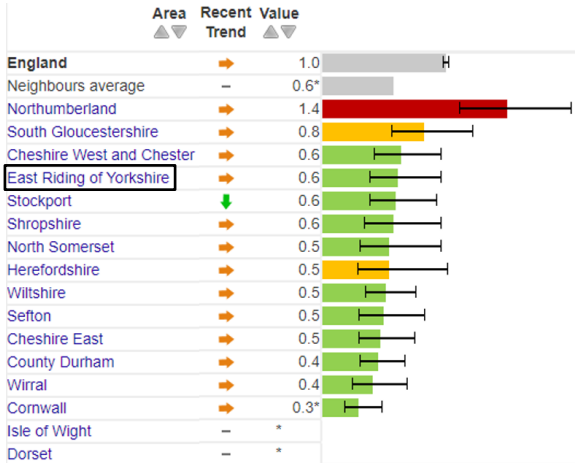


*Chart 6.2.2 Prevalence of underweight children in **reception year**, 2018/19. ERY compared to CIPFA neighbours. Source: PHE Fingertips*



In year 6 children, the East Riding underweight prevalence placed it amongst the lower values of comparable local authorities. Within the region the East Riding was 2nd lowest and 5th lowest compared to CIPFA neighbours (charts 6.2.3 and 6.2.4 respectively).

*Chart 6.2.3 Prevalence of underweight children in **year 6**, 2018/19. ERY compared to region. Source: PHE Fingertips*

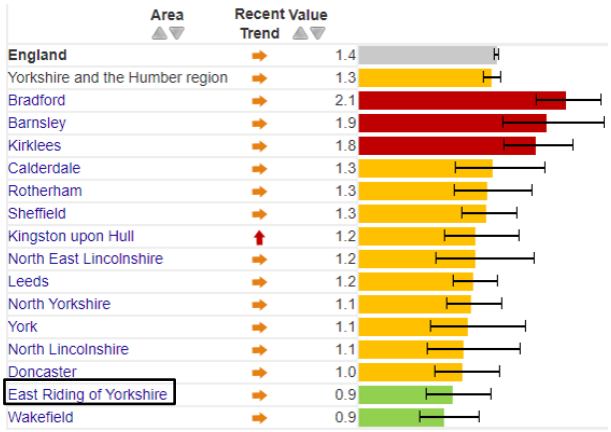
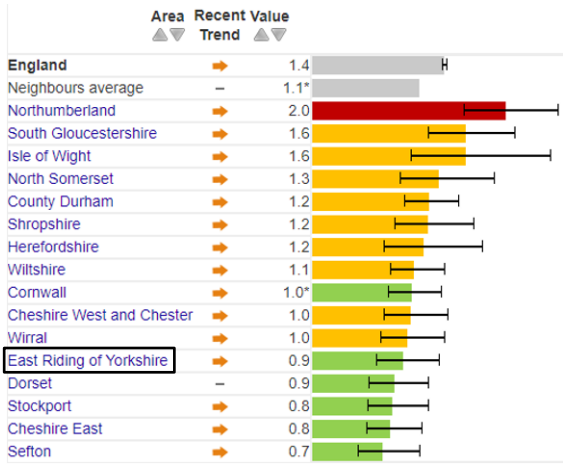


*Chart 6.2.4 Prevalence of underweight children in **year 6**, 2018/19. ERY compared to CIPFA neighbours. Source: PHE Fingertips*

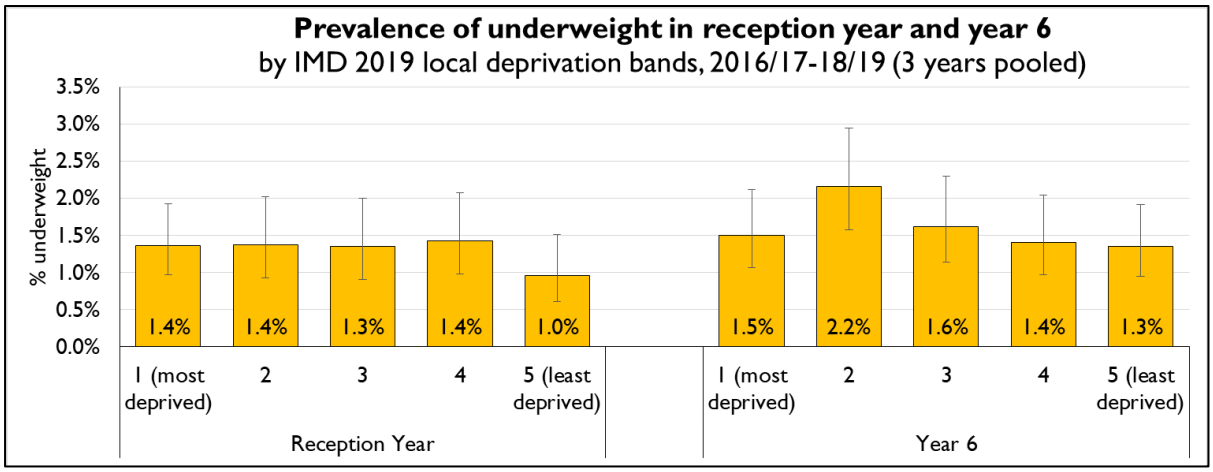


6.3 Prevalence of underweight at a sub-local authority level (2016/17-18/19)

The presence of small numbers have meant that analysis of underweight children at ward level cannot be reproduced in this document.

Nationally in 2018/19, it was reported that there were inequalities in the prevalence of underweight children in reception year, with higher percentages of underweight children in the most deprived areas compared with the least deprived. In England, the prevalence in the most deprived quintile was 1.1%, significantly higher than the prevalence of the least deprived quintile (0.8%). In year 6 there appeared to be no clear pattern with underweight prevalence relating to deprivation. Similar analysis was conducted for the East Riding alone, using three years of data pooled together (2016/17-18/19) and is shown in chart 6.3.1. In both reception year and year 6, all of the deprivation bands had a statistically similar prevalence, despite the prevalence in the most deprived band being higher than the least deprived. None of the bands were significantly higher or lower than the East Riding average (as shown by the amber bars).

Chart 6.3.1 Prevalence of underweight children, 2016/17-18/19 (3 years pooled). Local IMD deprivation bands. Source: NHS Digital/ERY PHI



7. References

Defra Rural Statistics (2017). The 2011 Rural-Urban Classification for Output Areas in England. (2019). [PDF] Defra Rural Statistics. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/591462/RUCOA_leaflet_Jan2017.pdf [Accessed 9 May, 2020].

8. Appendices

Appendix 8.1 and 8.2 can be found on the following two pages.

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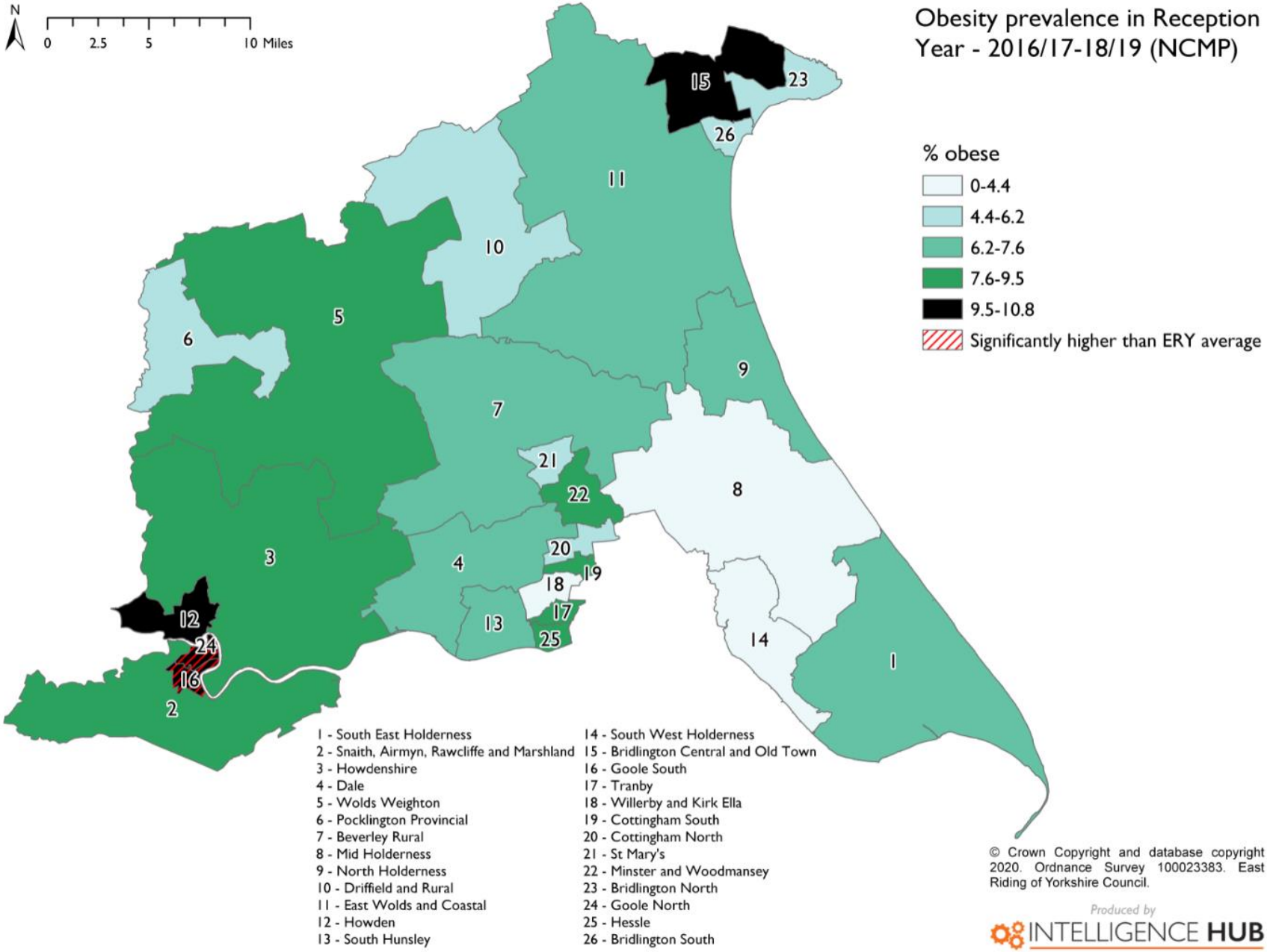
Appendix 8.1 Map showing the prevalence of obesity in reception year (2016/17-18/19 - 3 years pooled)



Appendix 8.2 Map showing the prevalence of obesity in year 6 (2016/17-18/19, 3 years pooled)