

## Childhood Obesity

### Introduction

Obesity in childhood is a significant public health issue, obese children are likely to go on to be obese adults at significant risk of cardiovascular disease and diabetes. There is a strong case for early intervention in promoting healthy weight in children because evidence shows future lifestyles are determined by early life experiences – our food preferences, activity levels and leisure activities as adults are all influenced by parenting and the home environment in the first years of life.<sup>1</sup>

### Summary

Norfolk does not have unusually high levels of childhood obesity compared to the rest of the county, but that still means that 1 in 4 children are overweight when they start primary school, rising to 1 in 3 by the time they move up into secondary school. A multi-agency approach is required by universal services (such as children's centres and schools) to support children, parents and families to maintain a healthy weight. Specialist services are available to overweight children, and these must be appropriately targeted.

### Headlines

Every year all Reception Class and Year 6 children (age five/six and ten/eleven) have their height and weight measured under the National Child Measurement Programme (NCMP). This is carried out by the School Nursing Service in Norfolk (provided by Cambridgeshire Community Health Services NHS trust) with all measurements done by trained health professionals. Last year (2017/18), 96% of eligible children were measured, which demonstrates the reliability of this data.

Data from the National Child Measurement Programme (NCMP) is used to track trends in childhood weight and identify areas with higher need of services aimed at encouraging healthy weight. The latest data from 2017/18 for Norfolk shows:

- 23% of reception class children are overweight or obese (9.3% are obese, 2.1% severely obese). This is similar than the national average where 22% were overweight (9.5% obese, 2.4% severely obese).
- 33% of Year 6 children are overweight or obese (18% are obese, 3.5% severely obese). This is statistically significantly better than the national average where 34% are overweight or obese (20% obese, 4.2% severely obese).<sup>2</sup>

See Figure 1 below.

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<sup>1</sup> Rudolf, M (2010) Tackling Obesity through the Healthy Child Programme: A framework for action. National Obesity Observatory.

<sup>2</sup> NCMP data is available for Norfolk and the seven Local Authority Districts in the Public Health England data visualisation tool

<https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/1/gid/8000011/pat/6/par/E12000006/ati/102/are/E10000020>

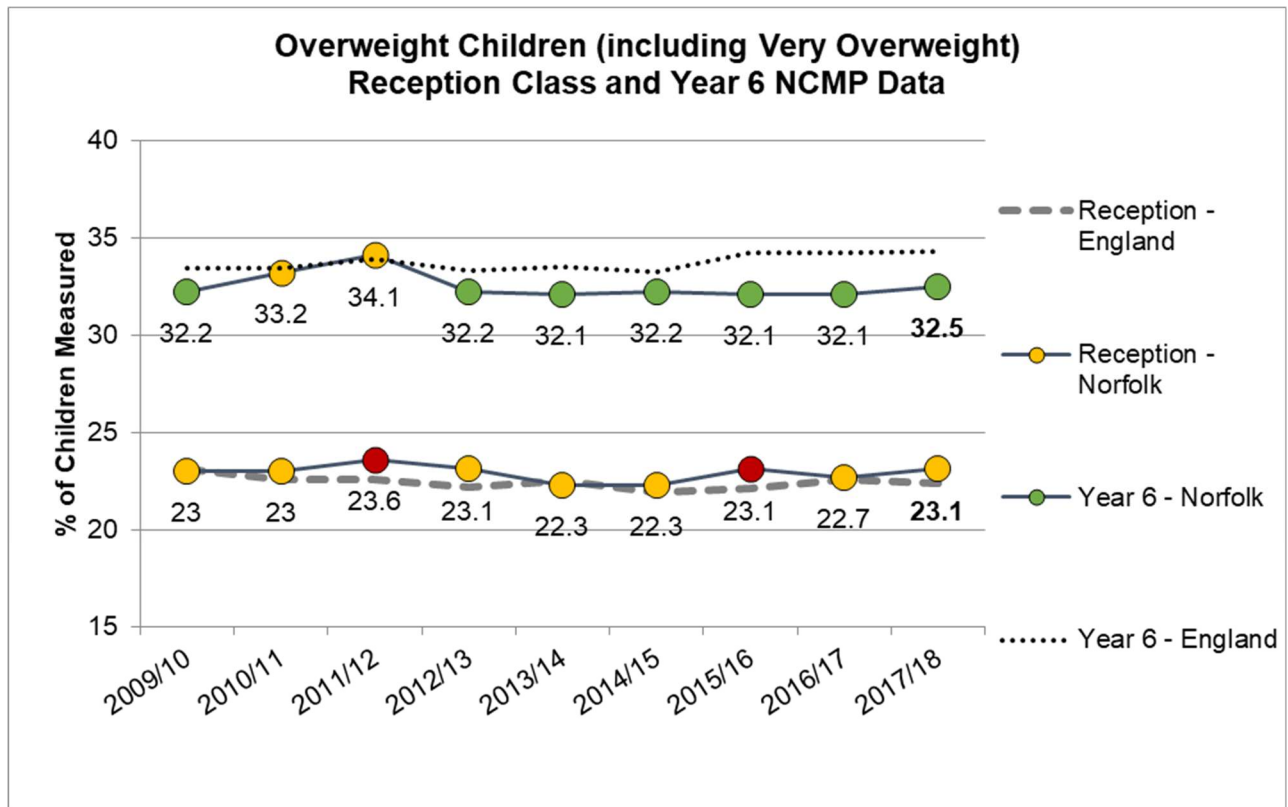


Figure 1: Percentage of Reception class and Year 6 children measured as overweight and very overweight. Note – data point is coloured red if statistically significantly worse than the National average, yellow if no difference and green if statistically significantly better than national average.

The NCMP has been in operation for twelve years. Generally for children aged four/five the percentage with excess weight in Norfolk is in line with the national average, apart from a small peak in 2011/12 and in the most recent year 2015/16. For children aged ten/eleven there was also a peak in 2011/12 where 34% were obese, but this reduced again and has remained steady in the six years 2012/13 to 2017/18, and remained just below the national average (see Figure 1).<sup>3</sup>

## Influences on Health and Wellbeing

Obesity in childhood is a significant public health issue as it is linked to adult obesity, which is a major cause of cardiovascular disease and diabetes. Overall, being obese doubles an individual's the risk of dying prematurely. The health consequences of childhood obesity include: increased blood lipids, glucose intolerance, Type 2 diabetes, hypertension, increases in liver enzymes associated with fatty liver. Being overweight can exacerbate conditions such as asthma and cause psychological problems including social isolation, low self-esteem, teasing and bullying.<sup>4</sup>

Obesity has a significant economic impact as well. The Government spends more each year on the treatment of obesity and diabetes than on the police, fire service and judicial system combined.<sup>5</sup>

Obesity is a complex problem with many drivers, including our behaviour, environment, genetics and culture. However, at its root obesity is caused by an energy imbalance: taking in more energy through food than we use through activity. Physical activity is associated with numerous health benefits for children, such as muscle and bone strength, health and fitness, improved quality of sleep and maintenance of a healthy weight. There is also evidence that physical activity and participating in organised sports and after school clubs is linked to improved academic performance.<sup>6</sup>

<sup>3</sup> Public Health England data visualisation tool <https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/1/gid/8000011/pat/6/par/E12000006/ati/102/are/E10000020>

<sup>4</sup> As above

<sup>5</sup> HM Government (2016) Childhood Obesity: A Plan for Action

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/546588/Childhood\\_obesity\\_2016\\_2\\_acc.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/546588/Childhood_obesity_2016_2_acc.pdf)

<sup>6</sup> As above

## Social, environmental, population context

Importantly childhood obesity represents a significant health inequality as there are higher rates amongst children in disadvantaged areas. In Norfolk 26% of Reception age children living in deprived areas were overweight, compared to only 19% in the least deprived areas. For Year 6 age children 37% of the most deprived children were overweight and only 27% of those living in the least deprived areas (see Figure 3).

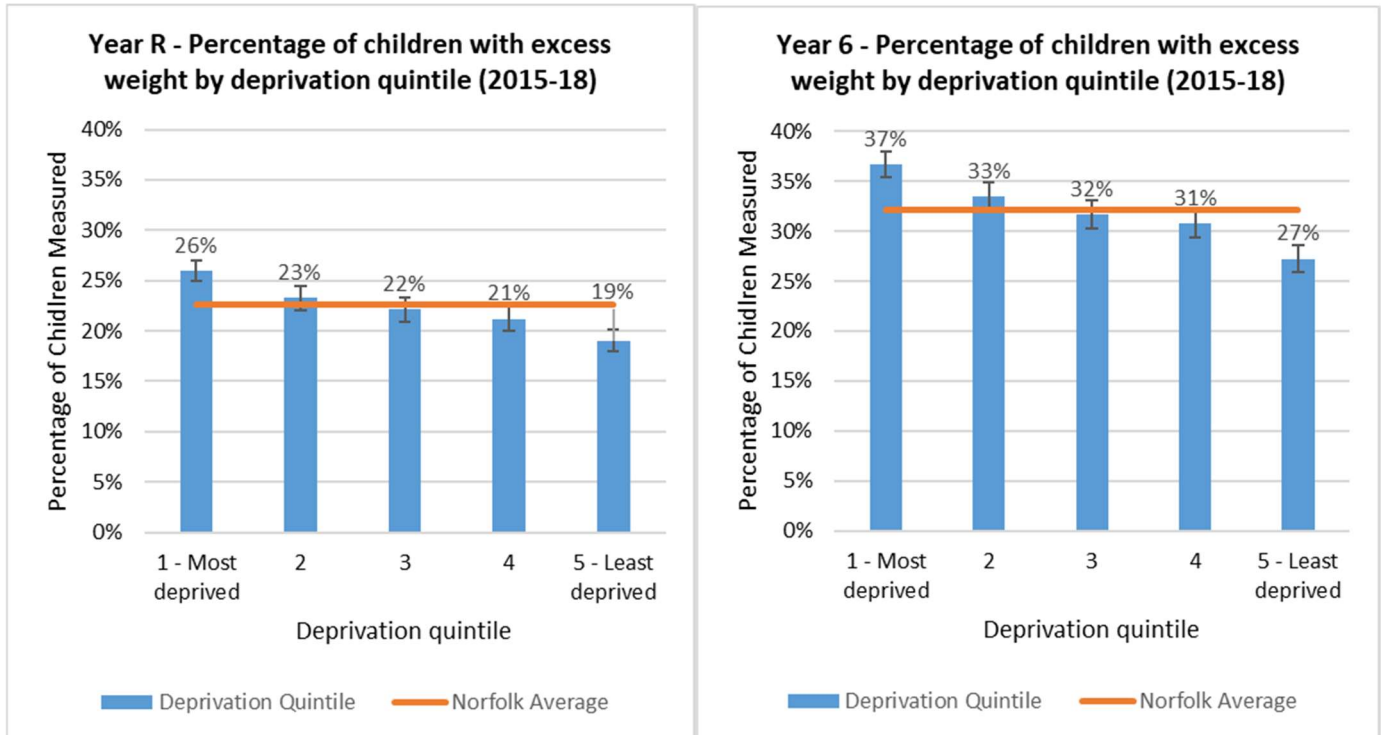


Figure 3: Percentage of children who are overweight or very overweight by deprivation based on home address of the child (Indices of Multiple Deprivation 2015 - local quintiles) using there years of NCMP data 2015-18.

There are associations between an overweight mother-to-be, her child's birth weight and the child's later risk of obesity. Maternal obesity is the single biggest predictor of being born large for gestational age. In turn, these babies have a 2 to 5-fold higher risk of obesity in childhood. Maternal obesity is more common in deprived and vulnerable groups. There is growing evidence that obesity is associated with increased morbidity and mortality for both mother and baby. Being overweight influences and reinforces health inequalities – an obese child is more likely to become an obese adult, continuing the vicious cycle of health inequality down the generations.

## Current services, local plans and strategies

The rising trend of obesity has been acknowledged as one of the most serious public health problems in the UK. Consequently, there are a number of strategies and policies aimed at addressing the issue. One element is the social marketing programme 'Change4Life', which promotes healthy eating and physical activity, with messages specifically aimed at parents and offers free child-friendly activity packs. It also includes Start4Life, which is aimed at pregnant women.<sup>7</sup>

Lots of organisations like children's centres, other early years settings (nursery, childminders, pre-school), and schools have a role to play in teaching children and their family about how to maintain a healthy weight and to promote good habits early in life.

The Norfolk 0-19 years Healthy Child Programme outlines a focus on the early identification and prevention of obesity in children by ensuring that all families are given guidance at appropriate times by Health Visitors and School Nurses.<sup>8</sup> Children are identified at key assessment stages when children are seen by health visitors or

<sup>7</sup> For more information on Change4Life see: <http://www.nhs.uk/change4life/Pages/change-for-life.aspx>

<sup>8</sup> Department of Health (2009) Healthy Child Programme: Pregnancy and the first five years of life.

Department of Health (2009) Healthy Child Programme: From 5 to 19 years old.

school nurses. Those families whose children who are identified as not being a healthy weight, including underweight, overweight and obese are offered support through the #Norfolkcan team (which includes Healthy Lifestyle Coaches).

Following measurement under the National Child Measurement Programme, parents receive a feedback letter detailing their child height and weight and what weight category this translates to. Where a child is overweight or obese, parents are contacted by telephone and offered information about healthy eating and physical activity. The Healthy Lifestyle Coaches will want to learn more about your child's lifestyle and offer support if it's needed.<sup>9</sup>

You can contact the Healthy Child Programme by calling **Just One Number on 0300 300 0123** or texting **Parentline on 07520631590**. Our opening hours are 8am-6pm Monday-Friday (excluding bank holidays) and 9am-1pm on Saturdays. The team includes Healthy Lifestyle Coaches and Champions who can offer support. 11-19 year olds can text **Chathealth** on **07480635060** for confidential advice. Lots more hints and tips to maintain a healthy weight can be found at [www.justonenorfolk.nhs.uk](http://www.justonenorfolk.nhs.uk)

For children who are very overweight children and require intensive interventions, there are specialist services provided via the Norwich and Norfolk University Hospital (NNUH) and James Paget University Hospital (JPUH).

## Considerations for HWB and commissioner

A healthy weight is maintained through a healthy diet and physical activity. The guidance on maternal and child nutrition advises:

- Promote the Healthy Start scheme (providing vitamins and healthy foods to vulnerable families with young children)
- Promote breastfeeding, offer parents and carers who feed with formula appropriate and tailored advice on safe feeding and advise that weaning should be delayed until the baby is six months old
- Children should be encouraged to eat a healthy, varied and balanced diet, with an emphasis on appropriate portion size and mealtime routines.<sup>10</sup>

The guidance on physical activity for children is:

- *Infants* who are not yet walking should be encouraged to be physically active, particularly through floor-based play and water based activities in safe environments
- *Toddlers and pre-school children* should be physically active for at least three hours every day
- *Children and young people aged 5-18* should engage in moderate to vigorous intensity physical activity for at least 60 minutes and up to several hours every day. Vigorous intensity activities, including those that strengthen muscle and bone, should be incorporated at least three days a week
- All children should minimise the amount of time spent being sedentary for extended periods.<sup>11</sup>

In addition evidence suggests there is an association between the time spent outside by children and their level of physical activity; therefore the development of safe outdoor play spaces for children should be addressed at a community level.<sup>12</sup>

There is strong evidence to suggest that programmes which are aimed at the parents (with the children or not) do have a significant impact on childhood obesity. This is because the behaviour of the parent and their lifestyle has a huge impact on the children, and also their parenting style and approach to feeding the child. Therefore commissioning of, and referral to, healthy weight services aimed at adults is also important.

<sup>9</sup> For more information: <https://www.justonenorfolk.nhs.uk/healthylifestyles/live-well/healthy-weight>

<sup>10</sup> NICE (2008) Maternal and child nutrition. NICE Public Health Guidance 11.

<sup>11</sup> Department of Health (2011) Physical Activity Guidelines for Early Years (under 5s) and Children and Young People Aged 5-18 years

<sup>12</sup> Rudolf, M (2010) Tackling Obesity through the Healthy Child Programme: A framework for action. National Obesity Observatory.

Furthermore general parenting education programmes aimed at helping parents to adopt general positive parenting approaches have been shown to promote healthy weight alongside numerous other benefits.<sup>13</sup>

Specialist weight management services need to be accessible to all overweight children but consideration should be given to targeting services to the areas of greatest need. These services must be well promoted as although there is a significant *need* for children's weight management services nationally (given the high prevalence of childhood obesity), the *demand* for services appears low, with some of these schemes struggling to fill places, which needs to be taken into account when developing service provision.

## References and information

HM Government - Childhood Obesity: A plan for action

<https://www.gov.uk/government/publications/childhood-obesity-a-plan-for-action>

National Obesity Observatory (NOO)

<http://www.noo.org.uk/>

NCMP Local Authority Profiles

(View for Norfolk total and each of the seven districts by changing 'Area Type')

<http://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#qid/8000011/pat/6/ati/102/page/0/par/E12000006/are/E10000020>

Children and Young People's Health Services Norfolk – Healthy Lifestyles

<https://www.justonenorfolk.nhs.uk/healthylifestyles>

## Author and key contacts

Claire Gummerson, Public Health Information Officer, Norfolk County Council

[Claire.gummerson@norfolk.gov.uk](mailto:Claire.gummerson@norfolk.gov.uk)

Online feedback:

Send us your query or feedback online using our online feedback form at

<http://www.norfolkinsight.org.uk/feedback>

Email: [JSNA@norfolk.gov.uk](mailto:JSNA@norfolk.gov.uk)

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<sup>13</sup> Rudolf, M (2010) Tackling Obesity through the Healthy Child Programme: A framework for action. National Obesity Observatory.