



EVERY CHILD

Child Measurement
Programme 2017/18

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Introduction

This 2019 report summarises key findings of the Child Measurement Programme for Wales (CMP) for the school year 2017/18. Full results, including data tables, charts and maps are presented on the Child Measurement Programme website at: www.publichealthwales.org/childmeasurement

Information about the history of the programme and how information is collected and analysed is also available on the website. The downloadable document **"The Child Measurement Programme for Wales: history, legislative framework and technical aspects"** gives information on measurement of body mass index, prevalence categories used in Wales and how statistical significance is assessed.

While this is the 7th year in which the programme has run, the results from the first year are no longer included in analysis and discussion. This is because not all the CMP standards and guidance were in place when the first year measurements were taken.

The report and data relates to measurements taken of children attending reception class in a school in Wales, who also have a residential postcode in Wales. The children whose measurements are included must have their fifth birthday sometime during the school year. Parents/carers of the children

are all given the opportunity to opt their children out of the measurement programme. Information on the numbers who choose to opt out are given in the data quality statement which appears on the website alongside the report.

There are changes to two health board boundaries in Wales which affect how the CMP results are analysed and presented this year. While the changes come into place in April 2019 (after publication of this report and data), the results in this report have been analysed and presented on the new health board boundary lines. This is in order to future proof the programme reports going forward. Local Authority boundaries remain unchanged, however Bridgend County Borough Council has moved from Abertawe Bro Morgannwg University Health Board (UHB) to join Merthyr Tydfil and Rhondda Cynon Taf local authorities in the new Cwm Taf Morgannwg UHB. Meanwhile Abertawe Bro Morgannwg UHB has been renamed Swansea Bay UHB.

For the first time since the CMP was established we have also analysed and presented an additional report this year looking at severe obesity in children in this age group.

Summary

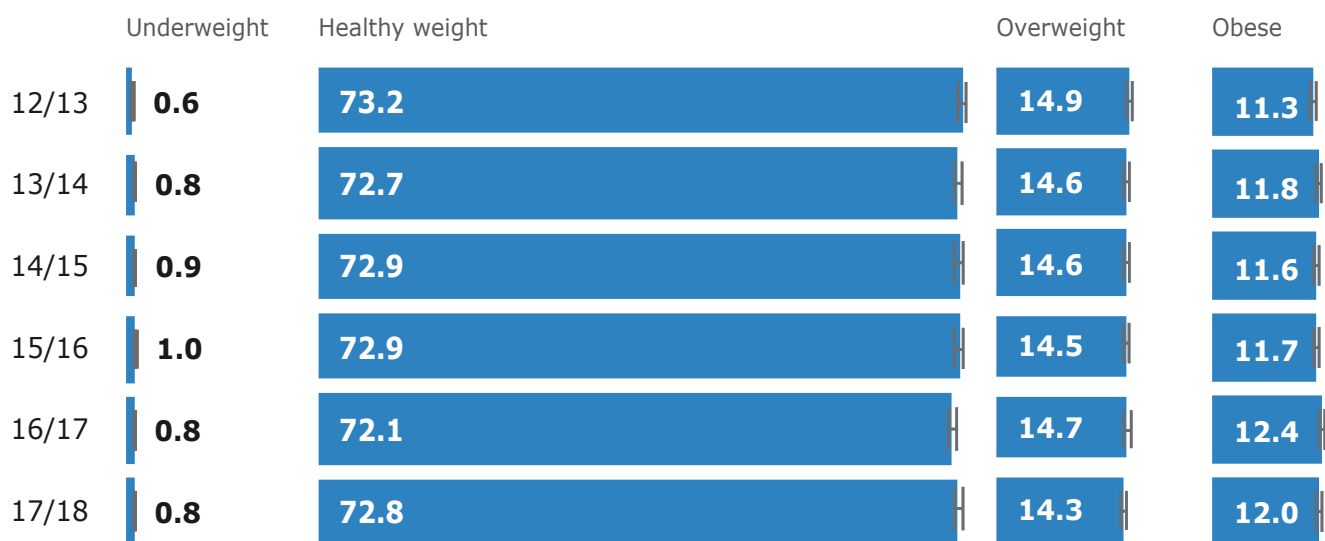
A summary of the Child Measurement Programme results for the last six years is given in Figure 1. We reported last year that obesity prevalence in 2016/17 was statistically significantly higher than in either of the two previous years. However this year, there is no statistically

significant difference between obesity prevalence in 2017/18 and prevalence in the previous school years. Neither is there any statistically significant difference across the years in prevalence of healthy weight or overweight.

Figure 1 – summary of results at national level

Percentage of children aged 4 to 5 years who are underweight, healthy weight, overweight or obese, Child Measurement Programme for Wales, 2012/13 to 2017/18

Produced by Public Health Wales Observatory, using CMP data (NWIS)



Results

Healthy weight

The majority of children (72.8%) measured in Wales for the Child Measurement Programme are of a healthy weight. There has been very little change since the programme started in the prevalence of healthy weight at a national level. There is variation across health boards and local authorities, with the lowest prevalence in Betsi Cadwaladr University Health Board (UHB) at 69.2%, and the highest in Cardiff and Vale at 77.4%.

Once again the prevalence of healthy weight in girls (73.1%) is higher than in boys (72.6%) however the difference is not statistically significant. Prevalence of healthy weight varies by deprivation with more than three quarters of children (78.3%) living in the least deprived areas of Wales being of a healthy weight, while 69.8% of children living in the most deprived areas are of a healthy weight.



Underweight

The number of children in Wales categorised as underweight is very small at 249 children or 0.8%. In some local authority areas there are fewer than five children in this category. There is a risk of identification of individuals where small numbers are involved, and so numbers may be suppressed at local authority level. For this reason prevalence of healthy weight and underweight are often combined. The highest prevalence of underweight in Wales is in Cardiff and Vale UHB at 1.4% or 70 children.

Obesity

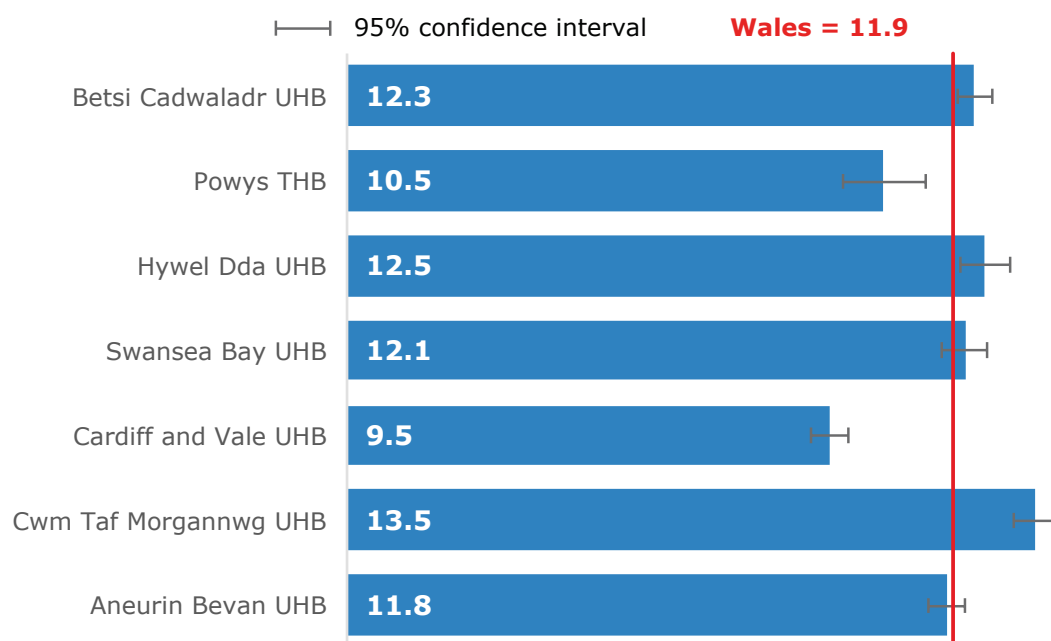
12% of children in Wales are categorised as obese in 2017/18.

When data is combined across five years (2013/14 to 2017/18) obesity prevalence at health board level is statistically significantly higher than the Wales average of 11.9% in three health boards – Betsi Cadwaladr UHB (12.3%); Hywel Dda UHB (12.5%) and Cwm Taf UHB (13.5%). It is lowest in Cardiff and Vale UHB at 9.5% and the difference is significant.

Figure 2 – obesity at health board level, five years

Percentage of children, aged 4 to 5 years, who are obese, health boards, 2013/14 to 2017/18

Produced by Public Health Wales Observatory using CMP data (NWIS)



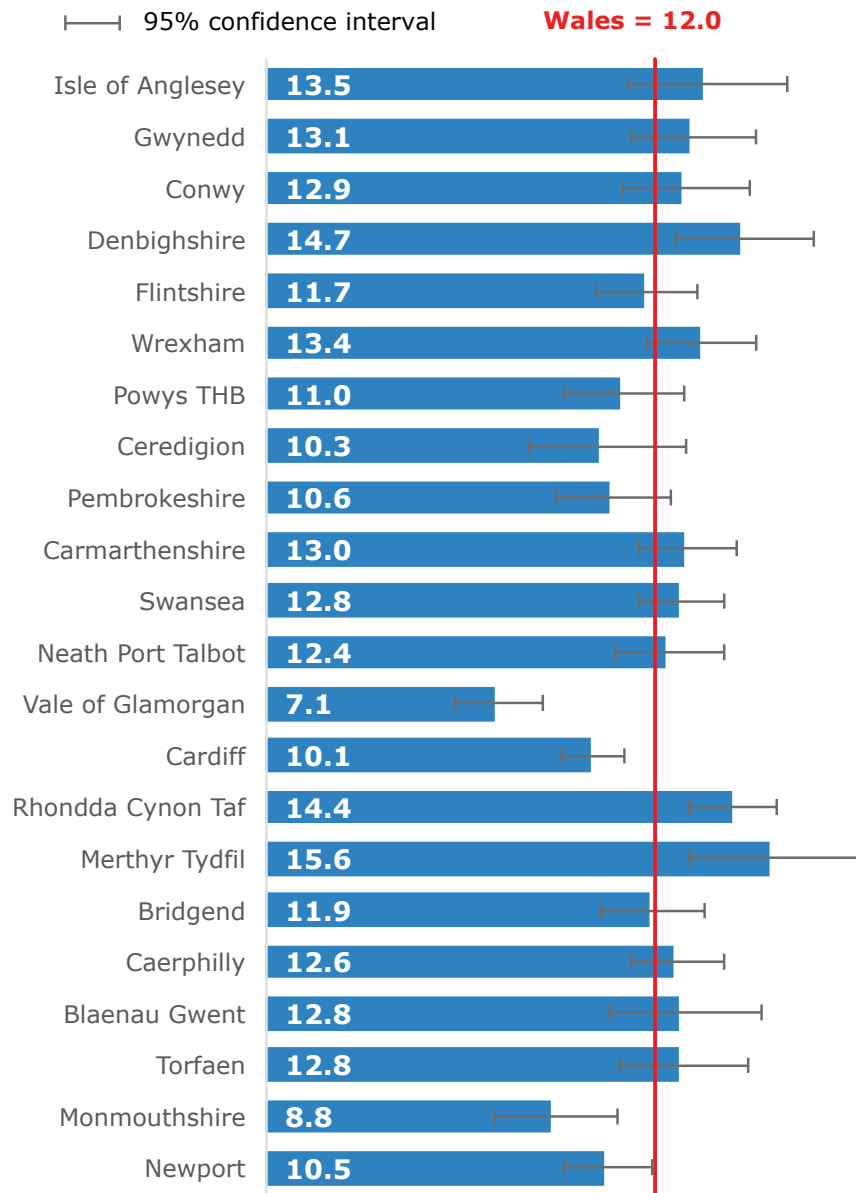
By local authority area for the single year 2017/18, obesity prevalence is highest in Merthyr Tydfil at 15.6%, and is also higher than the Welsh average in Denbighshire (14.7%) and Rhondda Cynon Taf (14.4%) – the differences between these three areas and the Welsh average is statistically significant. Obesity prevalence in the Vale of Glamorgan is less than half that of Merthyr Tydfil at 7.1%. It is also lower than the Welsh average in Monmouthshire (8.8%) and Cardiff (10.1%) and again the differences are statistically significant.



Figure 3 – obesity at local authority level, single year

Percentage of children, aged 4 to 5 years, who are obese, local authorities 2017/18

Produced by Public Health Wales Observatory using CMP data (NWIS)



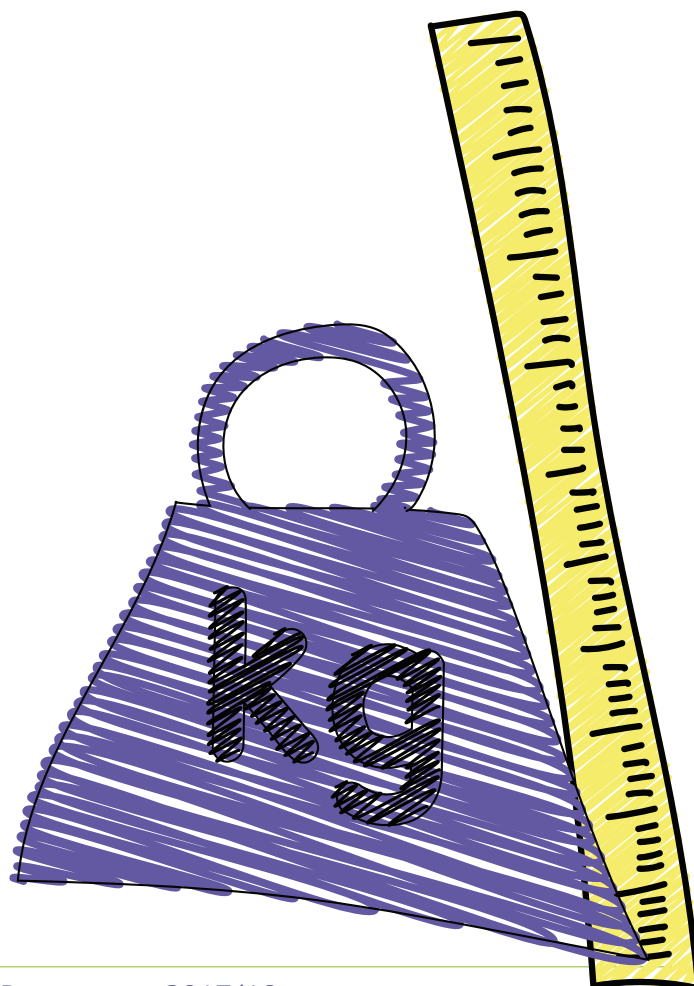
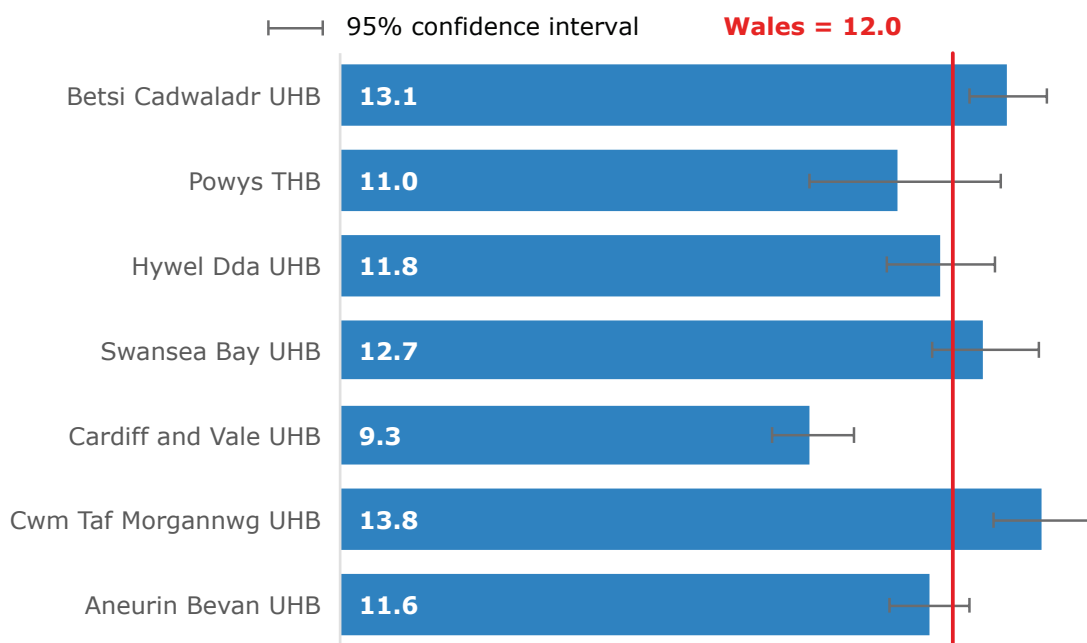
Data and a chart displaying obesity combined for the five year period is available on the Child Measurement Programme website. When combined it is statistically significantly higher than the Wales average of 11.9% in seven local authorities:-

- Isle of Anglesey 13.1%
- Gwynedd 13.1%
- Wrexham 12.8%
- Carmarthenshire 13.2%
- Rhondda Cynon Taf 13.5%
- Merthyr Tydfil 16.4% and
- Blaenau Gwent 13.8%

Figure 4 – obesity at health board level, single year

Percentage of children, aged 4 to 5 years, who are obese, health boards, 2017/18

Produced by Public Health Wales Observatory using CMP data (NWIS)



Deprivation

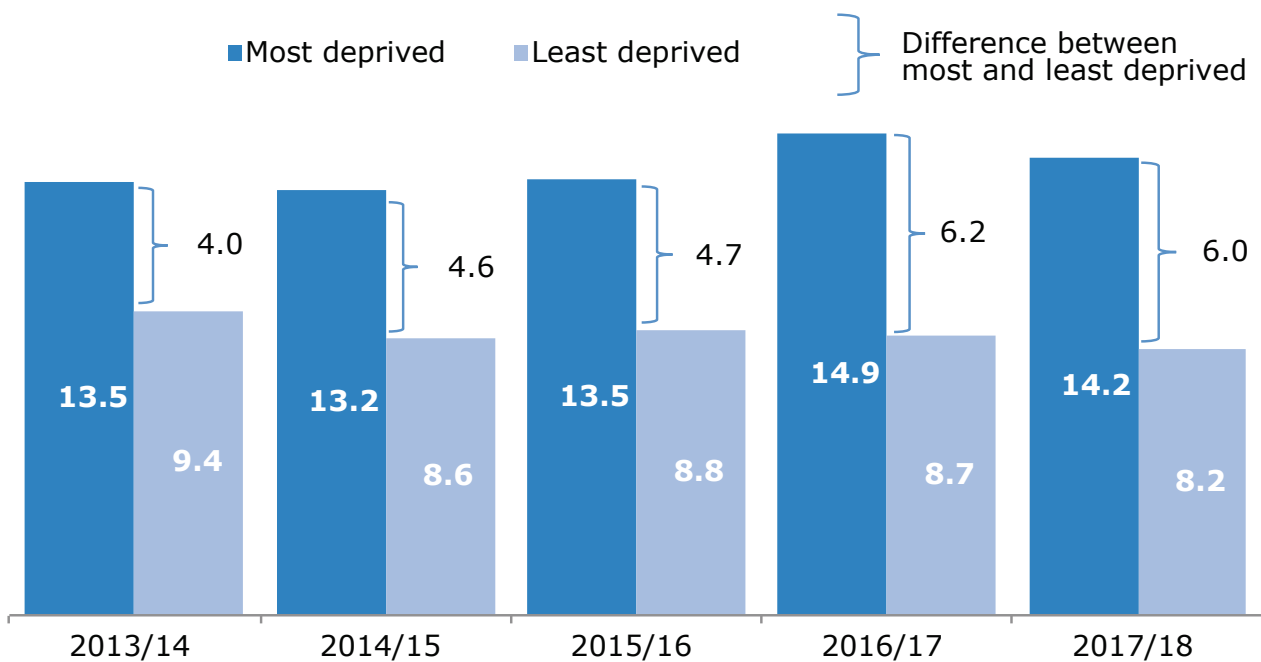
Last year the gap between obesity prevalence in the most and the least deprived areas had increased from 4.7% to 6.2%. This year there has been a slight fall to 6.0% but as can be seen from figure 5, this gap is still greater than during the preceding three years.



Figure 5 – obesity and deprivation

Percentage of children, aged 4 to 5 years, who are obese, most and least deprived fifth 2013/14 to 2017/18

Produced by Public Health Wales Observatory using CMP data (NWIS)



Deprivation is classified using the Welsh Index of Multiple Deprivation 2014. Each of the 1,909 Lower Super Output Areas (LSOAs) in Wales is assigned a deprivation rank. These scores are then assigned to quintiles from the most to the least deprived. For the CMP, each child’s postcode of residence is assigned to an LSOA and the CMP results are

analysed by deprivation quintile. 14.2% of children living in the most deprived quintile are obese, and this is statistically significantly higher than obesity prevalence in the lowest three quintiles.

When data is combined across the five years 2013/14 to 2017/18, obesity prevalence in the most deprived quintile is 13.9% which is statistically significantly higher than in any of the other four quintiles. In the least deprived quintile it is 8.7% which is significantly lower than in the other four quintiles.

Proportionately more children live in the two most deprived quintiles than in the two least deprived quintiles.

But it is important to remember that not all individuals living in an area classified as deprived, are themselves living in deprived circumstances. Deprivation is more concentrated in some areas of Wales such as Merthyr Tydfil, but there are pockets throughout the country. In Monmouthshire there are no LSOA areas ranked within the most deprived quintile.



Ethnicity

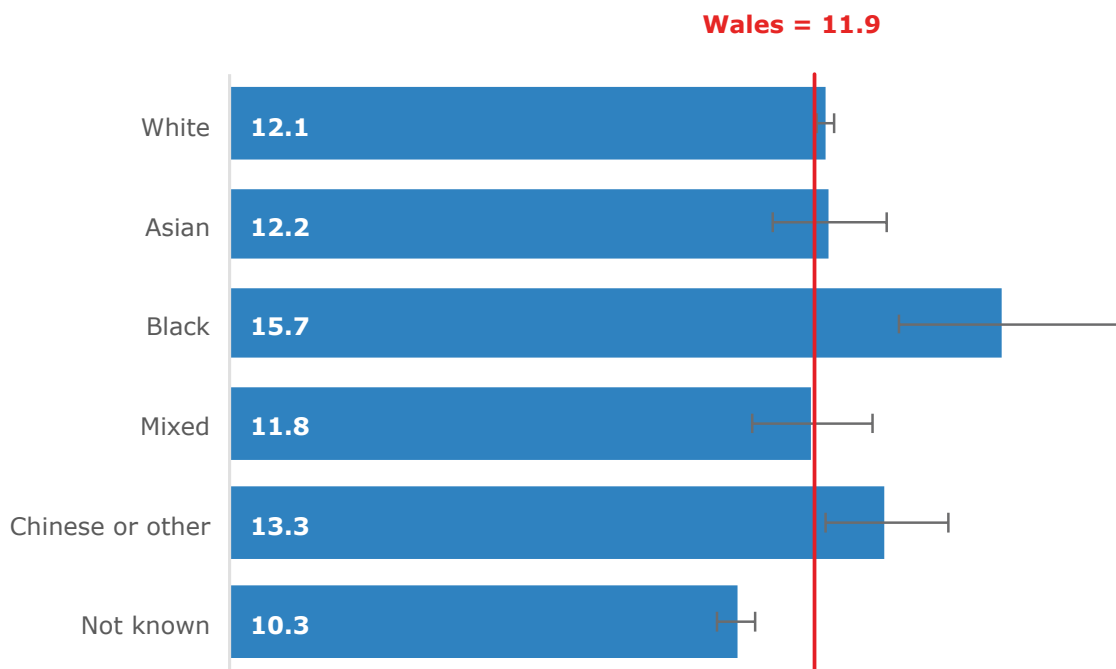
The number of children living in Wales in this age group with an ethnic origin other than white remains small. 5.6% of children who participated were recorded as having an ethnic origin other than white, while 75.2% were recorded as white. Data is available for the single year 2017/18 but because of the small

numbers, it is more robust to combine the data across five years as in Figure 6. Obesity prevalence in black children across the five years is 15.7%. Children with an ethnicity recorded as 'Chinese or other' also have statistically significantly higher prevalence of obesity.

Figure 6 – ethnicity and obesity

Percentage of children aged 4 to 5 years who are obese by ethnic group, Child Measurement Programme for Wales, 2013/14 - 2017/18

Produced by Public Health Wales Observatory, using CMP data (NWIS)



Data recording on ethnicity on children's health records is poor – 19.2% were recorded as 'not known', an increase since last year when this figure was 15%. Also a proportion of the records are coded for

ethnicity based on a system which has not been in use since 2002, which means that it is the mother's ethnicity that appears on the records, and not the child's.

Comparison

Prevalence of obesity and also of 'overweight and obese' is statistically significantly higher in Wales than in England or any of the English regions. The number of children participating in all of the English regions is higher

than the population measured in Wales, with the exception of the North East. As confidence intervals are not publicly provided for Scotland, it is not possible to say whether the difference is statistically significant or not, but it appears higher.

Figure 7 – UK comparison of obesity

Percentage of children in Reception year or Primary 1, who are obese, Wales, Scotland, England and English regions, 2017/18

Produced by Public Health Wales Observatory using CMP data (NWIS), CHSP (ISD Scotland), NCMP data (HSCIC)

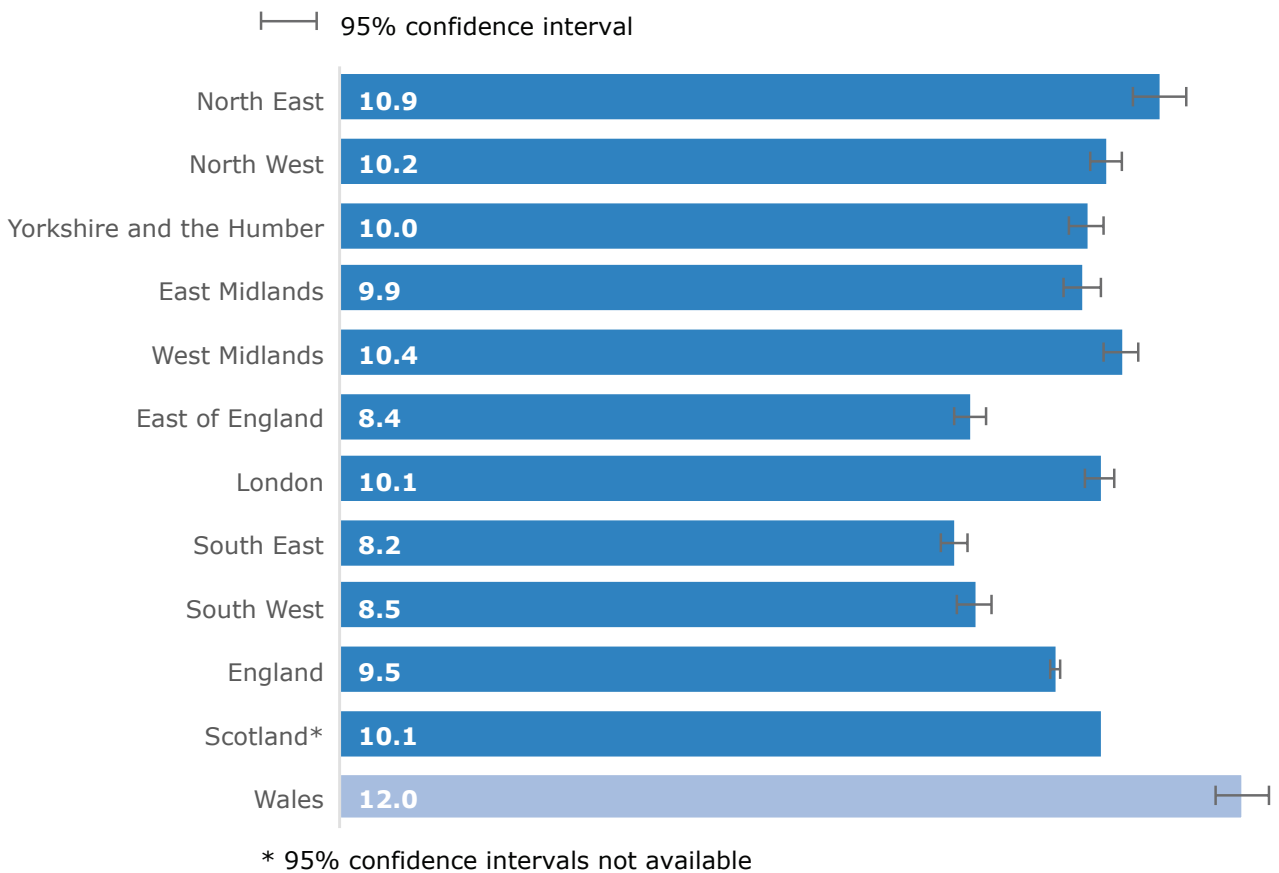
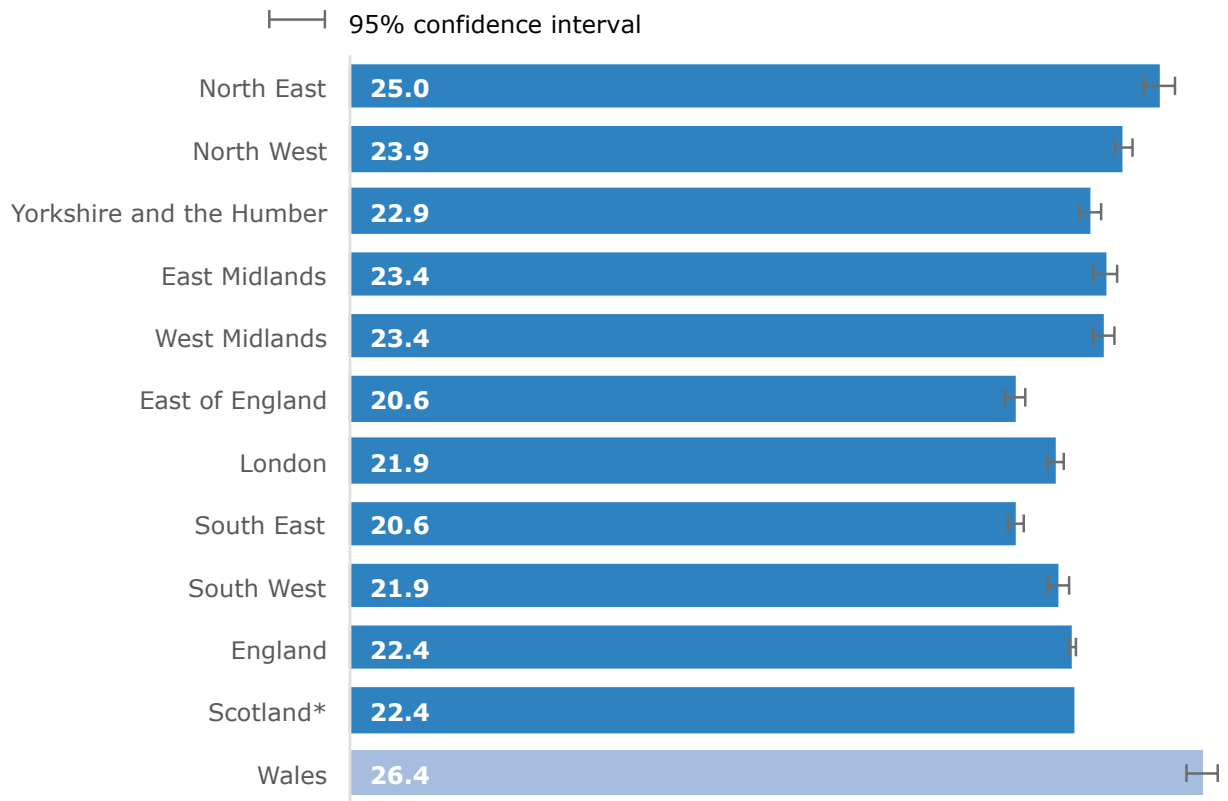


Figure 8 – UK comparison of obesity and overweight

Percentage of children in Reception year or Primary 1, who are overweight or obese, Wales, Scotland, England and English regions, 2017/18

Produced by Public Health Wales Observatory using CMP data (NWIS), CHSP (ISD Scotland), NCMP data (HSCIC)



* 95% confidence intervals not available

In previous years we have provided a comparison with the results of the National Child Measurement Programme in England, where all children are also weighed and measured in Reception Year, and the same growth reference (UK90) is used, making comparison possible. This year we also provide comparison with Scotland. In previous years the measurements from Scotland were provided from some, but not all health boards. The programme now covers all of Scotland geographically.

The age range of children included in the Scottish national measurement programme is greater than in England and Wales. Children start school later and are measured in Primary 1 in Scotland. The child’s age at measurement ranges between 4.5 to 6.25 years. However as BMI centiles are calculated using the exact age of the child, the impact should be reduced, but this caveat should be borne in mind when making a comparison.

Participation

Table 1 shows participation rates for 2012/13 to 2016/17. The information differs slightly to the data shown on the CMP internet site. The data in the table below for previous years has not been changed, but the data table on the

internet site has been revised following an update of the excluded schools list. There are minor differences between the historic participation rates presented in the table in this report and on our website.

Table 1 – participation in the Child Measurement Programme for Wales, 2012/13 - 2017/18*

	Eligible	Measured	% Participation
2012/13	34,679	29,238	84.3
2013/14	33,794	30,669	90.8
2014/15	34,815	32,889	94.5
2015/16	35,721	33,327	93.3
2016/17	35,297	33,226	94.1
2017/18	34,310	32,160	93.7

Produced by Public Health Wales Observatory using CMP data (NWIS)

*Participation calculated at the time of original analysis. Minor differences in participation rates have been found following a revision of the excluded schools list.

An annual census¹ of all the pupils in schools in Wales is carried out by Welsh Government in January. In January 2018 this census showed that there were 34,600 children attending reception year in Wales. There will be a small difference (290) in the numbers between the CMP

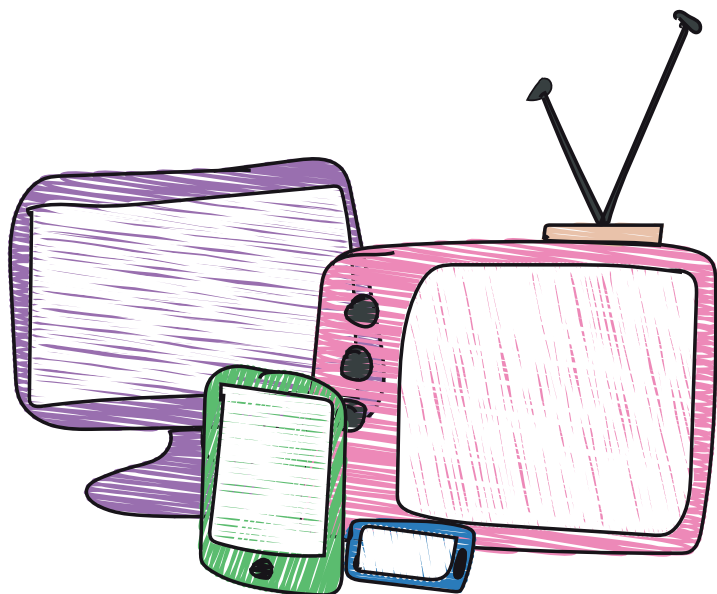
and PLASC because some children from England attend school in Wales and these will not be included in the numbers eligible for the Child Measurement Programme. Further, eligibility for inclusion in the CMP is calculated in July of the school year.

¹ Welsh Government (11/9/2018) Pupil Level Annual School Census (PLASC) https://statswales.gov.wales/Catalogue/Education-and-Skills/Schools-and-Teachers/Schools-Census/Pupil-Level-Annual-*School-Census

More information

This report provides a brief summary of the analysis of the child measurements taken for the Child Measurement Programme. More comprehensive information displayed as charts, tables and maps, can be found on our website at www.publichealthwales.org/childmeasurement

For more information about tackling childhood obesity please go to the Public Health Wales Health Improvement website at: www.everychildwales.co.uk and follow the link to the "10 steps to a healthy weight" information.



Abbreviations

BME	Black and minority ethnic
BMI	Body mass index
CMP	Child Measurement Programme for Wales
LSOA	Lower super output area
MSOA	Middle Super output area
NCCHD	National Community Child Health Database
NCMP	National Child Measurement Programme (England)
NHS	National Health Service
NWIS	NHS Wales Informatics Service
THB	Teaching Health Board
UHB	University Health Board
UK90	Growth reference system used in the CMP
WHO	World Health Organisation
WIMD	Welsh index of multiple deprivation

EVERY CHILD

Child Measurement Programme 2017/18



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