



Public Health
England

Protecting and improving the nation's health

Patterns and trends in child obesity

A presentation of the latest data on child obesity in England
Updated February 2021



Introduction

These PowerPoint slides present key data and information on child obesity and excess weight in clear, easy to understand charts and graphics. They have been produced by the Population Health Analysis team in the Health Improvement Directorate and can be used freely with acknowledgement to 'Public Health England'.

These slides should be useful to practitioners and policy makers working to reduce and prevent child obesity at local, regional and national level. For example they are regularly used to make the case for tackling obesity in presentations to health and wellbeing boards, other committees and to elected members as well as in regional and national conference and workshop presentations.



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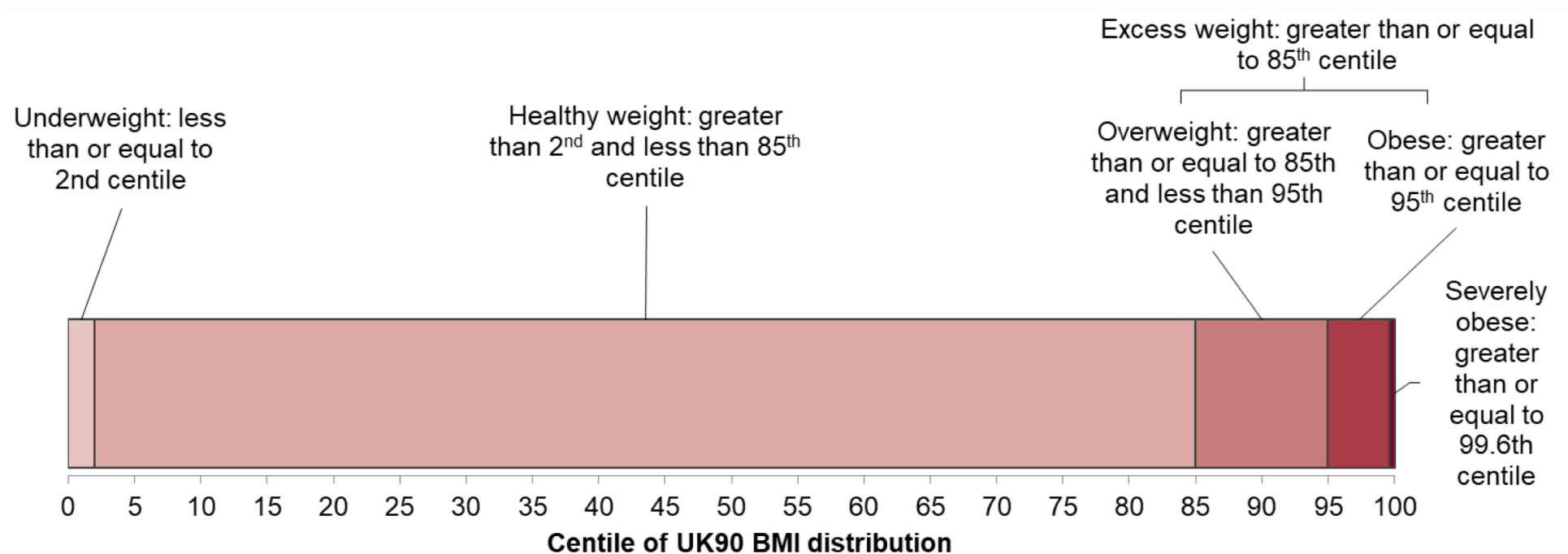
- Child BMI classification (slide 4)
- Latest data showing overweight and obesity by age and sex (slides 5-12)
- Trends in child overweight and obesity (slides 13-21)
- BMI distribution by age and sex (slides 22-26)
- Obesity prevalence and deprivation (slides 27-33)
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Child body mass index classification

Definitions for population monitoring

For population monitoring purposes body mass index (BMI) is classified according to the following image using the British 1990 growth reference (UK90¹). This helps examine patterns in children's weight status across the country and over time.



1 Cole TJ, Freeman JV, Preece MA. Body mass index reference curves for the UK, 1990. Archives of Disease in Childhood 1995 73:25-29.



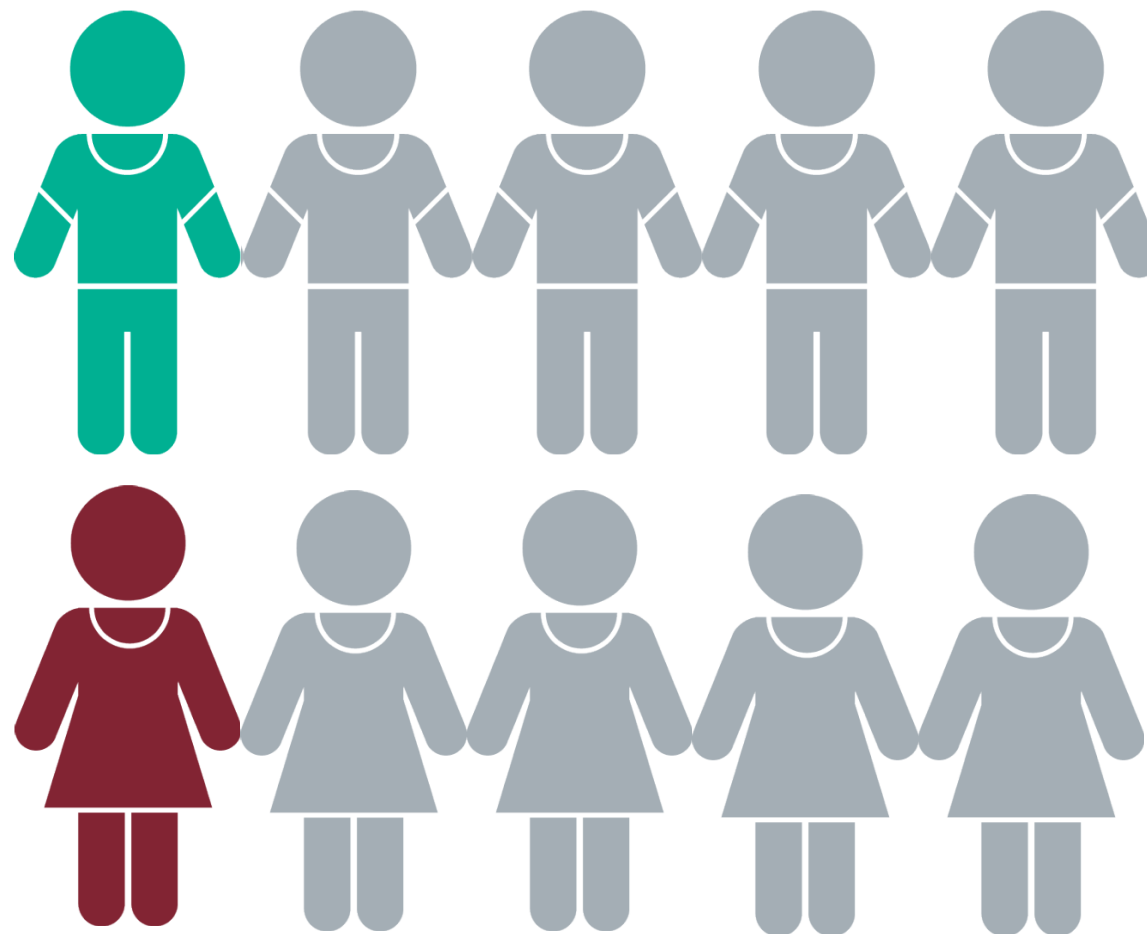
Latest data showing overweight and obesity by age and sex



Prevalence of excess weight among children

National Child Measurement Programme 2019/20

More than 1 in 5 children in Reception (aged 4-5 years) is overweight or obese
(boys 23.3%, girls 22.7%, all children 23.0%)



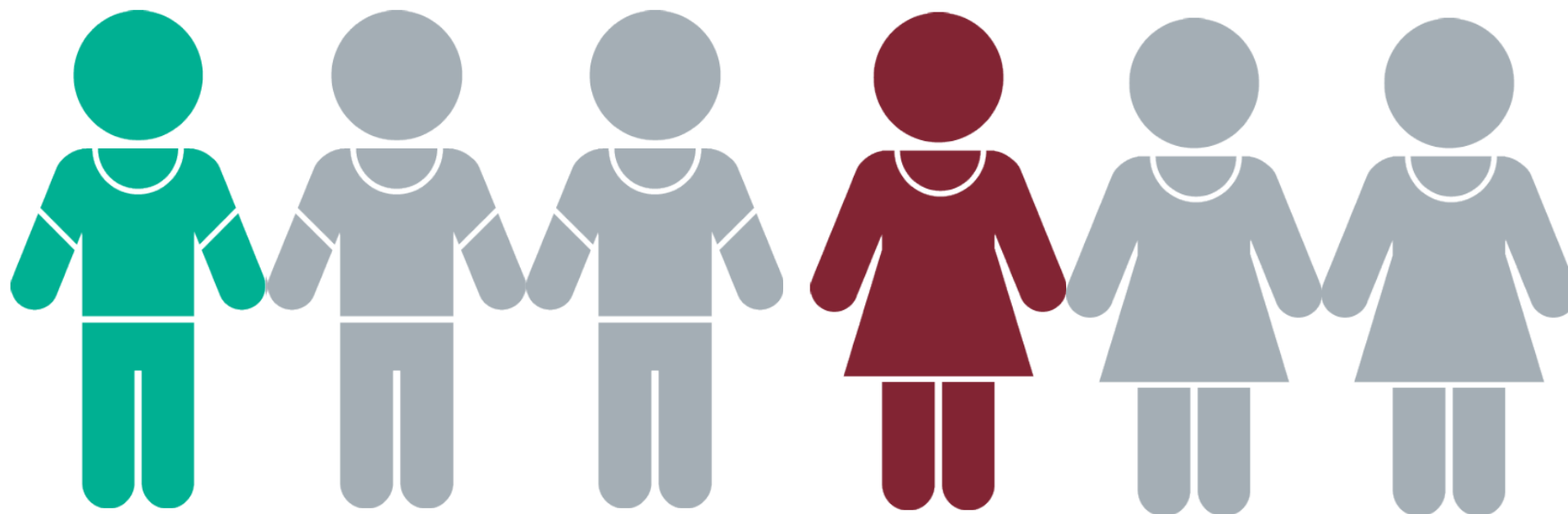


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Prevalence of excess weight among children

National Child Measurement Programme 2019/20

More than 1 in 3 children in Year 6 (aged 10-11 years) is overweight or obese
(boys 37.7%, girls 32.5%, all children 35.2%)





Prevalence of obesity among children

National Child Measurement Programme 2019/20

Around 1 in 10 children in Reception (aged 4-5 years) is obese

(boys 10.1%, girls 9.7%, all children 9.9%)



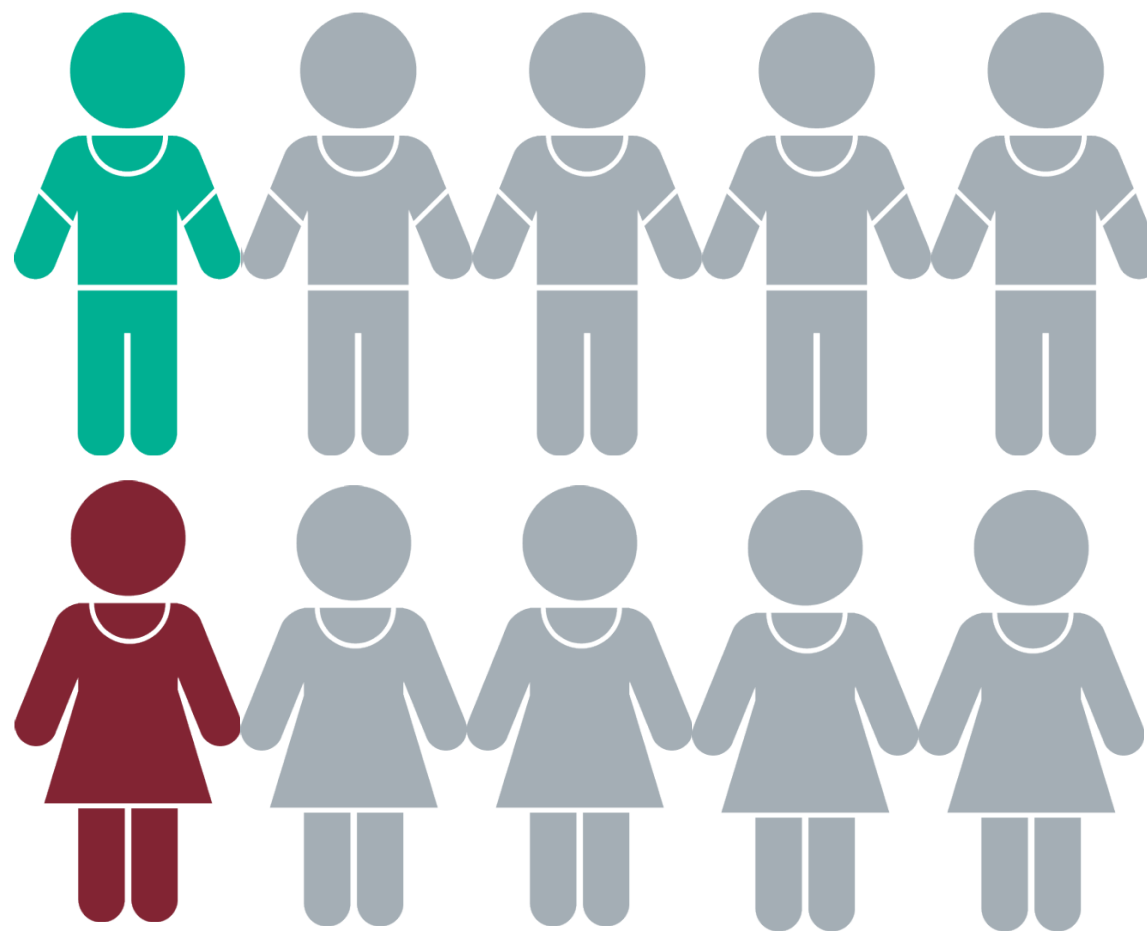


Prevalence of obesity among children

National Child Measurement Programme 2019/20

Around 1 in 5 children in Year 6 (aged 10-11 years) is obese

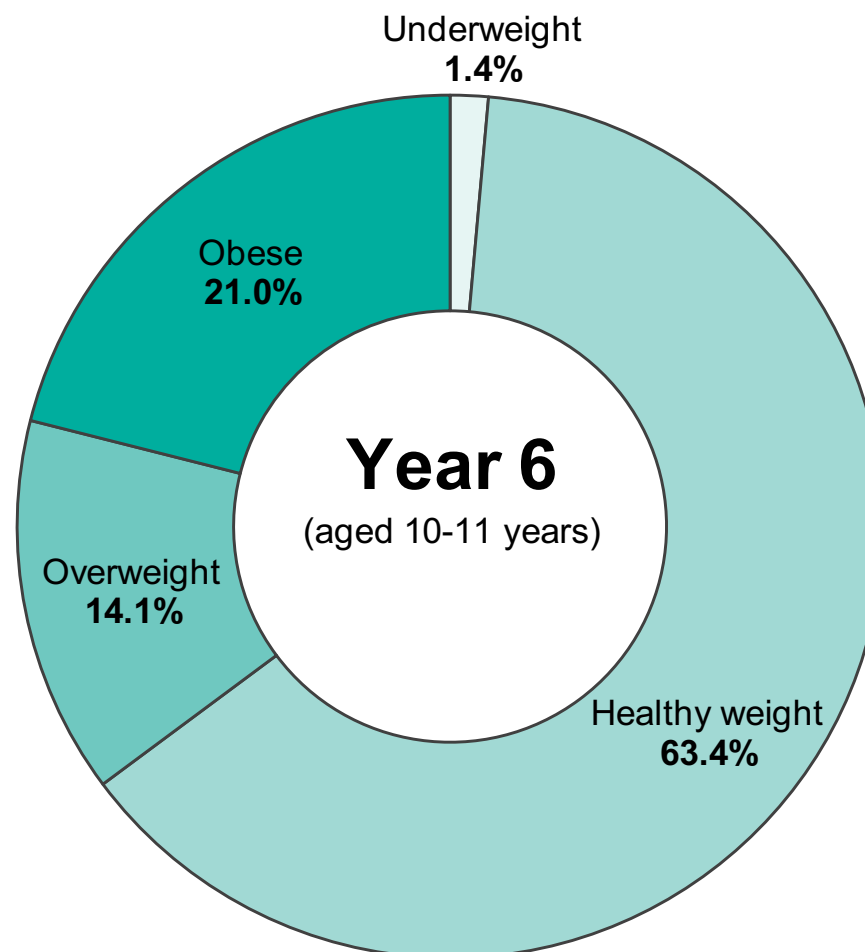
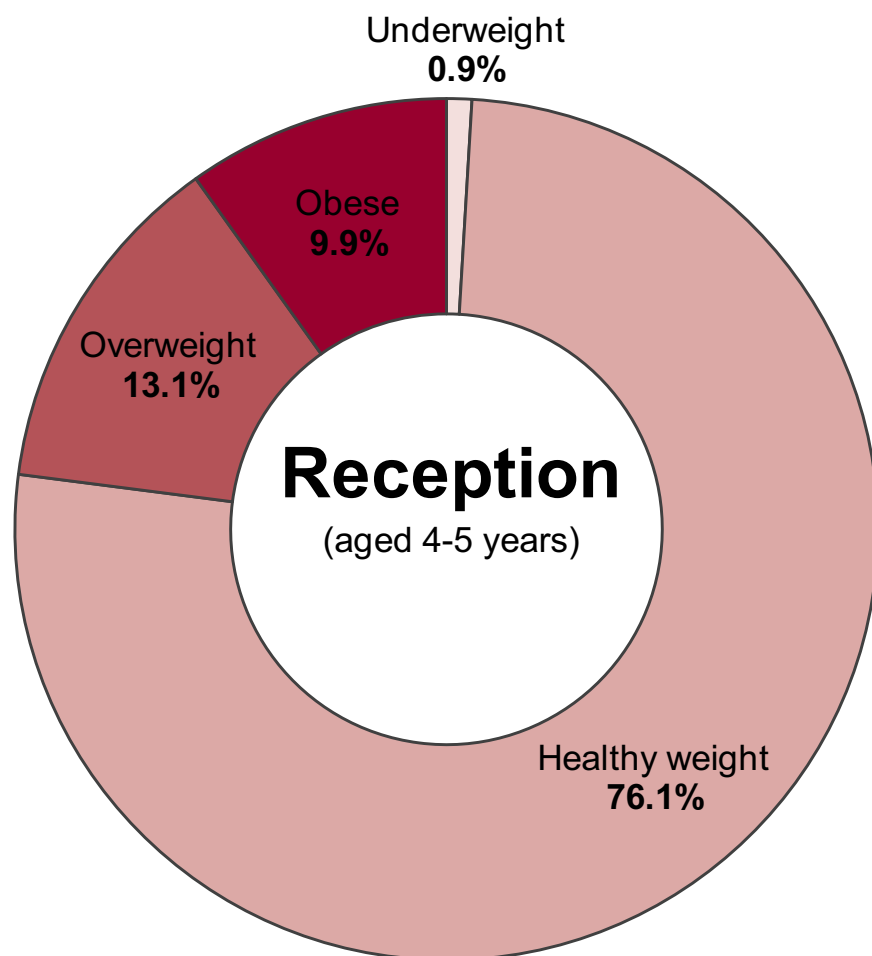
(boys 23.6%, girls 18.4%, all children 21.0%)





BMI status of children by age

National Child Measurement Programme 2019/20

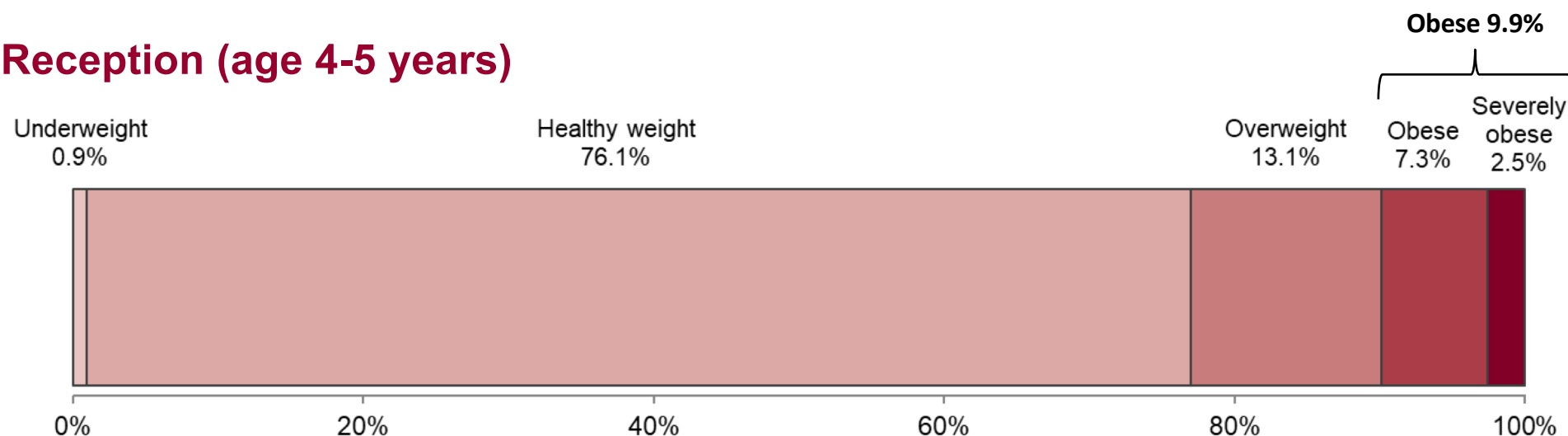




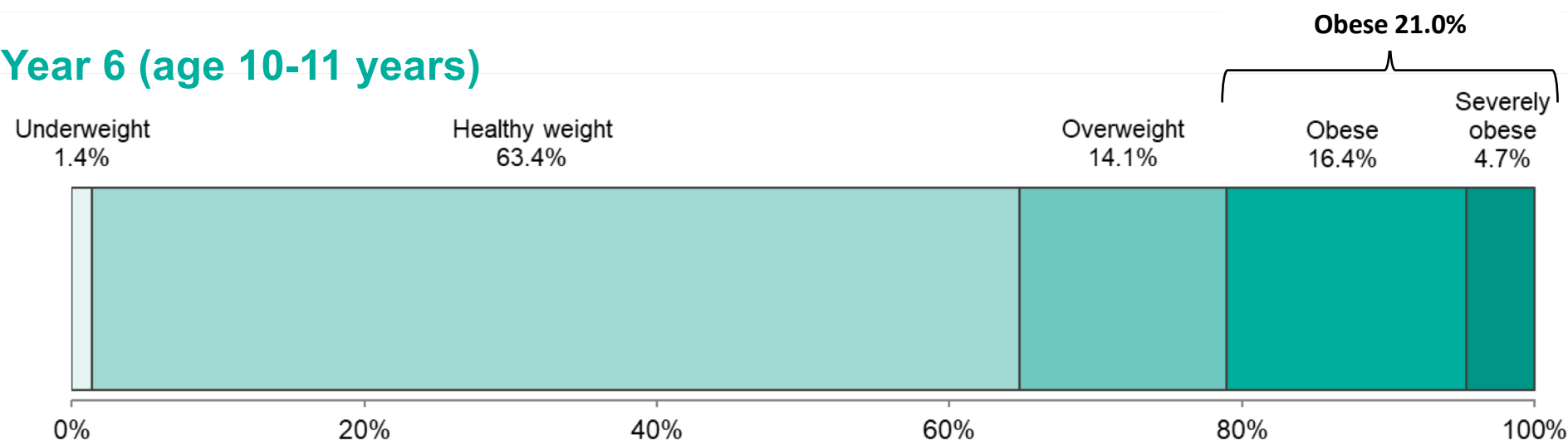
BMI status of children by age

National Child Measurement Programme 2019/20

Reception (age 4-5 years)



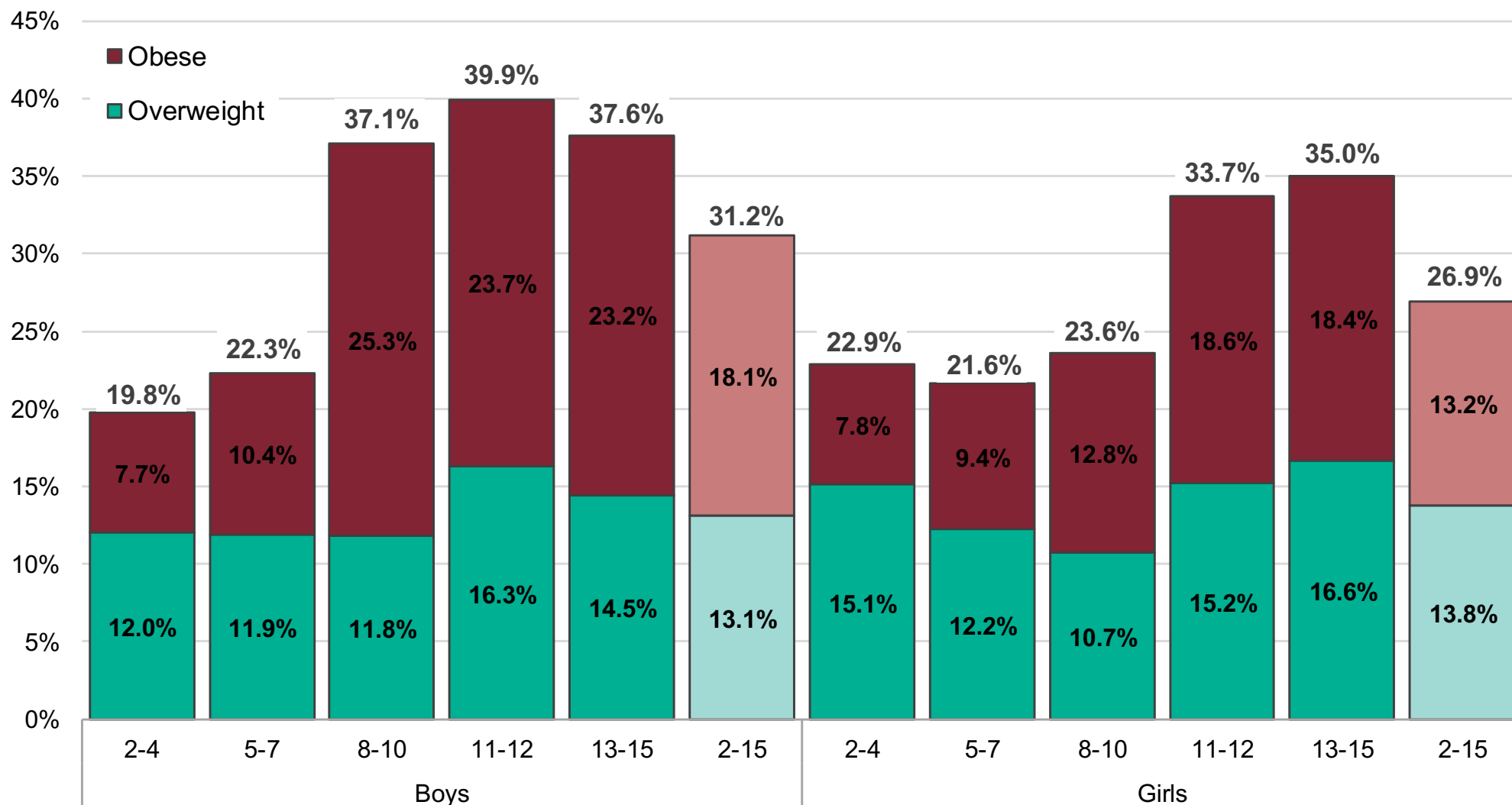
Year 6 (age 10-11 years)





Prevalence of overweight and obesity

Health Survey for England 2018 and 2019





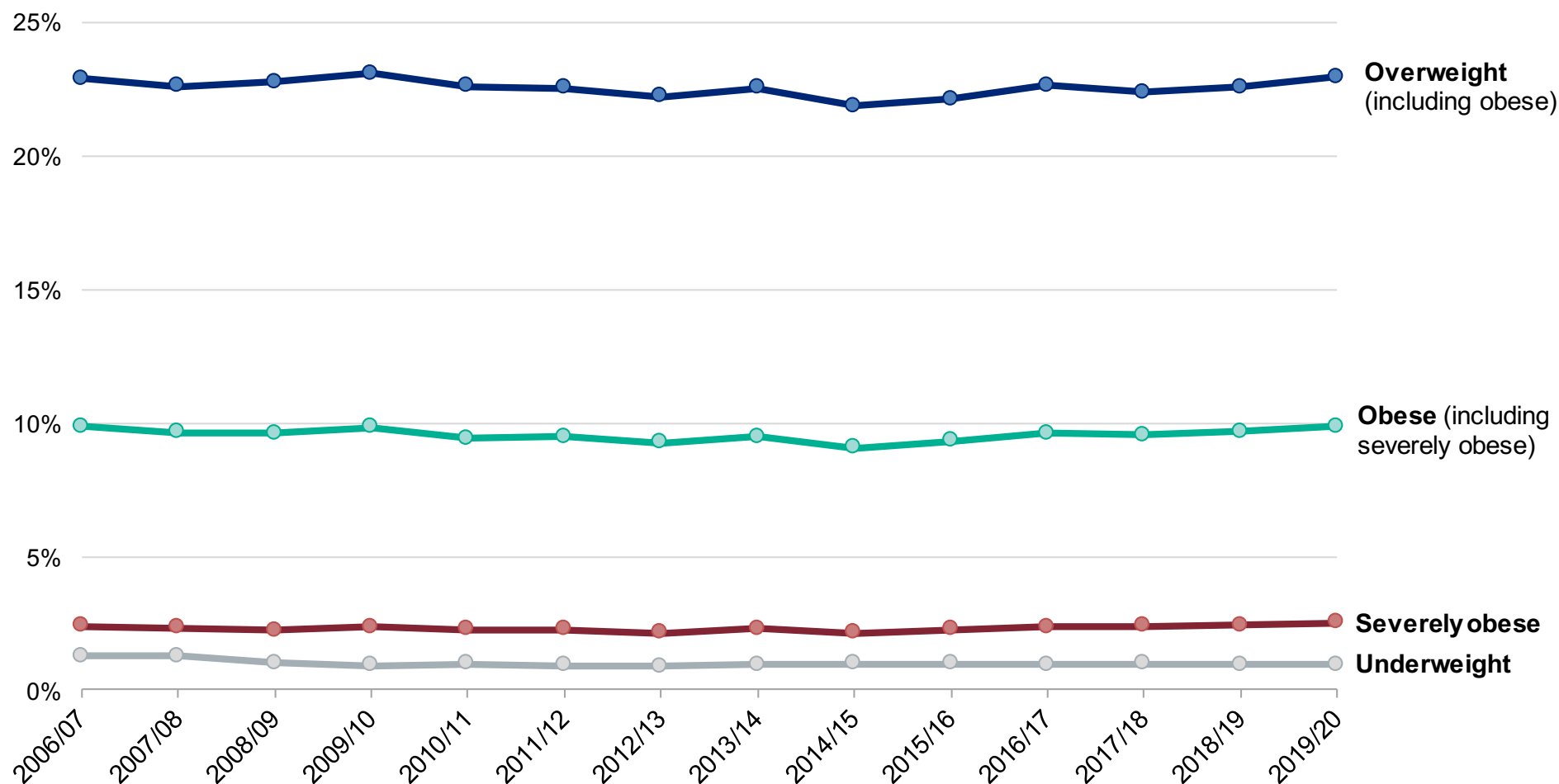
Trends in child overweight and obesity



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Trends by BMI category – Reception

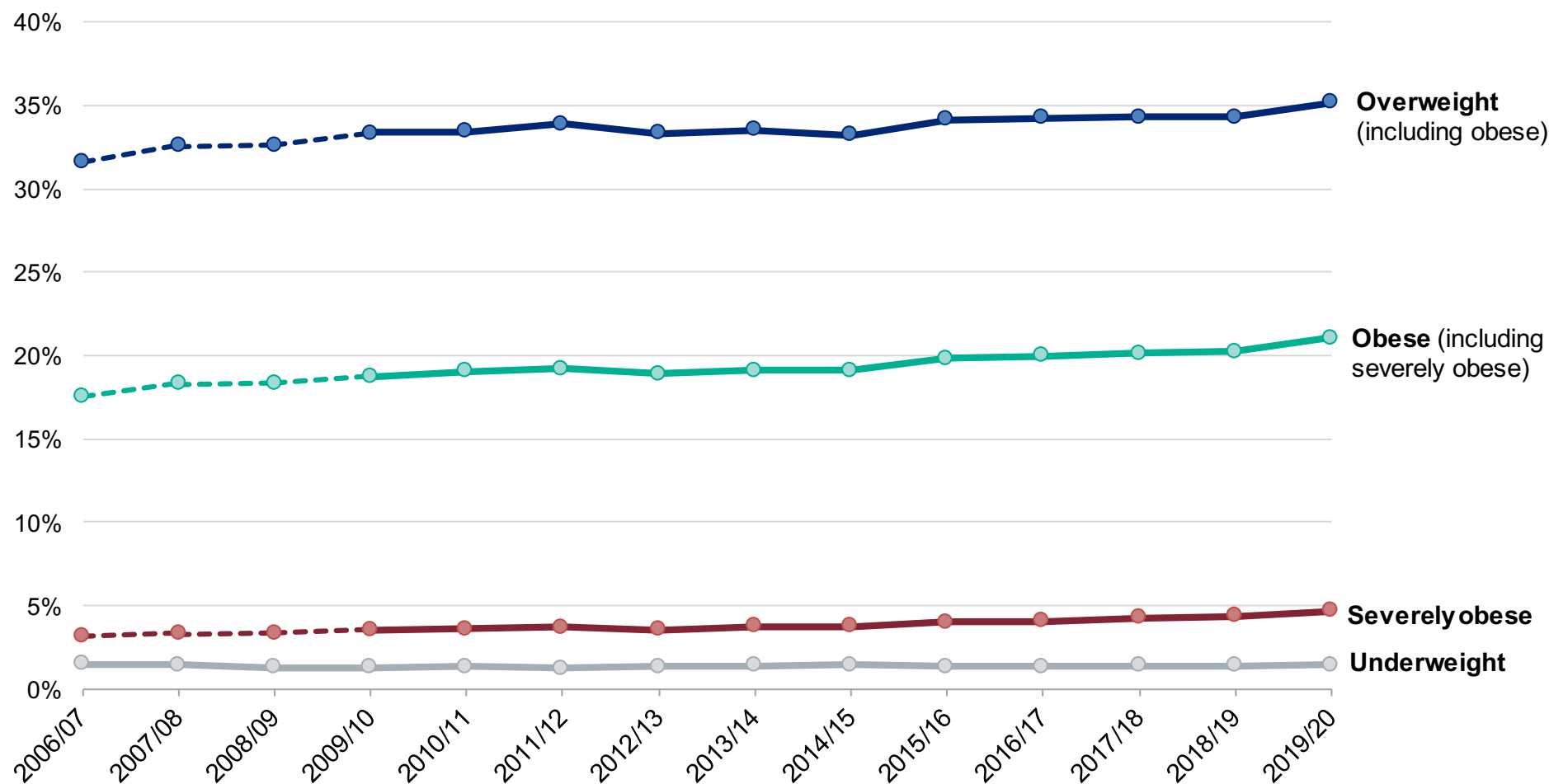
National Child Measurement Programme 2006/07 to 2019/20





Trends by BMI category – Year 6

National Child Measurement Programme 2006/07 to 2019/20

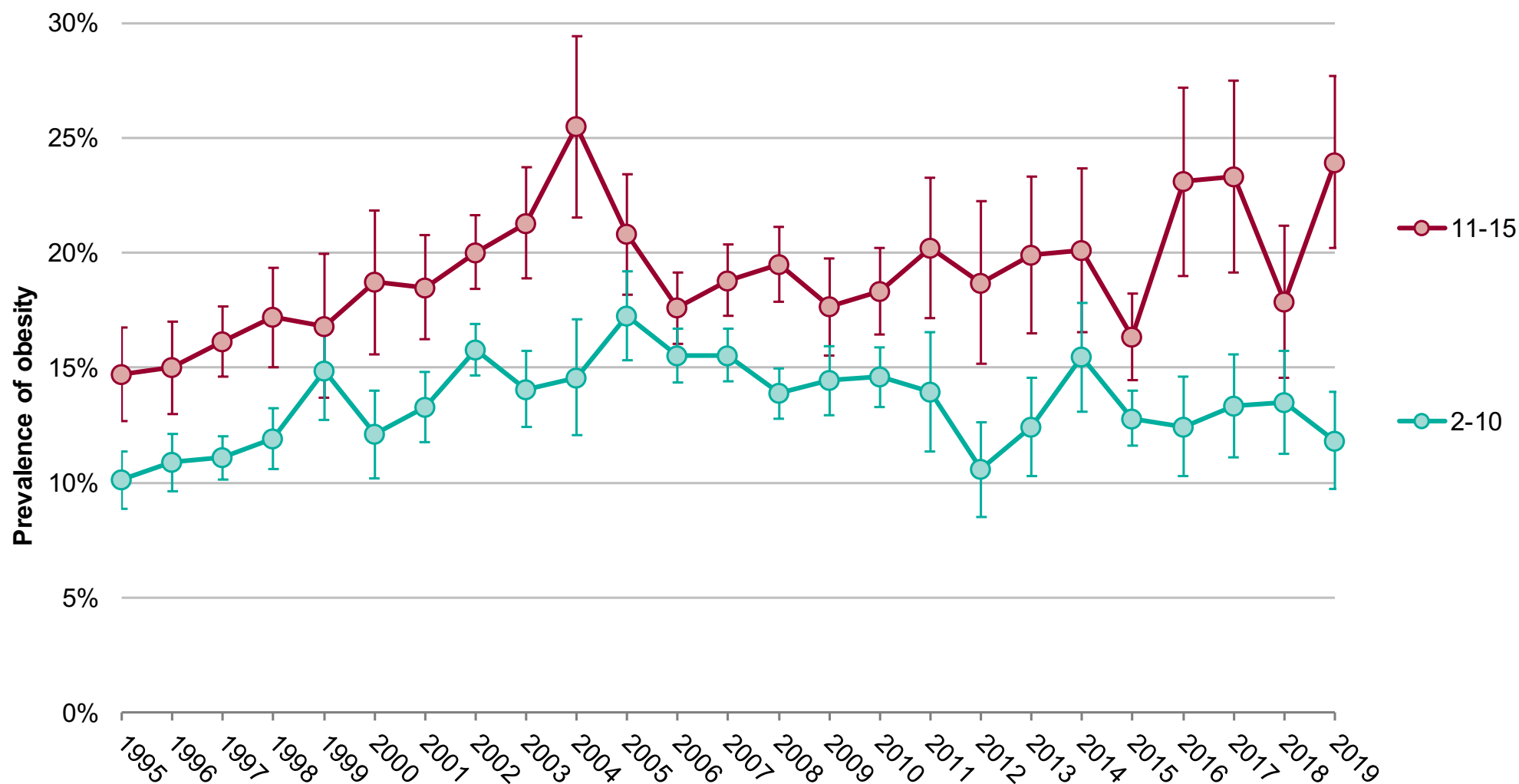




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Trend in the prevalence of obesity

Children aged 2-10 and 11-15 years; Health Survey for England
1995 to 2019



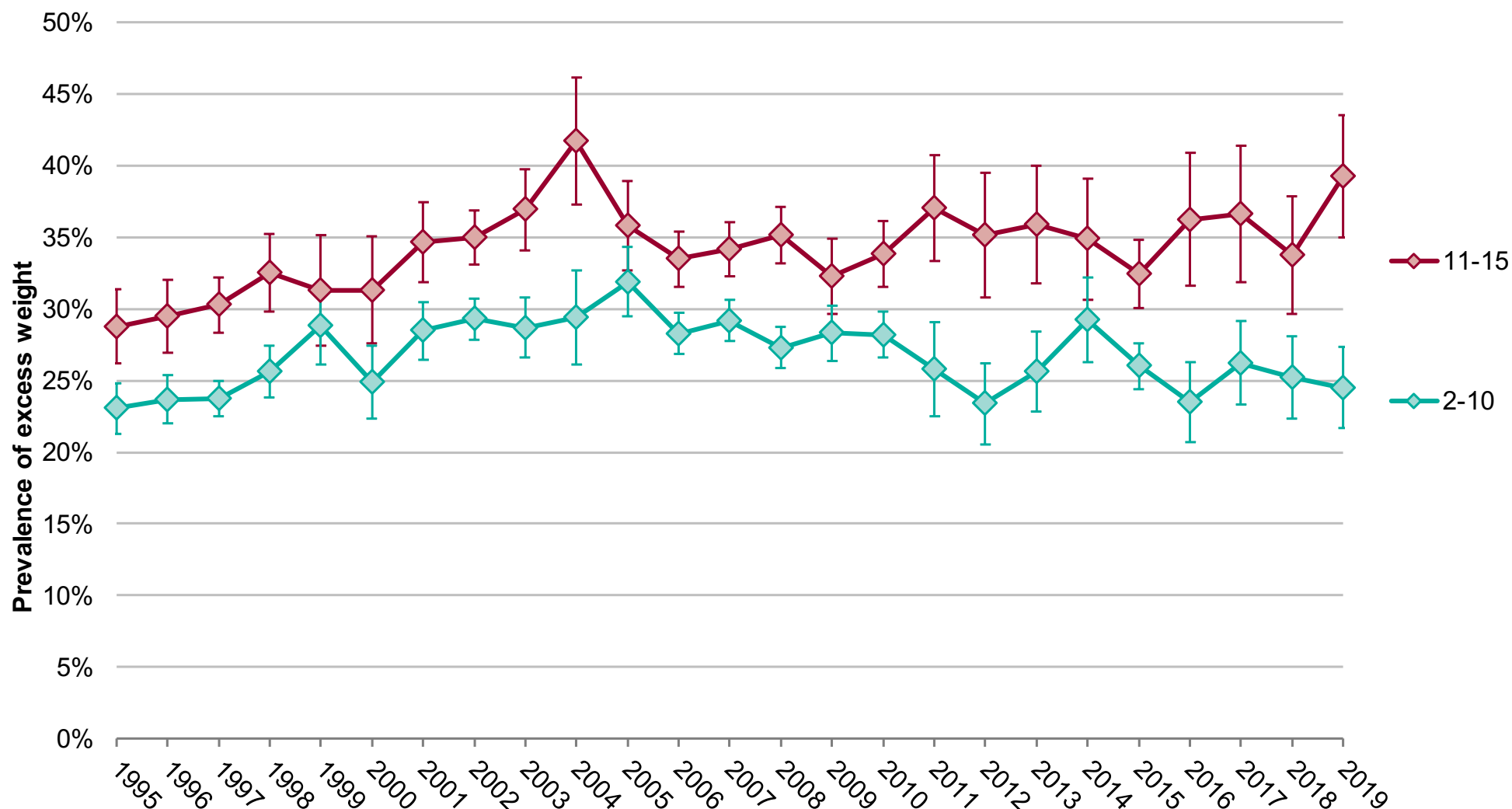
95% confidence intervals are displayed on the chart



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Trend in the prevalence of excess weight

Children aged 2-10 and 11-15 years; Health Survey for England
1995 to 2019



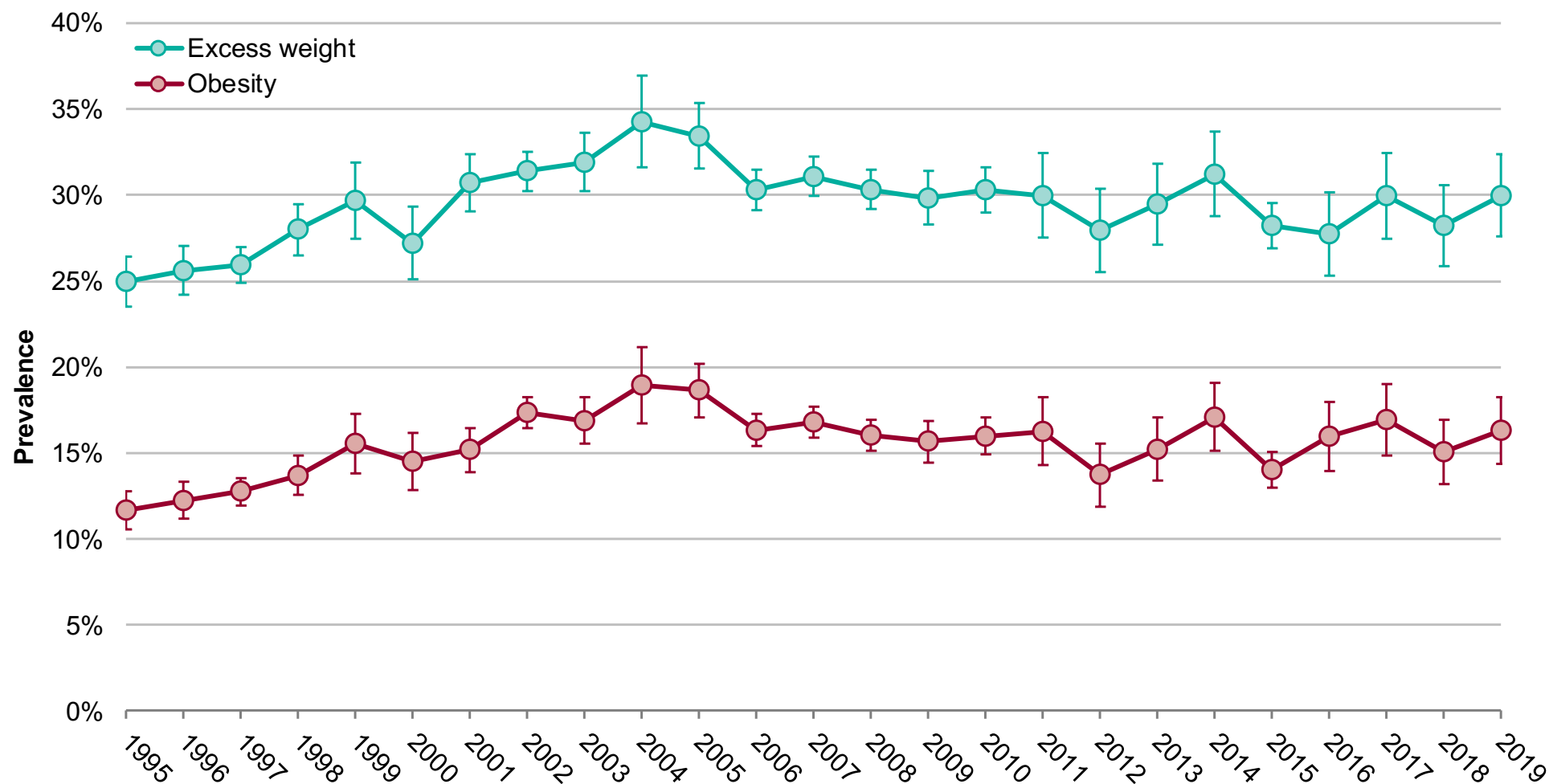
95% confidence intervals are displayed on the chart



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Trend in the prevalence of obesity and excess weight

Children aged 2-15 years; Health Survey for England 1995 to 2019

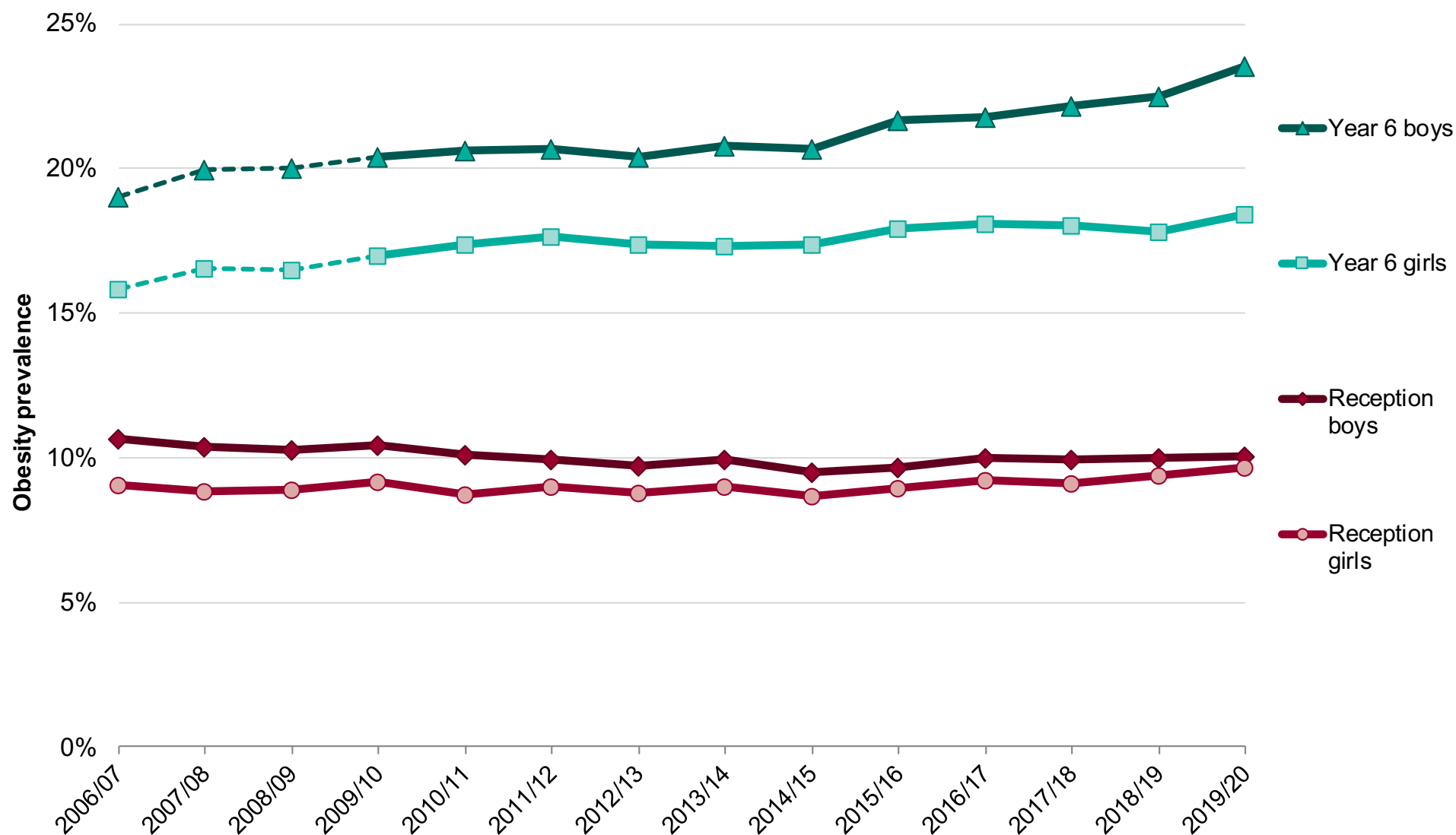


95% confidence intervals are displayed on the chart



Prevalence of obesity by age and sex

National Child Measurement Programme 2006/07 to 2019/20

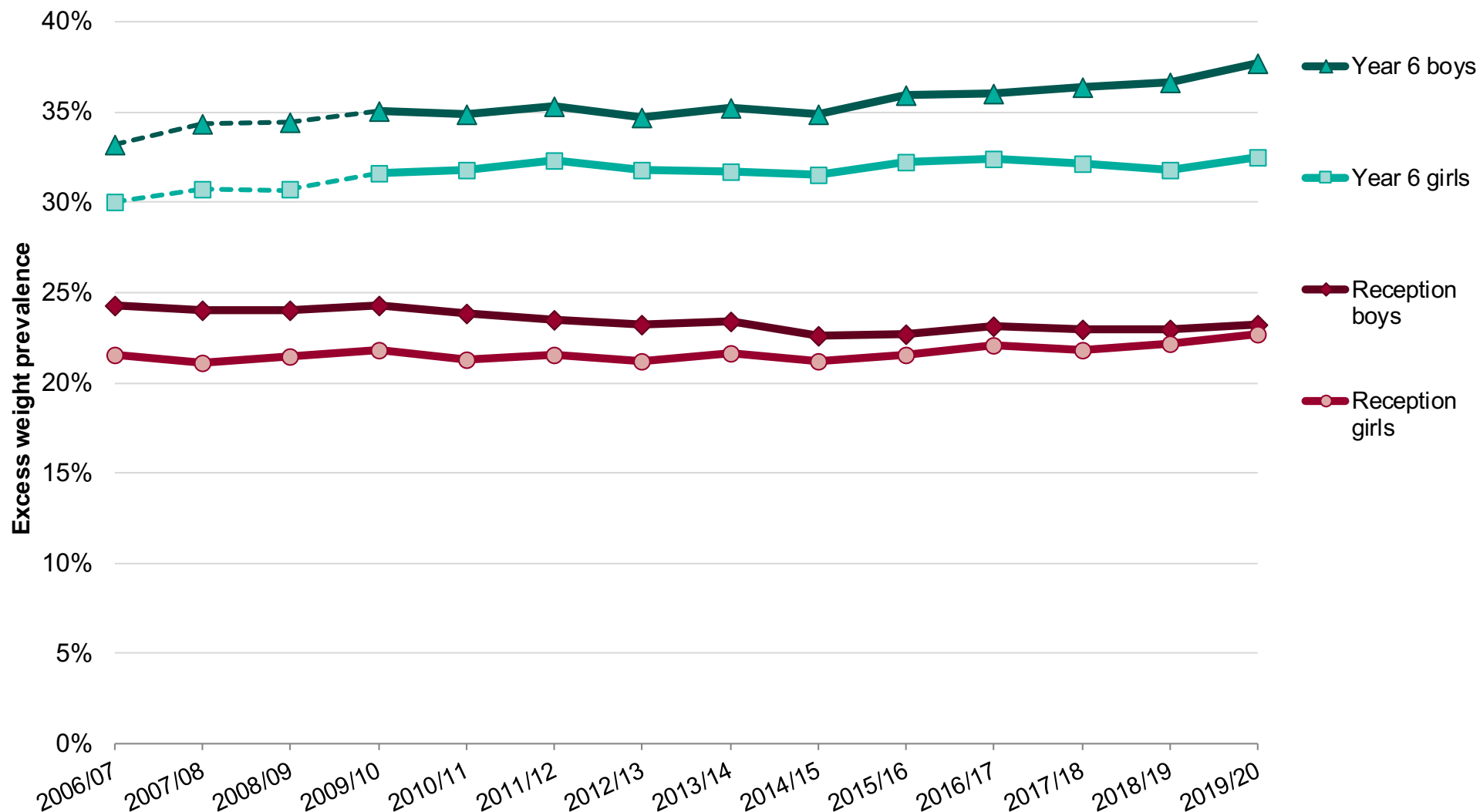


Note: for Year 6, comparisons are not possible with the first years of the NCMP (2006/07 to 2008/09) as low participation levels led to underestimation of obesity prevalence



Prevalence of excess weight by age and sex

National Child Measurement Programme 2006/07 to 2019/20

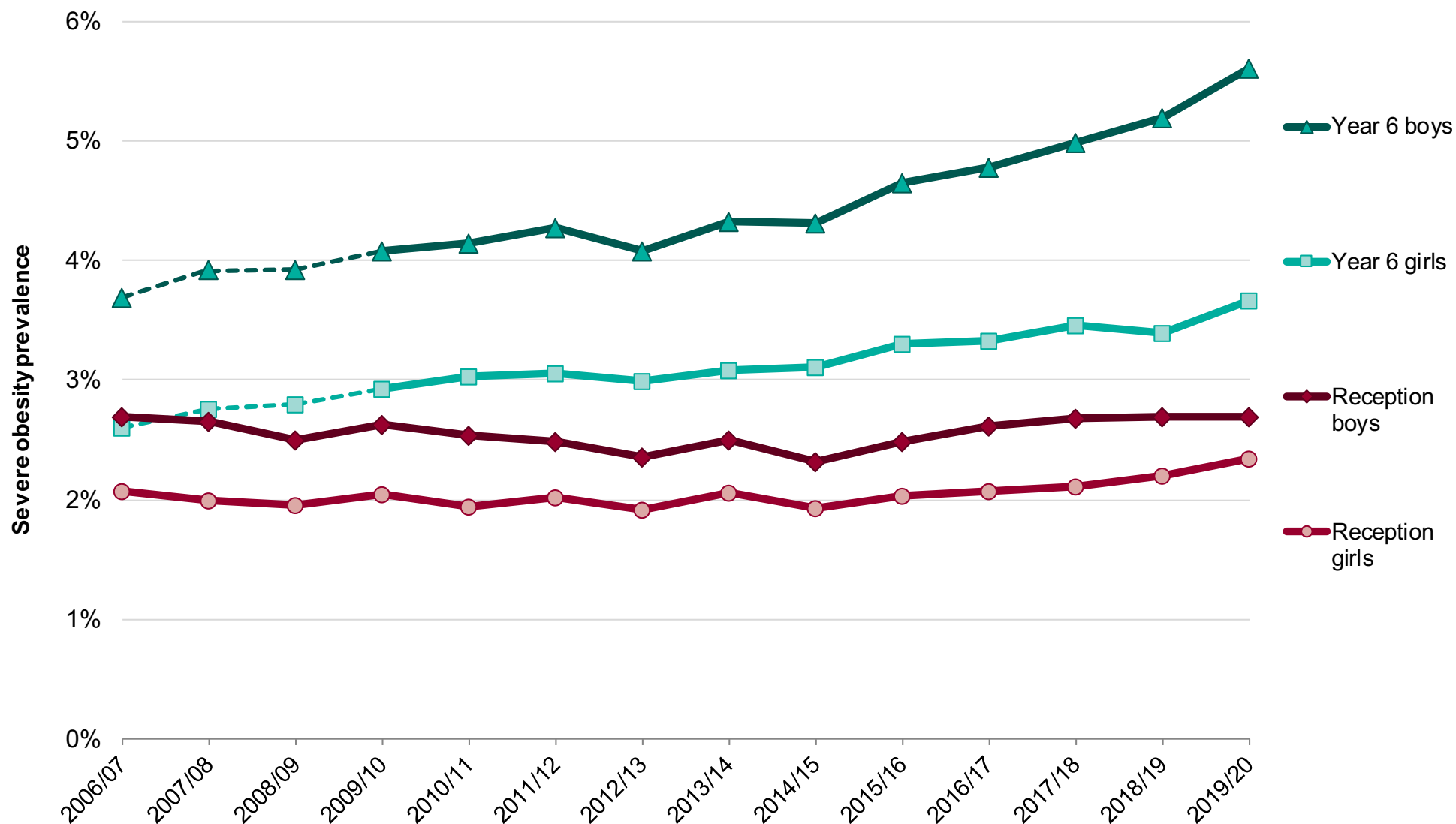


Note: for Year 6, comparisons are not possible with the first years of the NCMP (2006/07 to 2008/09) as low participation levels led to underestimation of obesity prevalence



Prevalence of severe obesity by age and sex

National Child Measurement Programme 2006/07 to 2019/20



Note: for Year 6, comparisons are not possible with the first years of the NCMP (2006/07 to 2008/09) as low participation levels led to underestimation of obesity prevalence



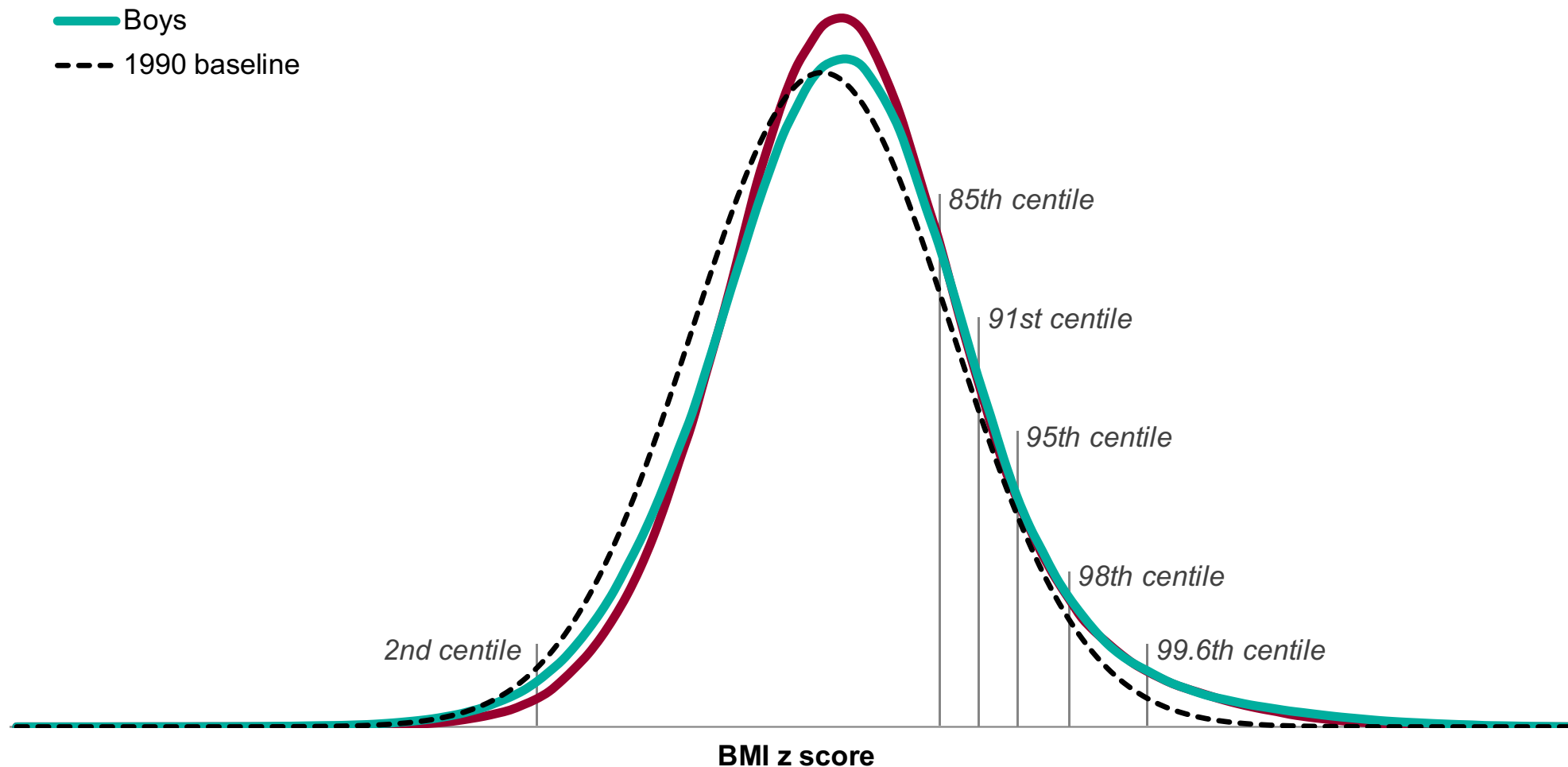
BMI distribution by age and sex



BMI distribution – Reception children

National Child Measurement Programme 2019/20

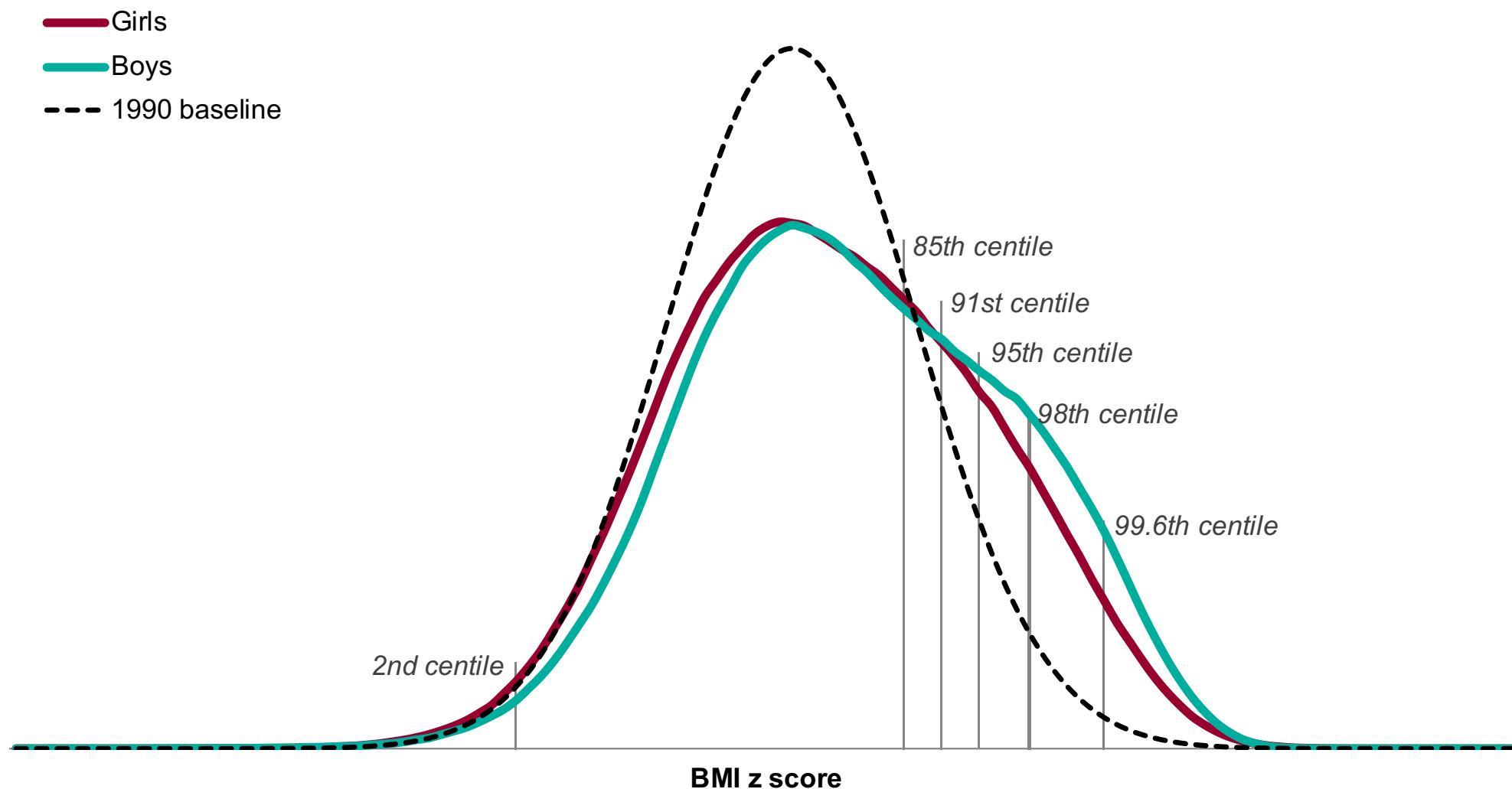
- Girls
- Boys
- 1990 baseline





BMI distribution – Year 6 children

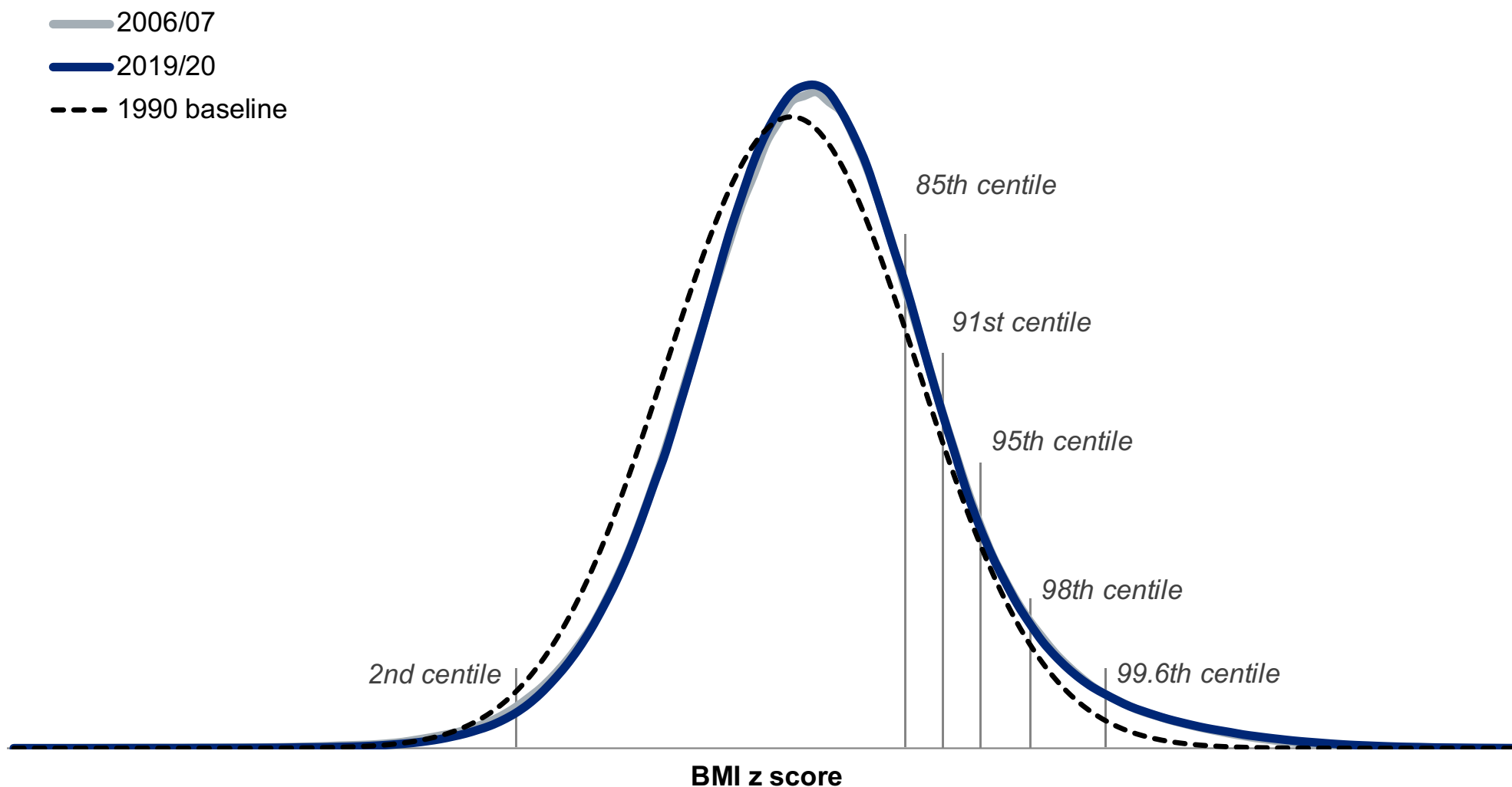
National Child Measurement Programme 2019/20





BMI distribution 2006/07 to 2019/20 – Reception

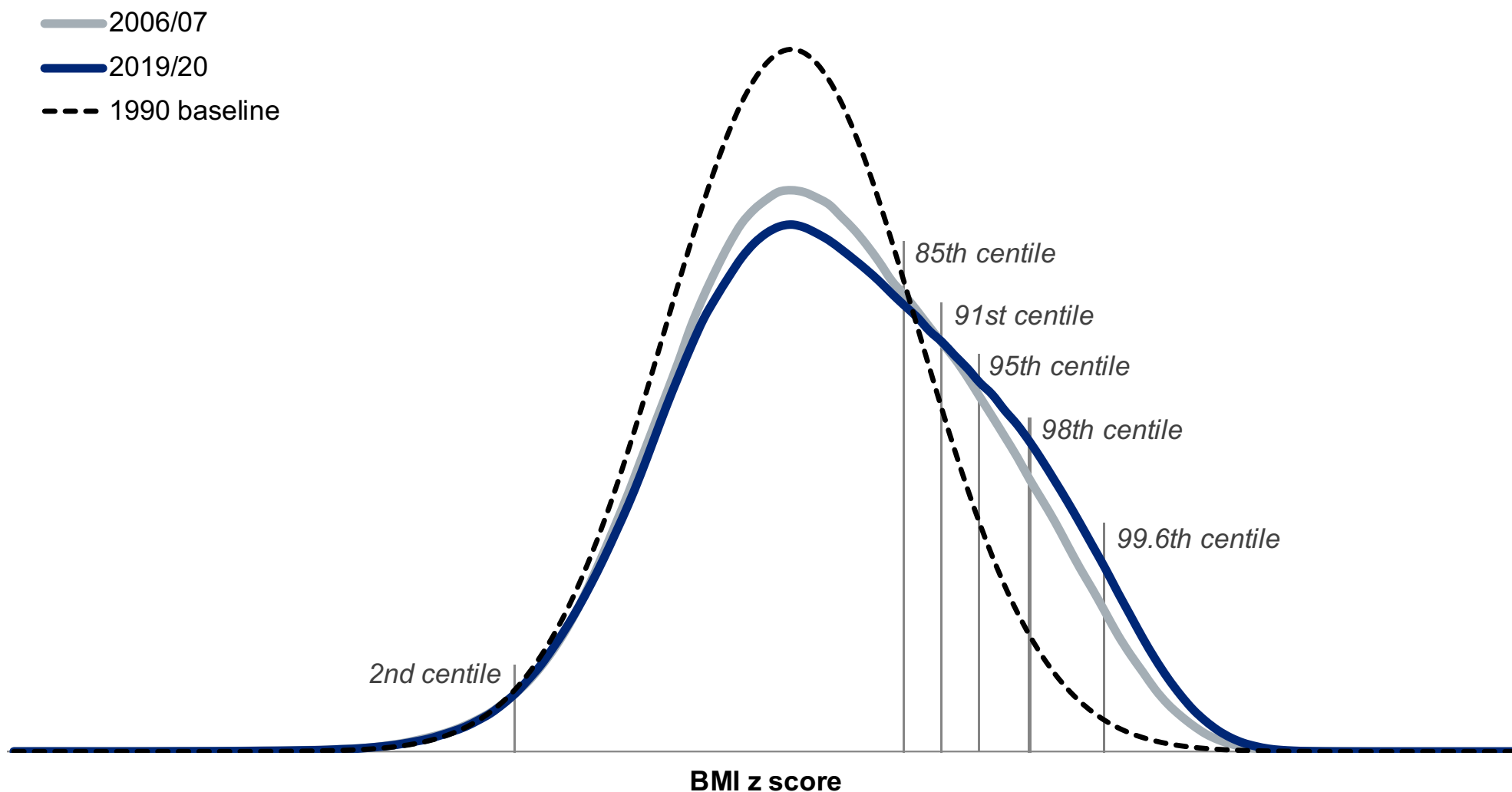
National Child Measurement Programme





BMI distribution 2006/07 to 2019/20 – Year 6

National Child Measurement Programme





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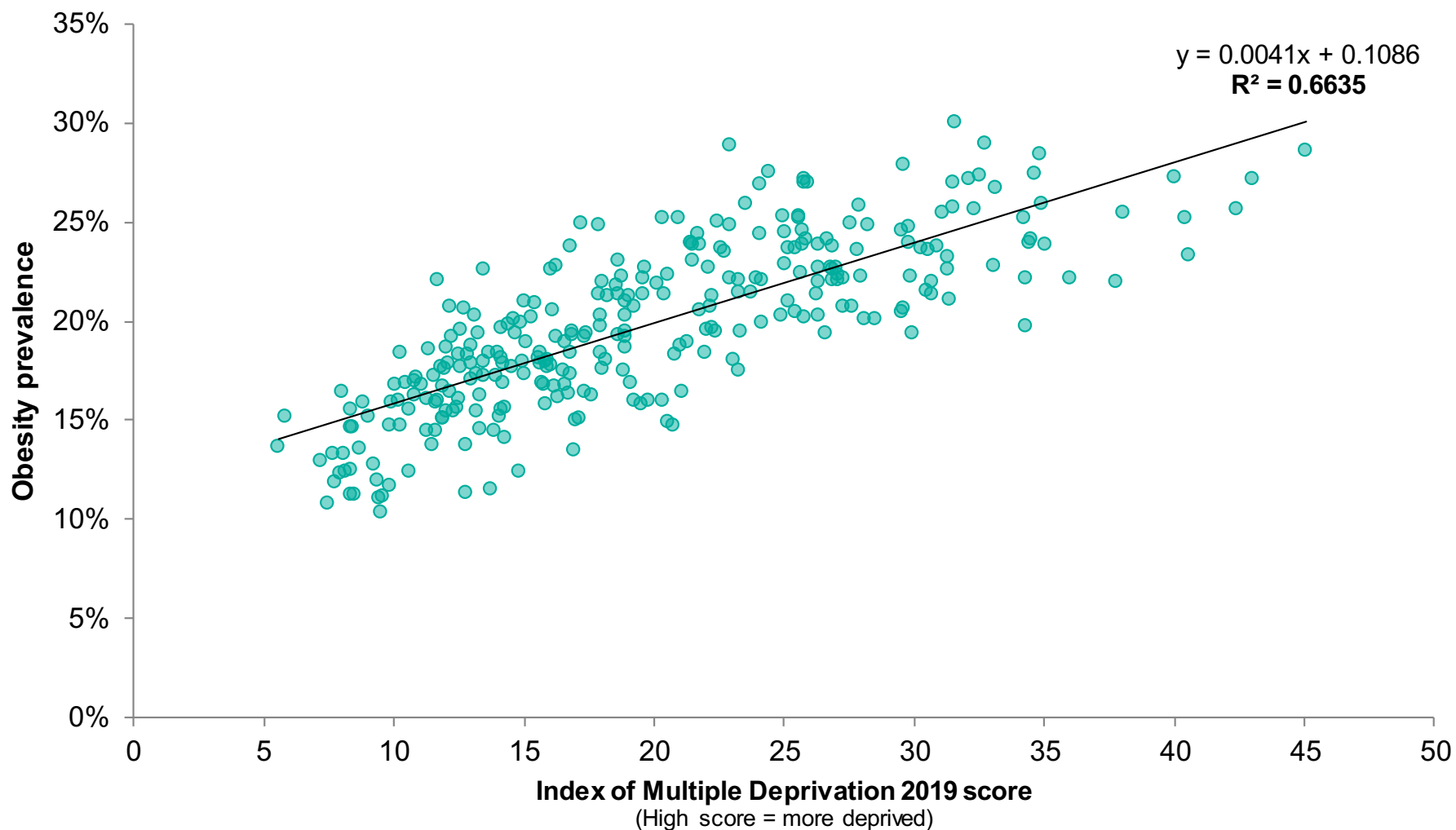
Obesity prevalence and deprivation



Obesity prevalence and deprivation

National Child Measurement Programme 2019/20 – Year 6 children

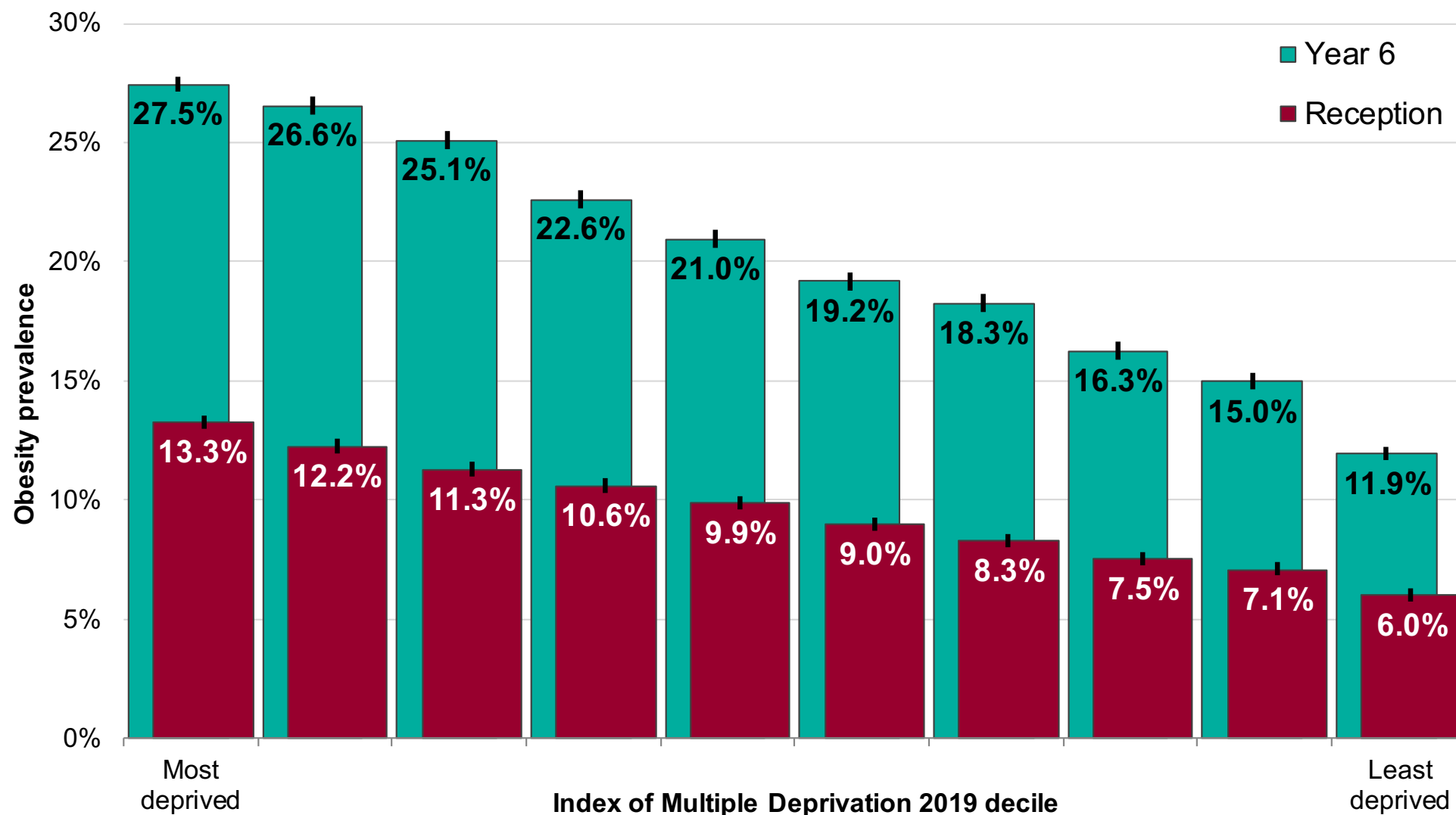
Local authorities in England





Obesity prevalence by deprivation decile

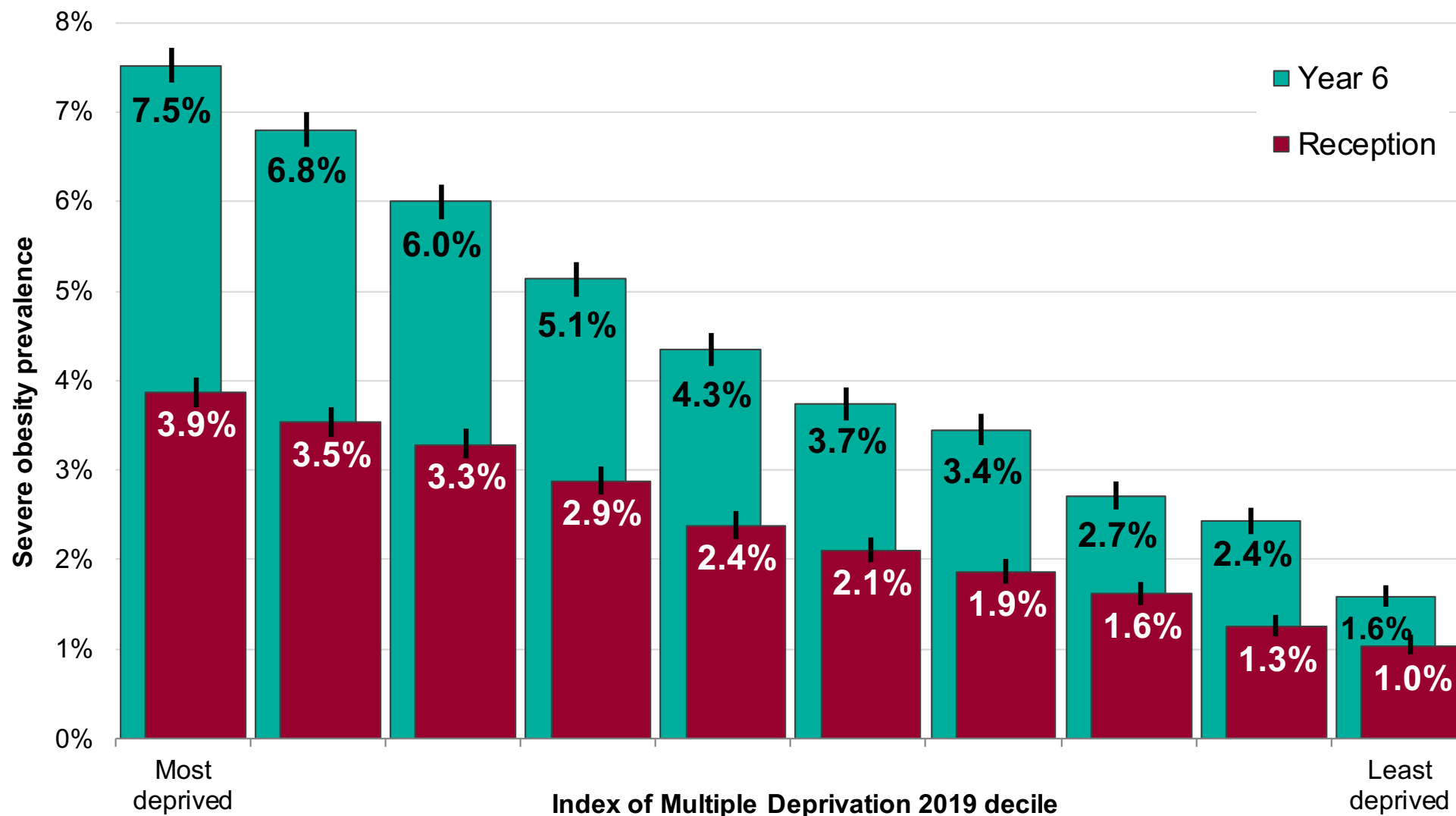
National Child Measurement Programme 2019/20





Severe obesity prevalence by deprivation decile

National Child Measurement Programme 2019/20

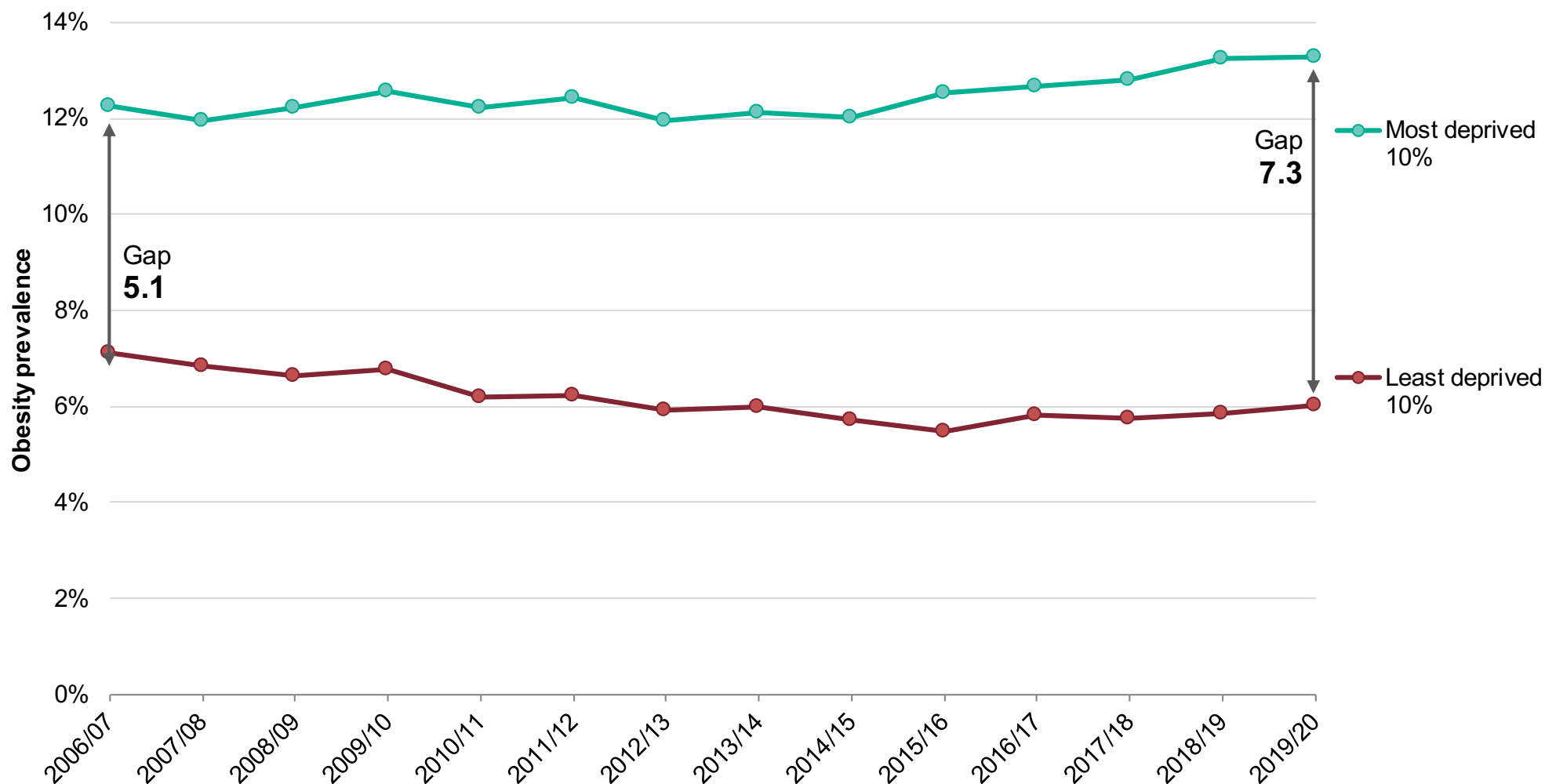




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Obesity prevalence by deprivation decile Reception

National Child Measurement Programme 2006/07 to 2019/20



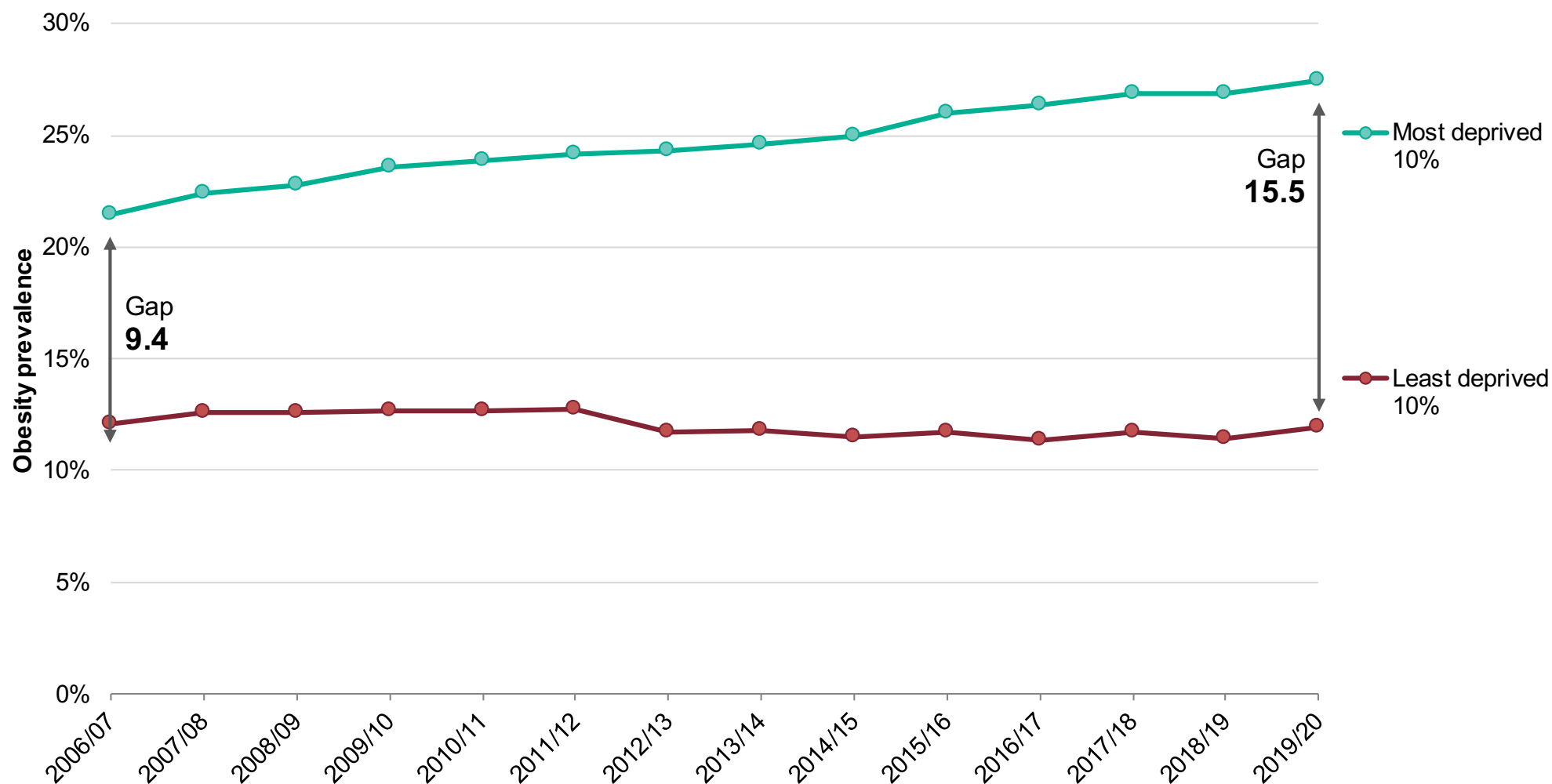


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Obesity prevalence by deprivation decile

Year 6

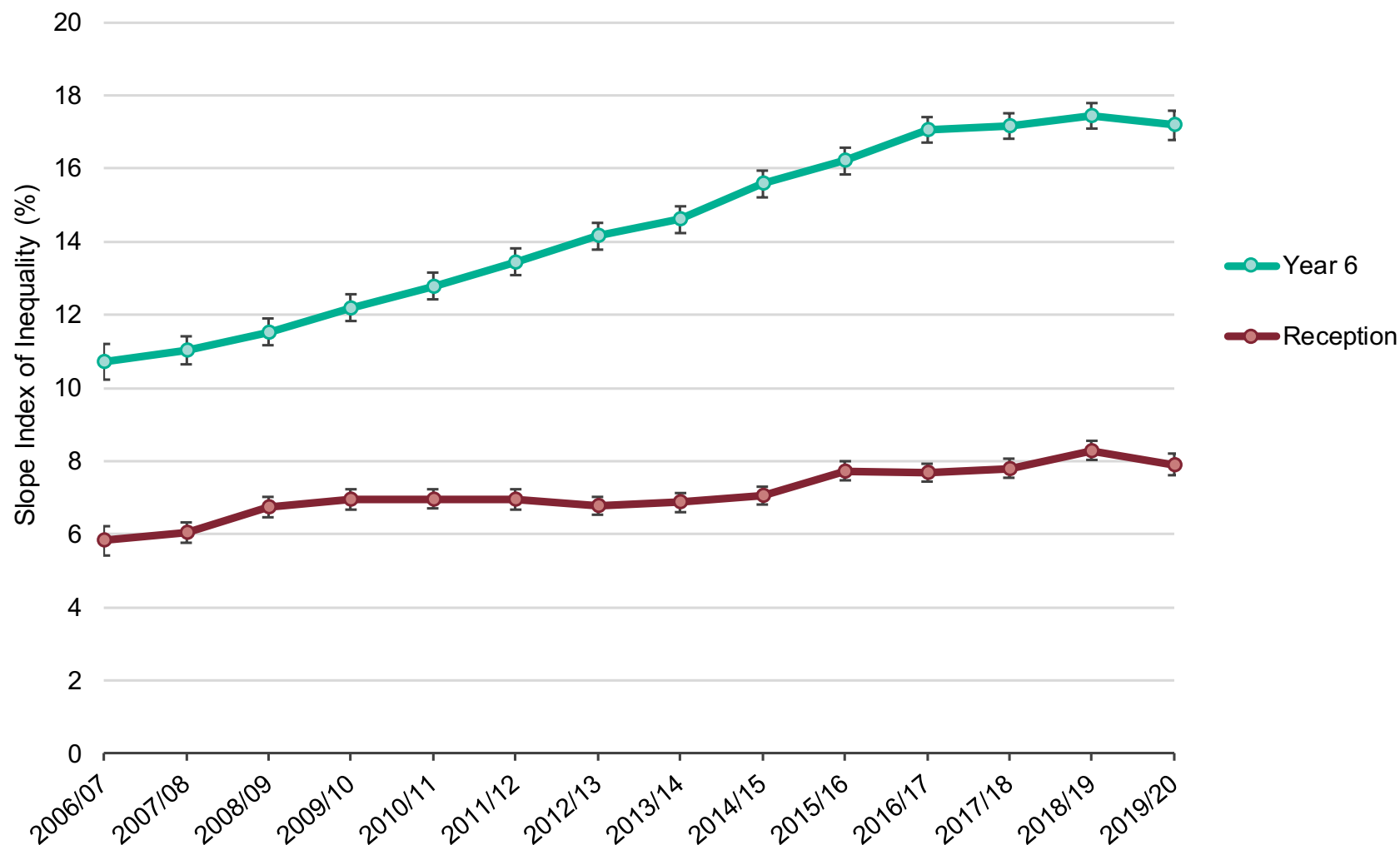
National Child Measurement Programme 2006/07 to 2019/20





Trend in slope index of inequality for obesity prevalence

National Child Measurement Programme 2006/07 to 2019/20





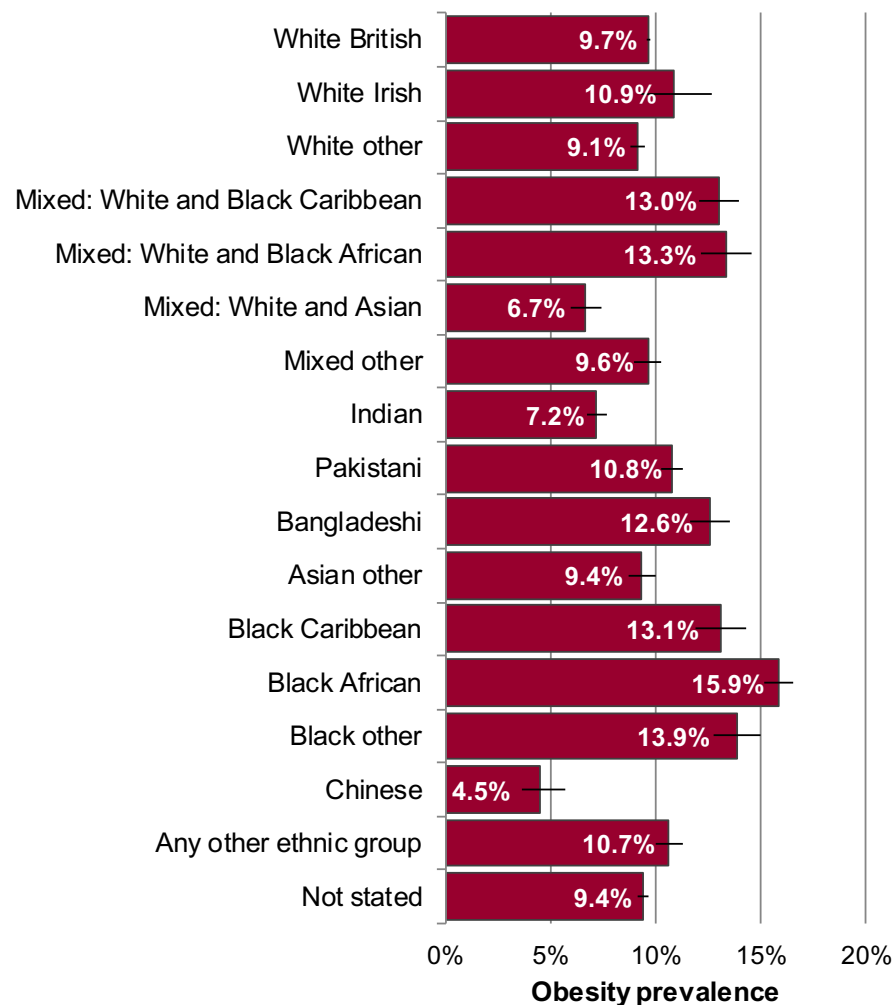
Obesity prevalence and ethnicity



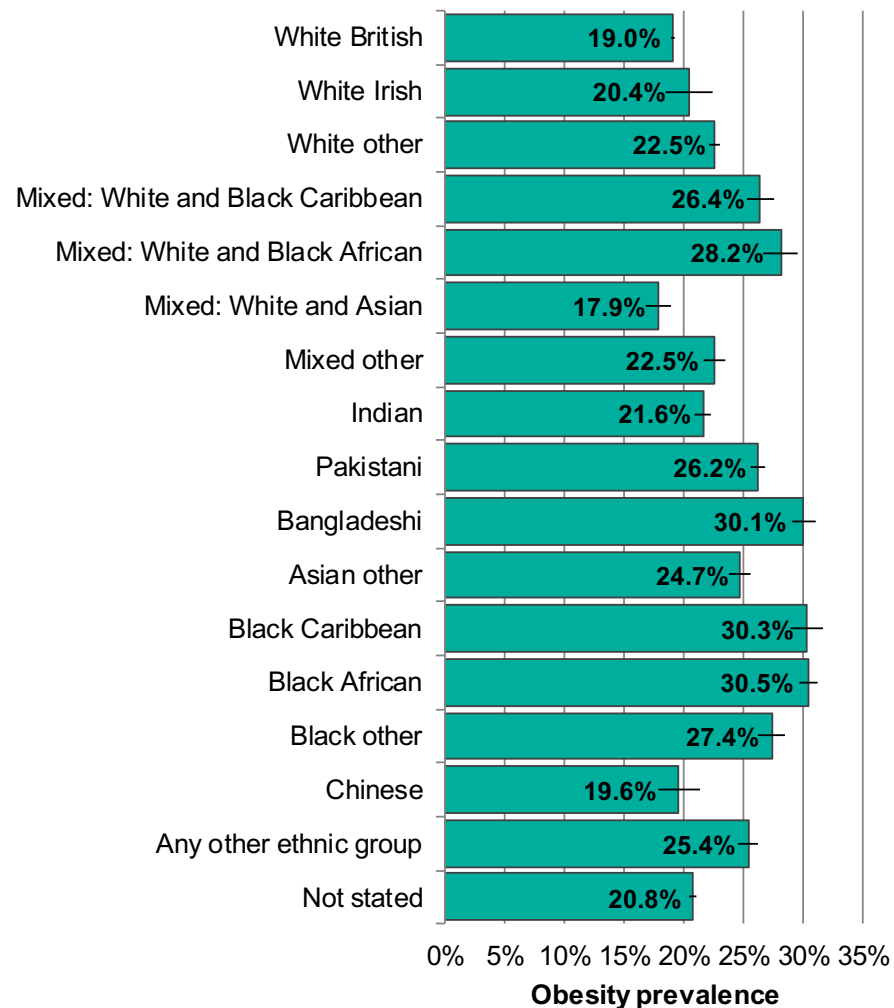
Obesity prevalence by ethnic group

National Child Measurement Programme 2019/20

Children in Reception (aged 4-5 years)



Children in Year 6 (aged 10-11 years)

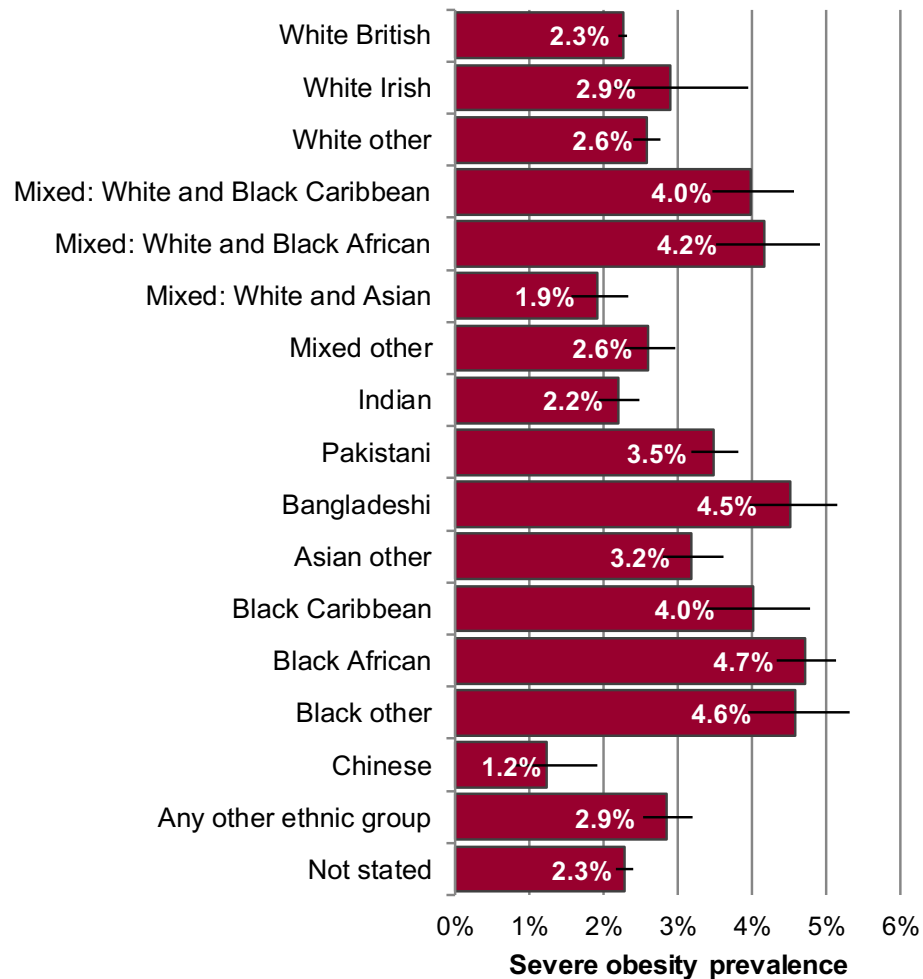




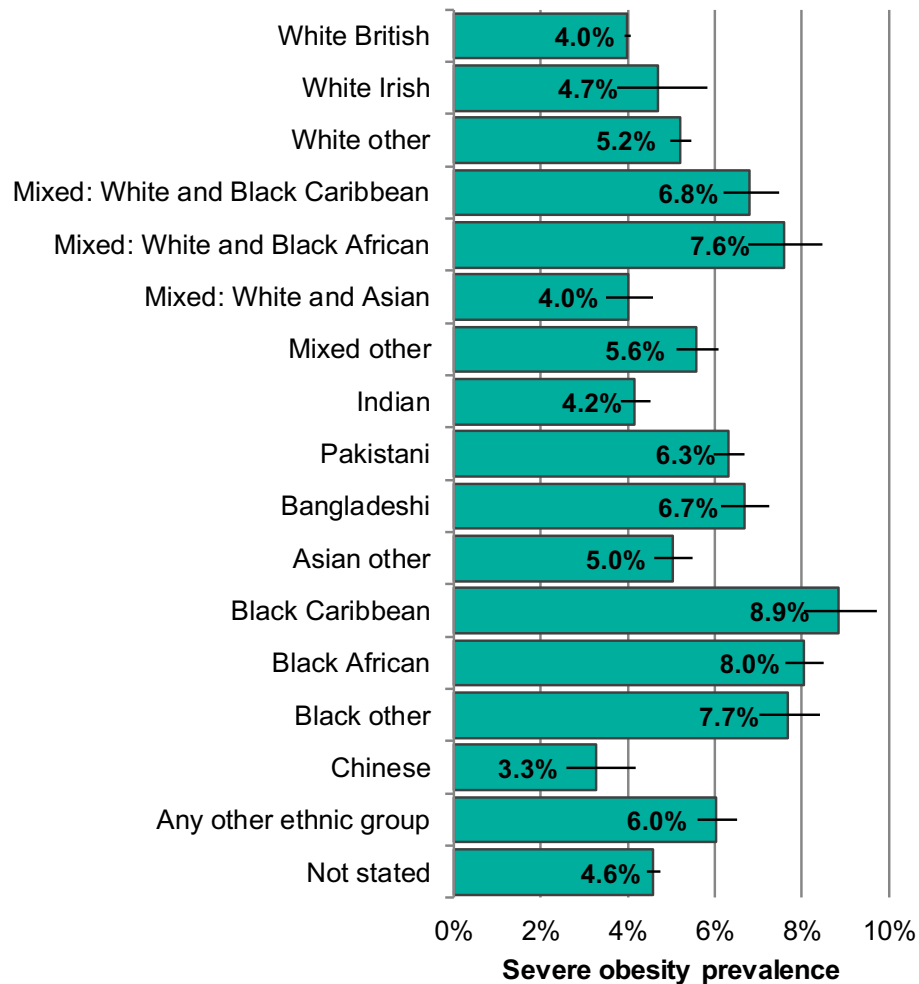
Severe obesity prevalence by ethnic group

National Child Measurement Programme 2019/20

Children in Reception (aged 4-5 years)



Children in Year 6 (aged 10-11 years)



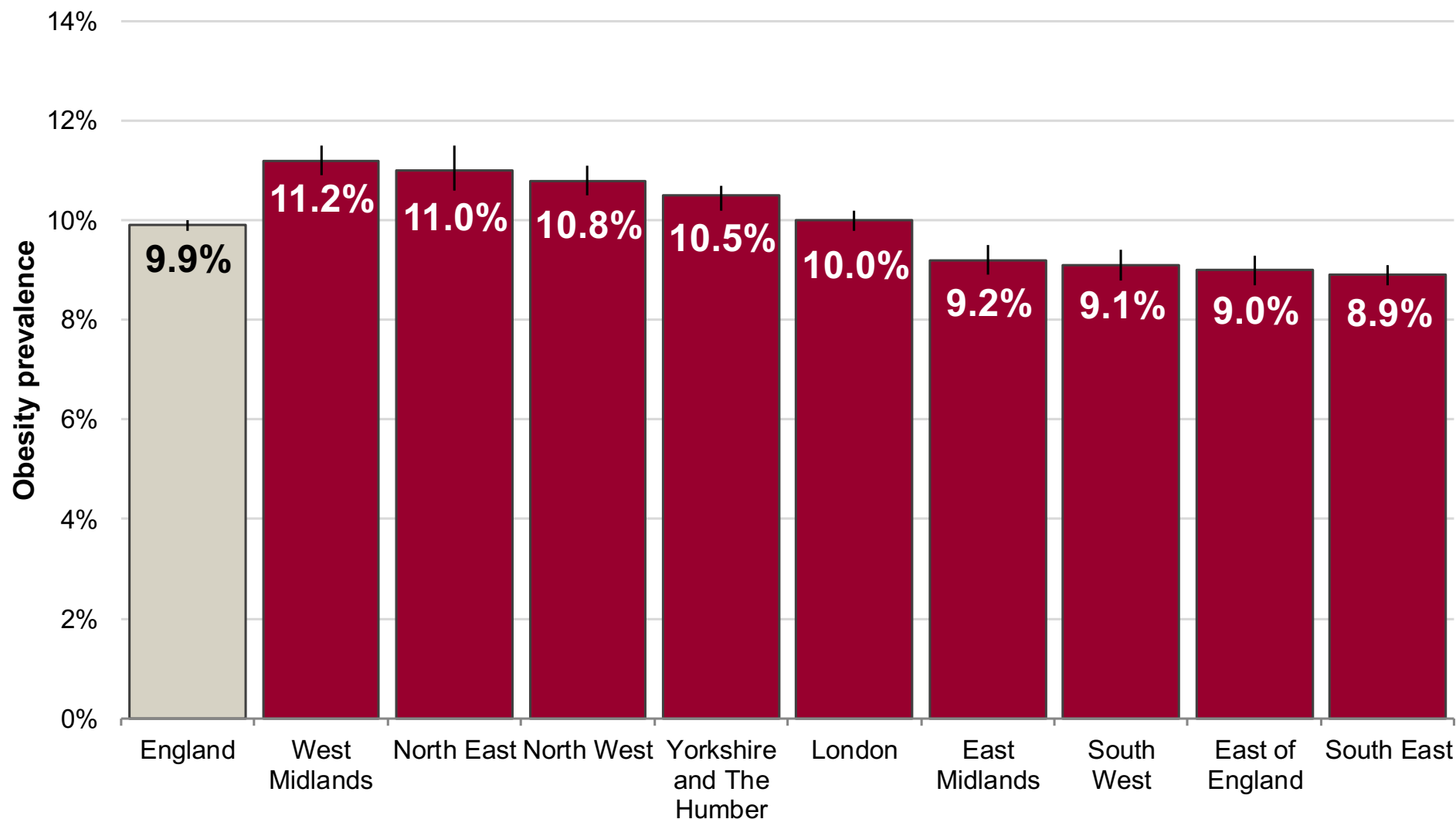


Obesity prevalence by region



Obesity prevalence by region – Reception

National Child Measurement Programme 2019/20





Obesity prevalence by region – Year 6

National Child Measurement Programme 2019/20



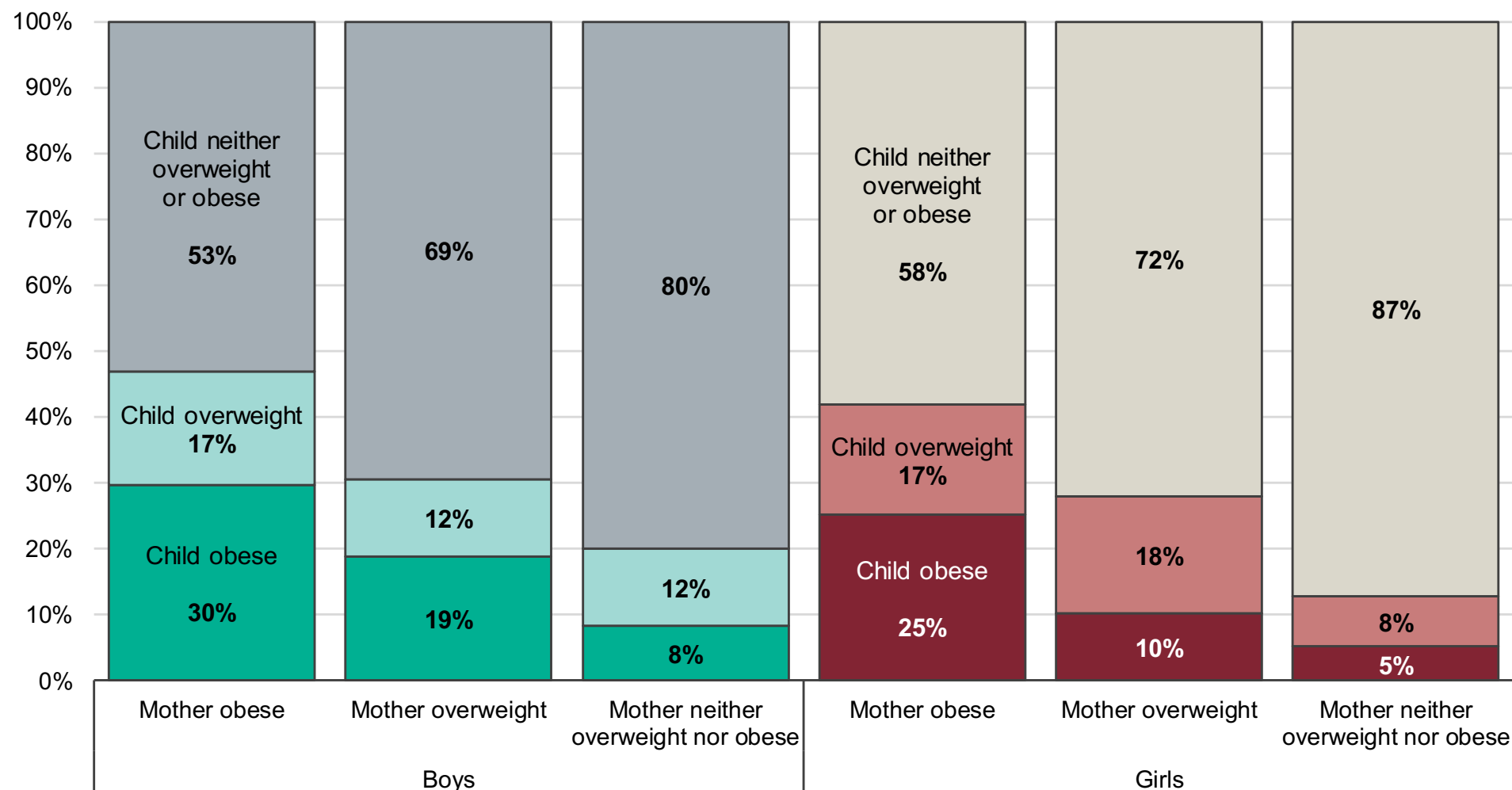


Child overweight and obesity by parents BMI status and parent's perception of child's BMI status



Child overweight and obesity by mother's BMI status and sex of child

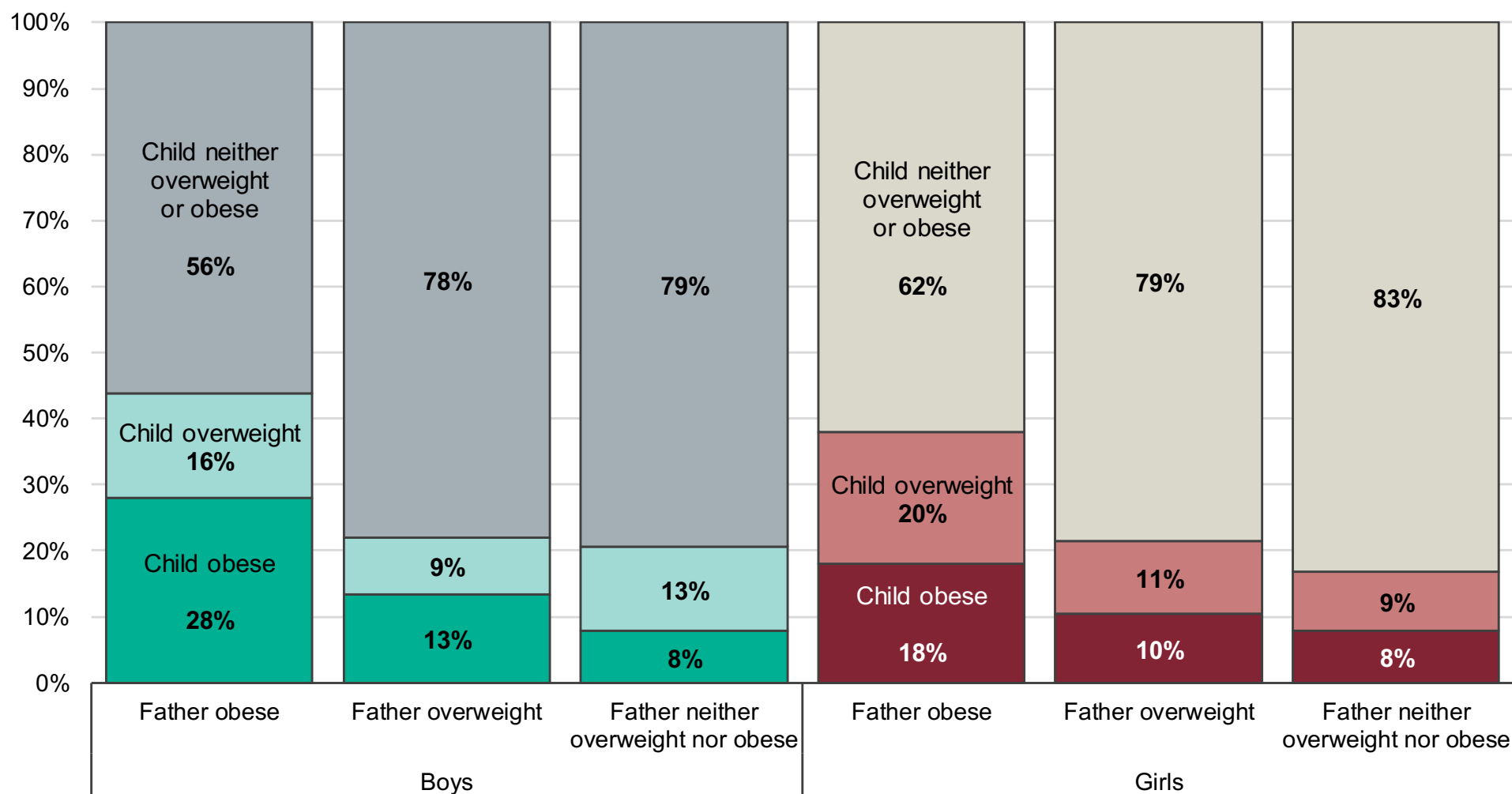
Health Survey for England 2018 and 2019





Child overweight and obesity by father's BMI status and sex of child

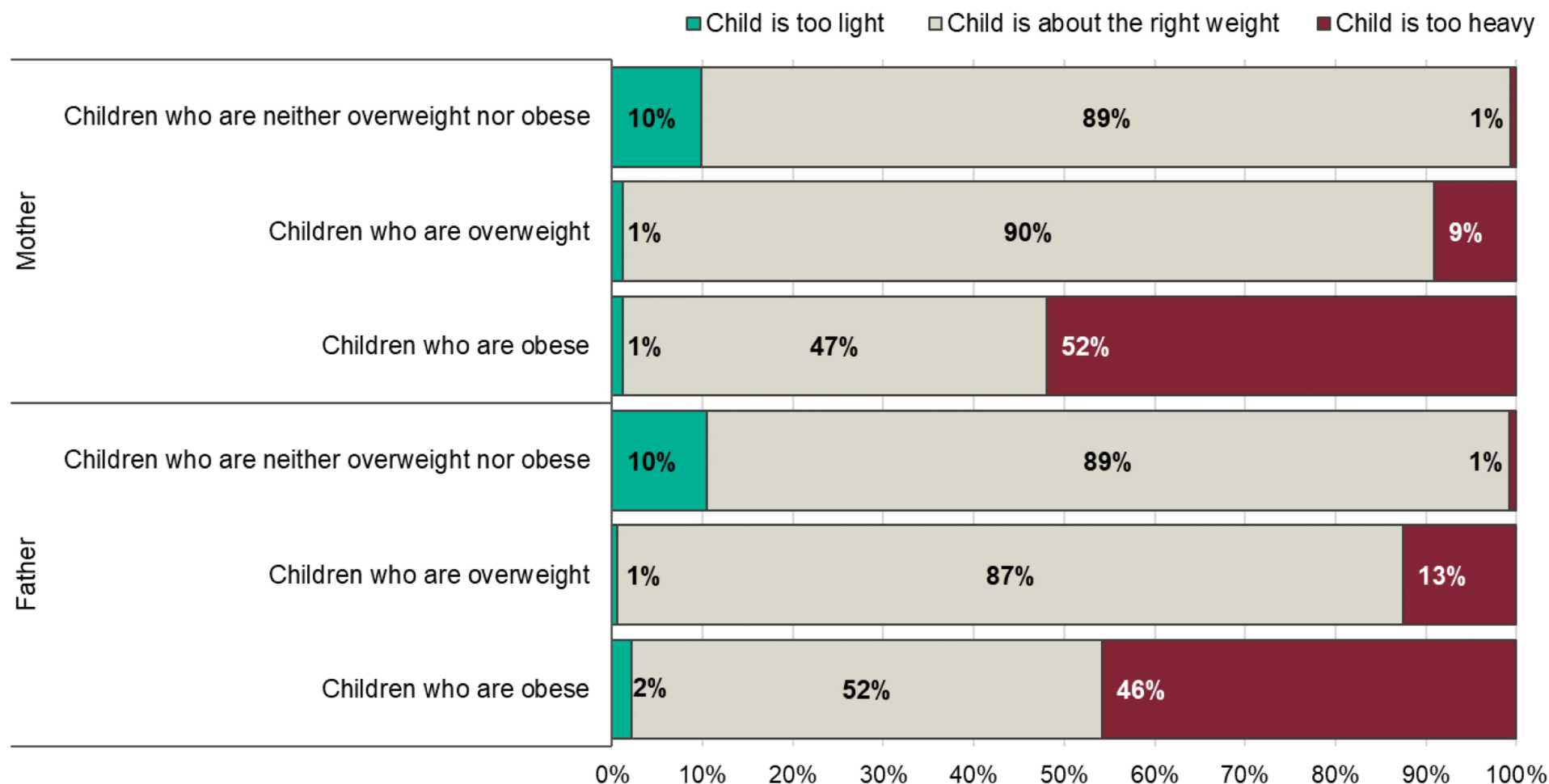
Health Survey for England 2018 and 2019





Parents' perception of child's weight, by child's BMI status

Health Survey for England 2015 and 2016





Further information and data sources

Obesity Profile

 Search for indicators

NCMP prevalence data

NCMP data quality

NCMP small area data

Adult prevalence data

Contextual indicators

Overview

Compare indicators

Map

Trends

Compare areas

Area profiles

Inequalities

England

Box plots

Reports

Definitions

Download

Area type: County & UA
Area: Coventry
Region: West Midlands
Benchmark: England

Indicator: Reception: Prevalence of obesity (including severe obesity)

[Search for an area](#)
[Filter indicators](#)

[Hide legend](#)

* a note is attached to the value, hover over to see more details

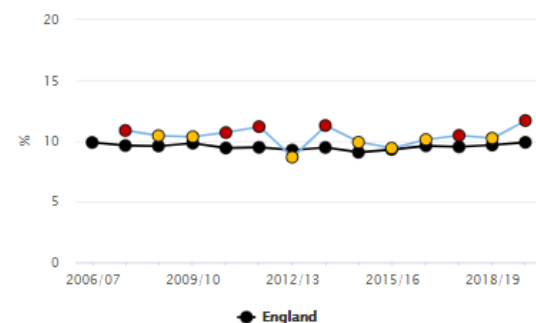
Compared with benchmark: ● Better ● Similar ● Worse ○ Not compared

Recent trends: — Could not be calculated → No significant change ↑ Increasing / Getting worse ↑ Increasing / Getting better ↓ Decreasing / Getting worse ↓ Decreasing / Getting better ↑ Increasing ↓ Decreasing

Trends for **Coventry** All in West Midlands region Display **Selected indicator** All indicators

Reception: Prevalence of obesity (including severe obesity) Coventry

Proportion - %

[Export chart as image](#)[Show confidence intervals](#)[Show 99.8% CI values](#)[Export table as CSV file](#)

Recent trend: →

Period		Coventry				West Midlands	England
		Count	Value	95% Lower CI	95% Upper CI		
2006/07		-	*	-	-	*	9.9%
2007/08	●	324	10.9%	9.8%	12.0%	10.0%	9.6%
2008/09	●	344	10.4%	9.4%	11.5%	10.1%	9.6%
2009/10	●	372	10.4%	9.4%	11.4%	10.5%	9.8%
2010/11	●	402	10.7%	9.8%	11.7%	10.1%	9.4%
2011/12	●	446	11.2%	10.3%	12.2%	10.5%	9.5%
2012/13	●	365	8.7%	7.9%	9.6%	10.0%	9.3%
2013/14	●	469	11.3%	10.4%	12.3%	10.5%	9.5%
2014/15	●	429	9.9%	9.1%	10.8%	10.2%	9.1%
2015/16	●	411	9.4%	8.6%	10.3%	10.4%	9.3%
2016/17	●	454	10.1%	9.3%	11.0%	10.7%	9.6%
2017/18	●	454	10.5%	9.6%	11.4%	10.4%	9.5%
2018/19	●	428	10.2%	9.4%	11.2%	10.6%	9.7%
2019/20	●	465	11.7%	10.8%	12.8%	11.2%	9.9%

Source: NHS Digital, National Child Measurement Programme

Screenshot of webpage

<http://fingertips.phe.org.uk/profile/national-child-measurement-programme>

Obesity Profile

NCMP prevalence data

NCMP data quality

NCMP small area data

Adult prevalence data

Contextual indicators

Overview Compare indicators Map Trends **Compare areas** Area profiles Inequalities England Box plots Reports Definitions Download

Area type: County & UA Areas grouped by: Region Benchmark: England

Area: Derby Region: East Midlands

[Search for an area](#) [Filter indicators](#)

Indicator: Year 6: Prevalence of obesity (including severe obesity)

[Hide legend](#)

* a note is attached to the value, hover over to see more details

Compared with benchmark: ■ Better ■ Similar ■ Worse ■ Not comparedRecent trends: → Could not be calculated → No significant change ↑ Increasing / Getting worse ↑ Increasing / Getting better ↓ Decreasing / Getting worse ↓ Decreasing / Getting better ↑ Increasing ↓ DecreasingAreas: **All in East Midlands region** All in England Display: **Table** Table and chart**Year 6: Prevalence of obesity (including severe obesity)** 2019/20

Proportion - %

[Export table as image](#) [Export table as CSV file](#)

Area	Recent Trend	Count	Value	95% Lower CI	95% Upper CI
England	↑	103,362	21.0	20.9	21.2
East Midlands region	↑	8,480	20.8	20.4	21.2
Nottingham	→	915	26.0	24.6	27.5
Derby	→	765	23.9	22.4	25.3
Leicester	→	1,090	23.8	22.5	25.0
Lincolnshire	↑	1,490	22.2	21.2	23.2
Derbyshire	→	1,005	19.7*	18.6	20.8
Nottinghamshire	↑	1,260	19.2	18.3	20.2
Northamptonshire	→	755	18.5*	17.4	19.7
Leicestershire	→	1,160	17.6	16.7	18.5
Rutland	→	40	12.5	9.6	16.9

Source: NHS Digital, National Child Measurement Programme

Screenshot of webpage

<http://fingertips.phe.org.uk/profile/national-child-measurement-programme>

Obesity Profile

[NCMP prevalence data](#)[NCMP data quality](#)**[NCMP small area data](#)**[Adult prevalence data](#)[Contextual indicators](#)

[Overview](#) [Compare indicators](#) [Map](#) [Trends](#) [Compare areas](#) [Area profiles](#) [Inequalities](#) [England](#) [Box plots](#) [Reports](#) [Definitions](#) [Download](#)

Area type: Areas grouped by: Benchmark:

Area: District & UA (pre 4/19):

[Search for an area](#) [Filter indicators](#)

[Hide legend](#)

* a note is attached to the value, hover over to see more details

Compared with benchmark: Better Similar Worse Not comparedRecent trends: — Could not be calculated → No significant change ↑ Increasing / Getting worse ↑ Increasing / Getting better ↓ Decreasing / Getting worse ↓ Decreasing / Getting better ↑ Increasing ↓ DecreasingDisplay [Values](#) [Trends](#) [Values & Trends](#) [Export table as image](#) [Export table as CSV file](#)

Indicator	Period		England	Reading	Abbey	Battle	Caversham	Church	Katesgrove	Kentwood	Mapledurham	Minster	Norcot	Park	Peppard	Redlands	Southcote	Thames	Tilthurst	Whitley
Obese children Reception Year, three year average	2017/18 - 19/20	◀▶	9.7	9.8*	7.1*	10.3*	6.9	12.1*	9.1	10.7*	*	9.6	12.5*	9.5*	6.8	10.8*	10.9	7.1	8.1*	11.6*
Children with excess weight Reception Year, three year average	2017/18 - 19/20	◀▶	22.6	22.3*	17.1*	23.0*	19.4	25.9*	21.8	23.2*	12.5	23.3	27.3*	22.2*	16.9	24.3*	26.6	17.1	22.6*	25.6*
Obese children Year 6, three year average	2017/18 - 19/20	◀▶	20.4	20.5	25.9	23.5	19.4	22.9	20.3	18.2	*	24.6	22.1	20.8	16.2	23.9	20.6	10.0	17.6	27.4
Children with excess weight Year 6, three year average	2017/18 - 19/20	◀▶	34.6	34.9	41.4	39.5	35.5	35.7	33.9	33.8	11.8	38.5	39.5	32.5	29.4	32.6	33.8	23.3	31.5	44.2

Screenshot of webpage

<http://fingertips.phe.org.uk/profile/national-child-measurement-programme>



Health Survey for England (HSE)

<https://digital.nhs.uk/data-and-information/areas-of-interest/public-health/health-survey-for-england-health-social-care-and-lifestyles>

The HSE is a random cross-sectional survey which samples a representative proportion of the population to monitor trends in the nation's health and care. It provides information about adults aged 16 and over, and children aged 0 to 15, living in private households in England. The survey consists of an interview, followed by a visit from a nurse.

National Child Measurement Programme (NCMP)

<https://digital.nhs.uk/services/national-child-measurement-programme/>

The NCMP is an annual programme that measures the height and weight of children in Reception (aged 4-5 years) and Year 6 (aged 10-11 years) in England. Although the NCMP only covers certain age groups, in a typical measurement year it includes the majority of children in those year groups.



Useful resources

NCMP trends report:

<https://www.gov.uk/government/statistics/national-child-measurement-programme-ncmp-trends-in-child-bmi-between-2006-to-2007-and-2018-to-2019>

Obesity Profile:

<http://fingertips.phe.org.uk/profile/national-child-measurement-programme>

NCMP regional slide sets:

<https://www.gov.uk/government/publications/child-obesity-patterns-and-trends>

NCMP Guidance for Analysis and Data Sharing:

<https://www.gov.uk/government/publications/national-child-measurement-programme-data-sharing-and-analysis>



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For more information:

PHE Web:

<https://www.gov.uk/guidance/phe-data-and-analysis-tools#obesity-diet-and-physical-activity>

PHE Obesity Intelligence Knowledge Hub public library (no need to join):

<https://khub.net/web/phe-obesity-intelligence/public-library>

PHE Obesity Intelligence Knowledge Hub:

Register on <https://khub.net/> and join the PHE Obesity Intelligence group

Email: ncmp@phe.gov.uk

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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