Excess weight in children, young people and adults.

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Executive summary

Introduction

The terms overweight and obesity (together referred to as excess weight) refers to when weight gain, in the form of fat, has reached a point which affects a person's health (WHO, 2014).

Excess weight is a major risk factor for non-communicable diseases such as type 2 diabetes, hypertension (high blood pressure), and hyperlipidaemia (high levels of fats in the blood that can lead to narrowing and blockages of blood vessels), which are major risk factors for cardiovascular disease and related mortality (WHO, 2014, NAO, 2001). It is the third largest biggest contributor to disability-adjusted life years (DALYs) the number of "healthy years" lost due to ill health, disability or early death in England (Newton J et al, 2015). Being obese can reduce life expectancy by 10 years (NOO, 2010).

Income and deprivation are important social factors in the likelihood of excess weight (Marmot M, 2010). As well as the impact on the health and wellbeing of individuals excess weight places a national financial burden in term of health and social care costs, on employers through lost productivity and on families because of the increasing burden on long-term chronic disability (Butland, 2007).

Over a fifth of Nottinghamshire children aged 4-5 years old and a third of 10-11 year olds are overweight or obese with this increasing to two thirds of the adult population. Four in ten pregnant women are estimated to be overweight or obese with nearly two in ten being obese. Rushcliffe has the lowest levels of excess weight in children and adults. The number of children who are overweight or obese is expected to increase by 5% between 2015-2019 and in adults by 4% over the same period. Morbid obesity in adults is expected to increase by 16% during this same period.

This needs assessment takes a life-course approach to preventing and managing excess weight. Physical activity and diet/nutrition are considered in separate chapters.

Unmet need and gaps

Since the last JSNA refresh in 2012 there is an integrated Tier 1, 2 and 3 obesity prevention and weight management pathway in place. Over the next few years demand for the service will be monitored to identify if there are any unmet needs. Due to the likely increase in those who are morbidly obese, it is anticipated that the demand for Tier 3 service may increase.

It is also identified that there is a need to strengthen local assets to ensure that obesity is being tackled as effectively as possible within available resources. This includes utilising the impact that the wider public health workforce and different professional groups are able to provide, particularly working with planning colleagues.

Recommendations for consideration by commissioners

Recommendations		Lead
Strategy and integrated commissioning		
1.	Work with partners across the system to ensure there is no duplication or gaps in obesity prevention and weight management service provision targeting areas and groups with the highest levels of excess weight to maximise health outcomes, monitoring uptake by protected groups.	Public Health, District/Borough Councils, Clinical Commissioning Groups and NHS England.
2.	Review recommendations made in the national childhood obesity strategy and consider how to implement them locally.	Public Health
Social marketing		
3.	Continue to promote the Change4Life social marketing programme to improve diet, physical activity and support obesity prevention in children across Nottinghamshire Districts	Nottinghamshire County Council and District/Borough Councils
Public Health Intelligence and data improvement		
4.	Utilise the Maternity dataset to provide local data on the BMI of pregnant women to support the development of appropriate services for this population group.	Public Health
5.	Identify why children or their parent/carer opt out of the NCMP and consider ways to engage effectively to improve participation rates.	Public Health
6.	Understand how obesity tracks through childhood, identifying if it is possible to undertake a longitudinal analysis of local NCMP data.	Public Health
7.	Consider how to obtain local data on prevalence of excess weight for children and young people with learning disabilities and looked after children.	Public Health
8.	Utilise data from Health Checks to provide information about prevalence of obesity in adults and access to local weight management services.	Public Health
9.	Influence GP practices to maintain an accurate obesity register.	NHS England/ Clinical Commissioning Groups
Prevention		
10.	Ensure that healthy weight remains a priority for the commissioning of services for 0-19 age group.	Public Health (Children's Integrated Commissioning Hub)

11.	Develop closer working relationships between planners and public health professionals to ensure that planning supports and encourages physical activity and access to affordable healthy food tackling the obesity promoting environment.	Planning and Public Health
Service quality and accessibility		
13	Undertake an audit of progress locally against the NICE quality standards relating to weight management services, to benchmark and identify areas where improvements are needed.	Public Health
14	Continue to build the capability of the workforce to ensure that health and care professionals are clear about promoting the benefits of a healthy weight so that they have healthy conversations (making every contact count) with their patients and service users sensitively raising the issue with those who are overweight or obese, signposting to weight management services.	Public Health
15	Implement the maternal obesity pathway so that service provision is equitable for women across the county.	Public Health
16	Encourage primary care to proactively manage those on the obesity register signposting as appropriate to local weight management services.	Clinical Commissioning Groups / Public Health
17	Within the first year of the new obesity prevention and weight management contract, agree the how the outcomes will be measured and obtain baseline data to help inform performance targets for the following year.	Public Health
18	During the second year of the obesity prevention and weight management service undertake a service review to ensure it is accessed equitably, meeting the needs of the local population and cost effective.	Public Health

Full JSNA report

What do we know?

1) Who is at risk and why?

The terms overweight and obesity (together known as excess weight) refers to when weight gain, in the form of fat, has reached a point which affects a person's health. It is important to maintain weight in a healthy range (rather than having a weight that is too high or too low) (WHO, 2014).

Defining obesity – children and young people

Population - The National Child Measurement Programme (NCMP)

The National Child Measurement Programme (NCMP) established in 2005 involves the annual weighing and measuring of all eligible children in reception (aged 4-5 years) and Year 6 (aged 10-11 years). It has two key purposes:

- To provide surveillance data on the weight status of children
- To provide parents/carers with feedback on their child's weight status and information with regard to where they can access support and advice.

The following thresholds are used to define underweight, healthy weight, overweight and obese in children (NOO, 2011):

- **Underweight** – BMI less than or equal to the 2nd centile
- **Healthy weight** – BMI greater than the 2nd centile but less than the 85th centile
- **Overweight** – BMI greater than or equal to the 85th centile but less than the 95th centile
- **Obese** – BMI greater than or equal to the 95th centile.

There is no agreed standard definition for severe childhood obesity. Those defined as severely obese are those falling on or above the 99.6th centile, which is the highest line marked on the UK 1990 growth reference charts (Rutter, H 2014).

Defining obesity - adults

In adults both men and women aged 18 and over there are two main methods of assessing weight and its impact on health: Body Mass Index (BMI) and waist circumference (NICE, 2014). Body Mass Index (BMI) is the best way to measure the prevalence of obesity and is defined as weight in kilograms divided by the square if the height in metres (kg/m2). NICE (2014) recommends that BMI be used to classify the degree of obesity. Excess weight in adults is described as having a BMI over 25 (Table 1).

Table 1: Adult Body Mass Index ranges and definitions

Definition	BMI range (kg/m^2)
Underweight	Under 18.5
Normal	18.5 to less than 25
Overweight	25 to less than 30
Obese	30 to less than 40
Obese I	30 to less than 35
Obese II	35 to less than 40
Morbidly obese	40 and over
Excess weight (Overweight, obese & morbidly obese)	25 and over
Obese including morbidly obese	30 and over

Source: NICE (2014) Available from: https://www.nice.org.uk/guidance/cg189

BMI is not always an accurate measure of body fat and/or fat distribution. This is particularly the case in muscular individuals (NOO, 2009).

Asian and other minority ethnic groups are at higher risk of type 2 diabetes, other health conditions or mortality at equivalent BMI levels. For Asian (South Asian and Chinese), black African and African-Caribbean populations NICE (2013) recommends that lower thresholds (23kg/m^2 to indicate increased risk and 27.5kg/m^2 to indicate high risk) be used to trigger action to prevent type 2 diabetes.

Waist circumference is used to assess abdominal fat mass or central fat distribution (Table 2). These are linked to a higher risk of diseases such as Type 2 diabetes and coronary heart disease. Table 2 shows how the thresholds very between gender and ethnicity (NICE, 2013).

Table 2: Waist Circumference thresholds as a measure of central obesity with increased health risk[1]

European	Men	≥ 94cm (37 inches)
	Women	≥ 80cm (31.5 inches)
South Asians, Chinese, Japanese, ethnic south and central Americans	Men	≥ 90cm (35 inches)
	Women	≥ 80cm (31.5 inches)
Sub-Saharan Africans, Eastern Mediterranean and middle east (Arab) populations	Use European data until more specific data are available	

Source: NICE (2013) Assessing body mass index and waist circumference thresholds for intervening to prevent ill health and premature death among adults from black, Asian and other minority ethnic groups in the UK. PH46 http://guidance.nice.org.uk/PH46

NICE (2014) recommend a combination of BMI waist circumference to assess increased health risks from obesity in individuals with a BMI of less than 35kg/m^2 (Table 3). Health risks are very high for those with a BMI of 35kg/m^2 or more regardless of waist circumference (NICE, 2014).

Table 3: Health risk based on BMI and waist circumference.

BMI classification	**Waist circumference**		
	Low	High	Very high
Normal weight	No increased risk	No increased risk	Increased risk
Overweight (BMI 25 to less than 30)	No increased risk	Increased risk	High risk
Obesity 1 (BMI 30 to less than 35)	Increased risk	High risk	Very high risk

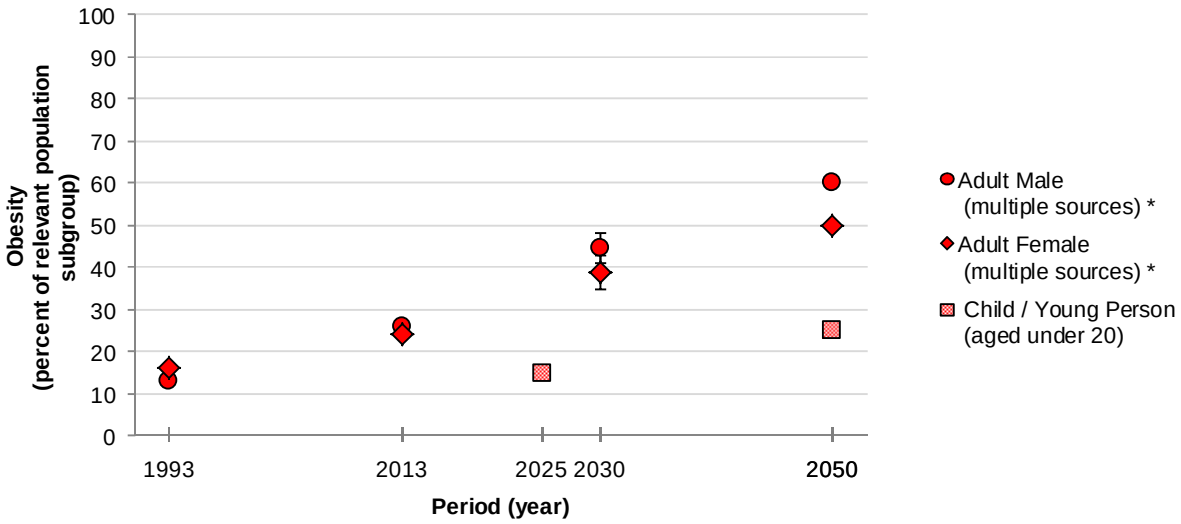
Source: NICE (2014) Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children CG189. Available from: https://www.nice.org.uk/guidance/cg189

Who is at risk?

The Health Survey for England 2013 shows that there has been a steady increase in obesity in children since 1995 when 11 per cent of boys and 12 per cent of girls aged 2-15 were obese up to around 2004 and 2005, when it peaked at 18% and 19% for boys and girls respectively, but levels have been slightly lower since then (HSCIC 2015). Nationally 16% of boys and 15% of girls aged 2-15 are obese and there has not been a statistically significant difference over the last four years. Among children aged 11-15, the proportion who were obese has remained broadly similar since the peak in 2004/2005. Among those aged 2-10 the proportion that were

obese has decreased significantly from 17% for both boys and girls to 13% of boys and 12% of girls (HSCIC 2015).

Figure 1: Trends in obesity for adults and children in England: 1993 to 2013 survey results and forecasts from 2025 and beyond



** Multiple sources:*

- *HSCIC HSE 2013 (2014), Health Survey for England Trend tables 2013, (data points 1993 and 2013, Adults aged 16 and over)*
- *Wang, Y. C. et. al (2011)Projected Obesity Trends (data points 2010 and 2030, Adults aged 16 and over, Obese)*
- *Butland, B. et al. (2007), Foresight report, (data points 2050, Adults aged 21-60, obese) and (data points 2004, 2025, 2050, Children aged under 20, obese)*

Obesity prevalence has remained higher for women prior to 2012 (Figure 1). The gap has narrowed over time and 2013 is the first year where obesity prevalence amongst men is higher than among women. (HSCIC 2014). Forecasts suggest this trend for adults may continue to 2030 and beyond. By 2050, it is predicted that obesity will affect 60% of males and 50% of females and that 25% of children aged 2-15 will be obese (Figure 1) (Butland B et al., 2007).

The burden of obesity is uneven across our communities, with certain groups being more at risk e.g. lower socio-economic and socially disadvantaged groups, particularly women, children and young people (The Marmot Review 2010, HSCIC 2014, HSCIC 2015). Prevalence of obesity is generally higher in older age groups for both men and women. Across ethnic minority groups, there are also clear variations in prevalence of obesity: women, of Black Caribbean origin are more likely to be obese than the general population, along with women of Black African and Pakistani origin. Men of Irish origin are also more likely than the general population to be obese (Department for Health, 2011).

Other groups of people at risk include: adults and children with physical disabilities (particularly in terms of mobility which makes exercise difficult) (Gatineau M et al 2013; Gatineau M. 2014b); people with learning disabilities and; people diagnosed with a severe and enduring mental illness, particularly schizophrenia or bipolar disease (Gatineau M et al 2013). The prevalence of obesity has been reported to be as high as 55% in those with severe mental illness; physical inactivity, unhealthy diets and weight gain from psychotropic medication are all factors that contribute to this (NICE, 2014).

There are also key life stages when people are more likely to put on weight (Butland B et al., 2007), and include;

- Men in their late 30s
- Women entering long-term relationships
- Women during and after pregnancy
- Women at menopause
- People giving up smoking
- People who retire
- People suffering psychological problems such as stress and depression

Consequences of excess weight (overweight and obesity)

Children

Being overweight or obese in childhood can have an impact on both short and long term physical and mental health.

Children who are overweight and obese are more likely to become obese adults (Whitaker R et al, 1997); and are therefore at higher risk of adult obesity health related risks. Some obesity-related conditions can develop during childhood. Compared with children of healthy weight, children with obesity are at increased risk of diseases including type 2 diabetes (Haines L et al 2007), asthma (Egan K et al 2013), obstructive sleep apnoea (Narang I & Matthew JL, 2012) musculoskeletal problems (Paulis WD et al 2013) and cardiovascular disease (Ice CL et al, 2011; Van Emmerick NMA et al, 2012).

The emotional and psychological effects of being overweight are often seen as the most immediate and most serious by parents and children themselves (Hill A.J. 2005). Severe obesity in children has also been associated with absenteeism and poorer school performance (Schwimmer JB et al. 2003).

Maternal obesity

Obesity in pregnancy is associated with an increased risk of a number of serious adverse outcomes to both mother and infant. These include miscarriage, foetal congenital anomaly, thromboembolism, gestational diabetes, pre-eclampsia, postpartum haemorrhage, wound infections, stillbirth and neonatal death (Centre for Maternal and Child Enquiries 2010). It also increases the likelihood of childhood obesity (Centre for Maternal and Child Enquiries 2010).

Adults

Excess weight can reduce overall quality of life and lead to premature death and the third largest biggest contributor to disability-adjusted life years (DALYs) the number of "healthy years" lost due to ill health, disability or early death in England (Newton J et al, 2015). Raised BMI is a major risk factor for non-communicable diseases such as type 2 diabetes (Gatineau M et. al. 2014a), hypertension (high blood pressure), and hyperlipidaemia (high levels of fats in the blood that can lead to narrowing and blockages of blood vessels), which are major risk factors for cardiovascular disease and related mortality. The extent to which obesity increases the risks of developing a number of diseases relative to the non-obese population is given in Table 4.

Table 4: Relative risk factors for obese people of developing selected diseases, by gender.

England	Numbers	
	Male	Females
Type 2 diabetes	5.2x	12.7x
Hypertension	2.6x	4.2x
Myocardial infarction	1.5x	3.2x
Cancer of the colon	3.0x	2.7x
Angina	1.8x	1.8x
Gall bladder disease	1.8x	1.8x
Ovarian cancer		1.7x
Osteoarthritis	1.9x	1.4x
Stroke	1.3x	1.3x

Source: National Audit Office, NAO 2001

Diabetes

Type 2 diabetes accounts for at least 90% of all cases of diabetes. Being overweight or obese is the main modifiable risk factor for type 2 diabetes. The rising prevalence of obesity will continue to lead to a rise in the prevalence of type 2 diabetes (Gatineau M et. al. 2014a). Currently, 90% of adults with type 2 diabetes are overweight or obese. People with severe obesity are at greater risk of type 2 diabetes than obese people with a lower BMI (Gatineau M et. al. 2014a).

Depression and anxiety

There are bi-directional associations between common mental health problems and obesity, with levels of obesity, gender, age and socioeconomic status being key factors (Gatineau M & Dent M. 2011). Obese individuals face stigma and multiple forms of prejudice and discrimination. Weight bias remains persistent in settings of employment, health care, education, the media and in close interpersonal relationships. Weight bias increases vulnerability to depression, low self-esteem, poor body image, maladaptive eating behaviours and avoidance of exercise (Puhl, R.M. & Heur, C.A. 2009)

Societal impacts

As well as the impact on the health and wellbeing of individuals obesity places a national financial burden in term of health and social care costs, on employers through lost productivity and on families because of the increasing burden on long-term chronic disability (Wang et. al. 2011; Harvey S et al 2010; Butland B. et al. 2007). Obesity is associated with the development of long term health conditions; placing demands on social care services (Ham C et al 2012). The social care requirements of very obese individuals are costly and include housing adaptations and carer provision. Obese people are less likely to be in employment than people of a healthy weight.

Above normal BMI, the relative risk of hospitalisation increases with even small increases in BMI and among women aged 50-84 in England, around one in eight hospital admissions are attributable to overweight or obesity (Reeves G et al 2014). It is estimated that excess weight and related morbidity cost the NHS £4.2billion in 2007 and these costs are predicted to reach £9.7 billion by 2050. Wider total costs to society are estimated to reach £49.9billion by 2050 (Butland B. et al. 2007).

Mortality

Average life expectancy is reduced by two to four years in the BMI range 30–35 kg/m^2 and by eight to ten years in the BMI range 40–50 kg/m^2 This 8-10 year loss of life is equivalent to the

effects of lifelong smoking. (National Obesity Observatory 2010). It is difficult to estimate the number of deaths attributable to obesity each year, but it is likely to be at least 6% (30,000 people) in England, with perhaps a third of these taking place before state retirement age (National Audit Office, 2001).

Benefits of weight loss

Weight loss can improve physical, psychological and social health. Even small changes can have a positive impact on the overall health and wellbeing of individuals by increasing mobility, energy and confidence.

The Scottish Intercollegiate Guideline Network (SIGN 2010) Management of Obesity Guideline advises that weight loss targets for adults should be based on the individual's comorbidities and risks, rather than weight alone.

2) Size of the issue locally

2.1) Children & young people

This section provides an update on the JSNA chapter 'Excess Weight in Children and Young People' 2014 using the 2013/14 National Child Measurement Programme data. The public health outcome indicators relating to childhood obesity are collected through the National Child Measurement Programme. These indicators are:

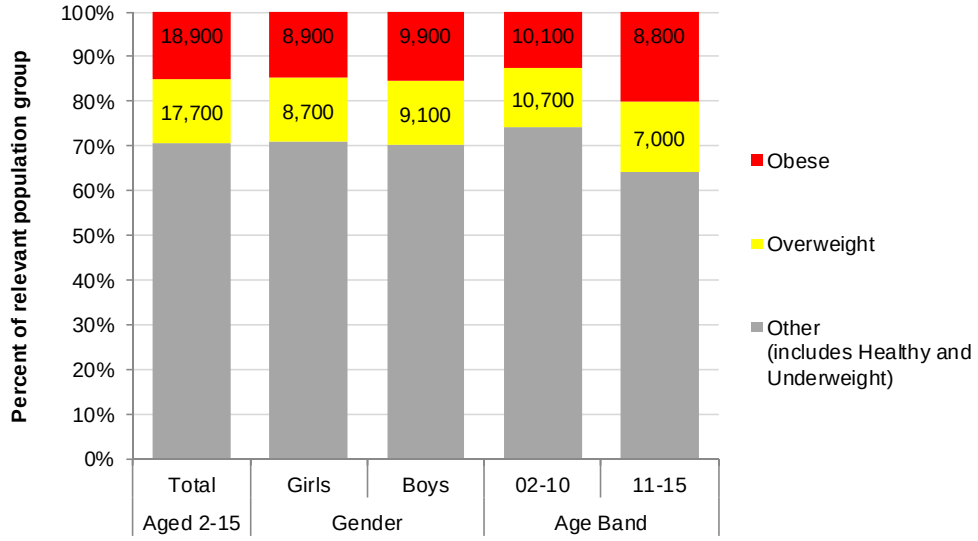
- Indicator 2.06i Percentage of children aged 4-5 as overweight or obese
- Indicator 2.06ii Percentage of children aged 10-11 as overweight or obese

The reader should refer back to the Children and Young People's chapter for more in depth information as well as the annual Nottinghamshire National Child Measurement Programme 2013/14 results report.

Increasing breastfeeding rates could lead to around a 5% reduction in childhood obesity which would save around 1.6 million each year (UNICEF 2012). Information regarding local breastfeeding rates is given in the JSNA chapter on Breastfeeding and Healthy Start.

From Health Survey for England data it is estimated that there are 36,600 children aged 2-15 in Nottinghamshire County that are overweight or obese representing 29% of the population (Figure 2).

Figure 2: Estimated BMI category distribution in Nottinghamshire County population aged 2 to 15. Modelled estimated based on national (age, gender) rates (2013)



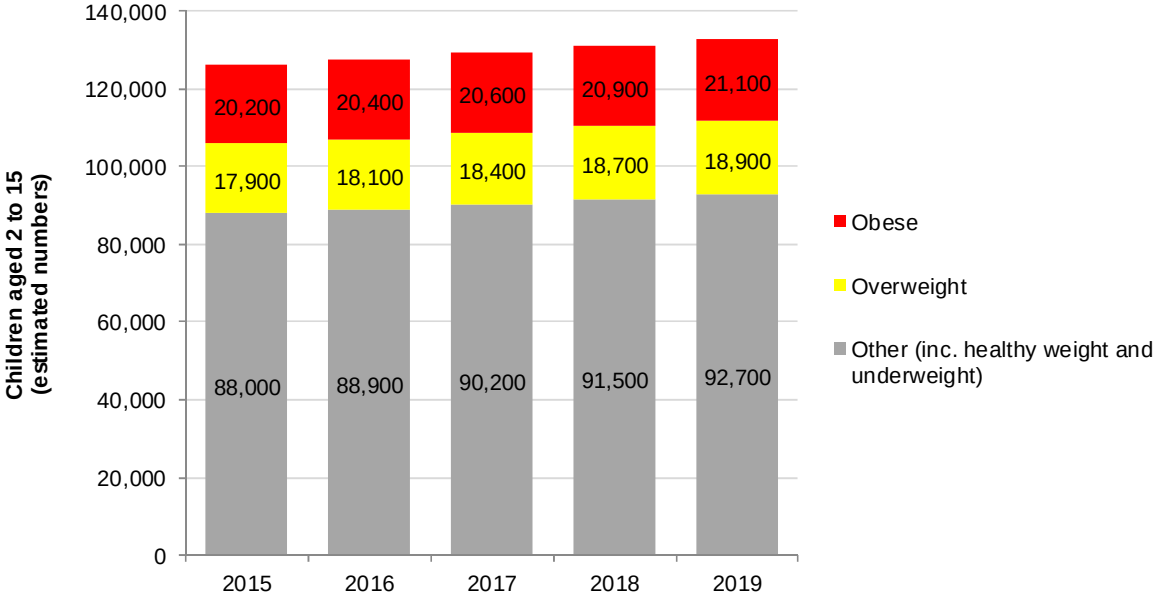
Source: HSE2013 national obesity (Age, Gender) rates for those aged 2-15, ONS Mid-Year population estimates 2013

- More boys than girls are estimated to be overweight or obese (28.8% and 29.6% respectively).
- Excess weight increases with age. The estimated prevalence of overweight or obesity is 35.9% in the 11-15 year age range and 25.6% in the 2-10 year age range.

Trends and projections

Using historic trends in BMI from the Health Survey for England and projected demographic data, estimated numbers and projections for Nottinghamshire County residents aged 2 to 15 between 2015 and 2019 are given in Figure 3:

Figure 3: Estimated numbers and projections for Nottinghamshire County residents aged 2 to 15 between 2015 to 2019

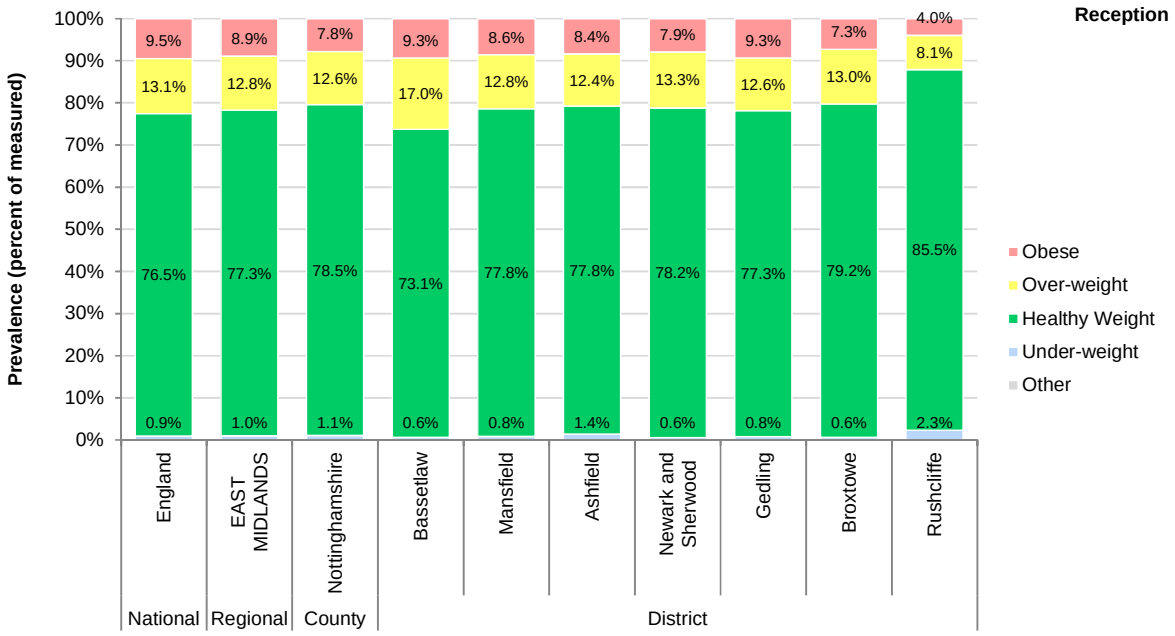


Source: Secondary analysis of HSE trend data 1993-2011 (Forecast Pro Holt exponential projections 2012 to 2019), ONS Sub National Population Projections (2011 based)

- There are estimated to be over 38,000 children (aged 2 to 15) with excess weight in 2015. This is estimated to increase by 5% (12,000) to 40,000 by 2019.

The prevalence of underweight healthy weight, overweight and obesity in Reception and Year 6 for 2013/14 is given in Figures 4 & 5 respectively.

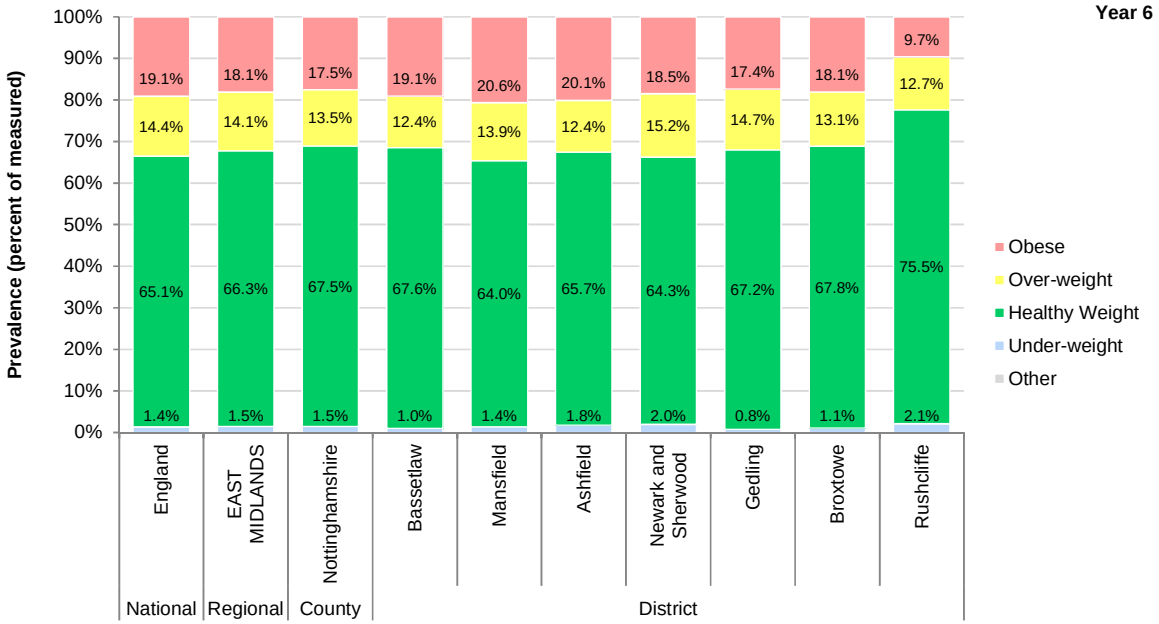
Figure 4: BMI category prevalence by England, Region and Districts for 2013/14: Reception Year (age 4/5)



Source: Health and Social Care Information Centre NCMP annual reports

- In reception, over a fifth (20.4%) of the children measured in Nottinghamshire County were either overweight or obese. This is statistically better than the England figure of 22.5% and statistically similar to the East Midland figure of 21.7%.
- The variation of excess weight (overweight or obesity combined) prevalence for reception across Nottinghamshire districts is more than double between 12.1% for Rushcliffe and 26.3% for Bassetlaw.

Figure 5: BMI category prevalence by England, Region and Districts for 2013/14: Year 6 (age 10/11)

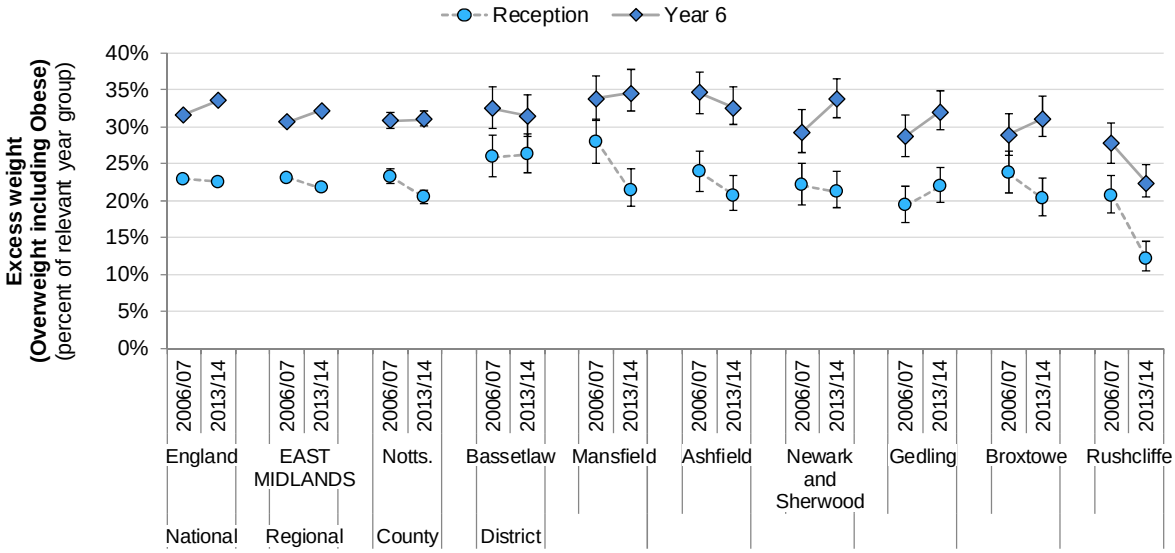


Source: Health and Social Care Information Centre NCMP annual reports

- In year 6, just under a third (31.0%) of the children measured in Nottinghamshire County were either overweight or obese. This is statistically better than the England figure of 33.5% and statistically similar to the East Midland figure of 32.2%.
- The variation of excess weight (overweight or obesity combined) prevalence for year 6 across Nottinghamshire districts is between 22.4% for Rushcliffe to 34.6% for Mansfield.
- The percentage of obese children in year 6 (17.5%) was over double that of Reception year children (7.8%)

The trends in excess weight (overweight and obesity combined) prevalence for reception and year 6 are given in Figures 6.

Figure 6: Trends in excess weight (overweight and obesity combined) prevalence rates by England, Region and Districts for 2006/07 and 2013/14 for Reception (age 4/5) and Year 6 (age 10/11) children



Source: Health and Social Care Information Centre NCMP annual reports, Public Health England Fingertips NCMP profiles

Reception

- For Nottinghamshire County the excess weight (overweight and obesity combined) prevalence rate is **statistically lower** than the England rate
- For Bassetlaw the excess weight (overweight and obesity combined) prevalence rate is **statistically higher** than the England, East Midlands and Nottinghamshire County rates.
- For Rushcliffe the excess weight (overweight and obesity combined) prevalence rate is **statistically lower** than the England, East Midlands and Nottinghamshire County rates in 2013/14
- There has been a **statistically significant decrease** in excess weight (overweight and obesity combined) prevalence rate in reception for England, Nottinghamshire County and Mansfield, Newark & Sherwood and Rushcliffe Districts between 2006/07 and 2013/14.

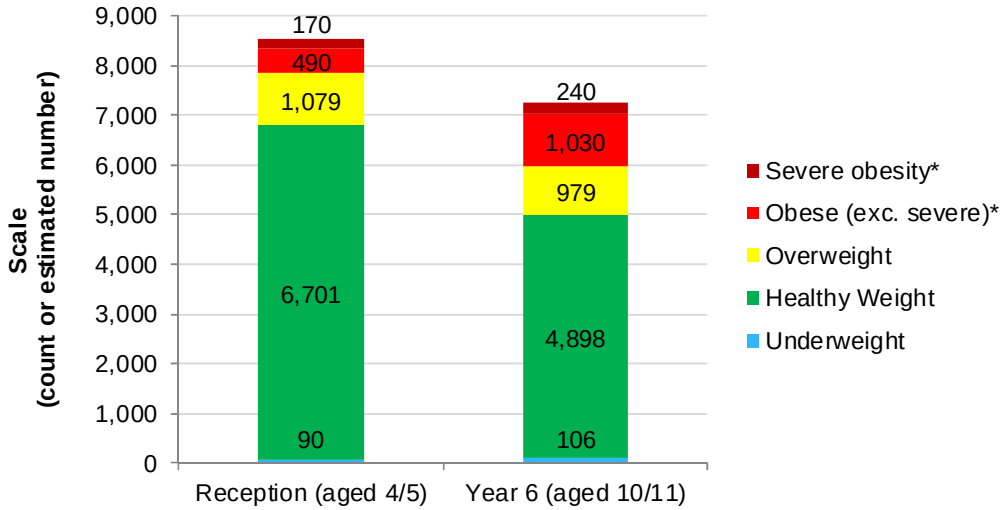
Year 6

- For Nottinghamshire County, the excess weight (overweight and obesity combined) for year 6 is **statistically lower** than the England rate.
- For Rushcliffe, the excess weight (overweight and obesity combined) for year 6 is **statistically lower** than the England, East Midlands and Nottinghamshire County rates.
- For Mansfield, the excess weight (overweight and obesity combined) for year 6 is **statistically higher** than the Nottinghamshire County rate.
- There has been a **statistically significant increase** in excess weight (overweight and obesity) prevalence rate in year 6 for England between 2006/07 and 2013/14.
- For Nottinghamshire County, there has been **no statistically significant change** in excess weight (overweight and obesity combined) prevalence rate in Year 6 between 2006/07 and 2013/14.
- For Bassetlaw and Rushcliffe there has been a **statistically significant decrease** in in excess weight (overweight and obesity) prevalence rate in year 6 between 2006/07 and 2013/14.

Severe obesity

Severe obesity in children is defined as those falling above the 99.6th centile on the UK 1990 growth reference charts. The annual report of the Chief Medical Officer (2012) contains secondary analysis of national NCMP data (2012/13) giving proportions of measured children with severe obesity. These proportions have been applied to local Nottinghamshire County NCMP data to estimate the number of children with severe obesity (Figure 7).

Figure 7: Estimated levels of severe obesity among Nottinghamshire County school children in Reception (aged 4 to 5) and Year 6 (aged 10 to 11) in 2012/13.



** Estimated. Totals may not agree due to rounding. Source: Secondary analysis combining local NCMP 2013/14 data and Adapted from Annual report of the Chief Medical Officer 2012 (containing secondary analysis of national NCMP data 2012/13)*

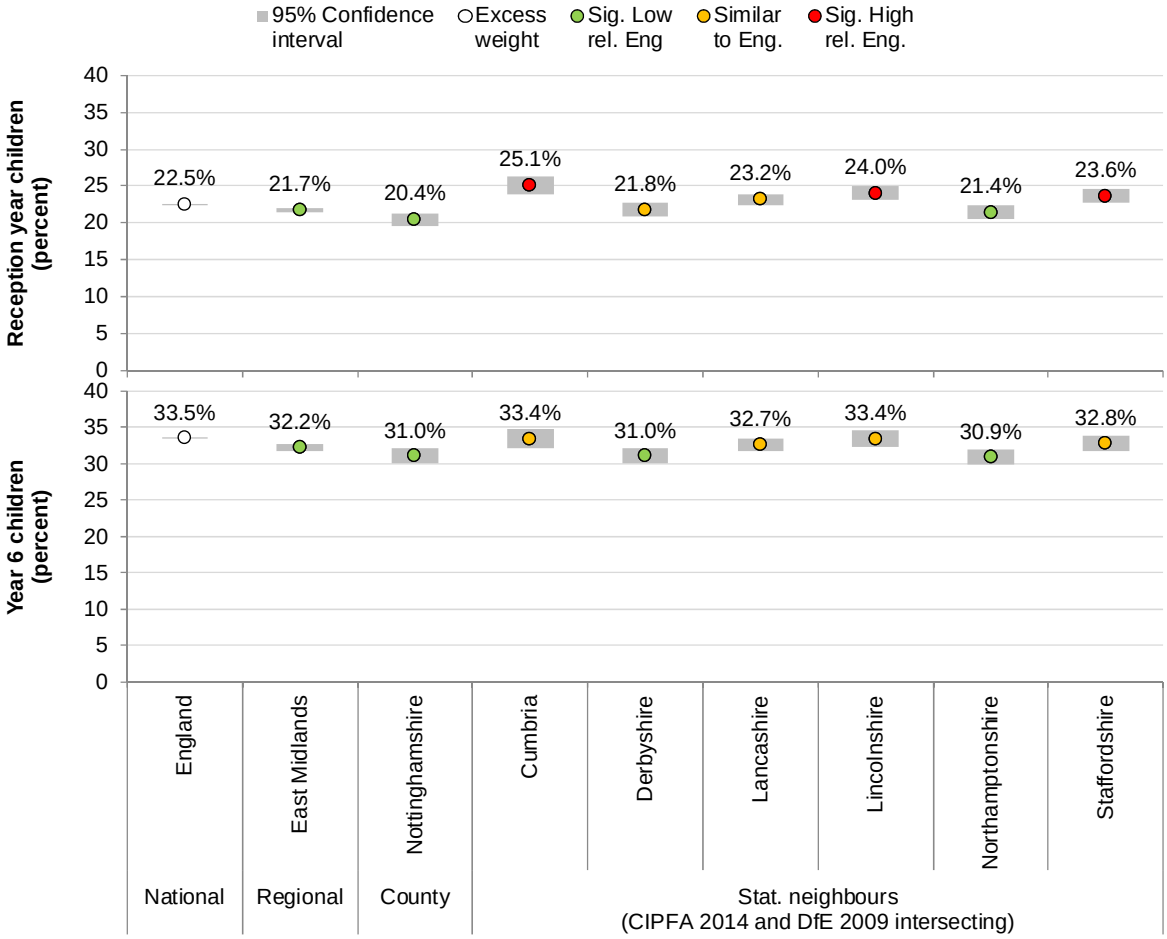
- In Nottinghamshire County there were in 2012/13 estimated to be 170 reception children (aged 4-5) and 240 Year 6 children (aged 10-11) who are severely obese.

There are limitations to this information in that the national trends may not reflect local levels as there may be bias towards higher levels of obesity by those falling in higher weight categories opting out of the scheme. The participation rates in 2013/14 were 92% and 89% of reception and Year 6 aged children both below the national average of 94%. Locally in 2013/14 an additional 157 reception aged children and 451 Year 6 children would have needed to be measured to meet the national average of 94%. The reasons for opting out of the scheme need to be further explored.

Benchmarking to statistical neighbours.

The percentage of reception and year 6 school age children with excess weight in Nottinghamshire County and statistical neighbours[1] is given in Figure 8.

Figure 8: Excess weight in school children in Nottinghamshire County and statistical neighbours[2] 2013/14. Reception (top panel) and Year 6 (bottom panel)



Source: HSCIC NCMP 2013/14 results, accessed via PHE fingertips NCMP tool URL: http://fingertips.phe.org.uk/profile/national-child-measurement-programme/

- Nottinghamshire County has the lowest excess weight prevalence rate of 20.4% for reception year children when compared to its statistical neighbours
- Nottinghamshire County has the joint second lowest excess weight prevalence rate of 31% for year 6 children when compared to its statistical neighbours

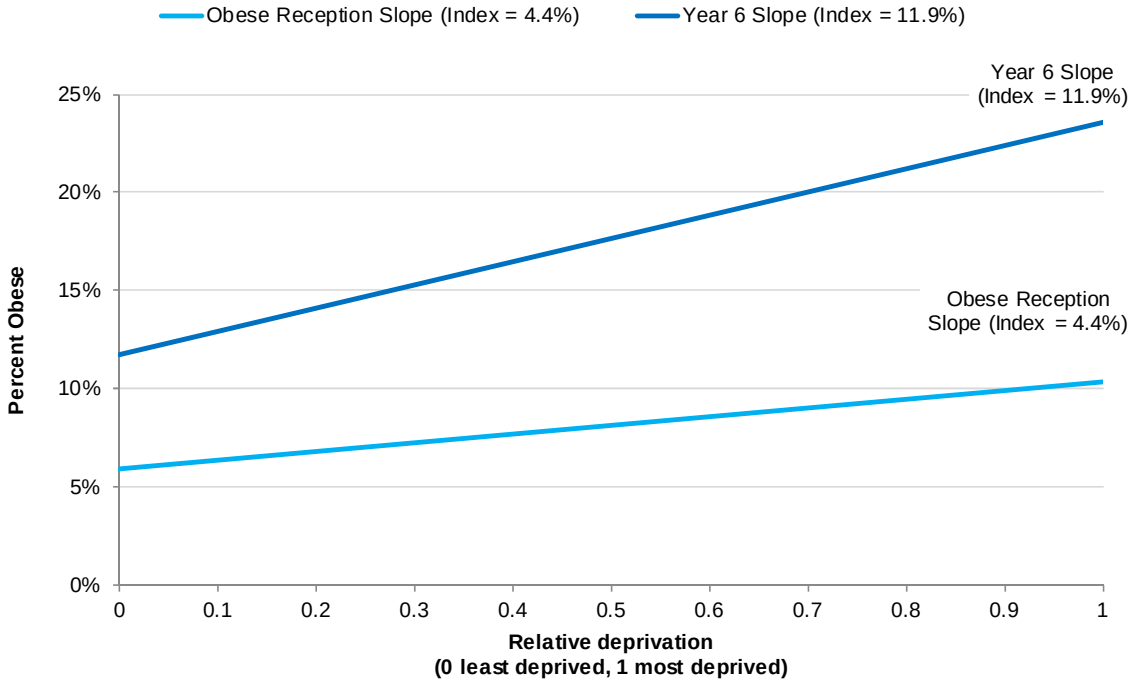
[1] Statistical neighbours have been taken from Chartered Institute of Public Finance & Accountancy (CIPFA) 2014 and Department for Education (DfE) 2009 nearest neighbour reports. CIPFA is relevant for general population but mostly adults, whereas DfE is relevant to children. There is overlap between the two lists and the six that appear in both lists have been used as the statistical neighbour set. These are Cumbria, Derbyshire, Lancashire, Lincolnshire, Northamptonshire and Staffordshire.

[2] Statistical neighbours have been taken from Chartered Institute of Public Finance & Accountancy (CIPFA) 2014 and Department for Education (DfE) 2009 nearest neighbour reports. CIPFA is relevant for general population but mostly adults, whereas DfE is relevant to children. There is overlap between the two lists and the six that appear in both lists have been used as the statistical neighbour set. These are Cumbria, Derbyshire, Lancashire, Lincolnshire, Northamptonshire and Staffordshire.

Slope Index of Inequality

In order to quantify the gap in prevalence of obesity between the most and least disadvantaged areas within Nottinghamshire County, the Slope Index of Inequality (SII) has been calculated. This gives a single score based on the relationship between prevalence of obesity (taken from NCMP data) and deprivation scores across the county. The gradient of the SII 'slope' shows the degree of inequality, with greater inequality shown by a steeper gradient. Figure 9 shows the pooled data from 2011/12 to 2013/14 for obese children in Reception and Year 6 as measured by the NCMP in Nottinghamshire County. For Reception the figure shows that there is a 4.4% difference in obesity rates between reception children who live in the least disadvantaged areas of Nottinghamshire County compared to those that live in the most disadvantaged areas. For Year 6 the difference in 11.9%. These measures will be used locally to determine the extent to which changes in population prevalence are impacting on inequalities. It should be noted that when interpreting results that these may be affected by participation rates.

Figure 9: Slope Index of Inequality for Nottinghamshire County Reception (4/5 year olds) and Year 6 (10/11 year olds) 2011/12 to 2013/14 pooled MSOA level data



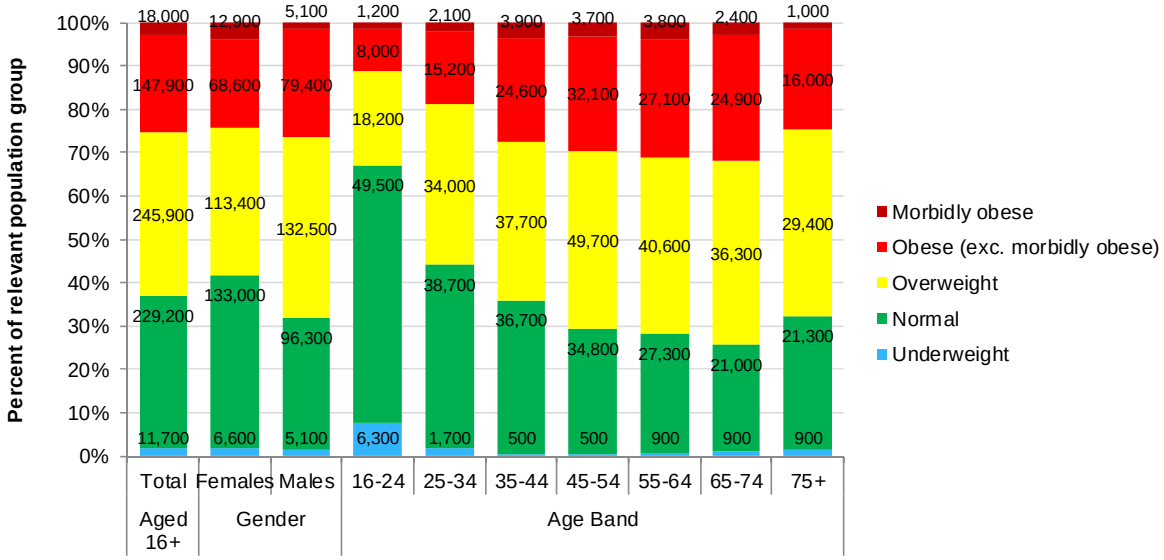
Source: Secondary analysis of PHE/NOO MSOA level pooled NCMP data 2011/12 to 2013/14

2.2) Adults

There is not a comprehensive measurement programme for body mass index in adults as there is for children. Three sets of data can be used to estimate the number and percentage of adults that are overweight or obese:

- Data from the annual *Health Survey for England* applied to the population of Nottinghamshire County (Figure 10)
- Data from the *Public Health Outcomes Framework* (PHOF 2.12) Health Improvement Domain for prevalence of excess weight (overweight and obesity) in adults (aged 16 and over) at local authority level (Figure 11).
- The Quality and Outcomes Framework (QOF) GP register of patients (aged 16 and over) with a BMI greater than or equal to 30kg/m^2 recorded in the last 15 months (Table 5).

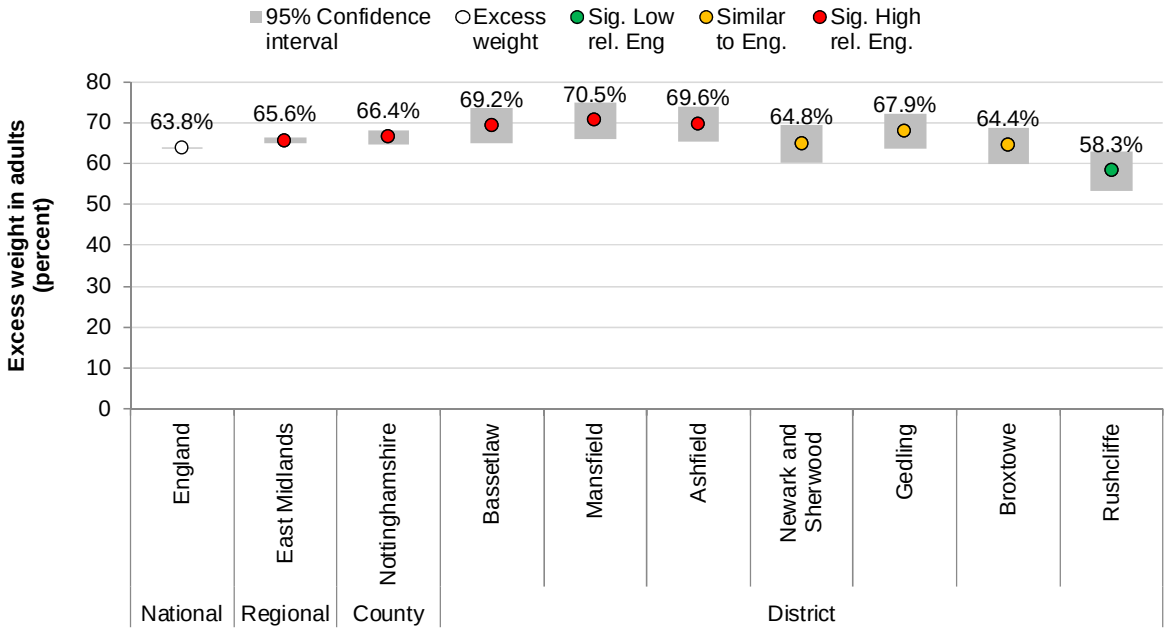
Figure 10: Estimated numbers for each BMI category distribution in Nottinghamshire County population aged 16 and over. Modelled estimated based on national (age, gender): 2013



Source: HSE2013 national obesity (Age, Gender) rates for those aged 16+, ONS Mid-Year population estimates 2013

- There are estimated to be over 412,000 adults (aged 16 and over) who are overweight or obese in Nottinghamshire County representing over 63% of the population.
- More men than women are estimated to be overweight or obese (68.2% and 58.3% respectively).
- It is estimated that 25.4% and 2.75% of adults are obese (BMI ≥ 30) or morbidly obese (BMI ≥ 40) respectively.
- More men than women are estimated to be obese whilst more women than men are estimated to be morbidly obese.
- The estimated prevalence of overweight or obesity increases gradually with age rising from 33% in 16-24 year olds to 74.3% in 65 – 74 year olds. At 75+ the level starts to drop to 67.7%.

Figure 11: Estimated proportion of adults with excess weight in Nottinghamshire County and districts based on PHOF Indicator 2.12 (Active People Survey results 2012)



Source: Public Health Outcomes Framework Indicator 2.12, URL: http://www.phoutcomes.info/ (Active People Survey results 2012)

- There are estimated to be over 433,000 adults (aged 16 and over) who are overweight or obese in Nottinghamshire County representing over 66% of the population.
- Nottinghamshire County has a **statistically significantly higher** prevalence rate of excess weight than the England rate. Across the districts this is mirrored in Ashfield, Bassetlaw and Mansfield.
- Rushcliffe has a **statistically significantly lower** prevalence rate of excess weight than the England rate.

Trend data for adults with excess weight is currently not available.

The Health Survey for England and Public Health Outcomes Framework suggest that between 412,000 and 433,000 adults aged 16 and over in Nottinghamshire County are overweight or obese. There are limitations with both datasets in that they rely on people reporting their weight and people tend to underestimate their actual weight.

Table 5: Observed and Estimated Obesity numbers, estimated prevalence and ratios in Nottinghamshire County GP registered patients[3] 2013/14.

Organisation	Observed number on QOF obesity register	Estimated number of obese aged 16+	*Observed to expected (percent)*
England	**4,329,858**	**11,434,740**	***37.9***
County CCGs	**73,366**	**166,333**	***44.1***
NHS Bassetlaw	12,137	23,836	*50.9*
NHS Mansfield and Ashfield	20,316	38,474	*52.8*
NHS Newark and Sherwood	12,389	27,293	*45.4*
NHS Nottingham North and East	12,477	30,992	*40.3*
NHS Nottingham West	8,176	19,818	*41.3*
NHS Rushcliffe	7,871	25,920	*30.4*

Source: HSCIC Registered population by CCG for 2014 April, HSE 2013 Obesity Trends for 2013, HSCIC QOF Obesity 2013/14

- The estimated number of obese people aged 16+ is much higher than those of GP registers. This could be due to a number of reasons. Not all patients will be measured, there may be some obese people who have not recently visited their GP and sometimes weight is just not recorded by primary care. Whilst not able to demonstrate the complete extent of obesity prevalence, QOF can be a useful indicator of the number of people whose health is being monitored due to obesity.
- Nationally, QOF registers include almost 38% of people estimated to be obese whilst in Nottinghamshire County; they include over 44%, higher than the England figure.
- NHS Rushcliffe has the lowest observed to expected percentage at 30.4%, whilst NHS Mansfield and Ashfield has the highest observed to expected percentage at 52.8%.

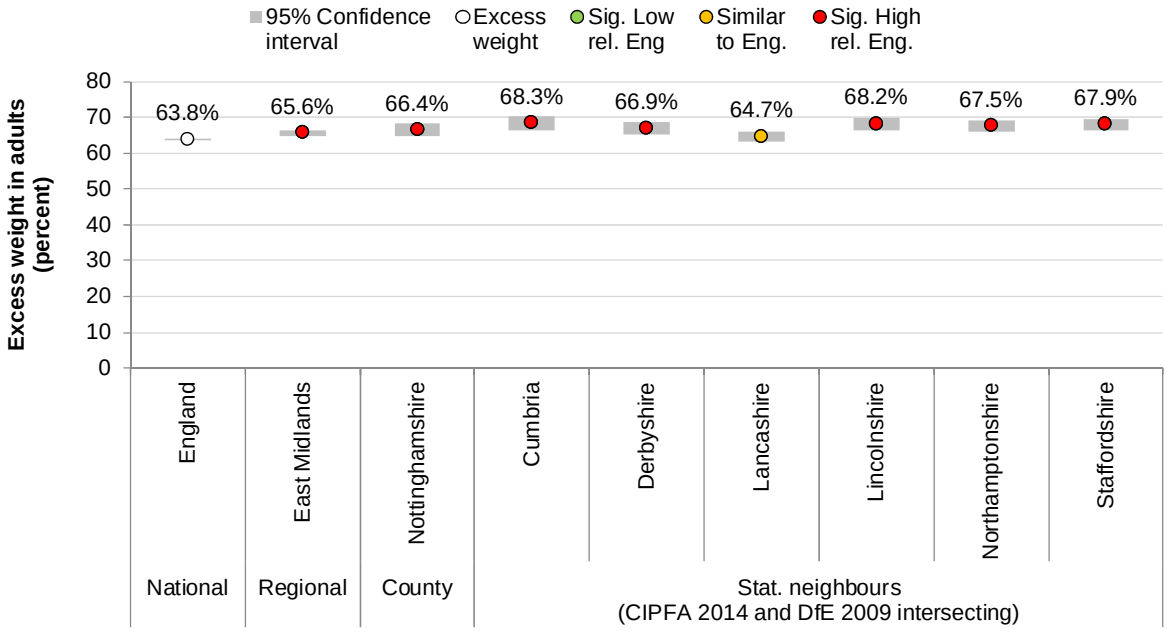
Whilst there is variation at CCG level, which may be distorted by the estimation methodology which does not account for deprivation and so may underestimate numbers of obese in more deprived areas and over estimate the number in less deprived areas, the registers currently do not capture the total estimated number.

[3] The recording of BMI for the register takes place in the practice as routine care. Current prevalence figures are unadjusted by age, subject to practice and patient compliance and do not capture non-registered or non-attending patients.

Benchmarking to statistical neighbours.

The estimated proportion of adults with excess weight using PHOF data in Nottinghamshire County and statistical neighbours[4] is given in Figure 12.

Figure 12: Estimated proportion of adults with excess weight in Nottinghamshire County and statistical neighbours based on PHOF Indicator 2.12 (Active People Survey results 2012)



Source: Public Health Outcomes Framework Indicator 2.12, URL: http://www.phoutcomes.info/ (Active People Survey results 2012)

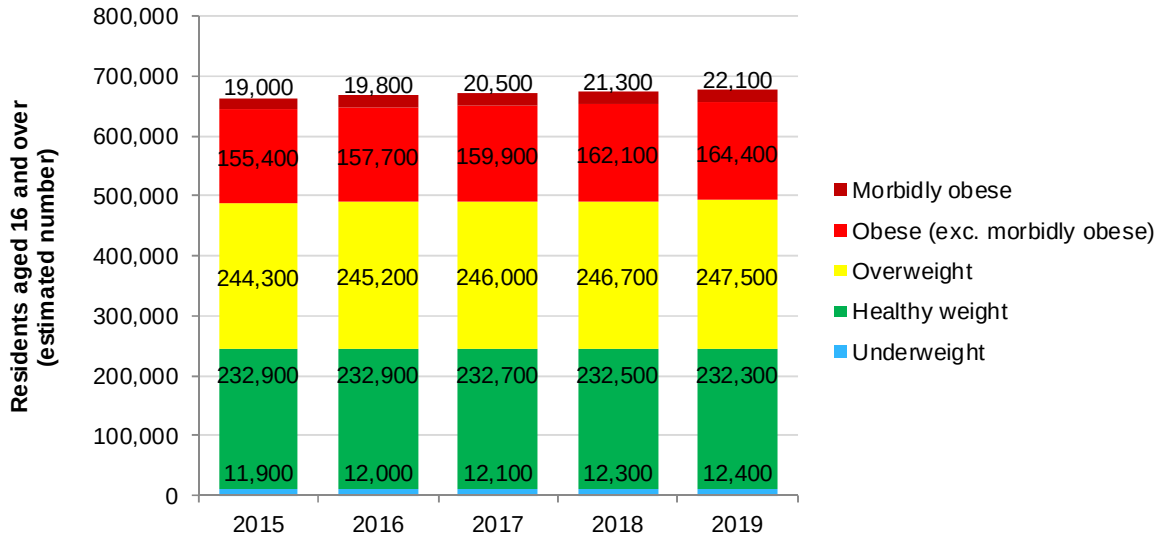
- Nottinghamshire County has the second lowest prevalence rate of 66.4% when compared to its statistical neighbours.

[4] Statistical neighbours have been taken from Chartered Institute of Public Finance & Accountancy (CIPFA) 2014 and Department for Education (DfE) 2009 nearest neighbour reports. CIPFA is relevant for general population but mostly adults, whereas DfE is relevant to children. There is overlap between the two lists and the six that appear in both lists have been used as the statistical neighbour set. These are Cumbria, Derbyshire, Lancashire, Lincolnshire, Northamptonshire and Staffordshire.

Trends and projections

Using historic trends in BMI and projected demographic data, estimated numbers within each weight category have been forecast in Figure 13.

Figure 13: Estimated numbers and projections for Nottinghamshire County residents aged 16 and over 2015 to 2019



Source: Secondary analysis of HSE trend data 1993-2011 (Forecast Pro Holt exponential projections 2012 to 2019), ONS Sub National Population Projections (2011 based)

- There are estimated to be over 418,000 adults (aged 16 and over) with excess weight in 2015. This is estimated to increase by approximately 4% to almost 434,000 by 2019.
- The largest increase is in the number of morbidly obese which is estimated to increase by 16% with an increase of just over 5% in the number of obese.

Health risk according to NICE guidelines

Using Health Survey for England data, the number of people aged 16 and over at increased health risk as per NICE guidance in Nottinghamshire County has been estimated (Table 6). This risk is based on BMI, waist circumference and blood pressure.

Table 6: Estimated numbers by NICE health risk category for Nottinghamshire County (considering comorbidities, waist circumference and BMI category)

All	Totals		*Percent of Grand Total*
Increased risk	85,700		*13.3*
High risk	94,200		*14.7*
Very high risk	178,600	of whom BMI >= 40: 16,300	*27.8*
'Pathway eligible'	**358,500**		*55.8*
Grand Total	**642,800**		

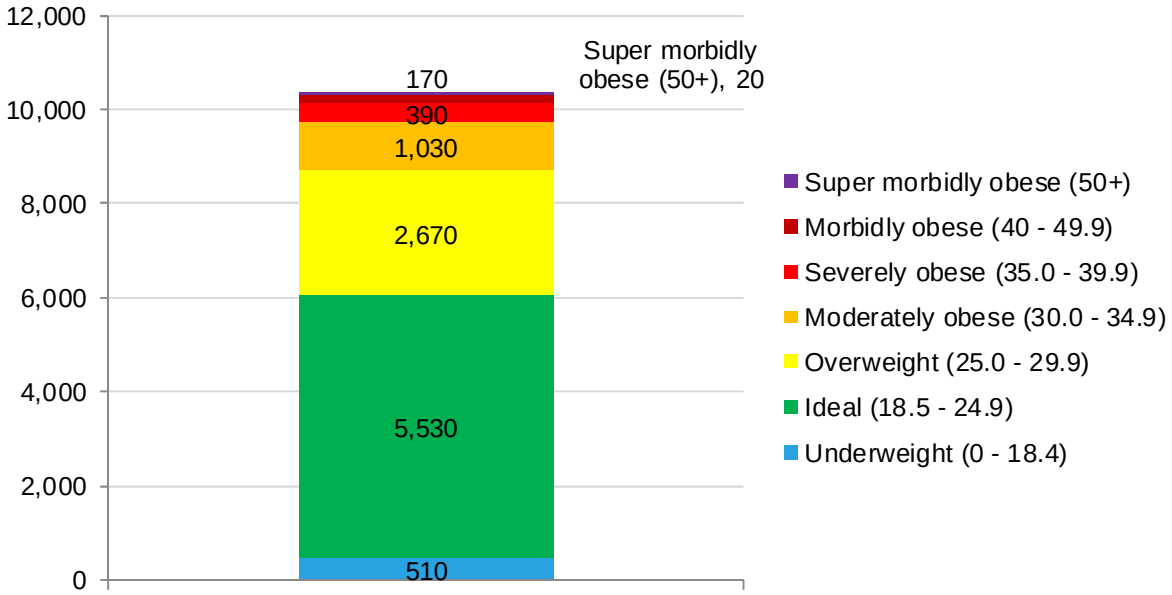
Source: Secondary analysis combining NICE clinical guidance 43 on Obesity, HSE 2011 adult anthropometric measures, ONS mid-year population estimates 2011

- Over 358,000 people aged 16 and over in Nottinghamshire County are estimated to be at increased or higher risk based on NICE guidance. This represents over 55% of the resident population.
- Of these the largest number is in the very high risk group with nearly 179,000 people. It is estimated that of these 16,300 are morbidly obese with a BMI equal to or greater than 40.

Maternal obesity

There is currently limited information regarding the BMI of pregnant women. In 2011, there were estimated to be 4260 pregnant women in Nottinghamshire County who were overweight or obese, of which 1610 were obese. Of those that are obese 390 are estimated to be morbidly obese and 170 with a BMI of over 50 [Figure 14] (Heslehurst, 2011).

Figure 14: Estimated BMI category distribution in Nottinghamshire County population of pregnant women for 2011

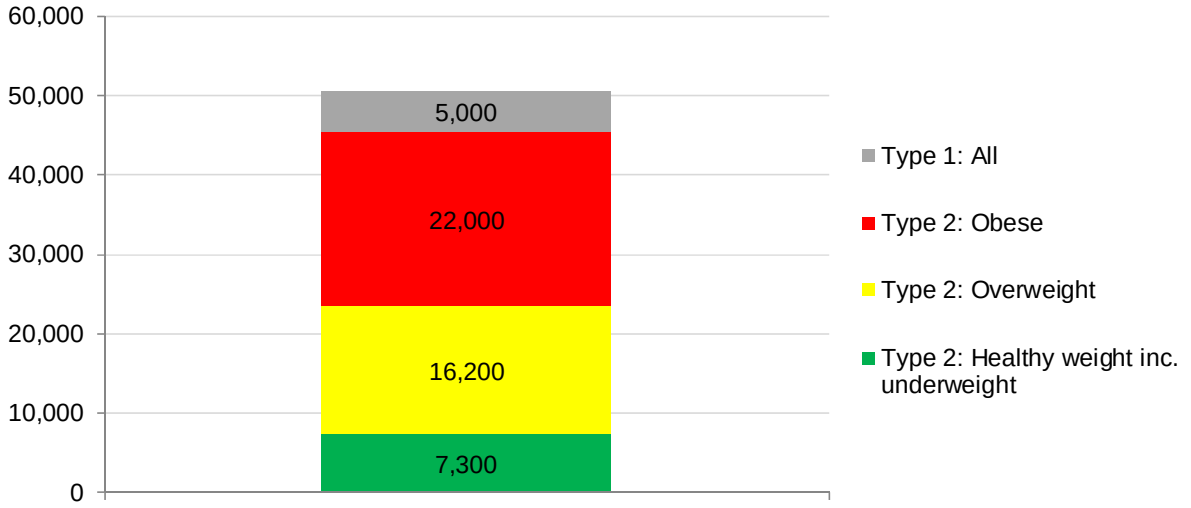


Source: Secondary analysis of Heslehurst et.al. "A nationally representative study of maternal obesity in England, UK: trends in incidence and demographic inequalities in 619,323 births, 1989-2007", Int. J. Obesity (2010) and HSCIC Live Births (2011)

Obesity prevalence among adults with diabetes

To estimate the weight status of adults with diabetes in Nottinghamshire County the Yorkshire and Humber Public Health Observatory (YHPHO) Diabetes Model of estimates of diagnosed and undiagnosed diabetes prevalence. This model apportions into Type 1 and Type 2 from the National Diabetes Audit (NDA) 2012/13 and then applies NDA 2009/10 weight status proportions (Figure 15) and takes into account local deprivation and ethnicity factors.

Figure 15: Estimated weight status amongst adults with type 2 diabetes (2013).



Source: secondary analysis of YHPHO Diabetes Model (Local Authorities in 2012 and projections) and National Diabetes Audits 2009/10, 2012/13

- Over 45,000 Nottinghamshire County residents are estimated to have Type 2 diabetes.
- Of these, 84% (over 38,000) are estimated to be overweight or obese and nearly half 22,000 are estimated to be obese, in comparison to just over a quarter in the general population (HSCIC, 2013)

Obesity drug prescribing and hospital admissions

Additional information regarding obesity drug prescribing and hospital admissions relating to obesity can be found in the appendices below.

Appendix - Obesity drug prescribing

Appendix – Obesity related hospital admissions

3) Targets and performance

The national obesity strategy has set two national ambitions (Department for Health 2011):

- A sustained downward trend in the level of excess weight in children by 2020
- A downward trend in the level of excess weight averaged across all adults by 2020

These ambitions are also highlighted as indicators within Domain 2 (Health Improvement) of the Public Health Outcomes Framework (PHOF) 2013-16 (Department of Health 2012)

- Indicator 2.06i Percentage of children aged 4-5 as overweight or obese
- Indicator 2.06ii Percentage of children aged 10-11 as overweight or obese
- Indicator 2.12 Percentage of adults classified as overweight or obese

Indicators 2.06i & 2.06ii are collected as part of the National Child Measurement Programme. Indicator 2.12 is collected as part of the Active People's Survey. Data for these indicators is presented in section 2 of this report.

NICE quality standards are concise sets of prioritised statements designed to drive measurable quality improvements within a particular area of health or care. They are derived from the best available evidence such as NICE guidance and other evidence sources accredited by NICE. There are currently three quality standards which include excess weight:

- Antenatal care QS22 NICE (2012) Quality statement 4: Risk assessment: Body Mass Index.
- Postnatal care QS37 NICE (2013) Quality statement 8: Maternal Health – Weight management
- Obesity: prevention and lifestyle management in children and young people QS94 NICE (2015). There are 8 quality standards, four relating specifically to weight management, three to diet/nutrition and one to sedentary behaviour.
- Nutrition: improving maternal and child nutrition QS98 NICE (2015) There are 6 quality standards, one relevant to weight management, one to breastfeeding and four to diet/nutrition.

It is unclear if all of these quality standards are being met in Nottinghamshire.

Pregnant Women with a Raised BMI – Best Practice Standards of Care (2015) - East Midlands Maternity Network. This includes a diet and lifestyle standard.

4) Current activity, service provision and assets

Strategy

The Framework for Action on Tackling Excess Weight (2013-18) and associated action plan developed by the Obesity Integrated Commissioning Group provides the delivery mechanism for the Nottinghamshire Health and Wellbeing Strategy to tackle excess weight. It aims to reverse the rising prevalence of excess weight in the population of Nottinghamshire County, developing a downward trend in both children and adults.

This framework provides a co-ordinated and comprehensive approach through the prevention, identification, treatment and management of excess weight. A plan is set out to support individuals across the life-course through working in and with communities, taking an evidence-based approach, building upon existing successes and creating new opportunities to meet gaps in local need to tackle excess weight. Priorities are to:

- Increase healthier food choices in out of home provision such as fast food outlets by working with Environmental Health Officers and Trading Standards.
- Establish weight management services for adults and children in each district across the county.
- Increase the number of workplaces that are promoting and supporting physical activity, healthy eating initiatives and weight management support.
- Identify how planning activities can support healthy living and access to green space.
- Improve the National Child Measurement Programme participation rates so that they meet or exceed the England average year on year
- Increase levels of cycling undertaken in the county and by district on an annual basis.

Current service provision

From April 2013, Public Health in Local Authorities became the responsible commissioner for obesity interventions, locally led nutrition and physical activity initiatives via funding from the Public Health Grant.

Since the last JSNA update, Tier 1 services previously commissioned by Public Health (exercise referral schemes and community nutrition) have been decommissioned and a competitive tender has been undertaken for an obesity prevention and weight management service covering Tier 1, 2 and 3:

- Tier 1: Targeted healthy eating and physical activity prevention and early intervention activities
- Tier 2: Community Lifestyle Weight Management
- Tier 3: Specialist Weight Management with support from a multidisciplinary team including lead clinician, specialist Dietitian, psychologist and exercise specialist.

Nottinghamshire County Council (NCC) awarded the new Obesity Prevention and Weight Management integrated service to Everyone Health, Sport and Leisure Management (SLM) in December 2014. The new service will support more individuals to achieve and maintain a healthy weight and help to address obesity as an issue in Nottinghamshire County. The service went live on 1st April 2015 taking both self-referrals and referrals from healthcare staff that identify patients via their obesity registers, as part of NHS Health Checks and those at high risk of developing diabetes who require support with their weight. The service will work with maternity units across Nottinghamshire to improve pathways of care for overweight and obese women during pregnancy and develop a maternal obesity pathway. In addition it will provide healthy eating, physical activity and weight management training including brief intervention and motivational interviewing for frontline health and social care staff to have the confidence to raise the issue of weight with their service users.

To ensure equitable access the service will engage with service users as follows:

District / Borough	**Weighting (% of all activity)**	**Acceptable range (%)**
Ashfield	17.7	15.7 to 19.7
Bassetlaw	14.9	12.9 to 16.9
Broxtowe	12.3	10.3 to 14.3
Gedling	14.3	12.3 to 16.3
Mansfield	17.8	15.8 to 19.8
Newark and Sherwood	11.8	9.8 to 13.8
Rushcliffe	11.2	9.2 to 13.2
Nottinghamshire County	100.0	

The allocation is based on the estimated proportion of obese adults in each area.

This new service has been commissioned on achievement of outcomes around diet, physical activity, mental health and either weight loss for adults not including pregnant women or maintenance/reduction of BMI in children. The first year of the contract will be used to determine the tools to measure these outcomes and provide a baseline before setting performance targets

for future years. Future updates of this JSNA chapter will provide detail on activity of the service including a health equity audit.

Complex and specialised obesity surgery (Tier 4) is currently commissioned by NHS England. Service providers for Nottinghamshire registered patients include: Derby Teaching Hospitals NHS Foundation Trust, Sheffield Teaching Hospitals NHS Trust and Doncaster and Bassetlaw NHS Foundation Trust. Between April 2011 and March 2013 a total of 125 patients registered with Nottinghamshire.

Assets

This section provides information about the current assets (other than the obesity prevention and weight management integrated service) that there are in Nottinghamshire County which support work to tackle excess weight. These have been split into societal influences, early years, children and young people, workplaces and tackling the obesity promoting environment and what is being delivered at a county and at a district level. Assets relating to physical activity and diet/nutrition are provided in the relevant chapters.

Asset	Description
Societal influences	
Change4Life	Change4Life is the national social marketing programme focussing on promoting healthy weight across the life course. The national programme and Change4Life and Start4Life branding is utilised locally by services and districts.
Early Years, Children and Young People	
Maternity Service Reviews	The maternity service reviews for NUH and SFHFT have actions relating to maternal obesity.
Baby Friendly Initiative (BFI)	Baby Friendly Initiative accredits maternity and community health care facilities that have implemented best practice for breastfeeding through implementation of evidence based standards. Doncaster and Bassetlaw Hospitals NHS Trust, Sherwood Forest NHS Trust and Bassetlaw Health Partnerships fully accredited. County Health Partnerships and Nottingham University Hospitals have not yet met all requirements for stage 3.
Breastfeeding support	Breastfeeding peer support service. Evaluation being undertaken to determine future commissioning
Family Nurse Partnership	Intensive support programme for teenage parents to have a healthy pregnancy and improve the health of their child.
Healthy Child Programme	The early identification and prevention of obesity is a key priority in HCP. All families are given information and advice around breastfeeding through information and advice around breastfeeding, healthy weaning, healthy eating and active play.
Children's Centres	54 of the Children's Centres (93%) are engaged in the Healthy Early Years status which encourages healthy lifestyles, including physical activity and healthy eating. 33 have achieved gold status, 21 are working towards gold and 4 have yet to engage.
School nursing and healthy schools	A proposed remodelling of the intervention is taking place. The new model will aim to provide advice and guidance to schools on a range of public health priorities, including healthy weight.
Workplaces	
County level	

Asset	Description
Nottinghamshire Wellbeing at Work: Workplace Health Award	The scheme aims to provide small, medium and large sized organisations with the opportunity to promote and enable better health and wellbeing in the workplace. The scheme is open to all organisations regardless of industry (or sector). Theme 3 is around healthy weight.
Tackling the obesity promoting environment – food and physical activity	
County level	
Local Transport Plan NCC	Improving infrastructure and promoting uptake of walking and cycling and reducing reliance on cars by promoting sustainable transport to support people to choose active transport.
District level	
Local development plans/core strategies	Ashfield Local Plan – in development Bassetlaw District Local Development Framework: Core Strategy & Development Management Policies Development Plan Document (DPD) – adopted Dec 2011 Broxtowe Borough Aligned Core Strategy (part of Greater Nottingham Aligned Core Strategy) – adopted Sept 2014 Gedling Borough Aligned Core Strategy (part of Greater Nottingham Aligned Core Strategy) – adopted Sept 2014 Mansfield Local Plan – in development Newark and Sherwood Local Development Framework: Adopted Core Strategy – adopted Mar 2011 Rushcliffe Local Plan: Core strategy – adopted Dec 14 Currently limited joint working between planners and public health to ensure that the built and natural environment support and encourage physical activity and healthy affordable food.

5) Evidence of what works

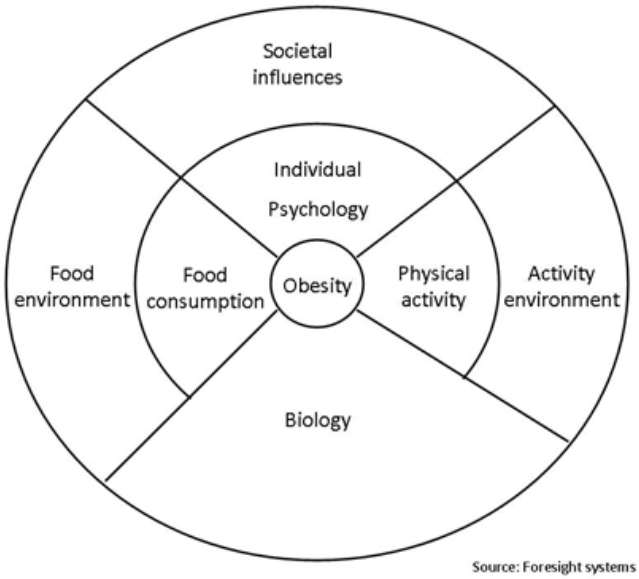
Excess weight is a complex issue, not solely affected by individual behaviours but influenced by a number of social and environmental issues. Excess weight gain is caused by an imbalance between 'energy in' and 'energy expenditure' and is strongly associated with an unhealthy diet and physical inactivity. There is no clear causal relationship between alcohol consumption and obesity. However, many people are not aware of the calories contained in alcoholic drinks and alcohol consumption can lead to an increase in food intake (National Obesity Observatory, 2012).

The Foresight report (Butland B et al. 2007) presented an obesity system map with energy imbalance at its centre, surrounded by over 100 variables that have a direct or indirect influence on energy balance. The full obesity system map has been simplified and divided into 7 predominant themes (Figure 16):

- **Biology**: an individual's starting point - the influence of genetics and ill health;
- **Activity environment**: the influence of the environment on an individual's activity behaviour for example a decision to cycle to work may be influenced by road safety, air pollution or provision of a cycle shelter and showers;
- **Physical Activity**: the type, frequency and intensity of activities an individual carries out, such as cycling vigorously to work every day;
- **Societal influences**: the impact of society, for example the influence of the media, education, peer pressure or culture;
- **Individual psychology**: for example a person's individual psychological drive for particular foods and consumption patterns, or physical activity patterns or preferences;

- **Food environment**: the influence of the food environment on an individual's food choices, for example a decision to eat more fruit and vegetables may be influenced by the availability and quality of fruit and vegetables near home;
- **Food consumption**: the quality, quantity (portion sizes) and frequency (snacking patterns) of an individual's diet.

Figure 16: Simplified Foresight obesity map



The association between obesity and increased risk of many serious diseases and mortality has led to the National Institute for Health and Clinical Excellence (NICE) to develop guidance documents in relation to the prevention, management and reduction of obesity:

- Obesity prevention (2006) CG43
- Weight management before, during and after pregnancy (2010) PH27
- Type 2 diabetes prevention: population and community-level interventions (2011) PH35
- Obesity: working with local communities (2012) PH42
- BMI: preventing ill health and premature death in black, Asian and other minority ethnic groups (2013) PH46
- Overweight and obese children and young people: lifestyle weight management services (2013) PH47
- Managing overweight and obesity in adults: lifestyle weight management (2014) PH 53
- Obesity: identification, assessment and management of overweight and obesity in children, young people and adults (2014) CG189
- Maintaining a healthy weight and preventing excess weight gain among children and adults (2015) NG7
- Dementia, disability and frailty in later life – mid-life approaches to delay or prevent onset (2015) NG16

The NHS Five Year Forward View (NHS England 2014) states the importance of prevention and public health and the need for the NHS to back hard hitting national action on obesity, along with other major health risks.

Based on existing evidence, a recent report by McKinsey Global Institute (2014) states that:

- No single solution creates sufficient impact to reverse obesity: only a comprehensive, systemic programme of multiple interventions is likely to be effective.
- Almost all the interventions analysed are highly cost effective from the viewpoint of society (health care costs and productivity savings outweigh the investment)
- Education and encouraging personal responsibility are necessary but not sufficient – restructuring the context that shapes physical activity and nutritional behaviour is vital
- Capturing the full potential is likely to require commitment from government, employers, educators, retailers, restaurants and food and beverage manufacturers and a combination of top down corporate and government interventions and bottom up community based ones.

Obesity and overweight are increasingly being considered in terms of the wider environmental context of the places in which people live and work, as well as factors acting at the individual level such as attitudes, behaviours and beliefs. The planning system can play a key role in improving public health. The National Planning Policy Framework (Department for Communities and Local Government, 2012) is clear that the purpose of the planning system is to contribute to the achievement of sustainable development, which includes the health, social and cultural wellbeing of local communities. The built environment has the potential to influence both sides of the energy balance equation (diet and physical activity) that leads to people becoming overweight or obese. The recent publication 'Planning Healthy Weight Environments' by the Town and Country Planning Association and Public Health England (TCPA/PHE, 2014) gives guidance on how local authority planners can create places that enable people to achieve and maintain a healthy weight.

6) What is on the horizon?

Maternity

The Maternity Services Data Set (MSDS) dataset to be published in Autumn 2015 will provide local and national level data on the BMI of pregnant women measured at the booking assessment which takes place by the 12th completed week of pregnancy. This will be used to understand the scale of maternal obesity, to prioritise and plan accordingly and for future updates of this JSNA chapter.

National child obesity strategy

Tackling obesity particularly in children is one of this Government's major priorities. The recommendations made in the House of Commons, Health Committee report published November 2015 and the national childhood obesity strategy (anticipated at the beginning of 2016) will be supported locally.

Children and Young People

The commissioning of 0-5 children's public health transferred from NHS England to local authorities in October 2015. This includes health visiting and Family Nurse Partnership ((FNP) targeted services for teenage mothers). This transfer will join-up that already done by LAs for public health services for children and young people 5-19, (and up to age 25 for young people with Special Educational Needs and Disability [SEND]). One of the high impact areas for the Healthy Child Programme is healthy weight, healthy nutrition (to include physical activity)

NICE quality standards

The following NICE quality standards are in development

- Obesity: adults and children. The topic overview to be published in August with a completion due May 2016.
- Obesity: prevention and management in adults – Publication date to be confirmed.

Public Health England: National mapping exercise of access and provision to weight management interventions, excluding bariatric surgery across England. This will report by the end of 2015 and will be used to develop a blueprint specification to support the commissioning of obesity treatment services.

Commissioning responsibilities for specialist weight management services (Tier 3) and bariatric surgery (Tier 4)

Nationally, there has been a lack of clarity around who is the responsible commissioner for the Tier 3 specialist weight management services. These services provide support for those with severe and complex obesity and for those who wish to access bariatric (weight loss) surgery. In Autumn 2013, NHS England and Public Health England convened a short life working group, to examine the issues in provision and access to the obesity care pathway for adults and children with the aim of reducing variance across the country. The report 'Joined up clinical pathways for obesity' was published on 14th March 2014 outlining their recommendations on commissioning responsibilities which are:

- **Local authorities** should retain primary commissioning responsibility for tiers 1 and 2, including population level interventions to encourage healthy eating and physical activity, as well as lifestyle related weight management services
- **Clinical commissioning groups (CCGs)** should have primary commissioning responsibility for tier 3, clinician led specialist multidisciplinary teams
- **NHS England** should retain primary commissioning responsibility for tier 4 services, including bariatric surgery, but should consider the transfer of all but the most complex adult bariatric surgery to local commissioning once the predicted increase in volume of tier 4 activity has been realised and once locally commissioned tier 3 services are shown to be functioning well.

NHS England and Public Health England invited comments concerning implementation at a local level and implications for delivery. To date a formal response to this has not been published. Once a final decision is made, commissioners will need to work together to ensure that the pathway is joined up.

The commissioning responsibilities for morbid obesity surgery services are to transfer to CCG's in April 2016.

National roll out of the Diabetes Prevention Project

The national roll out of the Diabetes Prevention Project is not anticipated until 2016/17. It is unclear at present how it will complement and link with existing commissioned services.

7) Local Views

A consultation with service users, current providers and key stakeholders took place between October 2013 and December 2013 to help define what approach obesity prevention and weight management service provision should look like in Nottinghamshire County. The summary can be found here.

8) Unmet needs and service gaps

Since the last JSNA refresh in 2012 there is an integrated Tier 1, 2 and 3 obesity prevention and weight management pathway in place. It is uncertain if the modelling work that was undertaken as part of the commissioning of the new service obesity prevention and weight management service is correct. Over the next few years the service numbers will be monitored to provide information on percentage uptake, service demand and if there are any unmet needs. Due to the likely increase in those who are morbidly obese, it is anticipated that the demand for Tier 3 service may increase.

It is also identified that there is a need to strengthen local assets to ensure that obesity is being tackled as effectively as possible within the resources that there are. This includes utilising the impact that the wider public health workforce and different professional groups are able to provide particularly working with planning colleagues to ensure that the opportunities that planning gives supports and encourages physical activity and access to affordable healthy food.

9) Knowledge gaps

The gaps in knowledge include:

- Local data on maternal obesity
- Longitudinal analysis of NCMP data to provide a better understanding of how obesity tracks through childhood.
- Local data on excess weight in those children, young people and adults with disabilities.
- Accurate local data on excess weight in adults, including those with Type 2 diabetes.
- Limited service utilisation data information.

What should we do next?

10) Recommendations for consideration by commissioners

Recommendations		Lead
Strategy and integrated commissioning		
1.	Work with partners across the system to ensure there is no duplication or gaps in obesity prevention and weight management service provision targeting areas and groups with the highest levels of excess weight to maximise health outcomes, monitoring uptake by protected groups.	Public Health, District/Borough Councils, Clinical Commissioning Groups and NHS England.
2.	Review recommendations made in the national childhood obesity strategy and consider how to implement them locally.	Public Health
Social marketing		
3.	Continue to promote the Change4Life social marketing programme to improve diet, physical activity and support obesity prevention in children across Nottinghamshire Districts	Nottinghamshire County Council and District/Borough Councils
Public Health Intelligence and data improvement		
4.	Utilise the Maternity dataset to provide local data on the BMI of pregnant women to support the development of appropriate services for this population group.	Public Health
5.	Identify why children or their parent/carer opt out of the NCMP and consider ways to engage effectively to improve participation rates.	Public Health
6.	Understand how obesity tracks through childhood, identifying if it is possible to undertake a longitudinal analysis of local NCMP data.	Public Health
7.	Consider how to obtain local data on prevalence of excess weight for children and young people with learning disabilities and looked after children.	Public Health
8.	Utilise data from Health Checks to provide information about prevalence of obesity in adults and access to local weight management services.	Public Health
9.	Influence GP practices to maintain an accurate obesity register.	NHS England/ Clinical Commissioning Groups
Prevention		
10.	Ensure that healthy weight remains a priority for the commissioning of services for 0-19 age group.	Public Health (Children's Integrated Commissioning Hub)
11.	Develop closer working relationships between planners and public health professionals to ensure that planning supports and encourages physical activity and access to affordable healthy food tackling the obesity promoting environment.	Planning and Public Health
Service quality and accessibility		
13	Undertake an audit of progress locally against the NICE quality standards relating to weight management services, to benchmark and identify areas where improvements are needed.	Public Health
14	Continue to build the capability of the workforce to ensure that health and care professionals are clear	Public Health

	about promoting the benefits of a healthy weight so that they have healthy conversations (making every contact count) with their patients and service users sensitively raising the issue with those who are overweight or obese, signposting to weight management services.	
15	Implement the maternal obesity pathway so that service provision is equitable for women across the county.	Public Health
16	Encourage primary care to proactively manage those on the obesity register signposting as appropriate to local weight management services.	Clinical Commissioning Groups / Public Health
17	Within the first year of the new obesity prevention and weight management contract, agree the how the outcomes will be measured and obtain baseline data to help inform performance targets for the following year.	Public Health
18	During the second year of the obesity prevention and weight management service undertake a service review to ensure it is accessed equitably, meeting the needs of the local population and cost effective.	Public Health

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