# **Full Document**



# Gateshead Healthy Weight Needs Assessment

**July 2018** 

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# **Definition of Obesity**

# What do we mean by obesity and how do we measure it?

Obesity is a term used to define someone who is very overweight, with a high degree of body fat that may have an adverse effect on their emotional and physical health and wellbeing. It is more than an issue of appearance. In adults, degrees of overweight and obesity are classified according to body mass index (BMI), calculated by dividing a person's weight in kilograms by the square of their height in metres. In adults, obesity is commonly defined as a body mass index (BMI) of 30 or more (Table 1). A person who is very muscular will have a great weight in muscles and bone to support the muscles and so may have a high BMI without an excess of fat. In the elderly, the lowest morbidity is in the group with a BMI of 25 to 30 rather than 20 to 25.

**Table 1-Body Mass Index Categories** 

Category	ВМІ
Underweight	<18.5
Healthy weight	18.5-24.9
Overweight	25-29.9
Obese	30-39.9
Morbidly Obese	=>40

The National Institute for Health and Clinical Excellence (NICE) recommends the use of both the Body Mass Index (BMI) and waist circumference to assess overweight and obese individuals, as different health risks have been defined for different combinations of these

two measures<sup>1</sup> The method most widely adopted and used within this report is body mass index (BMI), though it is acknowledged that it is not a perfect measure.

# What do we mean by excess weight?

Excess weight is a term used to describe a combined population above the healthy weight range. This term is used intermittently throughout the report.

Overweight + Obese = Excess Weight

# Defining overweight and obesity in children

Defining children as overweight or obese is a complex process, given that their weight and height change quickly. The method of assigning a BMI classification is different for children than for adults.

It is important when using BMI in children that age and gender appropriate growth references are used to correctly define weight status. In England the British 1990 (UK90) growth reference charts are used to determine the weight status of an individual child and population of children. A review of the issues around the use of the BMI centile threshold for defining underweight, overweight and obesity in children 2-18 years in the UK, was published in 2012. The clinical definition of weight status, when measuring a child's weight status is defined using the UK90 clinical cut off points which are outlined in table 2.

 $^2\, \underline{\text{https://www.gov.uk/government/publications/sacn-statement-defining-child-underweight-overweight-and-obesity}$ 

<sup>&</sup>lt;sup>1</sup> NHS - The Information Centre; Health Survey for England 2007

The National Child Measurement Programme (NCMP) system uses the British 1990 child growth reference (UK90) to assign each child a BMI centile taking into account their height, weight, sex and age. Clinical BMI centile thresholds are used for the purposes of individual assessment to place each child in one of 4 weight status categories (underweight (below 2<sup>nd</sup> BMI centile, healthy weight between 2<sup>nd</sup> and 90<sup>th</sup> BMI centiles, overweight between 91<sup>st</sup>-97<sup>th</sup> BMI centiles and very overweight, at or above 98<sup>th</sup> BMI centile) (Table 2).

**Table 2- Children's Clinical Classifications** 

Table 2: Child BMI centile classifications (clinical cut-offs)

Weight status category generated automatically in parent result letter template	Clinical BMI centile category*	BMI Standard Deviation (z score)	Rounded BMI centile (p-score)	Approximated BMI centile line on growth chart
Voru	Severely obese	≥2.6666	≥0.996	≥99.6th
Very Overweight	Very overweight (clinical obesity)	≥2	≥0.98	≥98th
Overweight	Overweight	≥1.3333	≥0.91	≥91 <sup>st</sup>
Healthy Weight	Healthy Weight	>-2 to <1.3333	>0.02 to <0.91	>2 <sup>nd</sup> to <91st
Underweight	Underweight (Low BMI)	≤-2	≤0.02	≤2nd
	Very Thin	≤-2.6666	≤0.004	≤0.4th

<sup>\*</sup>As defined in UK90 BMI Chart, RCPCH35 and Cole and Preece (1990).36

# 1.0 Purpose of the Health Needs Assessment

This needs assessment seeks to provide local and national quantitative and qualitative evidence to inform a strategic and whole systems approach to healthy weight in Gateshead. This document will continually evolve and be informed by the ever-increasing evidence base, epidemiological data and evidence of effectiveness and stakeholder views. This will result in the document continually being updated to ensure it reflects the most up to date information.

A health needs assessment (HNA) is a system method for reviewing the health issues facing a population, leading to agreed priorities that will improve health and reduce inequalities.<sup>3</sup>

# 1.1 Why undertake a Health Needs Assessment?

- A HNA is a recommended public health tool to provide evidence about a population on which to plan services and address health inequalities
- A HNA provides an opportunity to engage with specific populations and enable them to contribute to targeted service planning and resource allocation
- A HNA provides an opportunity for cross-sectoral partnership working and developing creative and effective interventions

A HNA may also involve the assessment of health inequalities between or within a population. Health inequalities are defined as 'disparities in health between population groups that are

<sup>&</sup>lt;sup>3</sup> Health\_Needs\_Assessment\_A\_Practical\_Guide: K4 Health website (previously Health Development Agency): https://www.k4health.org/sites/default/files/migrated\_toolkit\_files/Health\_Needs\_Assessment\_A\_Practical\_Guide.pdf

systematically associated with socioeconomic and cultural factors', such as educational status, social class, ethnicity, place of residence and income.

This document provides an overview of obesity across the life-course in Gateshead, and aims to provide evidence to inform the development of a 'system based approach' to Gateshead,' which will be owned and developed by a collaboration of partners.

# The scope of the health needs assessment is to:

- Identify the need through a review of the prevalence across the life course using
  - National evidence of what works
  - Epidemiological data
  - Identify the needs of the residents of Gateshead in relation to healthy lifestyle
     e.g. physical activity, nutrition, emotional health etc.
  - Identify and explore the link between obesity and deprivation across the life course.
  - o Identify the costs of obesity and the groups adversely affected.
  - Review the current qualitative data in relation to clients and the community voice.
  - Identify services and work areas currently provided and identify gaps and
     opportunities as part of a whole systems approach
  - Recommendations going forward for Gateshead, focusing on high impact changes. The intention is that initial recommendations will be made from the report but the healthy weight group will need take ownership of the evolving document to inform priorities in establishing a whole systems approach.
  - To identify any good practice in terms of healthy weight that could be replicated in Gateshead.

This Health Needs Assessment is a 'live' document and will be continually updated from any emerging new evidence base and informed by the needs of local people, who are at the heart of this work.

# 2.0 Background.

# 2.1 Why focus on obesity?

Obesity is a global public health problem and the UK has the highest rate of child obesity in Europe. Obesity is a complex issue influenced by many factors. While at an individual level the main causes are poor diet and sedentary lifestyles, the Foresight report (2007)4 identified over 100 "wider determinants" of individual, and family eating and physical activity habits (see figure 1). These include the food and physical activity environments in which people live, work and play; their income; education; occupation and mental health and wellbeing.

Obesity is one of the most serious public health challenges of the 21st century. Without action, the health of individuals will continue to suffer, health inequalities associated with obesity will remain and the economic and social costs will increase to unsustainable levels.5

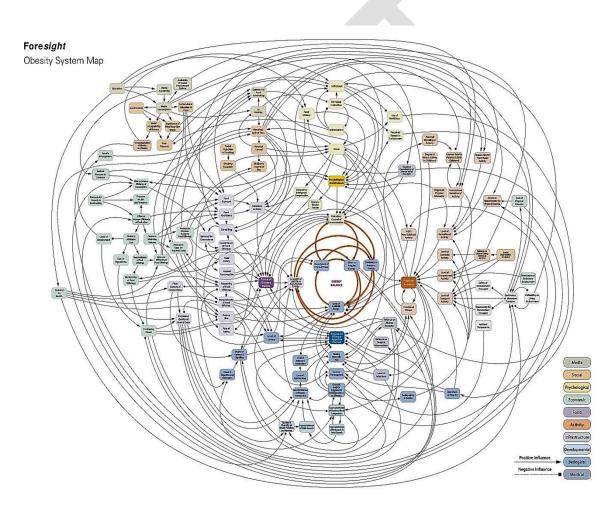
Over the last 20-30 years society has become characterised by environments and lifestyles that promote the consumption of high calorie food and drink, and sedentary behaviour so it is now widely agreed that obesity is a normal 'passive' biological response to these changes.

<sup>4</sup> Butland B, Jebb S, Kopelman P, McPherson K, Thomas S, Mardell J, Parry V. (2007) Foresight Tackling Obesities: Future Choices Project Report (2nd edition), Government Office for Science, London, UK (www.foresight.gov.uk).

<sup>&</sup>lt;sup>5</sup> https://www.local.gov.uk/making-obesity-everybodys-business-whole-systems-approach-obesity

The causes of obesity (commonly defined as a BMI of 30 or more) are complex and although some are genetic, most are modifiable. Action from the public, voluntary and commercial organisations as well as individuals, are needed to make an impact on reversing the rise in obesity.

Figure 1 – Foresight Obesity Map



Obesity is a key preventable cause of death and disease in the UK. Almost three in four adults in the UK will be overweight or obese by 2035 and over the next twenty years rising levels of

obesity could lead to an additional 4.62 million cases of type 2 diabetes, 1.63 million cases of coronary heart disease and 670,000 new cases of cancer.<sup>6</sup>

People who are obese are at far higher risk than the general population of serious illness including diabetes, heart disease and stroke. Obesity is forecast to cost the economy in the region of £50bn by 2050. (see figure 2)

Addressing obesity will necessitate the establishment of new social norms around eating and physical activity and, given the complex interplay of determinants most experts agree that a 'whole system approach' is needed. Currently there are very few examples around the world of successfully reversing the trend despite over a decade of intervention.

There is overwhelming evidence of the costs of obesity to individuals, families and wider society:

### Compared with a non-obese man, an obese man is:

- five times more likely to develop type 2 diabetes
- three times more likely to develop cancer of the colon
- more than two and a half times more likely to develop high blood pressure a major risk factor.
- Approximately eight to ten-year loss of life is equivalent to the effects of lifelong smoking.

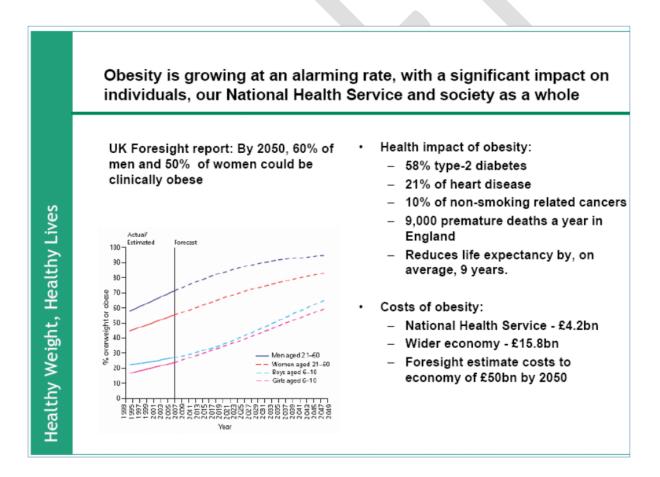
# An obese woman, compared with a non-obese woman, is:

- almost thirteen times more likely to develop type 2 diabetes
- more than four times more likely to develop high blood pressure

<sup>6</sup> Cancer Research UK & UK Health Forum, Tipping the scales: why preventing economy makes economic sense (2016)

- more than three times more likely to have a heart attack.
- BMI is a strong predictor of mortality among adults.
- Approximately eight to ten-year loss of life is equivalent to the effects of lifelong smoking.<sup>7</sup>

Figure 2- Modelled obesity prevalence at current rates to 2050 8



<sup>&</sup>lt;sup>7</sup> http://www.noo.org.uk/NOO\_about\_obesity/severe\_obesity

<sup>&</sup>lt;sup>8</sup> Butland B, Jebb S, Kopelman P, McPherson K, Thomas S, Mardell J, Parry V. (2007) Foresight Tackling Obesities: Future Choices Project Report (2nd edition), Government Office for Science, London, UK (www.foresight.gov.uk).

Obesity must be tackled at every stage of the life course. Obesity in pregnancy has serious risks for mother and child. An increasing number of obese children are at risk of a number of serious conditions including type-2 diabetes, cardiovascular disease, certain cancers, lung disease and kidney failure which will follow into adulthood. There are specific groups who have more of a pre-disposition to obesity than the general population that need to be a prioritised.

There are also links between social inclusion, wellbeing and physical activity and people not feeling fully in control of the food they eat. Social issues are important determinants of obesity in children and adults. Economic factors can also influence an individual's ability to choose a diet that is lower in fats and sugars and access opportunities to be physically active.

Obesity does not affect all groups equally, for example the rates of excess weight are even higher in adults with severe mental health illnesses and learning disabilities. Statistics on the health and care of people with learning disabilities suggests that excess weight is twice as prevalent in adults aged 18-35 years old with a learning disability whilst the prevalence of obesity in individuals with severe mental illness (SMI) can vary depending on the psychiatric diagnosis. The diet and exercise requirements of losing weight are similar to the actions required of all groups, however it is acknowledged that the support in helping adults with severe mental health illnesses and leaning disabilities can involve additional complexities.

The impacts of societal changes are reflected in this quote from the Foresight Report, 'People in the UK today, don't have less willpower and are not more gluttonous than previous generations. Nor is their biology significantly different to that of their forefathers. Society, however, has radically altered over the past five decades, with major changes in work patterns,

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<sup>&</sup>lt;sup>9</sup> https://www.ntw.nhs.uk/content/uploads/2017/10/A-Weight-Off-Your-Mind-Plan.pdf

transport, food production and food sales. Being overweight has become a normal condition, and Britain is now becoming an obese society'. <sup>10</sup>

# 3.0 Policy Context

# 3.1 National Policy Context

Tackling overweight and obesity is a national government priority and there have been several national reports and policy guidance published since the original 2005 Obesity Strategy was developed. Obesity reduction remains a government and local priority. Some of the key national policy documents are outlined below:

Subsequently in terms of obesity, the government has made its intention clear: it wants to see the rising rates reversed. Its obesity strategy, 'Healthy Lives, Healthy People: A call to action on obesity in England', which was published in October 2011, set a new target for a downward trend in excess weight for children and adults by 2020.<sup>11</sup>

The document acknowledged each individual was responsible for their own choices, but states the role of the state and its partners was to support them as busy lifestyles and the 21st century environment often made it hard to make a healthy choice. Increasing physical activity rates is

<sup>&</sup>lt;sup>10</sup> Butland B, Jebb S, Kopelman P, McPherson K, Thomas S, Mardell J, Parry V. (2007) Foresight Tackling Obesities: Future Choices Project Report (2nd edition), Government Office for Science, London, UK (www.foresight.gov.uk).

<sup>&</sup>lt;sup>11</sup> Healthy Lives, Healthy People: A call to action on obesity in England (2011) HM Government (<a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/213720/dh\_130487.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/213720/dh\_130487.pdf</a>

important, for most people who are overweight or obese eating and drinking less was the "key" to weight loss. The strategy called on all sections of society to play a role, including the food and drink industry which had to do more to reduce calorie levels in their products. Local government is "uniquely well placed" to lead the drive as each community had different characteristics and problems that were best addressed at a local level.

# 3.2 Childhood Obesity Plan

Childhood Obesity: A Plan for Action (2016) sets out the Government's approach for reducing childhood obesity over the next decade. The plan aims to significantly reduce England's rate of childhood obesity within the next ten years, meaning fewer obese children in 2026 than if obesity rates stay as they are through. The plan includes:

- Introducing a soft drinks industry levy (the revenue from the levy will be invested in programmes to reduce obesity and encourage physical activity and balanced diets for school age children including: increasing the Primary PE and Sport Premium and investing in school healthy breakfast clubs. Allocations will be proportionate to local deprivation).
- Challenging the food industry to reduce overall sugar across a range of products that contribute to children's sugar intakes by at least 20% by 2020
- Developing a new framework to help families to recognise which food and drink products are healthier and which are less healthy
- Making healthy options available in the public sector e.g. ensuring that every publicsector setting, from leisure centres to hospitals, has a food environment designed so the easy choices are also the healthy ones e.g. vending and catering options

- Re-committing to the Healthy Start scheme, which provides support towards the cost of healthy food for eligible pregnant women and those with young children.
- Helping all children to enjoy an hour of physical activity a day. At least 30 minutes should be delivered in school every day through active break times, PE, extracurricular clubs, active lessons, or other sport and physical activity events, with the remaining 30 minutes supported by parents and carers outside of school time.
- Creating a new voluntary healthy rating scheme for primary schools to recognise and encourage their contribution to preventing obesity by helping children to eat better and move more. This scheme will be taken into account during Ofsted inspections.
- Making school food healthier by encouraging all academies to commit to the 2015 school food standards and funding the expansion of healthy breakfast clubs.
- Providing clearer visual food labelling, for example, clarifying which sugars are unhealthy.
- Developing revised nutrition guidelines for early years settings and guidelines for physical activity in the early years.
- Harnessing new technology to support healthier choices e.g. Change 4 Life sugar app.
- Enabling health professionals to support families by always talking to parents about their family's diet, working towards making it the default to weigh everyone, referring people to local weight management services, clubs and websites if they ask for more advice.

As part of the policy development through the Childhood Obesity Plan progress has been made on 3 key areas: 12

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<sup>&</sup>lt;sup>12</sup> Childhood Obesity: A plan for action (2016) Gov.uk https://www.gov.uk/government/publications/childhood-obesity-a-plan-for-action

- 1. The sugar reduction programme involves Public Health England working with the food and drink industry to remove 20% of the sugar children (up to 18 years of age) consume from the foods that contribute the most sugar to their diets by 2020.
- 2. The Soft Drinks Industry Levy came into effect in April 2018. Drinks with more than 8g of total sugar per 100ml will pay 24p per litre, with drinks between 5g and 8g sugar per 100ml paying 18p. Drink with less than 5g sugar per 100ml are exempt.
- 3. The free Change4Life Be Food Smart app helps families see the amount of sugar, salt and saturated fat in food and drinks.<sup>13</sup>.

# 3.3 Local Strategic Context

3.3.1 Making Gateshead a place where everyone thrives- The Council has taken the opportunity to take a step back and reflect on the core purpose of the Council and very importantly what matters most to the people of Gateshead. This new approach gives everyone in Gateshead the opportunity to determine what matters most and the opportunity to contribute and work together to make Gateshead a place where everyone thrives. National and international research shows that narrowing the gap of inequality would result in people living longer, healthier and happier lives. Data shows that problems including those in poor health, mental illness, obesity, unequal opportunities, poorer wellbeing for children, violence and imprisonment are more common in unequal societies. Over 50% of people and families in Gateshead are either managing or just coping and over 30% are in need or in vulnerable situations. Gateshead council's ethos is that to ensure there are appropriate and effective

<sup>13</sup> 

interventions that have more sustainable impact and help more people cope that need help most.14

3.3.2 Vision 2030 is based around six big ideas to improve the economy, wellbeing and equality of opportunity for everyone in Gateshead so that all residents and businesses can fulfil their potential. Turning these 'big ideas' into reality has already had a positive impact on the lives of people in Gateshead. The plan sets out the vision for an Active and Healthy Gateshead creating healthy communities' by providing the support to encourage people to improve their health and lifestyle. 15

# 3.3.3 Making obesity everybody's business: A system and place based approach to obesity

The programme is exploring the evidence and local practice to develop guidance and tools to help councils set up a systems approach to obesity in their local area. This involves the local system of stakeholders, recognising that it is a problem that goes far beyond public health. It makes that tackling 'obesity' is everybody's business. 16

A system approach to obesity report (2017) provides local authorities with a different approach to tackling obesity. This involves the local system of stakeholders, recognising that it is a problem that goes far beyond public health. The current action research programme led by PHE, in partnership with the Local Government Association (LGA) and the Association of Directors of Public Health (ADPH) is exploring the evidence and local practice to develop guidance and tools to help councils set up a systems approach to obesity in their local area

<sup>&</sup>lt;sup>14</sup> https://intranet.gateshead.gov.uk/media/4190/Making-Gateshead-a-place-where-everyonethrives/pdf/Making gateshead thrive document A4.pdf

<sup>&</sup>lt;sup>15</sup> https://intranet.gateshead.gov.uk/article/1403/Vision-2030

<sup>&</sup>lt;sup>16</sup> http://www.leedsbeckett.ac.uk/wholesystemsobesity/a-whole-systems-approach/

and this will inform the next steps of the obesity health needs assessment and future work priorities in Gateshead.

# 4.0 Gateshead's Demographics

### 4.1 The Residents of Gateshead

Health in Gateshead is poorer than average health across England as a whole. Gateshead is the 73rd most deprived area out of the 326 local authorities in England. Furthermore, life expectancy varies by up to ten years between electoral wards. Not only do local people live shorter lives but the average quality of life is poorer when compared to England as a whole – a higher proportion of people suffer from limiting long-term illnesses such as heart disease, cancers or respiratory disease.

# 4.2 Life Expectancy

Life expectancy is the average number of years that a person is expected to live. The average Gateshead male lives for 77.7 years compared to an England average of 79.5 years. The average female in Gateshead lives for 81.4 years which is less than the England average of 83.1 years. Although life expectancy in Gateshead had increased over the last decade by 1.9 years for men and 1 year for women, they are not increasing at the same rate as for the rest of England as shown below in table 3 <sup>17</sup>

Life expectancy also varies across different wards of Gateshead with a male in the Bridges area living 9.3 years less than a male in Whickham South and Sunniside. For women, those living in Felling are likely to live 7.7 years less than those in Whickham South and Sunniside.

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Public Health England. Local Health. Available at: http://www.localhealth.org.uk/#z=405313,572834,30717,28422;v=map11;l=en

**Table 3- Life Expectancy- Gateshead Residents** 

Year	2001-	2002-	2003-	2004-	2005-	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Gateshead	74.2	74.6	75.1	75.4	75.8	76.3	76.5	76.9	76.8	77.1	77.3	77.7	77.7
(Males)													
England	76.2	74.9	76.5	76.8	77.2	77.5	77.8	78.1	78.4	79.1	79.3	79.4	79.5
(Males)													
Gateshead	79.2	79.5	79.6	80	80.4	80.5	80.7	81.1	81.3	81.3	81.1	81.2	81.4
(Females)													
England (Females)	80.7	80.9	81.1	81.5	81.7	81.9	82.1	82.3	82.7	82.9	83	83.1	83.1

# 4.3 Deaths from Preventable Causes

In Gateshead there are more deaths from causes that are considered preventable compared to the rest of England. In Gateshead 233 people per 100,000 die from causes that are considered preventable compared to the England average of 185 per 100,000.<sup>18</sup> Further information about Gateshead's population can be found in the Gateshead Joint Strategic Needs Assessment (JSNA).<sup>19</sup>

 $\frac{^{18}\,\text{http://www.newcastlegatesheadccg.nhs.uk/wp-content/uploads/2016/11/NTWND-STP-final-submission-combined.pdf}$ 

<sup>&</sup>lt;sup>19</sup> http://www.gateshead.gov.uk/Health-and-Social-Care/JSNA/home.aspx

# 5.0 Epidemiological Data

This data will be presented in sections representing key points across the life course.

# 5.1 Maternity and Early Years

Maternal obesity is defined as a Body Mass index (BMI) of 30kg/m2 or more at the first antennal appointment. Data on the prevalence of maternal obesity are not collected routinely in the UK, but there are currently around 11 million women of childbearing aged (16 to 44 years) in England, of which around 2 million (19%) are obese. Local data shows that 20% of women have a BMI over 30 on antenatal booking. Table 4 and Figure 3 illustrate that the booking data from Gateshead Health NHS Trust from (2016/2017) show that 39% (660) of women attending a booking appointment were of normal weight, 23% (380) of women were overweight and 20% (340) of women were classified as obese. Healthy eating and physical activity are important during pregnancy. Therefore, pregnant women with a body mass index of 30 or more at the booking appointment should be offered advice from an appropriately trained person on healthy eating and physical activity. Data in table 5 for 2016/17, illustrates women seen at Gateshead Health NHS Foundation Trust, 22%, of women aged 20-29 years were obese at their booking appointment, this was 170 women in total. 31% of women in the age group '40 or over' were obese at the time of their booking appointment, this equated to 15 women.<sup>20</sup>(The caveat for this data is that not all women attending a booking appointment at Gateshead Health NHS Trust (QE Hospital) will be Gateshead residents, although it is surmised the majority of women will be from Gateshead, approximately 20% of women attend the RVI in Newcastle from Gateshead ).

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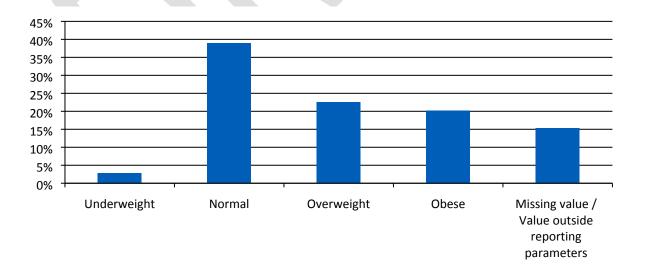
<sup>&</sup>lt;sup>20</sup> Maternity Services Data Set (MSDS), NHS Digital" (2016/2017).

Severe maternal obesity is associated with greater risk of birth complication, longer postnatal stays and wound infection. Evidence from the UK indicates that high maternal BMI is also associated with increased health service usage and healthcare cost.

Table 4 and Figure 3- Number of women by Body Mass Index (BMI) group at the time of their booking appointment, Gateshead Health NHS Foundation Trust, 2016-17<sup>21</sup>

Category	Number	Percentage %
Underweight – BMI below 18.5	45	3%
Normal weight- BMI 18.5-24.9	660	39%
Overweight- BMI 25-29	380	23%
Obese BMI-30-39.9	340	20%
Missing value/value outside	260	15%
parameters		

Figure 3 – Body Mass index of women at booking appointment<sup>22</sup> (attending QE Hospital Gateshead).



<sup>&</sup>lt;sup>21</sup> Maternity Services Data Set (MSDS), NHS Digital" (2016/2017).

<sup>&</sup>lt;sup>22</sup> Source: Maternity Services Data Set (MSDS), NHS Digital"

Table 5: Number of women with a Body Mass Index (BMI) Group of Obese at the time of their booking appointment by age group, Gateshead Health NHS Foundation Trust 2016-2017

Age at delivery	Number in each age group	% in each group that were
	that were obese	obese.
Under 20	5	8%
20-29	170	22%
30-39	145	19%
40 or over	15	31%
Missing value/value outside	*	8
parameters		

There is a large body of evidence which links maternal obesity to adverse pregnancy outcomes. In the UK, the Centre for Maternal and Child Enquiries (CMACE) summarises these risks as follows;<sup>23</sup>

- severe morbidity
- miscarriage
- cardiac disease
- spontaneous first trimester and recurrent miscarriage
- pre-eclampsia gestational diabetes
- thromboembolism
- post-caesarean wound infection
- infection from other causes, postpartum haemorrhage
- maternal death.

Due to these risks, women with a BMI over 30 and greater than 35 are considered for birth at a consultant unit (NICE, 200712). There is substantial evidence that obesity in pregnancy

<sup>&</sup>lt;sup>23</sup> https://www.hqip.org.uk/national-programmes/a-z-of-clinical-outcome-review-programmes/cmace-reports/

contributes to increased morbidity and mortality for both mother and baby. The Health Survey for England (HSE) reported an increase in obesity among women of childbearing age from 12.0% in 1993 to 18.5% in 2006.<sup>24</sup> Between 2003 and 2005, more than half of all mothers who died were overweight or obese (BMI>25 kg m-2), with over 15% being morbidly obese (BMI>40 kg m-2) or super morbidly obese (BMI>50 kg m-2).<sup>25</sup> Increased rates of obesity related morbidity and mortality social and financial costs include:<sup>26</sup>

- Obese women spend an average of 4.83 more days in hospital and the increased levels of complications in pregnancy and interventions in labour represent a 5-fold increase in cost of antenatal care.
- The costs associated with new-borns are also increased, as in babies born to obese mothers have increased admission to Neonatal Intensive Care Unit (NICU).
- Overweight and obesity in the pregnant woman also leads to a significant increase in the rate of elective and emergency Caesarean section delivery and contributes to a whole range of other fertility and reproductive disorders in women.

The demographic predictors of being obese in pregnancy highlight health inequalities that largely reflect previous research<sup>27</sup>. The analyses carried out in the study by (Neslehurst et al 2010) <sup>28</sup> on the obesity subgroups shows a striking positive relationship with deprivation and increasing levels of obesity. Therefore, women who have the highest clinical risk (super morbidly obese) are those facing the highest level of inequality. The relationship with

<sup>&</sup>lt;sup>24</sup> Information Centre. Statistics on obesity, physical activity and diet: England, January 2008. Health Survey for England. The Information Centre: London, 2008

<sup>&</sup>lt;sup>25</sup> Lewis G The Confidential Enquiry into Maternal and Child Health (CEMACH) Saving mothers' lives: reviewing maternal deaths to make motherhood safer—2003–2005. The Seventh Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. CEMACH: London, 2007.

<sup>&</sup>lt;sup>26</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5401682/

<sup>&</sup>lt;sup>27</sup> Heslehurst N, Ells LJ, Simpson H, Batterham A, Wilkinson J, Summerbell CD. Trends in maternal obesity incidence rates, demographic predictors, and health inequalities in 36 821 women over a 15-year period. BJOG: Int J Obstet Gynaecol 2007; 114: 187–194.

<sup>&</sup>lt;sup>28</sup> A nationally representative study of maternal obesity in England, UK: trends in incidence and demographic inequalities in 619 323 births, 1989–2007 N Heslehurst, J Rankin , J R Wilkinson & C D Summerbell. International Journal of Obesity volume 34, pages 420–428 (2010) doi:10.1038/ijo.2009.250

deprivation and inequalities in pregnancy is highlighted in the CMACE reports, where deprivation is significantly related to maternal death.<sup>29</sup> The 2007 report identified that women who live in the most deprived areas are five times more likely to die compared with women living in the least deprived area, and this is compounded with increasing levels of obesity pose further major health inequality issues to women.

# 5.1.2 Breastfeeding

There is some evidence that mothers who breastfeed provide their child with protection against excess weight in later life. Breastfeeding rates in Gateshead are measured from birth, known as initiation rates and continuation rates, indicating if breastfeeding continues until 6-8 weeks. For 2016/17 Gateshead performs better than the national average having 75.6% of mothers initiating breastfeeding compared with 74.5% nationally. Gateshead performs better than the regional initiation rate of 59% and is the highest area in the region (Table 6 & figure 4).<sup>30</sup>

Table 6- Percentage of breastfeeding initiation rates in Gateshead

	Period	Gateshead	North East	England	Gateshead % change
1	2010/11	67.7	57.4	73.7	
2	2011/12	65.8	58.9	74.0	-2.81%
3	2012/13	66.6	59.3	73.9	1.22%
4	2013/14	68.2	60.3	74.0	2.40%
5	2014/15	67.5	60.1	74.3	-1.03%
6	2015/16				-
7 <sup>31</sup>	2016/17	75.6	59.0	74.5	Increase

<sup>&</sup>lt;sup>29</sup> Lewis G The Confidential Enquiry into Maternal and Child Health (CEMACH) Saving mothers' lives: reviewing maternal deaths to make motherhood safer—2003–2005. The Seventh Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. CEMACH: London, 2007.

<sup>30</sup> http://www.who.int/elena/titles/bbc/breastfeeding\_childhood\_obesity/en/

<sup>31</sup> https://www.england.nhs.uk/statistics/statistical-work-areas/maternity-and-breastfeeding/

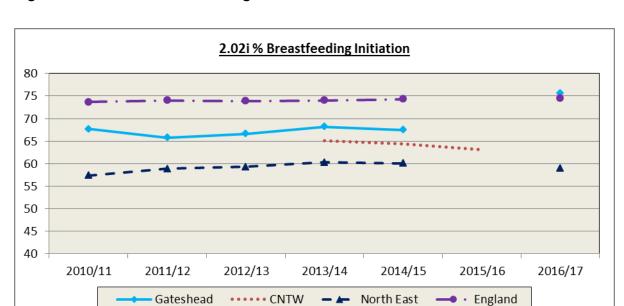


Figure 4- Trends of breast feeding initiation rates for Gateshead

There is evidence that maternal obesity is associated with lower breastfeeding rates. A systematic review found that maternal obesity was a risk factor for decreased intention and initiation of breastfeeding, a shortened duration of breastfeeding and a less adequate milk supply<sup>32</sup>. However, socio economics as a potential confounding factor was not included in all studies. High gestational weight gain alongside pre-pregnancy overweight and obesity have also been linked to unsuccessful initiation and ability to sustain breastfeeding.<sup>33</sup>

The drop off rates between initiation and prevalence rates at 6-8 weeks for Gateshead are lower at 36.7% than other areas in the region. The 6-8-week Gateshead rate is higher than the regional rate of 31.3% but lower than the national figure of 43.2%. Gateshead is the third highest of all the regional areas, behind Newcastle at 46.6% and North Tyneside 38.3%. (Table 7 and figure 5). There is no published data for 2014/15 and the current method of

<sup>&</sup>lt;sup>32</sup> Winkvist A, Brantsaeter AL, Brandhagen M, et al. Maternal Prepregnant Body Mass Index and Gestational Weight Gain Are Associated with Initiation and Duration of Breastfeeding among Norwegian Mothers. J Nutr 2015;145(6):1263-70.

<sup>33</sup> http://www.who.int/elena/titles/bbc/breastfeeding childhood obesity/en/

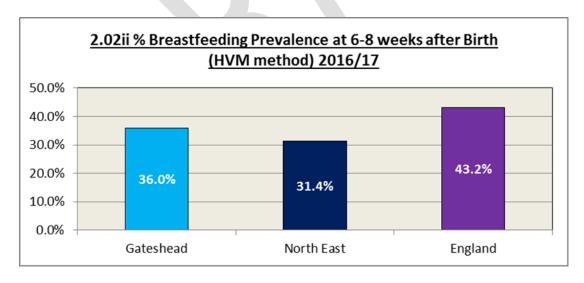
measuring has changed for the 6-8 week data, therefore 15/16 and 16/17 data is only available using the current method of calculation.

Table 7 Breastfeeding data Gateshead (6-8 weeks)

Provisio	Provisional the data has not been released on the PHOF							
	Period	Gateshead	LCI	UCI	North East	England		
1	2015/16	36.7%	34.7%	38.7%	34.1%	43.2%		
<b>2</b> <sup>34</sup>	2016/17	36.0%			31.4%	43.2%		

Evidence indicates a protective effect of breastfeeding for childhood obesity, and prolonged breastfeeding is directly related to a decreasing risk of obesity. In particularly, children being breastfed for ≥7 weeks are significantly less likely to be obese in later childhood. <sup>35</sup>

Figure 5- Breastfeeding prevalence at 6-8 week



<sup>&</sup>lt;sup>34</sup> https://www.gov.uk/government/collections/breastfeeding-statistics

<sup>35</sup> http://www.who.int/elena/titles/bbc/breastfeeding childhood obesity/en/

While the precise pathways underlying the potential protective effect of breastfeeding on overweight and obesity remain unknown, several plausible mechanisms have been proposed. Exclusive breastfeeding precludes inappropriate complementary feeding practices such as early introduction of complementary foods that could lead to unhealthy weight gain. Protein and total energy intake, as well as the amount of energy metabolised, are higher among formula-fed infants relative to breastfed<sup>36</sup>, leading to increased body weight during the neonatal period <sup>37</sup> and data suggests that both higher protein intake <sup>38</sup> and weight gain early in life is positively associated with the development of obesity later in childhood. Research shows that maternal obesity is linked to an increased risk of pregnancy related complications and children becoming obese in later life<sup>39</sup>.<sup>40</sup> Underweight babies whose catch up growth progresses too quickly are also more likely to develop obesity in later life.

# 5.2 Children and Young People

At present the health risks of obesity are more common in adults but the increase in the proportion of overweight and obese children is a major concern. Problems are likely to develop earlier if obesity continues from childhood into adult life. Of those children who are obese at preschool age, research suggests that between 26% and 41% will go on to be obese in

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<sup>&</sup>lt;sup>36</sup> Whitehead RG. For how long is exclusive breast-feeding adequate to satisfy the dietary energy needs of the average young baby? Pediatric Research. 1995; 37(2):239–43.

<sup>&</sup>lt;sup>37</sup> Owen CG, Whincup PH, Kaye SJ, Martin RM, Davey Smith G, Cook DG et al. Does initial breastfeeding lead to lower blood cholesterol in adult life? A quantitative review of the evidence. American Journal of Clinical Nutrition. 2008; 88(2):305-14.

<sup>&</sup>lt;sup>38</sup> Rolland-Cachera MF, Deheeger M, Akrout M, Bellisle F. Influence of macronutrients on adiposity development: a follow up study of nutrition and growth from 10 months to 8 years of age. International Journal of Obesity and Related Metabolic Disorders. 1995; 19(8):573-8

<sup>&</sup>lt;sup>39</sup> Confidential Enquiry into Maternal and Child Health. Saving Mothers' Lives: Reviewing maternal deaths to make motherhood safer - 2003-2005. (Accessed on 14.01.16 from: http://www.publichealth.hscni.net/publications/saving-mothers-lives-2003-2005).

<sup>&</sup>lt;sup>40</sup> Parsons, T.J. et al. Childhood predictors of adult obesity: a systematic review. [Review] [283 refs]. International Journal of Obesity & Related Metabolic Disorders: Journal of the International Association for the Study of Obesityn1999; 23 Suppl 12: pp.S1-S107.

adulthood. <sup>41</sup> Evidence shows that growth in early life influences later risk of obesity and that many risk factors for developing obesity originate during childhood is widely documented

Obesity puts children at serious risk of immediate and long-term physical, emotional, psychological and social problems, and it is the poorest children who are most affected.

Associated problems include bullying, depression, anxiety, educational failure and social isolation. Health risks include high blood pressure, asthma, poor sleep, joint problems, fatty liver disease, cancer, type 2 diabetes and multiple tooth extraction<sup>42</sup>. One 2017 study examining the trend of premature type 2 diabetes development during childhood found that over 600 children in England and Wales have been diagnosed (the first children to be diagnosed with type 2 diabetes was in the 2000s).<sup>43</sup>

Nine percent of children in England are obese when they start school and a further 13% are overweight. By the age of 10 to 11 years, 20% of children in England are obese and 14% are overweight. The differences in childhood obesity prevalence by socio-economic group are stark, and the gap widens over time. At age five the poorest 20 per cent of children are nearly

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<sup>&</sup>lt;sup>41</sup> https://www.gov.uk/government/publications/reducing-obesity-future-choices

<sup>&</sup>lt;sup>42</sup> Centers for disease Control and Prevention (2016), Childhood Obesity Causes & Consequences [last accessed via:

www.cdc.gov/obesity/childhood/causes.html]

<sup>27</sup> Centers for disease Control and Prevention (2016), Childhood Obesity Causes & Consequences [last accessed via:

www.cdc.gov/obesity/childhood/causes.html]

<sup>&</sup>lt;sup>43</sup> Sarah Knapton (2015, September 17), Obese three-year-old becomes youngest child diagnosed with Type 2 diabetes,

The Telegraph. [last accessed 21/11/17 via: www.telegraph.co.uk/news/health/news/11869249/Obese-three-year-oldbecomes-youngest-child-diagnosed-with-Type-2-diabetes.html]

twice as likely to be obese as the richest fifth; by the time children are 11 they are almost three times as likely.<sup>44</sup>

Evidence also suggests that 'unhealthy weight' is becoming more common in our society and we are all accustomed to seeing heavier body shapes. Our visual perceptions are becoming less reliable, making it difficult to know what a healthy weight should look. The evidence suggests while some may doubt if a child's weight is indicative of their weight later in life and regard so-called 'puppy fat' as a normal part of early childhood, our data suggests this is not the case.

# 5.2.1 The National Picture (School Year 2016-2017).

Data for child obesity comes from the National Child Measurement Programme (NCMP) for England that records height and weight measurements of children in Reception (aged 4-5yr) and Year 6 (aged 10-11yr) enabling analysis of prevalence and trends in childhood obesity levels.

### **National Headline Results NCMP**

 Almost a quarter of reception children were overweight and in year 6 over a third of children were overweight.

• The prevalence of obesity has increased since 2015/16 for reception but remained similar in year 6. For reception it increased from 9.3 per cent to 9.6 per cent and for year 6 it remained fairly stable at 20.0 per cent in 2016/17.

<sup>44</sup> Farooq MA, Parkinson KN, Adamson AJ et al (2017) Timing of the decline in physical activity in childhood and adolescence: Gateshead Millennium Cohort Study British Journal of Sports Medicine 0: 1-6. doi: 10.1136/bjsports-2016-096933.

- Over a longer time period, obesity prevalence is lower for reception year compared to 2006/07, but it is higher for year 6 compared to 2009/10.
- Obesity prevalence is higher for boys than girls in both age groups.
- Obesity prevalence for children living in the most deprived areas was more than double that of those living in the least deprived areas for both reception and year 6 children.
- The deprivation gap as measured by the differences in obesity prevalence between the most and least deprived areas has increased over time. It has increased more for boys than girls in year 6.
- The key findings from the national NCMP dataset since the start of the programme in 2006 suggest that being overweight or obese in reception is strongly linked to being overweight or obese in Year 6, highlighting the importance of starting school with a healthy weight.

# 5.2.2 Gateshead's Performance NCMP

• Of the 14 indicators (appendix 1) for Gateshead, performance trends are positive with 5 indicators showing an improvement, this includes an increase in healthy weight, decrease in obesity and excess weight at 4-5 years (reception) and increase in healthy weight children and participation rates (10 to 11 year olds).

6 of the 14 indicators have not improved. This includes an increase in overweight children at 4-5 years (reception) and a significant decrease in the participation rate of reception age children. Underweight and healthy weight children at year 6 (10-11) have decreased and obese and excess weight levels amongst Year 6 children (10 to 11) have increased.

Comparing the two age groups in relation to obesity and excess weight there are some distinct differences between the 2 age groups.

- •Where reception level children in Gateshead have some of the lowest prevalence for obesity and excess weight in the North East, when we reach Year 6 Gateshead has some of the highest rates of obese and excess weight children in the North East. (figure 6 & 7)
- For overweight children both Reception and Year 6 levels are very similar both showing some of the lowest prevalence of the North East Local Authorities.
- For the new severe obesity indicator, both Reception (3.35%) and Year 6 pupils (6.03%) are significantly higher than the England prevalence's and for both indicators. Gateshead is in the highest 15 local authorities in the country for this indicator.

Figure 6- Prevalence of obesity in the North East 2016/2017- Children in Reception (aged 4-5 years)

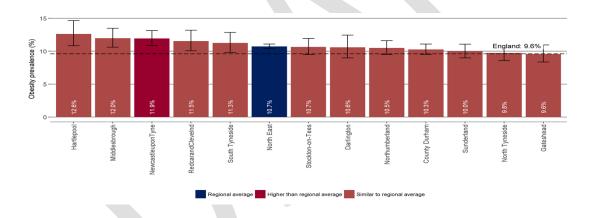
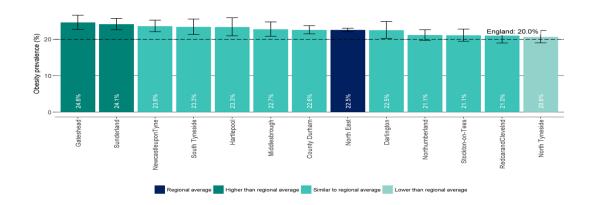


Figure 7- Prevalence of obesity in the North East 2016/2017-Children in Year 6 (aged 10-11 years)

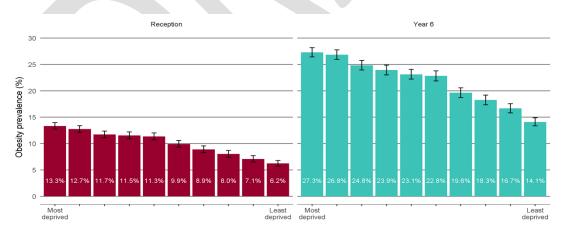


# 5.2.4 Deprivation

The burden is falling hardest on those children from low-income backgrounds. Obesity rates are highest for children from the most deprived areas and this is getting worse. Children aged 5 and from the poorest income groups are twice as likely to be obese compared to their most well off counterparts and by age 11 they are three times as likely.

Between 2006/7 and 2015/16 the obesity gap between the richest and poorest five-year-olds and 11-year-olds grew by almost two and four percentage points respectively. <sup>45</sup> According to the Royal College of Paediatrics and Child Health, in 2016, 40 per cent of all 11-year-olds in the most deprived areas were obese and overweight, compared to 27 per cent in the least deprived areas. While childhood obesity rates among the most affluent children are levelling off or decreasing, they are continuing to increase for the poorest (figure 8).





<sup>&</sup>lt;sup>45</sup> Between 2006/7 and 2015/16 the obesity gap between the richest and poorest five-year-olds and 11-year-olds grew by almost two and four percentage points respectively.21 According to the Royal College of Paediatrics and Child Health, in 2016, 40 per cent of all 11-year-olds in the most deprived areas were obese and overweight, compared to 27 per cent in the least deprived areas.22 While childhood obesity rates among the most affluent children are levelling off or decreasing, they are continuing to increase for the poorest.

<sup>&</sup>lt;sup>46</sup> Source: National Child Measurement Programme 2014/15-2016/17

Based on NCMP data and the largest population representative samples, childhood obesity rates have been consistently shown to have the highest prevalence in the most deprived areas, with an approximately linear trajectory in between (i.e. a strong social gradient in childhood obesity).<sup>47</sup>

Both Gateshead maps for reception and year 6 NCMP data (2016/2017) show the link between excess weight and children living in areas of deprivation e.g. Bridges, Bensham and Lobley Hill (based on IMD 2015) (please see Appendix 2). The data illustrates the link between deprivation and excess weight, however there are exceptions for example Whickham and Sunniside who are one of the least deprived areas and within one of the 50% least deprived areas in Gateshead, have low levels of excess weight in reception (0-10%) however for year 6 children this increases to 76-100%. (the highest categorisation). Contrary to this, is the area Elizabethville in Birtley which is within the 10% most deprived areas in Gateshead, has a rate of 75%-100% of all children in this area having excess weight for reception children, and by comparison year 6 children in the same ward are within the 11-25% lowest category for excess weight

# 5.3 Adults

### 5.3.1 National Prevalence

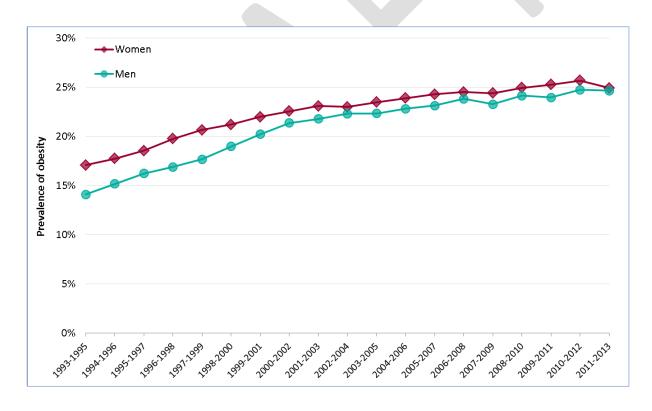
By 2050, modelling indicates that 60% of adult men, 50% of adult women could be obese. Although personal responsibility plays a crucial part in weight gain, human biology is being overwhelmed by the effects of today's 'obesogenic' environment, with its abundance of energy dense food, transport and sedentary lifestyles.<sup>48</sup>

 $^{47}$ Rutter H., Hancock C., Ells L (2014) 'Reply to 'Area-level deprivation and adiposity in children: is the relationship linear?''Int J Obesity; 38:160

<sup>&</sup>lt;sup>48</sup> McPherson K, Marsh T, Brown M. Modelling Future Trends in Obesity and the Impact on Health. Foresight – Tackling Obesities: Future Choices – Government Office for Science, 2007.

Data collection on adult obesity is not as robust as children. Modelled national data and regional data are available by the health survey for England and the Active people survey. One in four men is obese (24.7%) and one in four women is obese (24.9%). More recently the rise appears to be flattening off – but this still means that one in four adults in England is obese.<sup>49</sup> (figure 9).

Figure 9 Trends in obesity prevalence among adults from the Health Survey England 1993-2013 (3-year average)<sup>50</sup>



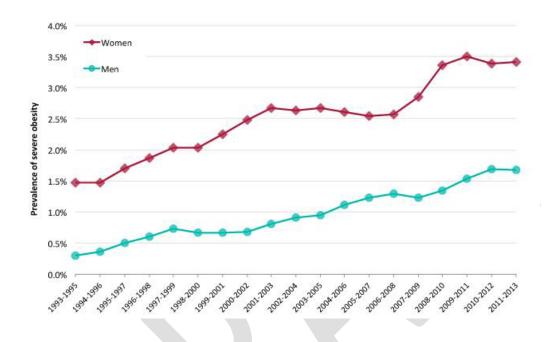
Similarly, the Health Survey for England data also show that between 1993 and 2013, the prevalence of severe obesity has increased steadily, a trend that seems to have plateaued in recent years. Severe obesity was consistently higher among women (increasing from 1.4% in

<sup>&</sup>lt;sup>49</sup> Health Survey for England (2016)

<sup>&</sup>lt;sup>50</sup> Health Survey England 1993-2013 (3-year average)

1993 to 3.9% in 2013) than among men (increasing from 0.2% in 1993 to 1.6% in 2012). (figure 10).

Figure 10 - Prevalence of severe obesity among adults 16+ Adult (aged 16+) obesity: BMI ≥ 40kg/m2 Health Survey for England 1993-2013 (3-year average

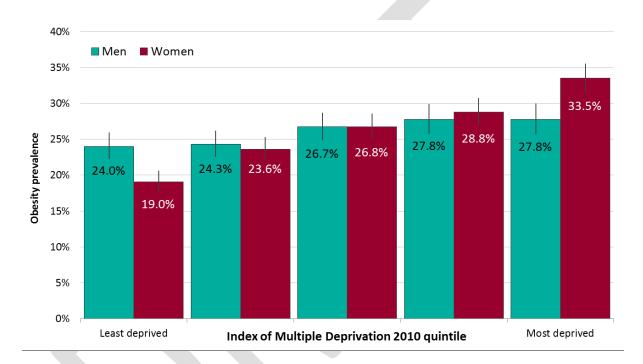


# Health Survey for England 2016-Adult overweight and obesity (self reported) key findings.

- •26% of men and 27% of women in England were obese, and a further 40% of men and 30% of women were overweight. 2% of men and 4% of women were morbidly obese.
- Obesity prevalence varied with area deprivation in women but not in men. 38% of women in the most deprived areas were obese, compared with 20% of women in the least deprived areas.
- Although women were less likely than men to be overweight or obese, they were more likely than men to say they were too heavy (50% and 40% respectively). Women were also more likely than men to be trying to lose weight (54% and 39% respectively).
- Participants were asked about their use of aids or services to help manage or change their weight. 39% of participants were using one of the aids or services asked about, most commonly going to the gym or doing exercise (29%). The next most commonly mentioned aids were websites or mobile phone apps (8%) and activity trackers or fitness monitors (6%).

Obesity does not affect all groups equally. For example, it is more common among older age groups, some minority ethnic groups, people with disabilities, people with mental health problems and people from more deprived areas, as illustrated by Figure 11:

Figure 11 - Adult obesity prevalence by deprivation (Adult (aged 16+) obesity: BMI ≥ 30kg/m2) 95% confidence intervals<sup>51</sup>.



## 5.3.2 Local Prevalence

Current data shows that 69.0% of adults in Gateshead have excess weight (overweight and obese) according to survey data (2015.2016)<sup>52</sup>. This is significantly worse than the England average of 61.3% and regional average of 66.3%. Almost two in every three adults in Gateshead has excess weight and around one in four are obese.<sup>53</sup>, see figure 12.

<sup>&</sup>lt;sup>51</sup> https://digital.nhs.uk/areas-of-interest/public-health/data-and-information/areas-of-interest/public-health/health-survey-for-england-health-social-care-and-lifestyles

<sup>&</sup>lt;sup>52</sup> Active Lives Survey, Sport England, 2015/16 (Health Profiles website)

<sup>&</sup>lt;sup>53</sup> Active Lives Survey, Sport England, 2015/16 (Health Profiles website

Figure 12-Excess weight in adults

Area	Recent Trend	Count	Value		95% Lower CI	95% Upper CI
England	-	-	61.3		61.1	61.5
North East region	-	-	66.3	Н	65.2	67.4
County Durham	-	-	67.5	H-	63.9	71.0
Darlington	-	-	71.7	$\vdash$	67.3	76.7
Gateshead	-	-	69.0	H-	64.6	73.2
Hartlepool	-	-	67.5	<b>⊢</b>	62.3	72.5
Middlesbrough	-	-	67.7	H-	63.1	72.1
Newcastle upon Tyne	-	-	63.2	H	61.1	65.3
North Tyneside	-	-	69.6	-	64.8	74.5
Northumberland	-	-	61.4	H	57.7	65.1
Redcar and Cleveland	-	-	68.8	<b>⊢</b>	64.0	74.3
South Tyneside	-	-	69.4	<b>⊢</b>	64.3	74.0
Stockton-on-Tees	-	-	65.3	<u> </u>	60.7	69.9
Sunderland	-	-	64.8	H	61.9	67.9

The 2016 Gateshead Health and Lifestyle Survey <sup>54</sup>highlighted wide variations of adult obesity across Gateshead with the highest levels in the most deprived areas. For example, in the most deprived areas of Gateshead, the proportion of obese adults is almost double compared to the least deprived areas. There are also variations across age groups, with highest levels of obesity in those aged 55 to 64 and lowest levels amongst 18 to 24 year olds. <sup>55</sup>

The survey showed variation in excess weight by age. For example, whilst 75% of men aged 35 to 64 and 74% aged 65+ are overweight or obese, this compares with just 40% of those aged under 35. The rate for women aged 35 to 64 is much higher at 58%, but the proportion does not differ in the older age bands for women, at 54% and 58% respectively.

The local survey also asked about self-perception of weight. Of those who were overweight or obese (based on the measurements they provided), 92% realised they were in that weight zone. In addition, 92% said they would like to lose weight.<sup>56</sup>. It is important to note that samples

<sup>&</sup>lt;sup>54</sup> Health and Lifestyle Survey, Gateshead Council, 2016

<sup>&</sup>lt;sup>55</sup> Health and Lifestyle Survey, Gateshead Council, 2016

<sup>&</sup>lt;sup>56</sup> Gateshead Local Lifestyle Behaviours Survey, 2012

sizes of national surveys such as the Health Survey for England and Active People Survey do not normally allow for a reliable picture of adult obesity at the local level beyond local authority level but do allow us to build a picture of obesity rates.

Estimated ward prevalence based on actual for a) practice prevalence and b) distribution of practice population by ward of residence has been calculated for Gateshead (see appendix 3) Data shows wards who are significantly higher than the Gateshead prevalence include Birtley, Lamsley Deckham, Felling, High fell, Saltwell, Wardley and Leam lane Windy Nook and Wardley. These wards mirror the wards with high prevalence rates for childhood obesity as part of the NCMP.<sup>57</sup> The data highlights the link between deprivation and obesity, which is supported by a large body of evidence. Studies have found that in most European countries, including the UK socioeconomic inequalities in obesity and associated risk factors for obesity are widening<sup>58</sup>. In the UK, as is the case in most other higher income countries, obesity is more prevalent in the lowest income quintile.<sup>59</sup>

## 5.4 Obesity related hospital admissions

The association between obesity and increased risk of many serious diseases and mortality is well documented and has led to the National Institute for Health and Clinical Excellence (NICE) developing guidelines on identifying and treating obesity<sup>60</sup>.

# There are 3 measures for the number of obesity related hospital admissions:

<sup>57</sup> North OF England Commissioning Support Unit (NECS)

<sup>&</sup>lt;sup>58</sup>World Health Organisation. Obesity: preventing and managing a global epidemic: Report of a WHO consultation of Obesity. Geneva: World Health Organisation Technical Report Series; 2000. p. 894. [PubMed] OECD. Obesity and the Economics of Prevention: Fit not Fat. Paris: OECD Publishing; 2010.

<sup>.</sup>Butland B, Jebb S, Kopelman P. McPherson K, Thomas S, Mardell J, Parry V: Tackling obesities: Future choices - Project Report. London: Government Office for Science; 2007.

<sup>&</sup>lt;sup>59</sup> Law C, Power C, Graham H, Merrick D. Obesity and health inequalities. Obes Rev. 2007;8:19–22. [PubMed] <sup>60</sup> https://www.nice.org.uk/guidance/cg43/chapter/Working-with-people-to-prevent-and-manage-overweight-and-obesity-the-issues

- NHS hospital finished admission episodes with a primary a diagnosis of obesity (admissions directly attributed to obesity).
- NHS hospital finished admission episodes with a primary or secondary diagnosis of obesity (admissions where obesity was a factor).
- NHS hospital finished consultant episodes with a primary diagnosis of obesity and a primary or secondary procedure for bariatric surgery (obesity related bariatric surgery).

## 5.4.1 Admissions directly attributable to obesity-national data

In 2016/17 nationally there were 10,705 finished admission episodes (FAEs) with a primary diagnosis of obesity. There is an increase of 8% on 2015/16. Around 3 in every 4 patients were female (72%).<sup>61</sup> The majority of patients were aged between 35-64 years old (69%).

# 5.4.2 Admissions where obesity was a factor-national data

In 2016/17 nationally there were 617 thousand admissions in NHS hospitals where obesity was recorded as the primary or secondary diagnosis. This is an increase of 18% on 2015/16 figure 12. Around 2 in every 3 patients were female (66%). For admissions where obesity was a factor, the age distribution is more uniform (see figure 13).

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<sup>61</sup> https://files.digital.nhs.uk/publication/0/0/obes-phys-acti-diet-eng-2018-rep.pdf

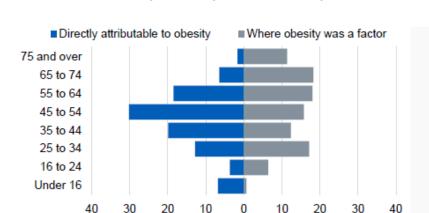


Figure 13 Admissions for obesity (primary and secondary factor)

In 2015/16, there were 6,438 Finished Consultant Episodes (FCE's) in NHS hospitals with a primary diagnosis of obesity and a main or secondary procedure of bariatric surgery. This is 23% less than the peak in 2011/12, but 5% more than in 2015/16. (Also shown on figure 14 is data that excludes gastric band maintenance)<sup>62</sup>

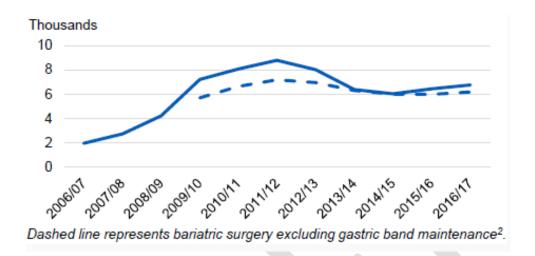
Percent

The House of Commons obesity statistics from 2018 states the number of admitted episodes for bariatric surgery which followed a diagnosis of obesity rose sharply between 2006/07 and 2011/12, but has fallen since. In 2015/16 there was a rise in procedures on women but a fall in procedures on men. Nationally three quarters of these procedures are carried out on women. The age breakdown of bariatric surgeries after a diagnosis of obesity has changed. In 2005/06, 57% of all surgeries were carried out on those aged under 44. By 2015/16 this had fallen to 43%.<sup>63</sup>

<sup>62</sup> https://files.digital.nhs.uk/publication/0/0/obes-phys-acti-diet-eng-2018-rep.pdf

<sup>63</sup> https://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN03336

Figure 14 Primary diagnosis of obesity and a main or secondary procedure of bariatric surgery



In 2015/16, bariatric surgery after a diagnosis of obesity was most common in North East England, where one in eight surgeries were performed. The local authorities with the highest rates were Telford & Wrekin and Stoke-on-Trent, followed by several North East areas (e.g. Sunderland and County Durham), and Portsmouth.<sup>64</sup>

# 5.4.3 Obesity related hospital Admissions-Gateshead Data (Patients with a primary or first secondary code of bariatric surgery)

Local data shows patients from Gateshead with admitted with a primary or first secondary procedure code of bariatric surgery (see graph in Appendix 5 & 6). The rate per 100,000 for Gateshead residents (primary or secondary reason for bariatric surgery) is 37.4% (74 people) in 2015/16 and this decreased to 55 Gateshead residents at a rate of 28.3 per 100,000 for 2016/2017. Direct comparison can't be made to 2017/18 data as the data is incomplete and only covers April-February for this time period, however numbers have increased to 76, a rate of 41.9.

42

<sup>64</sup> https://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN03336

For the time period April 2015 to February 2018, Gateshead had a standardised rate of 113.6 per 100,000 (205) for bariatric surgery, Gateshead has THE 9<sup>th</sup> lowest out of all 12 local authorities in the region, and lower than the North East rate. For this period the rate per 100,000 for bariatric surgery was highest in wards Blaydon, Chopwell and Rowlands Gill and Pelaw, Heworth, Chowdene and this supports the estimated obesity prevalence rates by ward in appendix 3. The trend for bariatric surgery in Gateshead is varied with peaks in admission rates in 2015/2016 and 2017 and overall the rates are slightly below the North East aggregate (figure 15). There is no variance by ward and females between 40 and 60 who are the most likely recipients of surgery. (Data provided by North of England Commissioning Support Unit Data team (NECS)

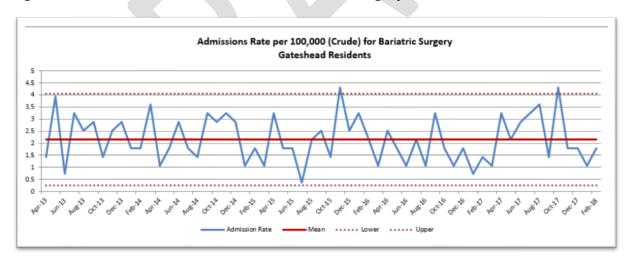


Figure 15 Trends in admission rates for bariatric surgery Gateshead

# 6.0 Physical Activity and Diet and Nutrition

Physical activity is often described as the most cost effective drug in terms of addressing obesity. The health benefits of a physically active lifestyle are well documented and there is a large amount of evidence to suggest that regular activity is related to reduced incidence of any

chronic conditions. Physical activity contributes to a wide range of health benefits and regular physical activity can improve health outcomes irrespective of whether individuals achieve weight loss.

Physical inactivity is the fourth leading risk factor for global mortality accounting for 6% of deaths globally. People who have a physically active lifestyle have a 20-35% lower risk of cardiovascular disease, coronary heart disease and stroke compared to those who have a sedentary lifestyle. Regular physical activity is also associated with a reduced risk of diabetes, obesity, osteoporosis and colon/breast cancer and with improved mental health. In older adult's physical activity is associated with increased functional capacities. Physical inactivity is responsible for one in six UK deaths (equal to smoking) and is estimated to cost the UK £7.4 billion annually (including £0.9 billion to the NHS alone). Maintaining a healthy weight and being physically active on a regular basis have positive effects on physical and mental health and life expectancy.

Just a few generations ago, physical activity was a constant part of daily life and in a relatively short period of time, the global population have become dangerously inactive. In just over 44 years (approximately 1.5 generations), physical activity in the UK has declined by 20% and is trending towards a 35% decline by 2030 (see Figure 16)<sup>65</sup>. Societal change has contributed towards a decline in everyday activity levels, not least because of an increase in office based work where the minimum of physical effort is required. Convenient lifestyles, technology to perform our work and play functions enables us to move less, and the growing reliance on cars to get about have resulted in a decline in walking and cycling as modes of travel.

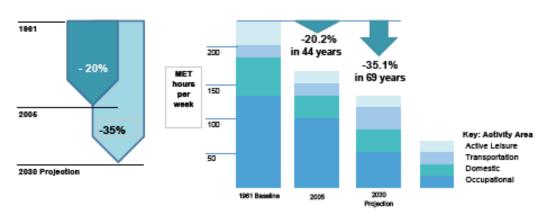
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<sup>&</sup>lt;sup>65</sup> Foresight (2007). Government Office for Science. Tackling obesities. Future choices-project report. <a href="http://www.bis.gov">http://www.bis.gov</a>. uk/foresight/our-work/projects/published-projects/tacklingobesities/reports-and-publications (accessed July 2012)

Nationally, over 50% of journeys made by car equate to five miles or less and 20% are one mile or under which is equivalent to a 20 minute walk.

Figure 16

Historic and projected physical activity levels for the UK



Total decline in Physical Activity

The decline in Physical Activity by activity area

In 2011, the first UK-wide physical activity guidelines were published by the four nations' Chief Medical Officers. The guidelines recognise that, as a nation, we are too inactive and spend excessive periods of time being sedentary, and challenge us to change our activity habits. Adults should aim to be active daily and are advised to achieve 150 minutes or more of at least moderate intensity activity each week, which will also contribute to achieving and maintaining a healthy weight.

For those adults who are already overweight or obese, physical activity brings important reductions in health risks – the more activity they do, the lower their overall risk of mortality and morbidity. NICE NG7 (2015)<sup>66</sup> recommend for adults: 'over a week, activity should add up to at least 150 minutes of moderate-intensity activity, in bouts of 10 minutes or more'.

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<sup>66</sup> https://www.nice.org.uk/guidance/ng7

Additionally, it is recommended to minimise sedentary activity, for example by taking regular breaks at work and reducing screen time.

The impacts of healthy weight and physical activity are so great that The World Health Organisation (WHO) currently ranks physical inactivity and obesity as the fourth and fifth leading risk factors for global mortality. Recent key policy physical activity guidance includes:

- In 2011 new guidelines on the amount of activity recommended for health were published by the Chief Medical Officers of the four UK countries.<sup>67</sup>
- In 2015 the UK government published 'Sporting Future 2' a new strategy for sport and physical activity, which includes 23 new key performance indicators to monitor outputs.<sup>68</sup>
- The Active Lives Survey (ALS) published by Sport England provides information on participation in sport and recreation. It was conducted for the first time in 2015/16 and replaces the Active People Survey. The survey classifies activity level into active, fairly active and inactive based on the number of minutes of moderate intensity equivalent (MIE) physical activity<sup>69</sup>
- The Health Survey for England (HSE) 2015 gathered information on self-reported participation in physical activities by children<sup>70</sup>.

# **6.1 Adults Physical Activity**

Based on the Active Lives, Sport England survey data in England (2016/17), only 66% of adults report that they undertake the recommended 150+ minutes of physical activity each

<sup>&</sup>lt;sup>67</sup>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/486622 /Sporting\_Future\_ACCESSIBLE.pdf

<sup>&</sup>lt;sup>69</sup> https://www.sportengland.org/research/active-lives-survey/measuring-sport-and-activity/

<sup>&</sup>lt;sup>70</sup> The Health Survey for England (2015)

week; in the North East this is even lower at 64% and for Gateshead 63.2% (please note the caveat that this is self reported activity).

## The Active People, Survey (2016/17) results showed that nationally 71

- •Males remained more likely to report being physically active than females (68.6% and 63.6% respectively. The gender gap is more pronounced for sporting activities and cycling, whereas women are more likely than men to walk for leisure or travel, or take part in fitness activities.
- •The percentage of adults that reported being physically active continues to decrease with age, from 75.6% amongst 19 to 24 year olds to 26.4% amongst those aged 85 and over. Although differences in activity levels by age remained, the proportion of people aged 25 to 34 that were physically active fell from 71.0% in 2015 to 2016 to 69.3% in 2016 to 2017. In contrast, those aged 65 to 74 reported an increase in being active for 150+ minutes per week (64.7% up from 63.6% in 2015 to 2016).
- Nationally the results show older people are getting more active, with the number of 55-74 year olds meeting the 150 minutes threshold increasing by 1.3%, to 58.3%. This is important given that we have an ageing population. Brisk walking, including hill and mountain walking, appears to be driving this increase.
- •Significant differences remained between those with or without a disability that were physically active; 70.2% of those with no disability, compared to 49.8% of those with a disability, reported being physically active. Only 1 in 4 people with learning disabilities take part in physical activity each month compared to over half of those without a disability.
- 51% of people with three or more impairments are inactive compared with 21% of those without a disability. (Sport England, Active Lives Survey 2017). The CMO physical activity

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<sup>&</sup>lt;sup>71</sup> https://www.sportengland.org/media/13052/active-lives-adult-survey-nov-16-17-report.pd

guidelines can be applied to disabiled adults, and should be adjusted for each individual, based on that person's exercise capacity and any special health or risk issues.

•Those that identified their ethnic group or background as mixed continued to be most likely to report being physically active (72.9%) Many minority ethnic groups have lower rates of physical activity participation and do not achieve the recommended levels of physical activity. This is most pronounced for Bangladeshi and Pakistani women, with only 11% of Bangladeshi and 14% of Pakistani women reportedly undertaking the recommended amounts of physical activity compared to 25% in the general population.

- Half of all lesbian, gay, bisexual and transgender people say they would not join a sports club, twice the number of their heterosexual counterparts.
- •There were no changes compared to 2015 to 2016 for the different socioeconomic groups. People who were in managerial, administrative and professional occupations were still most likely to be active (75.2%) whilst those who were long term unemployed or have never worked were the least likely to be active (51.2%).
- People who are long term unemployed or have never worked (NS-SEC 8) are the most likely to be inactive (37%) and the least likely to be active (49%)

# 6.1.2 Local Data- Adult Physical Activity

In Gateshead, just over half of adults undertake the recommended amount of physical activity (63.2%), which is similar to the North East average (64%) and England average (66%) Figure 17. This means that just under half of the adults in Gateshead could improve their health and wellbeing and reduce their risk of developing conditions such as heart disease, if they increase their physical activity.<sup>72</sup>

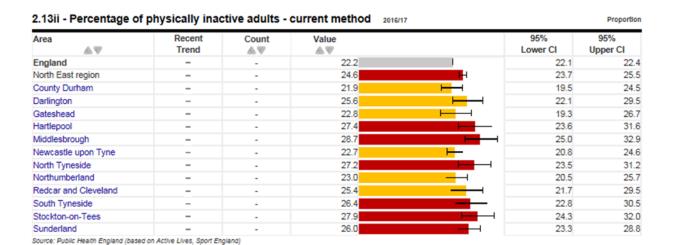
<sup>72</sup> 

Figure 17 -Percentage of physically active adults (Public Health England)

2.13i - Percentage of physically active adults - current method Proportion Area Recent Value 95% 95% Count Lower CI Trend Upper CI England 66.0 65.8 66.2 North East region 64.0 63.0 65.0 69.6 County Durham 66.7 63.8 59.5 67.7 Darlington 63.8 Gateshead 63.2 59.0 67.4 Hartlepool 60.9 56.4 65.2 Middlesbrough 54.9 63.5 64.3 68.6 Newcastle upon Tyne 66.5 North Tyneside 60.9 56.4 65.1 Northumberland 67.2 64.2 70.1 60.3 68.8 64.7 Redcar and Cleveland South Tyneside 61.2 56.8 65.4 Stockton-on-Tees 62.5 58.1 66.6 Sunderland 58.4 64.5 61.5 Source: Public Health England (based on Active Lives, Sport England)

There has been a slight increase of adults in Gateshead achieving the 150 minutes of physical activity per week from 62.8% in 2015/16 compared to 63.2% in 2016/17. Gateshead are the 8th highest local authority in the region for the percentage of adults (aged 19+) that meet CMO recommendations for physical activity (150+ moderate intensity equivalent minutes per week). For inactivity rates (less than >30 minutes of activity a week) there are only 2 local authorities with lower inactivity levels than Gateshead (see figure 18). In Gateshead 22.8% of adults 19+ were recorded from the sample as being inactive, compared to Newcastle at 22.7% and for County Durham 21.9%, this is better than the regional rate of 27.6% and national rate of 25.6.%

Figure 18- Inactive adults ((less than >30 minutes of activity a week) PHE



Please note there is a caveat in using the Active People Survey from Sport England It is important to note that the survey Active Lives is a postal to web survey and addresses are selected at random to ensure a representative sample of people are invited to take part. Data has been weighted to ONS population measures for geography and key demographics. The current published version of the Public Health Outcomes Framework is based on Active People Survey (APS) data.

# 6.2 Physical Activity Children and Young People

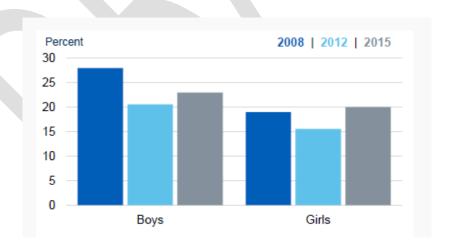
## 6.2.1 National data

According to Sport England, 80 per cent of the seven million children aged five to 15 in England do not meet the recommended daily amount of exercise. While schools play a critical role in helping children to stay active and take part in sport, children need to be supported to stay active outside of school. There is limited information available about the amount of physical activity carried out by children and young people. Since the termination of the Government's PE and Sport Strategy for Young People (PESSYP) in 2010, which measured the level of children and young people accessing the 'five hour' offer of PE and sport, there is no governing body currently collecting this information. Such data would be extremely useful to form a local

picture of the prevalence of physical activity across children and young people. However, the Health Survey for England (HSE) provides a national reflection of health related behaviours such as physical activity.

The proportion of boys who met the physical activity guidelines (60 minutes or more on all 7 days of the week, excluding activities in school) increased from 21% in 2012, to 23% in 2015, although this is still below the activity levels in 2008 (figure 19). The proportion of girls who met the guidelines increased from 16% in 2012 to 20% in 2015 (figure 20).<sup>73</sup> Time spent being sedentary during the week and at weekends increased with age for 5-15 year olds.<sup>59</sup> (figure). Sedentary behaviour is defined as activity with very low energy expenditure, undertaken primarily sitting or lying down. (Figure 20)

Figure 19 Trends in physical activity- Proportion of children aged 5 to 15 meeting physical activity recommendations (excluding activities in school lessons)



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<sup>&</sup>lt;sup>73</sup> The Health Survey for England (2015)

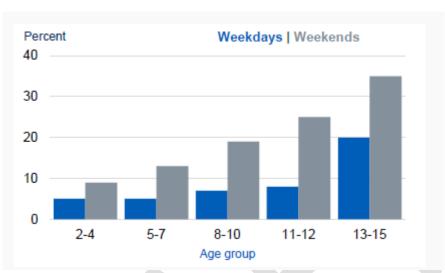


Figure 20 Proportion of children who were sedentary for 6 hours or more by age

## 6.2.2 Regional data

There is variation in physical activity levels across the country, as well as between boys and girls within regions. The proportion of girls meeting the UK CMOs' physical activity recommendations ranges from 32% in the North West to 12% in London. (At least 60 minutes (1 hour) of moderate to vigorous physical activity (MVPA) on all 7 days in the last week. For the North East region 28% of girls meet physical activity recommendations, the third highest region. The North East rate of 37% for low activity for girls was the third lowest in the region (see figure 21) Activity excludes walking or cycling to/from school. 'Some activity' which is classified as 30-59 minutes moderate physical activity on all 7 days in the last week or at least 60 minutes of moderate physical activity) on 3 to 6 days in the last week was carried out by 35% of girls in the region (compared to 39% of boys).

Figure 21 Proportion of girls aged 5 to 15 meeting physical activity recommendations (excluding activities in school lessons), by region, 2015.

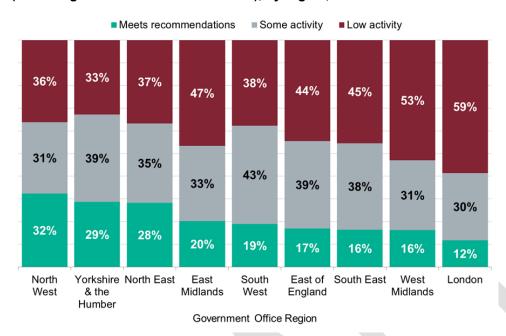
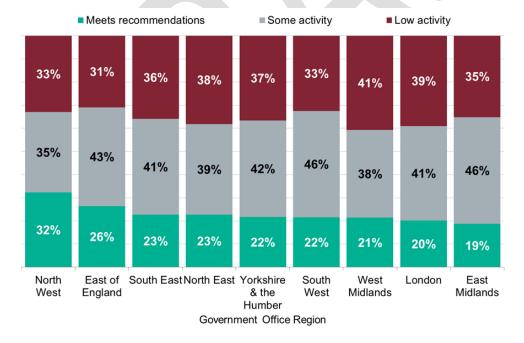


Figure 22 Proportion of boys aged 5 to 15 meeting physical activity recommendations (excluding activities in school lessons), by region, 2015



There is variation in physical activity levels across the country, as well as between boys and girls within regions. The proportion of boys meeting the UK CMOs' physical activity recommendations ranges from 32% in the North West to 19% in the East Midlands. For the North East 23% of boys (compared to 28% girls in the region) in this age group meet the

CMO's recommendation, the second highest region. Low activity was recorded at a rate of 38% for the North East the second lowest rate nationally for boys (compared to 37% for girls in the region). 'Some activity' carried out by 39% of boys in the region (compared to 35% of girls). (figure 22).

## Physical Activity Definitions-Healthy Survey for England<sup>74</sup>

Meets recommendations	At least 60 minutes (1 hour) of moderate to vigorous physical activity (MVPA) on all 7 days in the last week.
Some activity	30-59 minutes of MVPA on all 7 days in the last week or at least 60 minutes of MVPA on 3 to 6 days in the last week.
Low activity .	Lower levels of physical activity

Previous studies have shown that participation in both physical activity and sedentary behaviours follow a social gradient, such that those who are more advantaged are more likely to be regularly physically active, less likely to be sedentary, and less likely to experience the adverse health outcomes associated with inactive lifestyles than their less advantaged peers.<sup>75</sup>

#### 6.2.3 Local Physical Activity data

The Gateshead Millennium study looked to identify the timing of changes in physical activity during childhood and adolescence. There has been a widely held view among researchers that physical activity begins to decline at adolescence. Findings from the Gateshead Millennium Cohort Study indicate that physical activity is in decline from age 7 among boys and girls, challenging previous orthodoxy that it declines in adolescence and suggesting there is a need to understand why this change takes place. Habitual physical activity measurements

<sup>74</sup> Health Survey for England 2015, NHS Digital http://www.content.digital.nhs.uk/catalogue/PUB22610

<sup>&</sup>lt;sup>75</sup> Addressing the social determinants of inequities in physical activity and sedentary behaviours Kylie Ball1,\*, Alison Carver1, Katherine Downing1, Michelle Jackson1, and Kerryn O'Rourke21Centre for Physical Activity and Nutrition Research, School of Exercise and Nutrition Sciences,

in the cohort began when participants were 7 years of age (October 2006 to October 2007), repeated at 9 years of age (October 2008 to September 2009), 12 years of age (October 2011 to December 2012) and 15 years of age (October 2014 to September 2015).

The decline was not uniform, the data showed four distinct patterns that emerged for the boys: low levels that slowly tailed off from the age of 7 (3% of the sample); initially high but rapidly declining levels from the age of 7 (17%); moderate levels that gradually tailed off from the age of 7 (61%); and stable levels of moderate to vigorous physical activity throughout (19%). The Gateshead Millennium study showed three different patterns among the girls: low levels of physical activity to start with, which slowly declined from the age of 7 (19%); moderate levels that gradually tailed off from the age of 7 (62%); and high initial levels that fell sharply from the age of 7 onwards (19%).

The Gateshead Schools Health and Wellbeing Survey (SHAWS) was conducted during the 2016/2017 academic year in Gateshead and 1698 primary school pupils completed the survey (850 boys and 848 girls) broken down as follows: Year 4 – 475 pupils, Year 5 – 632 pupils, Year 6 – 511 pupils.

## **Key findings included:**

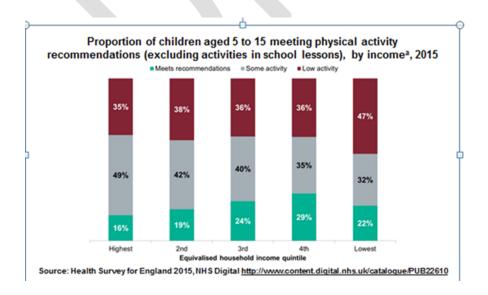
- The majority of respondents, 92% of girls and 91% of boys in Gateshead reported to enjoy exercise.
- 17% of pupils in Gateshead are exercising for 1 hour or more 7 days per week but 5% do no exercise;
- Outside of school 51% of boys and 50% of girls take part in running;
- Outside of school 62% of boys played football, 51% liked to run, walking 47% and riding a bike 39%. Compared to girls who for physical activity outside of school took part in walking 55%, dancing/gymnastics 51%, running 50% and swimming 44%.

- 50% of pupils walk to school whilst 34% travel by car;
- In a typical day of the week 23% of pupils spend more than 3 hours on computers, games consoles, smartphones or other similar devices but this increases to 35% on a weekend day (Appendix 6)

## 6.2.4 Physical Activity and Deprivation

The Healthy Survey for England (2015) looked at national physical activity levels by income and the impact upon children's physical activity levels. The data shows the proportion of children aged 5 to 15 meeting physical activity recommendations (excluding activities in school lessons) by income. The proportion of children aged 5 to 15 achieving current recommendations varied by household income. The proportion of children meeting current recommendations was smaller in the higher income quintiles than in the lower income quintiles. Conversely, the proportion of children classified in the low activity group (47%) was larger in the lower income quintiles than in the higher income quintiles (35%) (figure 23)

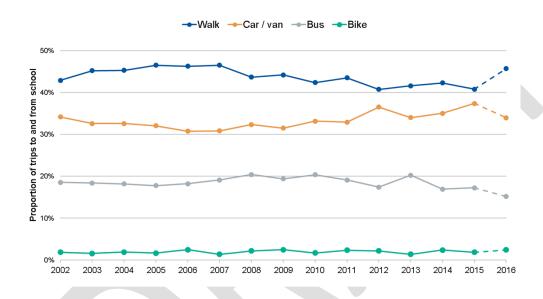
Figure 23 Proportion of children meeting physical activity recommendation (excluding activities in school) by income.



#### 6.2.5 School Travel

In England, walking was reported as the most common way children travelled to and from school in 2015. However, the difference between walking and travelling by car or van is the smallest reported during the last 14 years. Cycling rates have remained consistent with 2% cycling to school in 2015 (figure 24).

Figure 24 Proportion of trips to and from school for children (aged 5–16 years) by main mode of transport, 2002 to 2016a

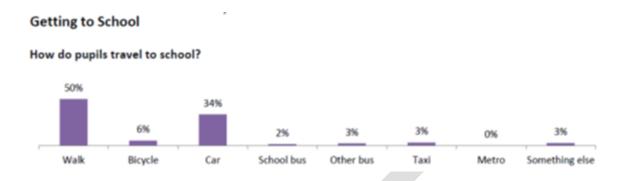


The Schools Health and Wellbeing Survey (SHAWS) <sup>76</sup> results showed that 50% of pupils walk to school whilst 34% travel by car and 6% cycle to school (figure 25).

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<sup>&</sup>lt;sup>76</sup> The Schools Health and Wellbeing Survey (SHAWS) 2016/17

Figure 25-Gateshead Pupils- Getting to school



A survey taken by the active travel team in Gateshead of 5,507 primary, infant and junior school children in Gateshead in the academic year 2017/2018, showed that the majority of pupils travelled to school by walking 2,523 (45.8%), followed by car for 1,743 pupils (31.7%), park and stride 402 pupils (7.3%), scooting 216 pupils (3.9%), followed by 192 (3.5%) and fewer pupils used dedicated bus services (3.2%), public bus (2.9%),car share (1.4%) and finally train/tube (0.3%) from the sample of 5,507 Gateshead primary school pupils. The findings from the local survey support available national data.

#### 6. 3 Diet and nutrition

Obesity occurs when energy intake from food and drink consumption is greater than energy expenditure through the body's metabolism and physical activity over a prolonged period, resulting in the accumulation of excess body fat.

Diet and nutrition are important for health and poor diet is a major risk factor for ill-health and premature death. 'Diseases of lifestyle' in which smoking, diet, alcohol and sedentary behaviours are contributory factors are the main causes of premature death in England among adults. Eating habits are established in childhood and adolescence, and therefore the diet and eating habits of some young people are of particular concern.

Government guidelines state that everyone should eat at least five portions of a variety of fruit and vegetables every day. The '5-a-day' guidelines were developed based on the recommendation from the World Health Organisation that consuming 400g of fruit and vegetables a day can reduce risks of chronic diseases e.g. heart disease, stroke, and some cancers. Diet and nutrition in early life influence outcomes in later life and are therefore important indicators of health inequalities.

#### **6.3.1 Adults**

The Health Survey for England (2015) reported that 26% of adults ate the recommended 5 portions a day in 2015. Women (27%) were more likely to do so than men (24%) (see figure 26). Men and women in the 65-74 year old category, followed by 45-44 and 35-44 year olds are most likely to eat 5 a day, with 16-24 year olds least likely to eat the recommended portions.

Figure 26-Percentage eating 5 or more portions a day

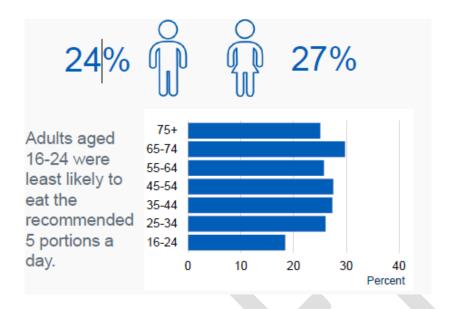
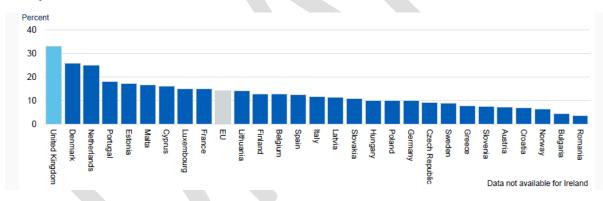


Figure 27-Percentage eating 5 or more portions a day: UK comparison with other European countries



Results from the European interview survey 2014, showed the UK as having the highest proportion of the population eating 5 or more portions of fruit and vegetables per day (33%). This compared to an EU average of 14%<sup>77</sup> (Based on persons aged 15+). Please note that the source of UK data differs from the statistics quoted for England for the Health Survey 2015 and is not comparable).

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<sup>&</sup>lt;sup>77</sup> Eurostat, European Health Interview Survey (EHIS), 2014

#### 6.3.2 Local Data- Adults

The Active Lives Survey (2015/16) survey showed that just 58.9% of those surveyed aged 16+ in Gateshead were eating the recommended five portions of fruit and vegetables every day. This compares with the England average of 56.8% and regional average of 57.1%. Gateshead were the third highest area in the region for 5 a day consumption<sup>78</sup> (see figure 28) (please note this is self reported data).

Figure 28 Proportion of the population eating the recommended 5 a day on a usual day (adults)

2.11i - Proportion of the population meeting the recommended '5-a-day' on a 'usual day' (adults) - current method 2015/16

Proportion - % 95% 95% Recent Value Area Count Lower CI Upper CI Trend England 56.8 56.6 57.0 North East region 57.1 56.1 58.2 County Durham 59.7 56.6 62.8 53.7 62.3 Darlington 58.1 Gateshead 58.9 54.5 63.2 Hartlepool 54.0 58.4 37.1 Middlesbrough 41.6 46.1 56.3 60.6 Newcastle upon Tyne 58.5 53.5 62.2 North Tyneside 57.9 54.2 60.3 Northumberland 57.3 Redcar and Cleveland 56.4 52.0 60.7 54.8 63.6 South Tyneside 59.3 Stockton-on-Tees 57.3 52.8 61.5 Sunderland 55.9 52.8 59.0 Source: Public Health England (based on Active Lives, Sport England)

A local survey conducted in 2016 (Adult Health and Lifestyle Survey) recorded 48% of Gateshead adults eating 5-a-day. The survey found that a further 38% were eating 3 to 4 portions per day and 11% have 1 or 2 portions and just 4% have none (although this means 1 in 25 people do not have any fruit or veg on a typical day) <sup>79</sup>]. Women seem to be more likely than men to eat 5-a-day, and this is definitely the case for older women aged 65+ with 73% eating 5-a-day compared to 44% of older men. Main findings from the survey below show that unhealthy choices cluster together.

<sup>&</sup>lt;sup>78</sup> Active Lives Survey, Sport England, 2015/16 (PHOF website)

<sup>&</sup>lt;sup>79</sup> Health and Lifestyle Survey, Gateshead Council, 2016

- Only 32% of those who do not get the recommended level of exercise (150+ minutes per week) and 33% of those who smoke eat the recommended 5-a-day compared with the average for all people of 48%.
- 20% of respondents said they eat takeaways once a week or more often. Working age people are far more likely to eat takeaway food weekly or more often (24% aged under 35 and 22% aged 35 to 64) than those aged 65+ (6%).

## 6.4 Children and Young People

Diet and nutrition in early life influence outcomes in later life and are therefore important indicators of health inequalities <sup>81</sup>. <sup>82</sup> Healthy diets in school children established at an early age lead to better health outcomes, educational attainment, and protect against high blood pressure, cholesterol and diabetes in adulthood<sup>83</sup>. Therefore, health inequalities in the incidence of child obesity have a multiplying effect for health outcomes in later life.

Our diets can also affect how we concentrate, behave and perform. Research carried out by the School Food Trust in primary and secondary schools, following improvements in the nutritional quality of schools meals showed pupils were more alert and over 3 times more likely to be 'on-task' working in the classroom after lunch<sup>84</sup>

<sup>80</sup> Health and Lifestyle Survey, Gateshead Council, 2016

<sup>&</sup>lt;sup>81</sup>Department of Health.2011. Healthy lives, healthy people: a call to action on obesity in England.

<sup>&</sup>lt;sup>82</sup>The Marmot Review.2010. Fair Society Healthy Lives Strategic Review of Health Inequalities in England Post – 2010. Institute of Healthy Equity

<sup>83</sup> Louise Bazalgette. For Starters (Demos, 2012).

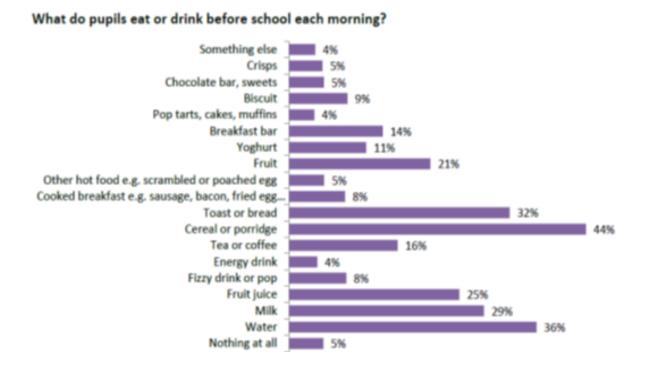
<sup>84</sup> www.schoolfoodtrust.org.uk

#### 6.4.1 Local Data

The Schools Health and Wellbeing Survey (SHAWS) was conducted during the 2016/2017 academic year in Gateshead and key findings regarding diet and nutrition included: (see figure 29).

- 65% of pupils consume 5+ portions of fruit and veg each day;
- 44% of pupils have cereal or porridge before school each morning, 36% water, 32% toast or bread and 5% of children have nothing at all for breakfast.

Figure 29 –SHAWS Data what Gateshead children and young people reported to eat or drink before school.



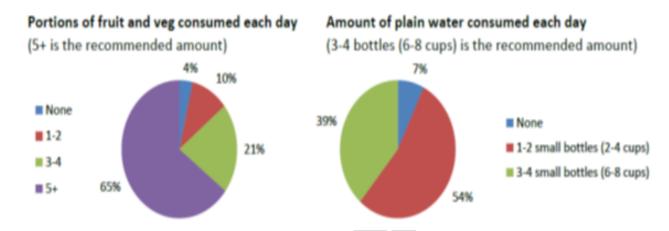


Figure 30 What about YOUth Survey (2014/15)

In the 2014/15 'What About YOUth' (WAY) survey the results showed that 46.1% of 15 year olds in Gateshead reported that they had eaten 5 portions or more of fruit and vegetables per day (figure 30). This is significantly lower than the England average of 52.4% but similar to other local authorities in the region and those in Gateshead's CIPFA nearest neighbour group. (Note that the large difference between this survey data and the HRBQ survey data in the previous bullet point may be due to the way that the question is asked. The proportion of children reporting they consumed 5 or more portions a day varied from 58% in the least deprived areas to 48% in the most deprived areas.<sup>85</sup>

## 6.4.2 Sugar Tax-Children and Young People

Guidelines set in 2015 by the Scientific Advisory Committee on Nutrition (SACN), recommend that sugar should account for a maximum of 5% of energy intake for adults and children Currently it accounts for around three times this proportion of children's energy intake.<sup>86</sup> Soft drinks are the largest source of sugar for children, followed by the other category (pizza, pasta,

<sup>&</sup>lt;sup>85</sup> Department of Communities and Local Government Index of Multiple Deprivation deciles

<sup>&</sup>lt;sup>86</sup> Public Health England-Sugar reduction- the evidence for action, October 2015, p11.

potatoes etc.), cakes and morning goods, biscuits and then breakfast and chocolate and confectionary (see figure 31).

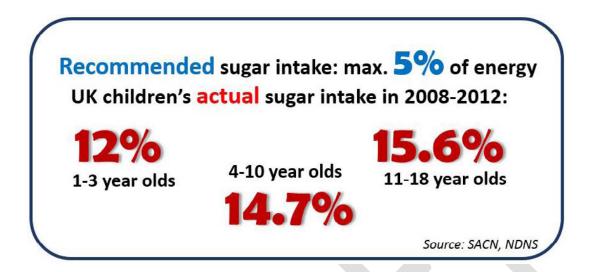
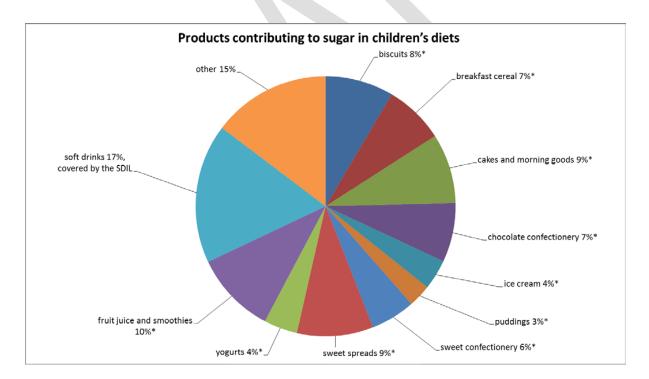


Figure 31- Sources of Sugar for Children 4-18 Years (PHE)87



'Other' consists of: Pasta, rice, pizza and other miscellaneous cereals; White and wholemeal bread; Other milk and cream; Meat and meat products; Vegetables and potatoes; Dry weight beverages; Soup, manufactured/retail and homemade; Savoury sauces, pickles, gravies and condiments.

<sup>87</sup> National Diet and Nutrition Survey (NDNS), years 7 and 8 (2014/15 - 2015/16)

It is no surprise that the Scientific Advisory Committee on Nutrition (SACN) states that high levels of sugar consumption are associated with greater risk of tooth decay. Public Health England state that a high sugar intake is associated with deprivation.<sup>88</sup> In August 2016, the government set out its approach to reduce the prevalence of childhood obesity in the 'Childhood obesity: a plan for action'. All sectors of the food and drinks industry are challenged to reduce overall sugar across a range of products that contribute most to children's sugar intakes by at least 20% by 2020, including a 5% reduction in the first year of the programme<sup>89</sup>. Overall, industry has delivered a 2% reduction in sugar content across these foods.<sup>90</sup> This does not meet the 5% year one target, however there have been reductions in yogurts and fromage frais, breakfast cereals, and sweet spreads

In 2017 The Treasury stated that they were expecting 40% of sugary drinks that would have been levy eligible to have been reformulated to bring them below the threshold – and that estimates of the money raised. 919293 from the levy have fallen from £520 million to £240 million. Consistent with this some major firms have announced plans to reformulate e.g. in 2017 'Lucozade Ribena Suntory' removed 56% of sugar from Ribena, 65% from Lucozade and 57%

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<sup>&</sup>lt;sup>88</sup> Public Health England, Sugar Reduction – the evidence for action, October

<sup>&</sup>lt;sup>89</sup> Public Health England. Sugar Reduction: Achieving the 20%. A technical report outlining progress to date, guidelines for industry, 2015 baseline levels in key foods and next steps <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/604336/">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/604336/</a>
Sugar reduction achieving the 20 .pdf

<sup>&</sup>lt;sup>90</sup> Public Health England. (2018) Sugar reduction: report on first year progress: Available at https://www.gov.uk/government/publications/sugar-reduction-report-on-first-year-progress. <sup>91</sup> The Treasury. The soft drinks industry levy. London: 2017.

<sup>&</sup>lt;sup>92</sup> The Treasury. Budget 2016: policy costings. London: 2016. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/508147/PU1912\_Policy\_Costings\_FINAL3.pdf

<sup>&</sup>lt;sup>93</sup> Office for Budget Responsibility. Economic and Fiscal Outlook March 2018. London: 2018. http://cdn.obr.uk/EFO-MaRch 2018.pdf

from Orangina, bringing those drinks below the 5g per 100ml threshold, thus avoiding paying the levy.<sup>94</sup>

It is too early to understand the overall impact of these changes on sugary drinks consumption. We need to understand the extent to which the sugary drinks industry levy (SDIL) has stimulated additional changes and longer-term policy effects, especially on health and changes in consumption patterns and attitudes to sugar will take longer to emerge.

# **6.4.3 Advertising and Promotion**

Evidence shows that exposure to food advertising can have both an immediate and longer-term impact on children's health, by encouraging greater consumption immediately after watching the advert and altering children's food preferences. Furthermore, several reviews have concluded that these effects are significant and independent of other influences. Prover time we know that small daily increases in children's calorie intakes will lead to weight gain, obesity and future ill health. Strict new rules came into effect in July 2017 banning the advertising of high fat, sugar, or salt (HFSS) food or drink products in children's media - content that is directed to, or likely to appeal to children.

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<sup>&</sup>lt;sup>94</sup> Lucozade Ribena Suntory. Sugar Reduction. https://www.lrsuntory.com/health-and-wellbeing/sugar-reduction

<sup>&</sup>lt;sup>95</sup>Cairns, G, Hasting G et al. (2013). Systematic reviews of the evidence on the nature, extent and effects of food marketing to children. A retrospective summary. Appetite 1(62), 209-15.

Boyland EJ et al. (2016). Advertising as a cue to consume: a systematic review and met-analysis of the effects of acute exposure to unhealthy food and no-alcoholic beverage advertising on intake in children and adults, 2. 40 Norman J. Kelly B et al. (2016). The impact of marketing and advertising on food behaviours: evaluating the evidence for a causal relationship. Current Nutrition Reports. 5(3), 139-49.

<sup>&</sup>lt;sup>96</sup> The American Journal of Clinical Nutrition. 20:103(2), 519-33.

<sup>&</sup>lt;sup>97</sup> Harris JL, et al. (2009). Priming effects of television food advertising on eating behaviour. Health Psychology. 28(4), 404.

<sup>&</sup>lt;sup>98</sup> Hastings G, et al. (2003). Review of the research on the effects of food promotion to children. Food Standards Agency.

<sup>&</sup>lt;sup>99</sup> Cairns, G, Angus K, Hastings G. (2009). The extent, nature and effects of food promotion to children: a review of the evidence to December 2008. World Health Organization, WHO Press.

It is acknowledged by the Government that more still needs to be done in relation to seeing further advertising restrictions applied which limit children's exposure to HFSS advertising, incentivise reformulation, and ensure that the healthiest of products are advertised freely across all programming.

Sales of energy drinks in the UK increased by 185% between 2006 and 2015, equating to 672 million litres consumed in 2015 and a total market value of over £2 billion<sup>100</sup> One of the first studies to explore children and young people's perceptions of energy drinks in a UK context, where prevalence of energy drink consumption is particularly high and the cost of many energy drink products is relatively low. Results showed that children and young people demonstrated strong brand awareness and preferences that were linked to taste and perceived value for money. The relatively low price of energy drinks and their widespread availability were identified as key factors, along with gendered branding and marketing.<sup>101</sup>

#### 6.4.4 Local data-oral health

From the 2015 survey of children's oral health, showed that children aged 5 years old within Gateshead had one of the lowest levels of dental disease when compared to the average for children across the North East (23.8%). Evidence shows that the main reason for the relatively low levels of dental disease is that Gateshead has been artificially fluoridated since the late 1960s

# 6.4.4 Body image amongst children and young people

The Schools Health and Wellbeing Survey (SHAWS) designed for Gateshead schools was conducted during 2016/2017. Results highlighted that pupils reported being bullied mainly

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<sup>&</sup>lt;sup>100</sup> BSDA. Leading the way. Annual report 2016. London: British Soft Drinks Association (BSDA), 2016.

<sup>101</sup> https://bmjopen.bmj.com/content/6/10/e010380

because of the way they look or their size or weight and the type of bullying that often takes place is being made fun of or called nasty names or being deliberately left out. 59% of the bullying was reported to take place at school in the playground and the majority of the bullying is by a friend at school (38%) or someone not a friend at school (44%).

In the What about YOUth Survey (2014) 46% of 15 year old girls in Gateshead reported in the survey that they were "too fat" compared to 23% of boys. 34% of 15 year olds who thought they were "too fat" reported that "other people made fun of me because of my body weight", compared to 6% who thought they were the "right size". 102 (figure 32)

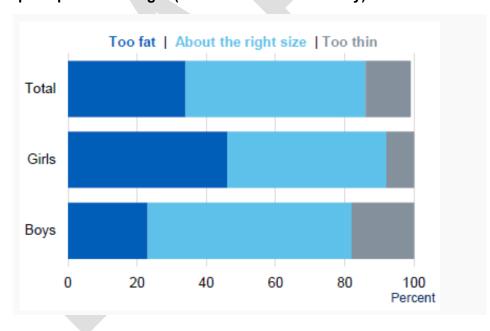


Figure 32- Self perceptions of weight (What about YOUth Survey)

Research during the last two decades has demonstrated variability in body size preference and in body image dissatisfaction among children and adolescents based on age, pubertal status, gender, ethnicity, body mass index (BMI) or weight, and family relationships. Adolescents report greater body image dissatisfaction than younger children. 103 Studies have

<sup>103</sup> Body Image and Children's Mental Health Related Behaviours: Results from the Healthy Passages Study.

<sup>102</sup> What About YOUth (WAY) Survey 2014

shown that obesity is a predictive of bullying involvement for both boys and girls. Preadolescent obese boys and girls are more likely to be victims of bullying because they deviate from appearance ideals intimidation and in prepubescent children<sup>104</sup>. Body image dissatisfaction among young people (including children who are underweight) is also not surprisingly linked to poor emotional health and wellbeing

# 6.5 Wider influences on obesity

#### 6.5.1 Obesogenic Environment- The Food Environment

The National Planning Policy Framework (NPPF) outlines that local planning authorities have a responsibility to promote healthy communities. Local plans should "take account of and support local strategies to improve health, social and cultural wellbeing for all" <sup>105</sup>.

Studies looking at access in individual local areas, found that some areas suffer from a lack of access to good food at the right price, and that food prices can often be cheaper in larger, harder to access food stores. In some low-income areas, particular foods are unavailable, there is insufficient or inadequate public transport and food prices would be different for the same food in different shops (even different stores under the same retailer), which could punish those living further away from the cheaper shop.<sup>106</sup>

Around a third of fast food outlets in England are found in the most deprived communities. Fast food outlets account for more than a quarter (26%) of all eateries in England. <sup>107</sup> In 2017,

https://academic.oup.com/jpepsy/article/32/1/30/2952456

<sup>&</sup>lt;sup>104</sup> Griffiths et al Obesity and bullying different effects for boys and girls. Arc Dis Child 2006 91(2):121-5.

<sup>&</sup>lt;sup>105</sup> Public Health England. Obesity and the environment briefing: regulating the growth of fast food outlets. March 2014.

<sup>&</sup>lt;sup>106</sup> Fabian Commission on Food Poverty. 2015.A Recipe for Inequality. Why our food system is leaving low-income households behind. Fabian Society.

<sup>&</sup>lt;sup>107</sup> PHE analysis of fast food outlets, June 2018 https://www.gov.uk/government/publications/fast-food-outlets-density-by-local-authority-in-england

there were 56,638 takeaway outlets in England, a rise of 8% (4,000 restaurants) in the past three years, according to Ordnance Survey data. The takeaway industry has reported a 34% increase in nominal expenditure on takeaway food from £7.9 billion in 2009 to £9.9 billion in 2016. Annual growth of 2.6% per annum is forecast over the next five years.

Data published by Public Health England (PHE) shows that there are generally more fast food outlets in deprived areas than in more affluent areas. In the North East the local authority with the highest density of fast food outlets per 100,000 population is Hartlepool (149 per 100,000 people) (table 8). This contrasts with North Tyneside which has the lowest density of fast food outlets (100.2 per 100,000 population). The density of fast food outlets in local authorities in England ranges from the highest at 232.2 per 100,000 population in Blackpool to the lowest at 25.7 per 100,000 of the population. The national average is 96.5 per 100,000. (see appendix 8).

Gateshead has the fifth highest rate of fast food outlets per 100 000 population in the North East (160.5 per 100,000), and is above the England value of 96.5 outlets per 100 000. There is variation in numbers of outlets between wards in Gateshead. The presence of fast food outlets in the Metro Centre gives Whickham North the highest concentration (29 fast food outlets), followed by Bridges (26 fast food outlets), Birtley (21 fast food outlets) and Felling. (20 fast food outlets). Overall, less advantaged areas have proportionally more hot food outlets than more affluent areas. Nationally Gateshead has the 25th highest proportion of fast food outlets per 100 000 population. There are three North Eastern authorities in the top 20 areas nationally for highest numbers of fast food outlets per 100,000 population, these areas are Hartlepool, Darlington and Newcastle (see appendix 9 and 10).

It is only in recent years that local authorities have started to use the legal and planning systems to regulate the growth of fast food restaurants, including those near schools. There

is some evidence that the type of food on sale nearest to schools influences the diet of schoolchildren<sup>108</sup>, and that the availability of "unhealthy" foodstuffs makes healthier choices less easy. There are strong theoretical arguments for the value of restricting the growth in fast food outlets, and the complex nature of obesity is such that it is unlikely any single intervention would make a measurable difference to outcomes on its own.

**Table 8 Fast food outlets in the North East** 

Local Authority	Count of outlets	Rate per 100,000 population
Hartlepool	149	160.5
Darlington	158	148.6
Newcastle upon Tyne 408	408	138.9
Sunderland	382	137.8
Gateshead	272	134.2
Middlesbrough	184	131.1
County Durham	624	119.6
Redcar and Cleveland	160	118.1
South Tyneside	167	111.9
Stockton-on-Tees	200	102.1
Northumberland	323	101.8
North Tyneside	204	100.2

Planning restrictions are increasingly used in the UK but there is limited evaluation of their impact. As many as 164 (of 325) English local authorities have some form of planning direction in place addressing takeaways (e.g. local plans, supplementary planning documents). Approaches used include: exclusion zones around schools, restrictions in areas with high

108 https://www.ncbi.nlm.nih.gov/pubmed/24884443

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levels of childhood obesity, restrictions centred on areas with high existing density of takeaways and financial levies imposed on new takeaway business owners.

However, there have been no robust independent evaluations of the impact of these planning interventions on takeaway outlet numbers, or changes in diet. Therefore, it is not possible to say which type of planning intervention is most effective in achieving improvements in health.

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## 6.5.2 The Gateshead Approach

The link between planning and health has been set out in the National Planning Policy Framework and is integrated in Gateshead's emerging Local Plan. The Supplementary Planning Document (SPD)<sup>109</sup> is one component in the wider Council Health and Wellbeing Strategy for tackling unhealthy lifestyles and obesity. The Supplementary Planning Document (SPD) sets out the Council's priorities and objectives in relation to planning control of hot food takeaways. Gateshead was the first Council to take a health based approach using nutritional information on hot food takeaways and detailed local obesity rates. The Gateshead Council Approach to Healthy Weight (May 2014) sets out the ambition to reduce the number of obese children in year 6 to less than 10% by 2025. Since the Supplementary Planning Document (SPD) was implemented in 2015, in Gateshead there has been no new A5s granted planning permission and the number of applications has dropped. The number of successful appeals also decreased from 5/9 in 2013 to 0/5 in 2016, and Gateshead has seen no further proliferation of A5 uses. In ruling in Gateshead Council's favour, the Planning Inspector pointed to the robustness of the local evidence that Gateshead Council was able to present.

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<sup>&</sup>lt;sup>109</sup> https://www.gateshead.gov.uk/media/1910/Hot-Food-Takeaway-SPD-2015/pdf/Hot-Food-Takeaway-SPD-2015.pdf

# The last Annual Monitoring Report (2016/17) showed that:

- Gateshead has 0.89 hot food takeaways per 1,000 residents, a continuation of the decreasing trend reported in previous reports.
- An audit of the number of hot food takeaways (A5 uses) in Gateshead, carried out in 2017, identified 179 takeaways in the Borough. The number of takeaways operating in Gateshead in 2017 represents a reduction from the number of takeaways identified in Gateshead in 2016 (192); 2015 (198), and in 2014 (202).

Although this decline in hot food takeaways can't be attributed directly to the SPD, as the SPD does not impact on existing premises. The number of hot food takeaways could increase again if a new establishment were to open in a unit that already had A5 permission.

# 6.5.3 Planning and Health

Planning authorities can influence the built environment to improve health and reduce the extent to which it promotes obesity. Urban planning can have a significant impact on opportunities for physical activity, promoting safer environments for walking, cycling and recreation.' The way land is used in communities can have a significant impact on the public's health<sup>110</sup> <sup>111</sup>. The design and quality of the environment can determine the choices made by individuals and communities.<sup>112</sup> <sup>113</sup>By giving consideration to urban design, understanding land

<sup>&</sup>lt;sup>110</sup> WHO. 2009. Core Theme Three in Phase V (2009–2013) of the WHO European Healthy Cities Network: goals and requirements. Geneva: WHO

Department for Environment, Food & Rural Affairs. 2011. The natural choice: securing the value of

<sup>&</sup>lt;sup>112</sup> Physical Activity and the Environment. 2008. National Institute for Health and Care Excellence (NICE) (Accessed on 17.11.15 from: http://www.nice.org.uk/guidance/ph8).

<sup>&</sup>lt;sup>113</sup> Faculty of Public Health. 2012. Built Environment and Physical Activity: A Position Statement. Available at: (Accessed on 17.11.15 from: http://www.fph.org.uk/uploads/briefing%20statement%20-%20built%20 environment%20and%20physical%20activity.pdf ).

use patterns, and creating transportation systems that promote walking and cycling; this can assist in generating active, healthier, and more liveable communities<sup>114</sup>. <sup>115</sup>

In relation to public spaces, studies have shown that those living closest to parks were more likely to achieve recommended physical activity levels and less likely to be overweight or obese<sup>116</sup>, those with close access to green space live longer than those without it<sup>117</sup>, (even adjusting for factors such as social class, employment and smoking) and the health of older people increases where there is more space for walking near home, with parks and tree-lined streets nearby<sup>118</sup>. Children become more active when they live closer to parks, playgrounds and recreation areas<sup>119</sup>. Evidence shows that children living near green spaces are less likely to experience an increase in body mass index (BMI) over time.<sup>120</sup> Therefore increasing the amount and quality of green space can be part of a low cost package to address health inequalities, improve health outcomes and deliver other benefits.

# 6.6 Health Inequalities

Research indicates that a relationship exists between the determinants of obesity and socioeconomic status. It has been shown that Individuals from lower socioeconomic backgrounds may have diets rich in low cost energy dense foods participate less in sports and

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<sup>&</sup>lt;sup>114</sup> Handy. S.I, Boarnet M.G, Ewing. R, Killingsworth R.E. 2002. How the Built Environment Affects Physical Activity Views from Urban Planning. American Journal of Preventive Medicine 23: 64-73.

<sup>&</sup>lt;sup>115</sup> Ogilvie. D, Foster. C.E, Rothnie. H, Cavill. N, Hamilton. V, Fitzsimons. C.F, et al. 2007. Interventions to promote walking: A systematic review. British Medical Journal, 334(7605), 1204-1213.

<sup>&</sup>lt;sup>116</sup> Institute of Health Equity (2014) Natural Solutions to Tackling Health Inequalities.

<sup>&</sup>lt;sup>117</sup> Coombes. E, Jones. A.P, Hillsdon. M. 2010. The relationship of physical activity and overweight to objectively measured green space accessibility and use. Social Science & Medicine 70: 816-822

<sup>&</sup>lt;sup>118</sup> Department of Health. 2010. Healthy Lives, Healthy People. Our Strategy for Public Health in England.

<sup>&</sup>lt;sup>119</sup> Maas. J, Verheij. R.A, de Vries. S, Spreeuwenberg. P, Schellevis. F.G and Groenewegen. P.P. 2009. Morbidity is related to a green living environment. Journal of Epidemiology and Community Health 63: 967–97.

<sup>&</sup>lt;sup>120</sup> 71 Pretty et al (2005) The Mental and Physical Health Outcomes of green exercise. Int J Environ Health Res 15:319-37

physical activity<sup>121</sup> and have lower weight control awareness. Energy dense foods often represent the lower-cost option to the consumer.<sup>122</sup>

Children from lower social classes are more likely to become overweight or obese than are children from higher social classes and are more likely to remain overweight or obese throughout early adulthood. 123 Poor maternal nutrition is associated with deprivation and can lead to low birth weight. This is often followed by rapid 'catch-up' growth leading to adolescent obesity. Mothers in lower socioeconomic groups are more likely to be overweight and less likely to breastfeed. Infants who are not breastfed and who are born to obese mothers with low socioeconomic status are more likely to have poor eating habits and become overweight and, if they fall behind in their cognitive development before the age of 3, may struggle to catch up again. It is clear that obesity is increasingly related to poverty and is likely to be passed on to subsequent generations. 124

The available evidence suggests that increased energy intake – rather than decreased physical activity – is the main driving force behind the obesity epidemic in lower socioeconomic groups. Analyses from the United Kingdom indicate that when food prices rose during a 12-month period by a massive 12% in 2007, low-income households were disproportionately affected, with a 1.6% rise in spending on food compared with a 0.3% rise on average. The data also suggest that lower income households are substituting fresh fruit and vegetables with cheaper calorie-dense processed food with high levels of saturated fat and sugar (22). Between 2007 and 2012 food became 30% more expensive and those families with young

<sup>&</sup>lt;sup>121</sup> Stamatakis E. Physical activity (2004). In: Sporston K, Primatesta P, eds. The Health Survey for England 2003, Cardiovascular Disease. London: The Stationery Office, 2004. –

<sup>&</sup>lt;sup>122</sup> Drewnowski A et al 'Poverty and Obesity: the role of energy density and energy costs.' The American Journal of Clinical nutrition Jan 2004 Vol.79 no.1 p6-16

 $<sup>^{123}</sup>$  Kinra S, Nelder R, Lewendon G. Deprivation and childhood obesity: a cross sectional study of 20,973 children in Plymouth, United Kingdom. J Epidemiol Community Health 2000;54:456 –60

<sup>124</sup> http://www.euro.who.int/ data/assets/pdf file/0003/247638/obesity-090514.pdf

children spent over 15% less on food. Energy-dense foods of poor nutritional value are cheaper than more nutritious foods such as vegetables and fruit, and relatively poor families with children purchase food primarily to satisfy their hunger.

Risk factors for obesity which are associated with deprivation include unemployment, employment as an unskilled manual worker, limited educational achievement or residing in poor neighbourhoods with limited access to cheap and healthy food and sporting/play facilities.

#### 6.7 Mental Health Conditions

Over 80% of people with a serious mental illness are overweight or obese<sup>125</sup>. Furthermore, in a study conducted by Luppino, (2010), depressed persons had a 58% increased risk of becoming obese,<sup>126</sup> and this risk increases with age.<sup>127</sup> Although obesity is such a significant concern amongst people experiencing mental illness the attention paid to it does not reflect need. In England, 26% of men and 24% of women are obese and this may be as high as 40-52% for people with serious mental illness (SMI) contributing to an excess mortality 3 times higher than the general population and a life expectancy which is 15–20 years lower.

In the North East region work has been ongoing as part of a "Weight off your Mind work programme. Obesity is a significant problem amongst people with a mental health diagnosis or learning disability and regional work has been taken forward to develop a North East 'regional weight management strategy' for people in contact with secondary care mental health and learning disability services. Locally, a survey of Northumberland, Tyne and Wear

<sup>&</sup>lt;sup>125</sup> National Institute of Mental Health (2013) NIH Study Shows People with Serious Mental Illnesses Can Lose Weight, March 21, 2013

<sup>&</sup>lt;sup>126</sup> Luppino, F. et al (2010) Overweight, obesity, and depression: a systematic review and meta-analysis of longitudinal studies. Archives of General Psychiatry 2010;67(3):220-9.

<sup>&</sup>lt;sup>127</sup> ivimaki, M. et al (2009) Association between common mental disorder and obesity over the adult life course, British Journal of Psychiatry, 195(2), August 2009, pp.149-155

inpatients with SMI demonstrated that over a 2 year period from 2014 to 2016 the proportion of those classed as overweight/obese increased from 63% to 82%.

# 6.8 Learning Disabilities

. A higher proportion of people with learning disabilities are obese. For most the diet and exercise requirements of losing weight are similar to the actions required of others. However, the task of helping people with LD achieve this involves additional complexities. The most recent data on prevalence of excess weight in adults (aged 18 and older) with learning disabilities is based on analysis of data from GPs across the whole of England. This data showed that, in comparison to the general population, a smaller proportion of people with learning disabilities are in the milder category termed 'overweight' (30% of men and 25% of women compared to 41% of men and 31% of women without a learning disability). However, there are higher proportions in the more severe category of obese (31% of men and 45% of women compared to 24% of men and 27% of women without a learning disability).

# 7.0 At Risk Groups

According to research, the following sectors of the population are at considerably higher risk of developing obesity, with an associated increase in the incidence and prevalence of related comorbidities.

# Obesity does not affect all groups equally 128

Children and young people	>For genetic and/or environmental reasons from
	families where one or both parents are overweight
	or obese. <sup>129</sup>
	>Children living within households with the lowest
	level of household income have higher rates of
	obesity than children from households with the
	highest level of household income <sup>130</sup>
People from more deprived areas	Obesity prevalence in England is known to be
	associated with many indicators of socioeconomic
	status, with higher levels of obesity found among
	more deprived groups. The association is stronger
	for women than for men. 131
Older age groups	The prevalence of obesity and overweight changes
	with age. Prevalence of overweight and obesity is
	lowest in the 16–24 years age group, and generally
	higher in the older age groups among both men and
	women. <sup>132</sup>
Some black and minority ethnic	Prevalence of obesity is higher among women of
groups (BME)	Black Caribbean, Black African, and Pakistani
	ethnicities, compared to the other ethnic groups. For

<sup>&</sup>lt;sup>128</sup> Public Health England (2015) Making the case for tackling obesity – why invest?

<sup>&</sup>lt;sup>129</sup> Perez-Pastor EM, Metcalf BS, Hosking J, Jeffery AN, Voss LD and Wilkin TJ. Assortative weight gain in mother—daughter and father—son pairs: an emerging source of childhood obesity. Longitudinal study of trios (EarlyBird

<sup>&</sup>lt;sup>130</sup> NOO (2012) Child Obesity and Socioeconomic Status

 $<sup>^{131}</sup>$  Public Health England. Adult obesity and socioeconomic status data factsheet. August 2014

<sup>&</sup>lt;sup>132</sup> Public Health England. Adult Weight data factsheet, August 2014

	men, obesity prevalence is highest in Black
	Caribbean, White and Irish ethnic groups. 133
	There is variation in obesity prevalence by ethnic
	group for both Reception and Year 6 children. Boys
	in Year 6 from all minority groups are more likely to
	be obese than White British boys. For girls in Year
	6, obesity prevalence is especially high for those
	from Black African and Black Other ethnic groups.
	Some of these differences may be due to the
	influence of factors such as deprivation and,
	possibly, physical differences such as height. <sup>134</sup>
Adults and children with disabilities.	>Data from the Health Survey for England (HSE)
	show that obesity rates among adults with a long-
	term limiting illness or disability (LLTI) are 57%
	higher than adults without a LLTI <sup>135</sup>
	>Analysis of combined data from the HSE 2006–
	2010 shows that children aged 2–15 with a limiting
	long-term illness (LLTI) are approximately 35%
	more likely to be obese than children without a
	LLTI. <sup>136</sup>
Pregnancy	>Women who are overweight or obese before they
	conceive have an increased risk of complications

 $<sup>^{133}</sup>$  Public Health England. Adult slide set. 2013. Adult obesity prevalence by ethnic group. Health Survey for England 2006-2010

<sup>&</sup>lt;sup>134</sup> Public Health England. Child Weight data factsheet, August 2014

<sup>&</sup>lt;sup>135</sup> Gatineau, M, Hancock C, Dent, M. Adult disability and obesity. Oxford: National Obesity Observatory, 2013

 $<sup>^{136}</sup>$  Gatineau M. Obesity and disability: children and young people. Oxford: Public Health England Obesity Knowledge and Intelligence, 2014

during pregnancy and birth. This poses health risks for the mother and baby. >There is also evidence that maternal obesity is related to health inequalities, particularly socioeconomic deprivation, inequalities within ethnic groups and poor access to maternity services. >Maternal BMI status is also shown to relate to health inequalities, particularly for women who live in the areas of the most deprivation who are almost two and a half times more likely to be obese at the start of pregnancy than women who live in areas of least deprivation. 137-People with a mental health >There are bi-directional associations between mental health problems and obesity, with levels of condition obesity, gender, age and socioeconomic status being key risk factors. 138 >Those people with a diagnosis of schizophrenia or bipolar disorder have been identified as being at increased risk of greater levels of obesity and associated conditions, such as heart disease and diabetes.

<sup>&</sup>lt;sup>137</sup>NI CE (2008) Improving the nutrition of pregnancy and breastfeeding mothers and children in low-income households. March 2008, NICE.

<sup>&</sup>lt;sup>138</sup> 47 NOO (2011) Obesity and Mental Health

<sup>48</sup> Department of Health (2006) Choosing Health: Supporting the physical health needs of people with severe mental illness. DH: London

>Literature reports that there is increased
prevalence of obesity and overweight among people
with learning disabilities. 139
<b>)</b>

# 8.0 The Health Consequences of Obesity

# 8.1 Health Impacts of Obesity

There is strong evidence to show that adult obesity is associated with a wide range of health problems which include type 2 diabetes, coronary heart disease, some types of cancer (such as breast cancer and bowel cancer) and stroke. Obesity can also impact on people's quality of life and lead to psychological problems, such as depression and low self-esteem. The wider costs of obesity to society across the life-course are estimated to be around 15 billion pounds. By contrast the UK spends only around £638 on obesity prevention programme. 140

# 8.1.1 Pregnancy

There is evidence to suggest that obesity may be a risk factor for maternal death. Data shows that in a report reviewing maternal deaths 2006–2008, 47% of mothers who died from direct causes were either overweight or obese, as were 50% of women who died from Indirect causes. This means that overall, 49% of the women who died and for whom the BMI was known were either overweight or obese. When considering obesity alone, that is a BMI of 30 or more, 30% of mothers who died from direct causes and for whom the BMI was known were obese, as were 24% of women who died from Indirect causes; 27% overall. In terms of the impact of maternal weight on specific causes of death, it was most significant for mortality from thromboembolism, where 78% of the mothers who died were overweight or obese.

<sup>140</sup> Royal College of Paediatrics and Child Health –Tackling England's childhood obesity crisis, October 2015, p.4

<sup>&</sup>lt;sup>139</sup> Nocon, A. (2006) Background evidence for the DRC's formal investigation into health inequalities experienced by people with learning disabilities or mental health problems. Disability Rights Commission

#### 8.1.2 Diabetes

The rising burden of Type 2 diabetes and obesity are prominent themes in national and local policy and strategy. Obese adults are five times more likely to be diagnosed diabetes than adults of a healthy weight. In Gateshead the estimated prevalence of undiagnosed and diagnosed diabetics (2015) is 8.6% over 16 years.<sup>141</sup>, this is higher than the England rate of 8.5%. Due to the impact of obesity on type 2 diabetes, the rising prevalence of obesity has led and will continue to lead to a rise in the prevalence of diabetes.

# 8.1.3 Musculoskeletal (MSK)

Evidence suggests that two in three obese adults will develop osteoarthritis and that obesity in early adults predicts osteoaritis many years later. Obese people are twice as likely to develop osteoarthritis and more than two out of thee knee replacements and one in four hip replacements in middle aged women in the UK are attributed to obesity. Evidence shows weight loss at very stage of life, reduces the risk of developing osteoarthritis. In Gateshead 20.8% of Gateshead residents reported a MSK problem this is higher than the regional and national rate (not significantly higher). Prevalence of knee osteoarthritis in people aged 45 and over in Gateshead is 18.8%, this is a similar rate to the regional rate of 18.2%.

#### 8.2 Costs of Obesity

#### 8.2.1 Health Costs

Obesity significantly increases the risk of hospitalisation and reduces life expectancy in the severely obese by 8-10 years. Severely obese people are 3 times more likely to need social care than people with a healthy weight. Being overweight or obese is a major risk factor for a range of different illnesses and diseases, significantly increasing the risk of developing cancer,

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<sup>&</sup>lt;sup>141</sup> https://fingertips.phe.org.uk/profile/diabetes-ft/data#page/0/gid/1938133138/pat/6/par/E12000001/ati/102/are/E08000037

diabetes and cardiovascular disease amongst other complaints, and is a major factor in premature mortality.

Apart from the personal and social costs such as morbidity, mortality, discrimination and social exclusion, there are significant health and social care costs associated with the treatment of obesity and its consequences, as well as costs to the wider economy arising from chronic ill health.

The Foresight Report (2007) estimated that by 2050, the NHS cost of overweight and obesity could rise to £9.7 billion, with the wider cost to society being £49.9 billion (at today's prices). 142

Physical inactivity comes at a great cost to both an individual's health and the UK economy. The cost of inactivity on the economy, including the treatment of diseases and sickness absence, is in excess of £10bn per year in England. UK Active in its 'Turning the Tide of Inactivity' Report (2014), estimates the costs associated with physical inactivity, at a local authority level across England. The figures for the five local authorities in Tyne & Wear are shown in the table 9 below<sup>143</sup>.

**Table 9 Cost of Inactivity in the Region** 

Locality Cost of Inactivity
Gateshead £44.1m
Newcastle £46.9m
North Tyneside £36.0m
South Tyneside £32.5m
Sunderland £66.8m
Total £226.3m

<sup>&</sup>lt;sup>143</sup> Turning the Tide of Inactivity / NOMIS 2011

Forecasting shows that just a 1% reduction year on year in excess weight from 2015 could yield significant health benefits avoiding 777.000 cases of diseases a year by 2035 and saving 300 million a year in the NHS and social care costs. Moreover, over the next 20 years this level of reduction could avoid 64,200 cases of cancer<sup>144</sup>

Whilst further analysis needs to be undertaken to understand the economic consequences to Gateshead, national modelling indicates that NHS costs attributed to overweight and obesity in Gateshead are estimated to be £68.7 million per annum for 2015 (based on 2015 figures) and is likely to be significantly more. These costs are primarily derived from costs of six major obesity related conditions i.e. coronary heart disease & stroke, cancer, hypertension, type 2 diabetes and knee osteoarthritis). On top of the costs to health and social care, obesity imposes a considerable wider economic burden through reduced productivity, increased sickness absence and increased sickness benefit claims. Nationally, these have been estimated to be in the region of £49billion.

Workplace is likely to be one of the key contributing factors towards these economic costs. On average, obese people take 4 extra sick days per year. In an organisation of 1000 employees who work the national average week of 39.1 hours<sup>145</sup> and are paid the national average hourly wage of £15.52, this equates to more than £126,000 a year in lost productivity. National reports have estimated that the total impact on employers is £5.2 billion. Of this, £3.7 billion, or more than two-thirds, comes from decreased productivity in the workplace rather than outright absenteeism. There are no local data on the wider economic costs of obesity in Gateshead.

<sup>&</sup>lt;sup>144</sup> Tipping the scales: Why preventing obesity makes economic sense. Cancer Research UK

<sup>&</sup>lt;sup>145</sup> Office for National Statistics (2011) 2011 Annual Survey of Hours and Earnings (SOC 2000)

<sup>&</sup>lt;sup>146</sup> Dobbs (2014) Overcoming obesity: An initial economic analysis. McKinsey Global Institute

#### 8.2.2 Social Care Costs

There estimated annual social care costs of obesity to local authorities for social care costs is £352million <sup>147</sup>However, there is an important link between obesity and social care. Obesity is a contributory factor to the development of long term conditions such as diabetes and cardiovascular disease. Diabetes is known to double the risk of admission to a care home and may account for up to one in four residents. Residents with diabetes have an increased risk of disability, pressure sore development, and hospital re-admission.

# 8.2.3 Hospital Healthcare costs

A microsimulation model was used to forecast costs to the NHS of the consequences of overweight and obesity.<sup>148149</sup> In 2035 alone, around 440,000 new cases of disease would be attributable to overweight and obesity in the UK. This includes around 257,200 new cases of type 2 diabetes. Over the next 20 years rising levels of obesity could lead to around an additional 4.62 million cases of type 2 diabetes, 1.63 million cases of coronary heart disease and 670,000 new cases of cancer.<sup>150</sup>

A breakdown showing the hospital costs of obesity related disease nationally for the year 2011 and 2012 in England are shown in table 10 below. NHS spending on these diseases is higher as ancillary costs such as those related to community care schemes and ambulance services were not estimated.

# **Table 10- Hospital costs**

<sup>147</sup> Preliminary analysis of Health Survey for England combined data 2011 and 2012. Obesity Knowledge and Intelligence. PHE 2014

<sup>148</sup> www.foresight.gov.uk

<sup>149</sup> http://www.fph.org.uk/uploads/HealthyWeight\_SectD\_Toolkit03.pdf

<sup>&</sup>lt;sup>150</sup> Tipping the scales: Why preventing obesity makes economic sense. Cancer Research UK

Disease area	All costs (£million)					
	Primary prescribing and pharma services	A & E attendance	Outpatients	Admissions	Total	Cost attributable to obesity (£m)
CHD	16%	829	301	499	1629	266
Diabetes	47%	866	55	101	1,025	482
Stroke	6%	32	461	483	985	59
Hypertension	36%	899		10	909	327
Osteoarthritis	12%	451	206	14	736	88
Breast cancer	11.4%	134	434	57	634	72
Kidney cancer	11.4%	80	239	48	385	44
Total					6,334	1,338

Table 3: The hospital costs of obesity related disease for the year 2011/12 (£M)

# 8.2.4 Prescribing Costs

#### 8.2.5 Diabetes

- Nationally in 2015/16 the cost of prescribing drugs used in diabetes was £956.7 million,
   10.6 per cent of the total cost of prescribing in primary care (£9,049.1 million).
- Nationally in 2015/16 the number of items prescribed for drugs used in diabetes was 49.7 million, 4.6 per cent of the total number of items prescribed in primary care (1,077.1 million).
- In 2015/2016 Gateshead CCG spent a total of £36,766,909 on prescribing (BNF) and actual cost for prescribing for diabetes.
- For 2016/2017 (11 months only) Gateshead CCG spent a total of £32,308707 on prescribing (BNF) and actual cost for prescribing for diabetes.

#### 8.2.6 Orlistat

Figure 33, illustrates the trends in the number and cost of items prescribed in England since 2008. The cost of obesity prescribing has fallen faster than the number of prescriptions in recent years. In 2016 the number of prescriptions for obesity fell by 7%, but the total cost fell by 29%.

Figure 33 Number of items prescribed (Orlistat)

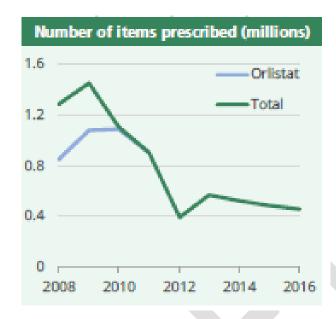


Table 11- Gateshead Orlistat Data (EPAC data)

Financial Year	BNF Chemical Substance	Items	Actual Cost
2013/14	Orlistat	575	£17,166
2014/15	Orlistat	2,167	£57,534
2015/16	Orlistat	1,861	£49,316
2016/17	Orlistat	1,932	£35,237
2017/18 (11 months)	Orlistat	1,869	£27,675

# 8.2.7 The North East Ambulance Survey (NEAS)

Local data from NEAS show the number of bariatric cases split by unscheduled / scheduled care from 01/04/2015 to 31/03/2018 inclusive. For scheduled care which is based on number of vehicles with bariatric requirement out of the total number of completed journeys and escorts amount to 1259 bariatric journeys across the 3 years which equates to 2.52% of total journey. For unscheduled care which is based on vehicles that are capable of transporting

bariatric patients, this is 817 bariatric journeys, which equates to 2.57% of all total journeys by ambulances.

# 9.0 Local Consultation and Findings

There has been no specific stakeholder engagement that has been completed as part of this needs assessment. The intention is to consult with stakeholders and the community as the next part of the healthy weight whole systems process. The health needs assessment has been undertaken as a desk top exercise, liaising with key stakeholders. It its envisaged that with the development of the 'strategy plan for healthy weight' that consultation exercises will be carried out focusing on healthy weight across the life-course.

As part of the HNA, recent consultations and local research on weight management type services have been used to inform the consultation section.

#### 9.1 Fit for the Future Research

Gateshead Council Public Health commissioned Pattinson House, a Voluntary and Community Sector (VCS) organisation in a deprived ward in Gateshead to develop a childhood obesity prevention project. This was part of ongoing work with local residents to 'build happier, healthier, friendlier communities'. The project deliberately did not specify a pre-set intervention, but encouraged community members to develop their own plans. These included a project to engage primary schools, initiatives to increase levels and types of physical activity, including yoga, cycling and dance; and offering family cooking sessions.

A Fuse embedded researcher in Gateshead Council evaluated the project and spent time with community members, children and young people, volunteers, staff, parents and teachers who lived and worked in the area.

Building on the positive relationships already in place with staff, the research followed community members in planning and developing local activities to address childhood obesity and talked to people about their experiences.

- The research uncovered major structural, environmental, social and financial barriers to health and wellbeing. It raised concerns about the lack of safe spaces for children to play, traffic and community safety. The adverse effects of welfare reform and austerity increased poor health outcomes and limited people's choices.
- Community engagement and children's activities, alongside opportunities for people to volunteer, eat, socialise, have fun, get out, learn and play together improved health and wellbeing, social support, community cohesion, sense of belonging and partnership working.
- Social relationships developed through Pattinson House helped to reduce social isolation, promote mental health, improve community connectedness and increase physical activity.
- Skilled, non-judgemental and committed staff worked alongside dedicated community members and volunteers as enablers, advocates, facilitators and supporters. The approach they took together really helped to engage people.
- Co-ordinated, trusting, respectful partnerships between local communities, VCS
  organisations and schools offer promising ways to promote community wellbeing, using an
  inclusive approach, to drive changes in the local environment. This included a successful
  campaign to reduce traffic outside primary schools.
- This responsive, collaborative approach led to: improved access to local leisure facilities; promotion of the Daily Mile in schools; young people's participation in the Harriers running club and a community carnival. Volunteers and apprentices worked together to cook a weekly, nutritious, affordable community lunch and a healthy pizza social enterprise was established with potential employment opportunities.

The research implications supported long-term funding for collaborative, targeted, place-based approaches such as Fit 4 The Future are needed to address inequalities in public health, such as obesity. A case study about this approach is included in a report by Hamblin et al (2017:10) Working together to reduce childhood obesity; ideas and approaches involving the VCSE sector, education and local government. Part of the rationale for the Fit 4 The Future study was PH recognition of the need for solutions to be co-produced with communities in areas of socio-economic disadvantage, involving people with lived experience of health inequalities. Partnerships with schools and voluntary sector organisations, such as Pattinson House, show promise in efforts to address childhood obesity. The findings of the study suggest that obesity is not about individual responsibility, and that reducing childhood obesity is a collective endeavour. Partnerships between local communities, voluntary sector services, public health and local schools offer a promising way of achieving changes in the physical and social environment, if the approach is right

# 9.2 Cross site evaluation of Integrated Health and Wellbeing Services in North East England

Research was carried out on four integrated health and wellbeing services (IHWBS) in North East England to understand what is working, where, for whom and under what conditions. Gateshead was one of the areas participating in this research <sup>152</sup>. The published findings showed that for clients using the service, smoking (38%) and weight management (27%) were the most common goals set by 1:1 service users. Where data was available on outcomes, 63% of service users achieved goals relating to physical activity and 57% reported improved

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<sup>&</sup>lt;sup>151</sup> The National Children's Bureau available

wellbeing and mental health. 40% successfully achieved goals relating to weight management and 37% achieved their smoking goals.

Findings suggest that by bringing people together and facilitating social opportunities, community-centred activities delivered as part of IHWBS contribute significantly to reducing social isolation. There was evidence that IHWBS improved community cohesion and connectedness, promoted social inclusion, volunteering, and access to advice and peer support, particularly amongst people with mental health and long term conditions

## 9.3 Livewell Gateshead Integrated Wellness Service

An external evaluation of the LiveWell Gateshead model was carried out in 2014. The key findings of the evaluation are published. Findings showed that a holistic service which was designed to address multiple health-related behaviours alongside wider determinants of health was complex and required a joined up, system approach. While the majority of participants in this study initially approached the wellbeing service with concerns about diet and exercise, multiple complex issues emerged that the service helped users to address. The results suggests that there should be a focus on the social determinants of health and facilitated access to multiple sources of support.

# 10.0 What works for healthy weight?

Approaches to addressing obesity can be broadly categorised into three areas; behaviour, environment and physiological (See Figure 34). Approaches used to influence individual behaviour generally involve the provision of information, motivational messages or empowering individuals to make healthy choices. Individual approaches need to be balanced

<sup>153</sup>M. Cheetham, P. Van der Graaf, B. Khazaeli, E. Gibson, A. Wiseman and R. Rushmer, Cheetham et al. BMC Health Services Research (2018) 18:200

https://bmchealthservres.biomedcentral.com/track/pdf/10.1186/s12913-018-3007-

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alongside wider interventions that help to make healthier choices easier e.g. encouraging people to cycle to work is of limited value if there are no cycle paths on route. A balanced approach has to be found for prevention of obesity at population level, whilst helping those who are already at risk of serious health consequences due their weight.

The evidence base on effective action to tackle obesity remains weak, and skewed towards individual level downstream approaches (trying to manage the consequences of obesity rather than more upstream approaches, which attempt to solve the real problems underpinning obesity). Much of the existing evidence base on obesity fails to take adequate account of the complex nature of the obesity system.

Environments Behaviours Physiology Environmental moderators Energy imbalance Systemic Environmental Behaviour drivers drivers patterns High food and energy Policy and economic Food supply and Sociocultural, socioeconomic, High total energy intake pushing systems enable and marketing recreation, and transport consumption with promote high growth environments environments which amplify associated low energy imbalance promote high or attenuate the drivers physical activity levels and consumption energy intake Policy interventions Drugs, surgery Health promotion programmes, social marketing, etc Population effect and political difficulty

Figure 34 Addressing obesity (Environment, Behaviours and Physiology)

#### 10.1 A System Approach

Obesity is widely recognised as a wicked issue with evidence suggesting that it will not be resolved through technical responses but requires a joint approach from multiple agencies with a long term perspective. It is an issue that affects all people in all industry, business and service and is a collective, system wide responsibility. The mobilisation of a community cannot

be managed by a single organisation and a social contract needs to be entered into and committed to. Indeed this is not a project to be rolled out but a challenging journey to be lived.

When looking to develop a whole systems approach to obesity it is important to consider the role of different organisations in influencing the determinants of health and support individual behaviour change. The Nuffield Council 'intervention ladder' <sup>154</sup>outlines a range of potential approaches which could be used to promote positive lifestyle changes such as healthy weight. The options range from the least intrusive into people's lives (such as just providing information) to the most intrusive (eliminating people's choice about what they do through legislation). An example of an intervention that sits towards the top of the ladder is the 'sugar tax' that was recently proposed and the supplementary planning guidance restricting hot takeaways, where both policy areas restricts choice for the public and ultimately have greater impact on population health. The intervention ladder is useful, as it can assist local policy makers and commissioners to understand the influence and role they have influencing people's behaviour.

# 10.1.1 Information, education and guidance

There are many ways in which parents, families and children themselves can be supported and encouraged to lead healthier lives through information, education and guidance. This can include brief interventions, self help materials, signposting to a directory of online services and information e.g. Our Gateshead. This links into the MECC approach in Gateshead that uses the many day-to-day interactions that organisations and individuals have with people as an opportunity to enhance health and wellbeing. MECC training provides staff and volunteers with the skills to engage people in conversations about the benefits of behaviour change to boost physical and mental health and wellbeing.

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<sup>&</sup>lt;sup>154</sup> http://nuffieldbioethics.org/report/public-health-2/policy-process-practice

#### 10.1.2 Restricting choice

The environment around us has increasingly led to individuals making unhealthy choices the default, or easiest choice. Restricting the built environment and developing an infrastructure that promotes healthy eating and encourages physical activity can be important to promote healthy living. Already Gateshead has restricted the number of fast food outlets, another idea is developing communities where active travel is prioritised over other forms of transport. Local authorities can play a major role in these population approaches as they are responsible for planning, transport and licensing.

Regulation has saved many lives, for example through the introduction of seat belts on the road. The recent 'sugar tax' on the soft drinks industry is a good example of this. Other initiatives where evidence suggests a positive impact on obesity, is the restriction to market and advertise high sugar food and drink products to children and adults across all media. Other programmes include the reformulation of food. Nearly all of these approaches require intervention by the Government.

# **10.2 Childhood Obesity**

Few effective interventions are in place to help those children identified as overweight or obese, making it all the more important to focus on prevention. Some weight management programmes provided in the public, private or voluntary sector which address both diet, physical activity and behaviour change, have been shown in many systematic reviews to be broadly effective. However, to aid commissioning decisions, more fine-grained evidence is needed. More information is also needed about the status of current provision within local

authorities in the UK to learn from good practice.<sup>155156</sup> Research indicates that a combination of school components, such as enhanced physical activity, changes in the food environment and comprehensive long term, community-based approaches (e.g. awareness campaigns, parental involvement, community capacity building) are promising strategies).<sup>157</sup>

According to the UK national obesity strategy, long term sustainable change will only be achieved through the active engagement of schools, communities, families and individuals with action required across government, industry, and the public sector (HM Government 2016:3). International recommendations suggest that a comprehensive portfolio of early interventions are required which focus on multiple factors, including diet, physical activity (PA) and self-esteem operating at different levels within the obesity system.<sup>158</sup>. It is clear from the evidence base that that solutions will not be found in exhortations for greater individual responsibility, nor in short-term fragmented initiatives.<sup>159</sup>

# Addressing overweight and obesity in children is more complex for several reasons.

>Firstly in adults, weight loss and a reduced BMI will be the target outcome, however amongst children, since BMI varies with age and sex and as they are still growing, the desired outcomes will vary from child to child and might be either weight reduction or deceleration of weight gain.

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<sup>&</sup>lt;sup>155</sup> Peirson L, Fitzpatrick-Lewis, Morrison K, Warren R, Ali MU, Raina P. Treatment of overweight and obesity in children and youth: a systematic review and meta-analysis. CMAJ Open. 2015;3(1)

<sup>&</sup>lt;sup>156</sup> Loveman E, Al-Khudairy L, Johnson R, Robertson W, Colquitt J, Mead E, et al. Parent-only interventions for childhood overweight or obesity in children aged 5 to 11 years. Cochrane Database of Systematic Reviews 2015 Issue 12. 2015

<sup>&</sup>lt;sup>157</sup> Brand et al (2014) What works in community-based interventions promoting physical activity and healthy eating? A review of reviews. International Journal of Environmental Research and Public Health, 11, 5866 – 5888; doi:10.3390/ijerph110605866

<sup>&</sup>lt;sup>158</sup> Cochrane Database of Systematic Reviews, Issue 12. Art. No. CD001871. DOI:

<sup>10.1002/14651858.</sup>CD001871.pub3. London www.ph.cochrane.org accessed 13.12.17

<sup>&</sup>lt;sup>159</sup> Butland B, Jebb S, Kopelman P, McPherson K, Thomas S, Mardell J, Parry V. (2007) Foresight Tackling Obesities: Future Choices Project Report (2nd edition), Government Office for Science, London, UK (www.foresight .gov.uk).

>Second, since children have less control over their food and physical activity choices the target audience for behaviour change may be the child themselves but also the parents or carers of that child. Systematic reviews have demonstrated that maternal factors such as prepregnancy overweight and maternal smoking in pregnancy increase the likelihood of childhood obesity and overweight, whilst breastfeeding and the late introduction of solid foods is moderately protective against childhood overweight (22).

In young children in particular parental feeding practices have been widely implicated in the development of weight gain and obesogenic eating behaviours In recent years, reviews of WMP effectiveness have included interventions developed for young children have produced findings specifically for South Asian populations, smartphone-based interventions and community interventions community that include school or family involvement.

However, WMPs are social interventions characterised by complexity; that is, they tend to have multiple interacting components and their effects can be moderated by many factors, including their context and the characteristics of the people targeted and those involved in service delivery. It could be argued that the only effective way to improve child health and reduce childhood obesity is to eliminate or dramatically reduce child poverty and disadvantage; a socio-economic and political issue, seen as a persistent blind spot in public health literature on obesity. <sup>160</sup>.

# 10.3 Population-based approaches to childhood obesity prevention.

The World Health Organisation (WHO) suggest population-based approaches to childhood obesity prevention are most effective. These approaches can be divided into three main

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<sup>&</sup>lt;sup>160</sup> Chaufan C, Yeh J, Ross L, Fox P. (2015) Chaufan C, Yeh J, Ross L, Fox P. (2015) YOU can't walk or bike yourself out of the health effects of poverty: active transport, child obesity and blind spots in the public health literature Critical Public Health, 25 (1) 32-47.

components; structures within government, population-wide policies and initiatives, and community-based interventions (table 12). A comprehensive strategy needs to incorporate aspects from each component.

Table 12 Population approaches to childhood obesity

Structure to support	Population-wide policies and initiatives	Community-based interventions		
policies and	and initiatives	interventions		
interventions  Leadership. 'Health-in-all' policies. Dedicated funding for health promotion. Non communicable disease* monitoring systems. Workforce capacity.	Marketing of unhealthy foods and beverages to children.     Nutrition labelling.     Food taxes and subsidies.     Fruit and vegetable initiatives.	Multi-component community-based interventions.     Early childcare settings.     Primary and secondary schools.     Other community		
Networks and partnerships.     Standards and quidelines.	Physical activity policies.     Social marketing campaigns.	settings.		

\*Non communicable diseases include a range of chronic conditions such as cardiovascular disease, diabetes, cancer, and dementia.

Source: WHO (World Health Organisation, 2012)

## 10.4 Amsterdam Model

The city of Amsterdam is leading the world in its innovative obesity work, with a radical and wide-reaching programme. The programme appears to be succeeding by hitting multiple targets at the same time – from promoting tap water to after-school activities to the city refusing sponsorship to events that take money from Coca Cola or McDonalds. From 2012 to 2015, the number of overweight and obese children has dropped by 12%. Even more impressive, Amsterdam has done what no other country has managed to do, the biggest fall in obesity rates has been amongst the lowest socio-economic groups.

Some of the policies Amsterdam has used to tackle obesity are not innovative, however the approach to focus on a number of areas as priories seem to have made the difference. Key components include:

- A ban on bringing juice to schools and investment in more water fountains around the city.
- Cooking classes to teach healthy varieties of ethnic dishes.
- City's refusal to sponsor any event joint-funded by a fast food company.
- Parents encouraged to put small children on bikes without pedals instead of wheeling them in buggies (balance bikes).
- Focus on the first 1,000 days of a child's life, including counselling for pregnant women and mothers.
- Families encouraged to eat dinner together.
- Sports centre membership and activities subsidised for low-income families
- Banning adverts in metro stations for foods deemed to be unhealthy and aimed at children
- Giving advice to housing developers on creating an "exercise friendly city" through urban planning.
- Funding programmes to link schools to sports foundations and to promote sport among poorer communities.
- Urging and supporting private business to promote healthier products, which has led for example, to bakers discounting wholemeal bread

The biggest potential lesson is about consistency and systems change but at scale. The size of Amsterdam and the centralisation of political power behind the programme makes it effective

#### 10.5 The WHO Ottawa Charter Framework

The Ottawa Charter for Health Promotion was declared by the WHO in 1986. It still provides a very relevant and useful framework for public health issues today, such as healthy weight. The five action areas could be applied to the Healthy weigh agenda going forward.

- **1. Building healthy public policy** health promotion policy combines diverse but complementary approaches, including legislation, fiscal measures, taxation and organisational change. Health promotion policy requires the identification of obstacles to the adoption of healthy public policies in non-health sectors and the development of ways to remove them
- 2. **Creating supportive environments** the protection of the natural and built environments and the conservation of natural resources must be addressed in any health promotion strategy. Work, leisure and living environments should be a source of health for people.
- 3. **Strengthening community action** community development draws on existing human and material resources to enhance self-help and social support, and to develop flexible systems for strengthening public participation in, and direction of, health matters. This requires full and continuous access to information and learning opportunities for health, as well as funding support.
- 4. **Developing personal skills through information and education skills** enabling people to learn (throughout life) to prepare themselves for all of its stages and to cope with physical and emotional elements. This has to be facilitated in school, home, work and community settings.
- 5. Re-orientating health (and other client/patient-based individual personal) care services toward prevention of illness and promotion of health the role of the health sector must move increasingly in a health promotion direction, beyond its responsibility for providing clinical and curative services. Re-orientating health services and wider system

approaches to prevention and early identification also requires stronger attention to health research, as well as changes in professional education and training.

#### 11.0 Current Provision

As a population approach, people should be encouraged to participate in universally available opportunities to eat well and be physically active, promoting good health and emotional wellbeing. Nationally current services, programmes interventions and healthy weight approaches can be categorised into four tiers (see figure 35). It is important to note that services alone with not tackle the obesity epidemic. NICE guidelines <sup>161</sup> state "It is unlikely that the problem of obesity can be addressed through primary care management alone". More than half the adult population are overweight or obese and a large proportion will need help with weight management, not just in the term of service provision but wider population approach. Although there is no simple solution, the most effective strategies for prevention and management share similar approaches. The clinical management of obesity cannot be viewed in isolation from the environment in which people live.

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<sup>&</sup>lt;sup>161</sup> NICE (2006) CG 43 Obesity: guidance on the prevention of overweight and obesity in adults and children. Available at:

http://www.nice.org.uk/guidance/ph53/resources/guidance-managing-overweight-and-obesity-in-adults-lifestyle-weight-management-services-pdf

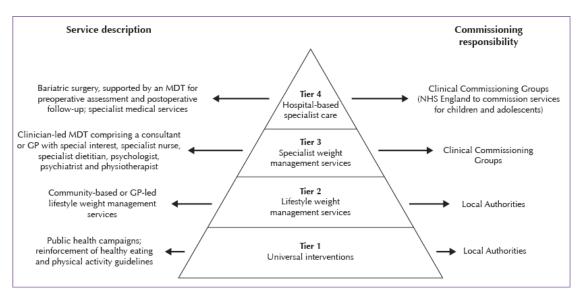


Figure 35 UK Obesity care pathway and commissioning responsibilities

Figure 1. UK obesity care pathway and commissioning responsibilities from April 2016. MDT=multidisciplinary team.

# 11.1 Maternity and Early Years

# 11.1.2 NICE Guidance

NICE guidance on the management of obesity and behaviour change, and the Foresight report, identify pregnancy as a critical period to address obesity in a woman's life course and to initiate behaviour change. However, caution is required to avoid compromising foetal growth.

NICE also refers to the management of obesity during pregnancy in its guidance on maternal and child nutrition and in its clinical guidelines for antenatal care, diabetes in pregnancy, and intrapartum care. Overall, these guidelines consider obese women to be among the high risk groups that require additional screening, intervention and monitoring.

# 11.1.3 Current Services- Maternity

Maternity Services in Gateshead requires all pregnant women accessing antenatal care to have their BMI calculated and recorded at the booking appointment. Women with a BMI over 30 should be considered for birth at a consultant unit and if the BMI is greater than 35 women are recommended to birth in a consultant unit.

# **During pregnancy:**

- Information and support to avoid excess weight gain during pregnancy (targeting obese women)
- General health advice for pregnancy on diet, nutrition, alcohol, physical activity and emotional wellbeing.

# After delivery:

- Infant feeding including encouragement and support to breastfeed.
- Healthy lifestyles information and support to reduce the risk of obesity among the children of obese mothers.

The Baby Friendly Initiative (BFI) is a global accreditation programme of UNICEF and the World Health Organization. It is designed to support breastfeeding and parent-infant relationships by working with public services to improve standards of care. Maternity services have reaches stage 1 accreditation in Gateshead<sup>162</sup>.

#### **Opportunities**

- Public Health England in June 2018 are developing a data pack to support Health Needs Assessment for Local Maternity Systems to inform future planning and commissioning.
- Further exploration with key partners and potential development of a maternal obesity pathway as part of the wider system approach.
- To ensure midwifery are linked with the 'making every contact count' (MECC)
  programme. MECC is an approach to behaviour change that uses the many
  day-to-day interactions that people have with other people to support them in

making positive changes to their physical and mental health and wellbeing.

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# 1.4.2 Children and Young People

Tackling obesity and its causes is high on the public health agenda and it is clear that there is no simple solution. Public Health England (PHE) recognises that cross-sector, system-wide action is required to change the status quo and supports co-ordinated action across a life-course and place-based approach. The evidence base is inconclusive for what is effective regarding weight management services for children and young people. An obesity care or weight management pathway represents the various routes that an individual child or young person might follow to help them manage their weight, this s broader than just specific weight management services.

# 11.2 Children and Young People

In Gateshead there are services available to engage and enable young people to make healthy choices and prevent ill health and provide early help through healthy eating and being physically active. This section will provide an overview of what is currently on offer for children, young people and families, whilst acknowledging that there is excellent work in communities addressing the healthy weight agenda, there is not scope in the report to capture all provision and approaches. There are a number of other programmes in Gateshead contributing to keeping children health and wellbeing that provide children and young people with increasing their health and wellbeing both physical and emotionally.

## 11.3 Tier 1 –Universal Prevention and Early Intervention approaches

Tier 1 services are described as "activities to help prevent everyone, regardless of their weight, from becoming overweight or obese" (NICE ph47). NICE (2012) recommend a model described as a 'Sustainable community-wide approach' to obesity prevention that involves a

range of services and actions delivered by many organisations, community services and networks that make up the local system. These universal services and approaches help raise awareness of the importance of maintaining a healthy weight and good emotional health and wellbeing.

## 11.3.1 Health Visiting

Health Visiting teams currently provide universal promotion of breastfeeding and introduction of weaning at 6 months. Healthy eating and exercise is a standard benchmark for all universal contacts, so it is discussed with the family at the antenatal contact, new birth visit, 6-8 week review, 12 month contact and 2 year review.

The 26 months check carried out by health visitors offers the first opportunity to check a child's weight status. Health Visitors have a unique role offering a universal service to all children under 5 and are in a key position to monitor the weight status of every child and offer support. The 2 year to 2.5 year check was mandated service when health visiting moved to Local Authority commissioning in October 2015.

# 11.3.2 Healthy Start

Woman who are pregnant or families with a children under four years of age and are on certain benefits qualify for Healthy Start. All pregnant women under the age of 18 qualify - whether or not they are on benefits. Families who qualify for Healthy Start receive vouchers to spend on milk, plain fresh and frozen fruit and vegetables and infant formula milk. Pregnant women receive one voucher each week in the amounts of £3.10. Mother's receive two vouchers each week (£6.20) for babies under one year and from children aged from one to four years one voucher per week (£3.10).

#### 11.3.4 School Nursing Service

The primary purpose of this universal and targeted school nursing service is to provide early identification, early intervention, prevention, health promotion and health protection programmes. These are delivered to help all school aged children and young people to achieve their full potential for physical, mental, social, psychological and emotional well being and to gain maximum benefit from their education. The school nurses in Gateshead lead coordinate and provide services for children and young people as set out in the Healthy Child Programme 5 – 19 years. The school nurses provide support and advice around health and wellbeing including weight management.

The National Child Measurement Programme (NCMP) provides high-quality, reliable data on child overweight and obesity levels and trends. Letters are sent to all parents with the result of their child's weight and children who are identified over a certain BMI threshold (>99.6th percentile) can be offered support by the School Nursing Team. The uptake of the NCMP programme in Gateshead by schools and parents has always been high at 95% or above, with the exception of reception for 2016/2017. Whilst community weight management support for children has previously existed within Gateshead, no targeted weight management services exists for School Nurses to refer children to.

## 11.3.5 Public Health Nursing Service (0-19 years)

From 1st July 2018 the 0-19 public health nursing service (school nursing, health visiting and family nurse partnership) will be provided by Harrogate and District NHS Foundation Trust. Staff in the service will continue to be based in Gateshead and the service will be delivered under the brand of "Growing Healthy in Gateshead". The service will have dedicated 'Locality

Managers' who will each lead on a particular area, one of these being an infant feeding and nutrition lead, linked to the healthy weight agenda.

The service will have an 'integrated one team' approach which will focus on prevention, early identification and intervention around healthy weight for children and young people using a whole system approach. They 0-19 team in Gateshead work in line with PHE guidelines around early year's healthy weight and nutrition. The service will aim to improve healthy weight outcomes through:

- Encouraging breastfeeding
- Delaying the introduction of solid foods to babies until six months
- Early intervention on nutrition, healthy foods and portion size
- Healthy start and vitamin supplements
- Family healthy weight
- Promoting exercise and physical activity
- Delivering the National Child Measurement Programme
- Identifying and targeting vulnerable groups

# 11.3.6 Early years- Children's Centre's

There are 9 Children's Centres in Gateshead and all Centres' provide a range of well child clinics which include a range of activities to support health and wellbeing for young children and their families. There are baby clinics delivered from 11 children's centre sites and also baby weaning sessions delivered alongside baby social sessions at 5 children's centre sites.

Baby weaning sessions are run from the Children's Centres led by Health visitors and breast feeding support sessions provide support, information and encouragement for mothers. Other

session include, Baby and Toddler sessions which include advice on healthy eating and physical activities for baby and Toddlers. A member of the Sport, Physical Activity and Health Development Team attends the Baby Social sessions regularly to inform new mums about the 'Active Mums' programme available to new mums [approximately 6/7 weeks after birth following GP check-up.

A number of sessions involving physical activities [babies and toddlers] are delivered by a number of private providers in Children Centre buildings includes, Little Movers, Hartbeeps, Ballet classes and various other dance sessions. An example of other community provision providing practical nutrition and support for young children and families include:(there are many more examples of good practice).

- St Chads-run a 6 week cooking programme for families and a breakfast café for families.
- Edberts House in East Gateshead during school holidays and family cooking sessions etc.

#### 11.3.7 Go Gateshead-Leisure Provision

Go Gateshead provides a number of early years activities to support the health and wellbeing of young people and families in Gateshead. The Local Authority run provision provides a range of fun, engaging and fully exclusive physical activities from an early age. Activities to keep children and young people active include swimming and gymnastics tuition, Flow Rider (the region's only standing wave experience), Clip 'n Climb, and a soft play experience. Family activities include buggy boot camp and active mum and dads session to help support parents to keep fit and well physically and mentally.

#### 11.3.8 Gateshead School Sport Partnership (GSSP)

The Gateshead School Sport Partnership (GSSP) has a clear vision that all school age (4-19) children and young people in Gateshead should be able to experience and enjoy high quality Physical Education, Physical Activity and School Sport (PEPASS), building the foundations for an active and healthy lifestyle. Currently there are 81 primary, secondary and special schools signed up to receive the core GSSP service level agreement in their school for 2018/2019. A premium SLA is also available for schools to sign up to.

The work of the SSP central team includes efforts to sustain and develop a local network of Physical Education / School Sport Coordinators in every Gateshead school. This network ensures GSSP are uniquely positioned to provide a broad range of programmes, activities and interventions with the capacity to reach all school age children in Gateshead. The SSP works to ensure:

#### 1. Laying the Foundations for Lifelong Participation

- Support and advocate the provision of 2 hours timetabled high quality physical education in all Gateshead schools (networking events, Head Teacher forums, CPD programme). Necessary to ensure the development of 'Physical Literacy' in young people.

#### 2. Developing appropriate participation Opportunities (inc. Competitions & Events)

- Co-ordination and delivery of an annual calendar of sports events (250+ competitions and festivals) linked to community pathways (e.g. community sports

#### 3. Increasing and sustaining participation

- Support for schools to develop links with community sports clubs and leisure providers (e.g. through events hosted on club sites and/or club coaches delivering activities in schools).

- Developing a School Sport Workforce and a volunteer base for the future (training and deployment opportunities for young sports leaders and adults other than teachers.

From September 2019 the GSSP will also offer schools in Gateshead a full health and wellbeing programme based around holistic health.

#### 11.3.9 Active Travel Promotion Programme

Since September 2016 the Schools Go Smarter programme, run by Gateshead Council, has delivered a variety of Active Travel Promotion (ATP) incentives in conjunction with Cycling Generation to over 30 different schools across the local authority.

These have included a combination of practically based walking, cycling and scooting activities coupled with classroom-based sessions focusing on numeracy, literacy, PHSE (Personal, Health and Social Education) and the arts. Our approach to positively promote Active Travel engages specific year groups as well as whole school communities, with the aim of trying to encourage children, parents and teachers to travel more actively to and from school.

#### 11.3.10 Gateshead School Meals

Gateshead School Meals aims to provide children with the very best nutritious, high-quality fresh and locally-sourced ingredients. Gateshead school meals promote and support schools in Gateshead with the 'The School Food Plan to Schools'. This is an agreed plan that has the support of the Secretary of State for Education to improve food in schools and sets out 17 actions to transform what children eat in schools and how they learn about food.<sup>163</sup>

Gateshead School Meals provides more than 11,000 nutritionally-balanced meals each day, served by approximately 350 staff across 79 different sites. Gateshead school meal staff are

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<sup>163</sup> http://www.schoolfoodplan.com/the-plan/

fully trained in nutrition, food safety, catering and cookery skills. The school meals service understands how the right nutrients can help children's mood, their health and their ability to concentrate. Gateshead's school meals service exceeds the national standards for school lunches. Gateshead have won a number of award for their healthy school's meals in Gateshead, including a nomination for Catering Business of the Year, from the 'Lead Association for Catering in Education' (LACA).

#### **Opportunities**

- Working as a whole system to improve healthy weight including planning, housing, environments and education teams.
- Embedding this public health priority in all practice, making healthy weight everyone's business as part of the MECC Programme.
- Opportunities as part of the new 0-19 (health visiting and school nursing) service in
   Gateshead to support and promote young people health and wellbeing.
- Further opportunities to work in a different way, including co-produced approaches
  re with communities in areas of socio-economic disadvantage, with lived experience
  of health inequalities. Building upon the good practice of the Fit 4 the Future
  research.

#### 11.4 Tier 2 - Community Weight Management

In children, a BMI centile ≥ 91st is associated with health and psychosocial problems within childhood itself and may put individuals at a greater future health risk of type 2 diabetes, Coronary Heart Disease, hypertension and some forms of cancer. It also contributes to increased social care costs. The Department of Health (2013) recommends Lifestyle weight management services to support and enable children between 2 and 18 years of age with a

BMI centile at or above 91 to reach or maintain a healthier BMI.<sup>164</sup> It is recommended that tier 2 services sits within an existing care pathway and links to tier 1 interventions aimed to prevent unhealthy weight and tier 3 interventions to support those with greater needs. The evidence base shows that future service provision should aim to ensure that the whole family is on board with the programme, that there are opportunities for parents and children to receive social support and that families are not just told what to change but shown how to change.

Public Health England undertook a mapping exercise to explore the provision of tier 2 weight management services for children and young people and adults across England, to understand how these services are delivered. Information was collated on weight management services from 73% of upper tier and unitary local authorities and 18% of CCGs in England. In relation to tier 2 children services, respondents from 56% of local authorities reported having a service in their local area. The remaining Local Authorities for a number of reasons, including financial constraints had decommissioned specific weight management services and were adopting a population approach and focusing on the obesogenic environment for longer term change.

#### 11.4.1 Examples of Tier 2 service provision in England

National programmes have been adopted over recent years in many local authorities including Mind, Exercise, Nutrition, Do it; MEND, all being multicomponent community-based child and family based healthy weight programmes. Not dissimilar to the programmes listed above, a family-based childhood weight management programme "Balance It" was funded by the Local Authority for over ten years in Gateshead. The programme supported overweight and very

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<sup>&</sup>lt;sup>164</sup> DH (2013) Developing a specification for lifestyle weight management services

<sup>&</sup>lt;sup>165</sup> PHE (2015) National mapping of weight management services

overweight children from across Gateshead to lead healthier lifestyles and maintain a healthy weight. In early 2016, the decision was taken to decommission the programme as result of the ever-increasing financial challenges.

#### **Further Opportunities**

- To look for opportunities as part of a whole systems approach to healthy weight as part of the place shaping approach.
- Opportunities to link to the MECC approach as part of an approach for families and schools and other professionals in relation to weight management, lifestyle choices and emotional health and wellbeing.
- An approach to healthy weight doesn't necessarily need to be a 'service' and the wider components such as improvements in mental health, reduced loneliness, social isolation, neighbourliness, increased confidence, social opportunities, safe places to play outdoors, improved community cohesion and connectedness, will also help to drive changes in obesity.

## 11.5 Tier 3 – Specialised Weight Management Services (Children & Young People)

Specialist weight management services (sometimes called tier 3 services) usually refer to clinical treatments provided by specialist services. These services should be for children or young people with severe or complex obesity, or with other special needs.<sup>166</sup>

There is a lack of service provision nationally at Tier 3, which has raised questions about where children and young people should access care. Many areas are providing for higher need children through their Tier 2 services, which are not specifically designed for children and young people with severe obesity. Currently Tier 3 services are usually provided in a

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<sup>166</sup> https://www.nice.org.uk/guidance/ph47

clinical setting, predominantly within hospitals and specialist obesity units, commissioned by the Clinical Commissioning Groups (CCG's). These clinical services are mainly delivered by a multi-disciplinary team over a non-specified amount of time and at differing intensities. There is no dedicated tier 3 weight management services in Gateshead, however many children are being seen by paediatricians because they have other significant health problems. School nurses continue to help with the monitoring of weights of children and young people.

## **Opportunities**

 Opportunities to learn from other service models in the region in terms of multidisciplinary specialist weight management. This needs to be looked at as part of the wider system approach to healthy weight.

#### 11.6 Tier 4 - Bariatric Surgery

Children who have severe childhood obesity regrettably become severely obese adults<sup>168</sup>. Without intervention children are likely both to develop significant co-morbidities and potentially require obesity surgery as young adults. Intervention in childhood is likely to be cost saving.<sup>169</sup> Tier 4 services are commissioned by NHS England.

Surgical intervention is not generally recommended in adolescents or children<sup>170</sup>. However, bariatric surgery may be considered for young people only in exceptional circumstances, and

<sup>168</sup> Freedman DS, Mei Z, Srinivasan SR, Berenson GS, Dietz WH. (2007) Cardiovascular risk factors and excess adiposity among overweight children and adolescents: the Bogalusa Heart Study. J Pediatr; 150(1):12-17.

<sup>&</sup>lt;sup>167</sup> Royal College of Surgeons England (2014) https://www.rcseng.ac.uk/news/launch-of-commissioning-guide-for-weight-loss-programmes#.V7cLTssUVdg

<sup>&</sup>lt;sup>169</sup> NICE - National Institute for Health and Care Excellence (UK) (2006). Obesity: The Prevention, Identification, Assessment and Management of Overweight and Obesity in Adults and Children. NICE Clinical Guidelines No.43 http://www.ncbi.nlm.nih.gov/books/NBK63696/. 2006. London, National Institute for Health and Clinical Excellence (UK).

<sup>&</sup>lt;sup>170</sup>NICE - National Institute for Health and Care Excellence (UK). (2014) Obesity: Identification, Assessment and Management of Overweight and Obesity in Children, Young People and Adults: Partial Update of CG43. NICE Clinical Guidelines No. 189. http://www.ncbi.nlm.nih.gov/books/NBK264165/. 2014. London, NICE - National Institute of clinical Excellence.

if they have achieved or nearly achieved physiological maturity. A full medical evaluation, including genetic screening or assessment should be performed before surgery to exclude rare, treatable causes of obesity.<sup>171</sup>

It is considered that obesity surgery will be undertaken by designated centres in very specific cases, whose eligibility has been assessed and determined by a specialist multidisciplinary team (MDT) (Tier 4). Obesity surgery may be considered to achieve significant and sustainable weight reduction, if all the following criteria are fulfilled: The adolescent or child has been evaluated by the specialist MDT and deemed appropriate for surgery. This team will comprise a Paediatric obesity/ endocrinology/ diabetes specialist, psychologist experienced in childhood obesity management, specialist dietitian, Paediatric surgeon. Bariatric surgery will be considered in Gateshead for young people who are assessed as eligible by the multidisciplinary team at Newcastle hospitals. Bariatric surgery is performed at Newcastle Hospitals at the RVI.

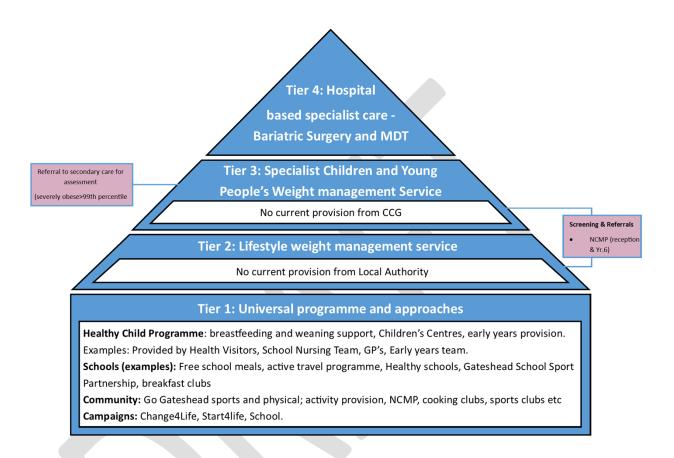
Simon Stevens NHS Chief Executive officer, has noted that "prevention should be favoured over treatment and therefore, we need to develop a joined-up service for obesity that provides a healthy environment at one end but then connects leisure provision, weight loss groups, community cooking lessons, breastfeeding initiatives etc, and which has pathways connecting primary and secondary healthcare with access to highly specialised obesity services, including obesity surgery. Secondly, we need to have protocols that help decide who would benefit most from medical intervention so that our resources are best used".

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<sup>&</sup>lt;sup>171</sup> NICE(2014) Obesity: identification, assessment and management CG 189

<sup>&</sup>lt;sup>172</sup> https://www.england.nhs.uk/wp-content/uploads/2017/04/170014s-specialised-complex-obesity-surgery-children.pdf

Figure 36 An outline of the current child healthy weight interventions, approaches and treatment services available across the different tiers.



#### 12.0 Current provision -Adults.

Current guidance recommends local areas provide multicomponent interventions to treat adults with overweight and obesity; however, there is currently a dearth of published evidence on the evaluation of these programmes.<sup>173</sup> Services should be multi-component and include diet, physical activity and behaviour change components. Physical activity services alone are not considered to be weight management services.<sup>174</sup>

<sup>&</sup>lt;sup>173</sup> Ells et al (2018) A mixed method evaluation of adult tier 2 lifestyle weight management service provision across a county in Northern England. <a href="https://www.ncbi.nlm.nih.gov/pubmed/29689647">https://www.ncbi.nlm.nih.gov/pubmed/29689647</a>

A Guide to Delivering and Commissioning Tier 2 Adult Weight Management Services (PHE).
 <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/623091/Tier2">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/623091/Tier2</a> adult weight management services guide.pdf

It is recognised that the treatment of obesity should be multi-component. All weight management programmes should include non-surgical assessment of patients, treatments and lifestyle changes such as improved diet, increased physical activity and behavioural interventions. There should be access to more intensive treatments such as low and very low calorie diets, pharmacological treatments, psychological support and specialist weight management programmes. Surgical treatment can be effective but needs to consider as part of a whole pathway approach.

#### 12. 1 Tier 1-Prevention and Early Intervention

There are a range of services and activities that exist across Gateshead aimed at supporting people to maintain and achieve a healthy weight. Many of these are provided by local authorities, community and voluntary and the private sector. Across Gateshead there are a range of universal services and opportunities for physical activity, healthy eating and wellbeing activities including commercial and local authority opportunities, sport and leisure services, outdoor activities and the natural environment and workplace organisations. NICE guidance recommends that services should include top down approaches such as planning and cycle routes and food procurement approaches e.g. healthy vending and bottom up approaches in the community.

#### 12. 1.1 Go Gateshead Leisure

Gateshead has 7 leisure facilities offering a range of provision, including gyms, swimming pools, fitness classes, climbing wall etc. The swimming pools provide learn to swim lessons for children and adults and a number of activities indoors and outdoors for all ages.

In terms of memberships (December 2017), Leisure Services have 17,644 Go Gateshead Card holders, these cards provide a range of discount on a wide range sport and leisure activities in Gateshead, including swimming, gym, fitness classes and more. Of the 17,644 Go Gateshead card holders, 13,720 are Gateshead residents and 8.4% of Gateshead residents with a Go Gateshead card are aged 17 years and over. There are 651 GO Gateshead Access Card holder. These cards are only available to Gateshead residents who are in receipt of certain benefits and provide discounted prices for leisure provision in Gateshead.

Go Gateshead provides an extensive number of cycling and walking programmes as well as supporting sports clubs<sup>175</sup>. An example of community leisure provision to keep adults of all fitness levels in Gateshead active includes:

#### 12.1.2 Active Mums

These operate within leisure facilities and community settings both indoor and outdoor. The sessions allow new mums to socialise and get active with their baby in a pushchair and promotes physical and mental health benefits.

# 12.1.3 Go Cycling

This is a community cycling programme supported by volunteers, the sessions run weekly and include beginner and intermediate levels. This allows new users to join the group and progress to longer rides once they have improved confidence and fitness.

#### 12.1.4 Social Prescribing

Social prescribing is a term which broadly refers to a process linking patients seen by general practitioners and other primary health care workers to community services. It has been defined

<sup>175</sup> https://www.gogateshead.com/article/6234/Sports-and-activities

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as 'a means of enabling primary care services to refer patients with social, emotional or practical needs related to their health and well-being to a range of local, non-clinical services, often provided by the voluntary and community sector, and to broader universal services' However this is by no means a universally accepted definition.

There are currently a number of different approaches to the delivery of Social Prescribing even across the five localities in Gateshead. All providers identify involvement with self-care and signposting with differing levels involved with supported access and intensive support.

#### 12.1.5 Making Every Contact Count (MECC)

MECC is an approach to behaviour change that uses the day-to-day interactions that organisations and people have with other people to support them in making positive changes to their physical and mental health and wellbeing. MECC enables the opportunistic delivery of consistent and concise healthy lifestyle information and allows individuals to engage in conversations about their health at scale across organisations and populations.

Gateshead Council has employed three MECC Development Leads with responsibility to develop and deliver training on the MECC approach to show how the approach can be developed within organisations. In addition, training on health and wellbeing will be available in relation to specific topics including tobacco, alcohol and substance misuse, nutrition, healthy weight and physical activity and mental wellbeing. Evidence suggests that the broad adoption of the MECC approach could have a significant impact on the health and wellbeing of our resident in Gateshead, drawing on behaviour change evidence.<sup>176</sup>

#### 12.1.6 NHS Health Checks

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<sup>&</sup>lt;sup>176</sup> NICE (2014) Public health guideline (PH49) Behaviour change: individual approaches

The NHS Health Check (NHSHC) programme aims to improve health and wellbeing of adults aged 40-74 years. The NHSHC is a national risk assessment and prevention programme that systematically targets the top seven causes of preventable deaths: high blood pressure, smoking, high cholesterol, obesity, poor diet, physical inactivity and alcohol consumption. The NHSHC Programme is a mandatory public health function for Gateshead Council. The NHSHC is made up of three key components: risk assessment, risk awareness and risk management. During the risk assessment standardised tests are used to measure key risk factors and establish the individual's risk of developing cardiovascular disease. The outcome of the assessment is then used to inform a discussion on, and agreement of, the lifestyle and medical approaches best suited to managing the individual's health risk.

In Gateshead there are 30 GP Practices and 10 Pharmacies providing NHS Health Checks.

There is also a Community Incentive Programme Designed to engage community organisations to organise NHSHC events in local community venues.

1n 2016/17, 7326 people had NHSHC's (18% of the eligible population). Over 14,000 people were invited for a NHSHC, meaning a 52% uptake (national target 50%). When compared to the 5 year indicators on the Public Health Outcomes Framework (PHOF) Gateshead is significantly better than both England and the North East for all 3 of the key Health Checks indicators. In 2018/19 NHSHC data on obesity (BMI=>30) will be reported each quarter at GP Practice Level.

#### 12.1.7 Better Health at Work Award (BHAWA)

The Better Health at Work Award is a regional workplace health promotion award based in the North East and Cumbria. It was created to take health and well-being into the workplace as part of the regional public health strategy, to help address some of the regions long standing

health issues and inequalities. The award is free and open to all employers in the North East regardless of size.

There are 4 levels to the award, Bronze, Silver Gold and continuing excellence, all of which require health campaigns and initiatives to be run/implemented in the workplace and a Portfolio of evidence to be compiled for assessment at the end of each phase. The aim of the award is as companies progress through the different stages, health and well-being become embedded leading to a healthier and happier workforce, lower levels of absenteeism and increased productivity.

In 2017 alone, there were well over 300 local employers participating in the BHAWA, reaching almost 200,000 North East workers, covering all employment sectors. In Gateshead, There are currently 16 organisations and companies who are engaged with the BHAWA

- At Bronze level, companies and organisations are required to carry out a HNA. Weight management/healthy eating are cited as the most popular issues raised from the results of the HNA and subsequent health campaigns based on this topic are carried out. There is also a requirement at Bronze for companies/organisations to promote/offer healthy options to staff and review their vending machines.
- Healthy eating and weight management are developed further in the Silver award with the requirement of a healthy eating policy and promotion and support of healthy eating/weight management

#### 12.1.8 Gateshead Older People Assembly (GOPA)

The Assembly offers a range of activities including wellness classes, days out, local history, arts and crafts. GOPA is for adults who are over 50 years of and live in Gateshead. The

wellness classes provide a range of physical activity option, including dance-cercise, staying steady activities to promote balance and stability, seated exercise, tea dances and tai chi.

#### 12.1.9 OurGateshead

OurGateshead is the central database for community based activities in Gateshead. For 2017, the site received 140,499 visits and 347,062 views. Designed alongside residents, health professionals and local groups, OurGateshead is an easy to use website full of information on community activities and events organised by over 1000 groups and organisations working in Gateshead.

As well as community group activities, OurGateshead also contains a Gateshead health and wellbeing guide, which includes service information, regular groups, resources and information links for a number of areas including, long term conditions, mental health, falls prevention and weight management. Health professionals can use the website to find activities for their patients.

#### 12.1.10 Street Trading- Health and Wellbeing Objective

Gateshead Council is committed to improving the availability of good, nutritious food. People eat more fast food than ever before, which is often high in calories, salt and sugar. Street trading applications to Gateshead Council must show how mobile street trading food businesses are actively promoting health and wellbeing. There is a growing understanding and demand for healthier alternatives and the council can support mobile food businesses to meet this need by making subtle changes to meals that customers are unlikely to notice.

Gateshead Council's healthier catering advice for street traders describes simple practical changes that different types of businesses can make when, preparing, cooking, serving and promoting food. This guidance supports street trading local businesses on salt reduction,

and reflects recent government dietary recommendations for sugars, the Eatwell Guide and 5 A Day advice to promote health and wellbeing opportunities.

#### 12.1.11 Sustainable Travel

Gateshead Council and partners continue to make sure that new developments and regeneration plans are "transport friendly" and promote use of sustainable transport – walking, cycling, public transport and car sharing. Cycling is promoted as a positive, sustainable way of improving health and well-being. Any new developments and roads are built with local people in mind and the area continues successful campaigns to promote walking to school and work to promote health and tackle inactivity and over-reliance on the car. Innovative practice incudes the introduction of Mobikes in Gateshead a cycle hire scheme with a difference. The bikes are fitted with GPS trackers meaning people can look on a map, reserve a bike, collect and unlock it with their phone app.

#### **Opportunities**

- Working as a system to improve healthy weight including planning, housing, environments, education, community and voluntary sector.
- Embedding this public health priority in all practice, making healthy weight everyone's business as part of the MECC Programme.
- Review opportunities in terms o community provision available for adults
  to access that contribute to health and wellbeing opportunities for all
  sectors of the community, including at risk groups.

#### 12.2 Tier 2 Community Weight Management Programmes

Current NICE guidance recommends that overweight and obese adults are referred to lifestyle weight management programmes that:

- programmes may particularly benefit adults who are obese (that is, with a BMI over 30 kg/m2, or lower for those from black and minority ethnic groups) or with other risk factors (comorbidities such as type 2 diabetes).
- where there is capacity, access for adults who are overweight should not be restricted (that is, for people with a BMI between 25 to 30 kg/m2, or lower for those from black and minority ethnic groups) or with other risk factors (comorbidities such as type 2 diabetes)
- there should be no upper BMI or upper age limit for referral.

There are no specific tier 2 weight management services commissioned by Gateshead Public Health, however the National Diabetes Prevention Programme (NHS DPP) is a joint commitment from NHS England, Public Health England and Diabetes UK, to deliver at scale, evidence based behavioural interventions for individuals identified as being at high risk of developing Type 2 diabetes. Many cases of Type 2 diabetes are preventable and there is strong international evidence that behavioural interventions can significantly reduce the risk of developing the condition, through lifestyle interventions e.g. reducing weight, increasing physical activity and improving the diet of those at high risk. Individuals eligible for inclusion have 'non-diabetic hyperglycaemia' (NDH), defined as having an HbA1c 42 – 47 mmol/mol (6.0 – 6.4%) or a fasting plasma glucose (FPG) of 5.5 – 6.9 mmol/l. The blood result indicating NDH must be within the last 12 months to be eligible for referral and only the most recent blood reading can be used. Only individuals aged 18 years or over are eligible for the intervention. A referral must come from the GP Practice.

The intervention is a 9-12month behaviour change lifestyle programme, run as a group to help people achieve a healthy weight, improve nutrition and increase their levels of physical activity. The NDPP is currently being rolled out across the North East, and there are 5 GP Practices in Gateshead acting as trailblazer sites before wider rollout across Gateshead later this year.

It is important to note that the private and community sector provide an array of services that support individuals who have excess weight. This consists of commercial weight management programmes such as weight watchers and community led self help groups that take place in community centres, village halls and local leisure centres. There is also growing on line presence of mobile apps such as the active 10 from Public Health England that provide on going support for people who are overweight and obese as part of a weight management approach.

#### 12.2.1 Pharmaceutical interventions Orlistat (Tier2/Tier3)

In England in 2016, pharmacies dispensed 450,000 items for treating obesity with a net ingredient cost of £9.9 million. Almost all of these prescriptions were for Orlistat, which prevents the body from absorbing fat from food.<sup>177</sup>

Current NICE guidance/evidence suggests<sup>178</sup> considering pharmacological treatment only after dietary, exercise and behavioural approaches have been started and in adults who meet one of the following criteria:

>a BMI of 28 kg/m2 or more with associated risk factors

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<sup>&</sup>lt;sup>177</sup> http://researchbriefings.files.parliament.uk/documents/SN03336/SN03336.pdf

 $<sup>^{178}\</sup> https://www.nice.org.uk/guidance/cg189/resources/obesity-identification-assessment-and-management-35109821097925$ 

>a BMI of 30 kg/m2 or more

>Continue or listat therapy beyond 3 months only if the person has lost at least 5% of their initial body weight since starting drug treatment

>Make the decision to use drug treatment for longer than 12 months (usually for weight maintenance) after discussing potential benefits and limitations with the person.

>NICE recommends withdrawing drug treatment in people who have not reached their weight loss goals.

Pharmacological therapy should only be considered for patients who have already attempted to lose weight (Tier 2/3).

#### **Opportunities**

- Look at opportunities as part of the whole system, in terms of what is know to
  be effective at a population approach e.g. restrictions on advertising and
  promotion of unhealthy foods and look at the infrastructure to provide further
  opportunities for physical activity and a healthy lifestyle.
- How can tier2/3 activities and approaches be aligned more closely as part of a healthy weight approach?
- A focus on at risk groups and opportunities for targeted approaches and interventions.

# 12.3 Tier 3 – Specialist Weight Management Service

The commissioning of adult severe and complex obesity surgery services became the responsibility of Clinical Commissioning Groups (CCGs) from 2016 / 2017. Current NICE guidance suggests that Tier 3 services should be considered if:

the underlying causes of being overweight or obese need to be assessed

- the person has complex disease states and/or needs that cannot be managed adequately in tier 2 (for example, the additional support needs of people with learning disabilities)
- conventional treatment has been unsuccessful
- drug treatment is being considered for a person with a BMI more than 50 kg/m2
- specialist interventions (such as a very-low-calorie diet) may be needed
- surgery is being considered.

Although much evidence exists with respect to the clinical management of patients with obesity there is little evidence at a system level on how services should be organised to achieve the best patient outcomes in the most cost-effective manner. Evidence shows that Tier 3 services have been shown to be effective in<sup>179</sup>

- Weight loss
- Improvements in HbA1c (diabetes)
- · Improving depression scores
- · Improving quality of life
- · Improving outcomes for bariatric surgery.

The NHS Commissioning board states that the treatment of obesity should be multicomponent. Specialist (Tier 3 or Tier3/4) weight management programmes should include medical assessment of patients, treatments and lifestyle changes such as improved diet, increased physical activity, behavioural interventions, low and very low-calorie diets,

<sup>&</sup>lt;sup>179</sup> Royal College of Surgeons (2014) https://www.rcseng.ac.uk/news/launch-of-commissioning-guide-for-weight-loss-programmes#.V7cLTssUVdg

pharmacological treatments, psychological support and the consideration of referral for bariatric surgery if clinically appropriate. The staff within the team must have specialist Obesity qualifications (e.g. SCOPE certification) and training. Only once patients have successfully completed a minimum of 6 months of intensive obesity management can they be referred for bariatric surgery under NICE guidelines, and a year or longer is recommended. The six months spent in pre-assessment at a surgical centre can count towards the year. There is no evidence base for how long a patient being assessed for surgery should spend in a Tier 3 clinic. Patients who have persisting needs would be referred back to primary care after assessment, with a new management plan. For such complex patients this process of evaluation and assessment may typically take a period of months.

#### The criteria for the Tier 3 service:

All patients referred for consideration for Tier 3 must meet the NICE guidance for bariatric surgery:

- BMI of >35, in the presence of diabetes and/or other significant co-morbid conditions;
- BMI >40 without the presence of diabetes and/or other significant co-morbid conditions.

Patients will only be considered for referral to Tier 3 WMP if evidence is presented to demonstrate sustained and co-ordinated Tier 1 and 2 community interventions have been tried and failed.

#### 12.3.1 Current Provision -Gateshead

The specialist MDT service for tier 3 is part of the tier 4 pathway provided by Sunderland City Hospital and North Tyneside General Hospital, who provide Bariatric Surgery for Gateshead residents. A resident with a BMI of >35 (diabetes and/or other significant co-morbid conditions) or; BMI >40 (without the presence of diabetes and/or other significant co-morbid conditions) will have a 6 month pre-assessment which includes participation in a Tier 3, specialist weight

management programme at Sunderland City Hospitals in order that the patients is optimised for bariatric surgery if appropriate. Referral to tier 3/4 services is made by GP's in Gateshead through Choose and Book. It is estimated from figures on BMI and co-morbidities (based on eligible criteria) for Gateshead residents that approximately people could be eligible for tier 3 services. Gateshead currently has patients per year in tier 3 services.

### 12.4 Tier 4 -Bariatric Surgery

Severe and complex obesity services (Tier 4 – surgery for weight management) are defined as specialised services and currently commissioned by Newcastle and Gateshead Clinical Commissioning Group. Current NICE guidance suggests Tier 4 bariatric surgery as a treatment option for people with obesity if all of the following criteria are fulfilled:<sup>180</sup>

- They have a BMI of 40 kg/m2 or more, or between 35 kg/m2 and 40 kg/m2 and other significant disease (for example, type 2 diabetes or high blood pressure) that could be improved if they lost weight.
- Aged 18 years plus.
- All appropriate non-surgical measures have been tried but the person has not achieved or maintained adequate, clinically beneficial weight loss.
- The person has been receiving or will receive intensive management in a Tier 3 service
- The person is generally fit for anaesthesia and surgery.
- The person commits to the need for long-term follow-up. 181

(CG189)https://www.nice.org.uk/guidance/cg189/chapter/1-recommendations#surgical-interventions

<sup>&</sup>lt;sup>180</sup> Obesity: identification, assessment and management

<sup>(</sup>CG189)https://www.nice.org.uk/guidance/cg189/chapter/1-recommendations#surgical-interventions

<sup>&</sup>lt;sup>181</sup> Obesity: identification, assessment and management

NICE guidance also stresses the importance of long-term follow-up for people who have had bariatric surgery, suggesting a follow-up care package for a minimum of 2 years within the bariatric service. This should include:

- monitoring nutritional intake (including protein and vitamins) and mineral deficiencies
- monitoring for comorbidities
- medication review
- dietary and nutritional assessment, advice and support
- physical activity advice and support
- psychological support tailored to the individual
- Information about professionally-led or peer-support groups.

It is important to emphasise that NHS England and NICE guidance both recommend that obesity surgery is a treatment for appropriately selected patients with severe and complex obesity that have not responded to all other non-invasive therapies (tier 2/3). The Severe and Complex Obesity Clinical Reference Group have recommended CCG commissioners give particular focus to the pathway between Tier 3 and Tier 4.

Selection criteria of patients for bariatric surgery should prevent perverse incentives, for example patients should not attempt to become more eligible for surgery by increasing their body weight. Similarly, the selection criteria should not prevent access to bariatric surgery for eligible and motivated patients who have lost weight with non-surgical methods. In 2016 NHS England stated that there where over 40 providers of adult obesity surgery and around 8,000 operations per year, approximately 138 surgeons carry out this procedure and this is reimbursed utilising national tariffs.

Surgical intervention has been shown to be more effective than non-surgical options after a person has received intensive non-surgical treatment. Weight loss is more likely to be

maintained in the longer term. Surgery has been shown to result in improvements in comorbidities, such as diabetes and hypertension, and in health-related quality of life.101 Impact on quality of life: There is good evidence for improved quality of life after bariatric surgery. This includes increased employment, reduction in sick leave and reduction in requirement for social security support.

Groups known to be at a greater risk of obesity and its complications who have a greater need for bariatric surgery include;

- People from more deprived areas
- Older age groups
- Some black and minority ethnic groups
- People with disabilities

These groups are also less likely to access healthcare services. Currently available information (to NHS England) does not allow an assessment of access based on local need.<sup>182</sup>

#### 12.4.1 Local Provision-Gateshead

Gateshead patients are able to access Tier 4 services at Sunderland City Hospitals and North Tyneside General Hospital. The majority of patients attend Sunderland City Hospital. No further service information is available at this stage regarding current number of referrals and outcomes from surgery.

In 2017/18, the number of Gateshead patients accessing Tier 4 services was:

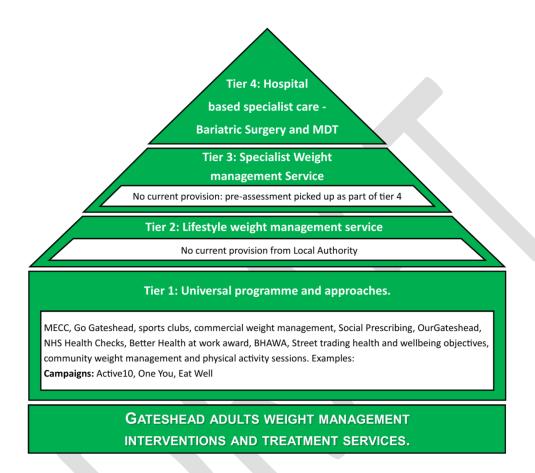
100 patients who underwent a surgical procedure;

-

<sup>&</sup>lt;sup>182</sup> Commissioning Tier 3 & Tier 4 services for Morbid Obesity - NEXT STEPS, South West Specialised Commissioning Information Pack, PHE & NHS England, May 2016

- 867 outpatients (which includes new as well as patients who are under review).

Figure 37 An outline of the current adult weight interventions and approaches and treatment services available across the different tiers.



#### 13.0 Recommendations

Obesity is widely recognised as a wicked issue with evidence suggesting that it will not be resolved through technical responses but requires a joint approach from multiple agencies with a long-term perspective. It is an issue that affects all people in all sectors and is a collective, system wide responsibility. Indeed, this is not a project or approach to be rolled out but a challenging journey to be lived and issues tackled.

In this Health Needs Assessment, the scale of the obesity problem has been outlined in relation to the national picture and local picture in Gateshead. It is clear from the report that obesity continues to be an important Public Health issue in Gateshead, and there is still action

to be taken if we are to reverse the rising tide of obesity. The report has outlined many of the approaches available in Gateshead for the prevention, identification and treatment of obesity, however it is acknowledged that the mapping doesn't cover all aspects of healthy weight intervention across all sectors. Consultation has been carried out as part of many key work programmes. However, no consultation exercise was undertaken for the HNA with key priority groups and the community of Gateshead which is a gap that needs to be acknowledged moving forward.

Based on the information gathered for this report, including the evidence base, epidemiological data and overview of the current position, recommendations for consideration during the next phase of the whole system approach have been outlined below.

- 1. A system-wide approach, redefining healthy weight as a societal and economic issue- determinants that contribute to obesity are both diverse and far-reaching in their effects. Action is needed to reshape not only the physical and dietary aspects of the environment but also the social, economic and cultural environments. as part of a 'systems perspective.' How can Local Authorities and their partners create and maintain an effective, sustainable whole systems approach that can help them drive forward the healthy weight agenda?
- **2. Addressing health inequalities** -A focus needs to be on strategies to address the healthy weight agenda across the social gradient, especially in low socioeconomic groups are, with a focus on high risk groups to ensure need is met. A focus on pre-pregnancy, pregnancy, infancy and early childhood are critical periods for interventions to reduce obesity inequities.

#### 3. Long term sustained approach

Just as obesity develops slowly, both within individuals and populations, it will take time to establish new habits and build new structures to support healthy diets and enhanced physical activity. The generational nature of obesity means thinking about a different strategy for different generations as options change. This also means thinking about long-term goals such as how to integrate health more fully into food culture, values and habits – which could take some time

This also implies the need for long-term strategies spanning several generations and beyond traditional planning cycles. Longer term commitment is needed and lessons learned from tackling smoking behaviours is that it takes longer than 5 year of the impact of public health work to come to fruition.

4. A balance between population-level measures and more targeted interventions and approaches.

#### Population approaches include:

- design of the built environment to promote walking and active transport
- building health into infrastructure through careful investment.
- seeking to reduce exposure to an obesogenic diet by focusing on energy density of foods and sugar-rich drinks, changes in procurement and innovative changes in advertising, promotion and regulation.

**Targeted interventions: focused** programmes to help those who are already obese, or considered to be at high risk of becoming obese, with a clear and priority focus on children and young people. Current gaps exist in the healthy weight pathway that needs to be reviewed.

# 5. Community focused led interventions in tackling obesity as part of a of placed-based, approach

Local initiatives to promote the healthy weight agenda and address obesity across the whole system, which are driven by the community. A community-driven development approach has tremendous implications for organisations that act as intermediaries between communities and outside institutions. Promoting such an approach requires a commitment to "step back" and allow the community to lead whilst changing behaviour at the community level and creating cultures of participation are thought to offer promising ways of addressing obesity questions and challenges remain about how to do this effectively in practice.

#### 6. Local Healthy Weight Declaration

Gateshead 'Declaration on Healthy Weight' developed to support partners to exercise their responsibility in developing and implementing policies which promote healthy weight. The declaration which requires senior level commitment can encapsulate a vision to promote healthy weight and improve the health and well-being of the local population

# **Appendix 1-Table 1: NCMP Performance Table 2016/17 (Reception 4-5 year olds)**

Most recent Performance -Significantly worse than England average – Not Significantly different to England average – Significantly better than

**England average** 

Indicator	Most Recent Performanc e	Previous Performanc e	Direction of Travel	Comments and Actions
Reception (4-5 year olds): Prevalence of Underweight	0.41% (8) (2016/17)	0.46% (10) (2015/16)	Decrease (worse).	<ul> <li>Gateshead is currently lower than the North East average (0.60%) and is significantly lower than the England average (0.96%).</li> <li>7th lowest non supressed prevalence of underweight children of the English local authorities and the lowest non supressed in the North East.</li> </ul>
Reception (4-5 year olds): Prevalence of Healthy weight	77.5% (1530) (2016/17)	77.2% (1669) (2015/16)	Increase (improved)	<ul> <li>Gateshead is currently significantly lower than the North East prevalence (74.9%) and is higher but not significantly higher than the England prevalence (76.4%).</li> <li>Gateshead has the highest prevalence of healthy weight 4-5 year olds in the North East, and the 40<sup>th</sup> highest of the 150 published English UTLA's.</li> <li>This is the 3<sup>rd</sup> period in a row to show increased healthy weight.</li> </ul>
Reception (4-5 year olds): Prevalence of Overweight	12.5% (246) (2016/17)	12.0% (260) (2015/16)	Increase (worse)	<ul> <li>Gateshead is lower than the North East prevalence (13.8%) and is lower but not significantly lower than the England prevalence (13.0%).</li> <li>Gateshead has the 2<sup>nd</sup> lowest prevalence of overweight 4-5 year olds in the North East; the lowest is South Tyneside (11.5%).</li> <li>This is the first increase in overweight prevalence in the last 2 periods of data.</li> <li>The general trend since 07/08 however shows a decrease in the % of 4-5 year olds considered obese.</li> </ul>
Reception (4-5 year olds): Prevalence of Obese	9.6% (189) (2016/17)	10.3% (223) (2015/16)	Decrease (improved)	<ul> <li>Gateshead is currently lower than the North East prevalence (10.7%) and is considered not significantly different to the England prevalence (9.6%).</li> <li>Gateshead has the lowest prevalence of obese 4-5 year olds in the North East.</li> </ul>
(SOI 10) (LW4) Reduce Excess Weight in 4-5 year olds.	22.0% (435) (2016/17)	22.3% (483) (2015/16)	Decrease (improved)	<ul> <li>Gateshead is currently significantly lower than the North East average (24.5%) and is considered not significantly different to the England average (22.6%).</li> <li>Gateshead has the lowest excess weight level for 4-5 year olds in the North East.</li> <li>This is Gateshead's lowest prevalence of excess weight since 2012/13.</li> </ul>
Reception (4-5 year olds): Prevalence of Severe Obesity	3.35% (66) (2016/17)	Not previously published	N/a	<ul> <li>Brand New Indicator for 2016/17</li> <li>Gateshead is higher than the North East (2.83%) and is significantly higher than the England average (2.35%)</li> <li>3<sup>rd</sup> highest of the North East LA's.</li> </ul>

Indicator	Most Recent Performanc e	Previous Performanc e	Direction of Travel	Comments and Actions
				• 15 <sup>th</sup> highest of the 150 published English LA's.
NCMP Participation rate: Reception	87.4% (2036) (2016/17)	97.0% (2224) (2015/16)	Decrease (worse)	<ul> <li>Gateshead is lower than the North East rate (95.3%) and the England rate (95.8%)</li> <li>Gateshead has the lowest participation rate in the North East and the 3<sup>rd</sup> lowest in England.</li> <li>This is the lowest the reception participation rate has ever been and the biggest year on year drop in the rate that we have seen recorded.</li> </ul>

# Appendix 1: NCMP Performance Table (Year 6 10-11 year olds)

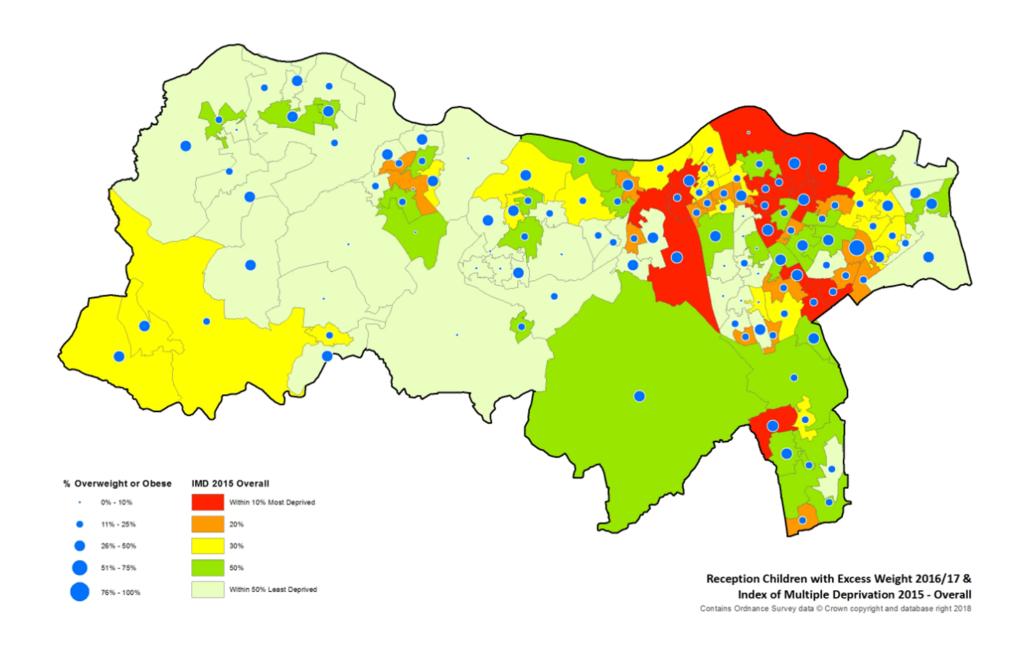
Most recent performance- Significantly worse than England average – Not Significantly different to England average – Significantly better than

England average

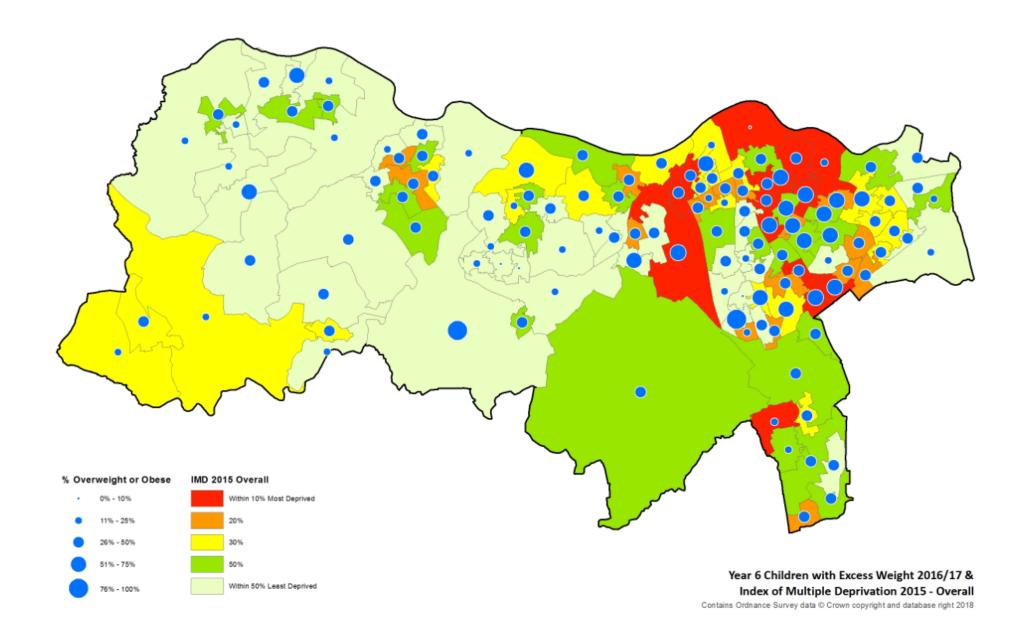
Indicator	Most Recent Performanc e	Previous Performanc e	Direction of Travel	Comments and Actions					
Year 6 (10-11 year olds): Prevalence of Underweight	0.90% (17) (2016/17)	0.70% (13) (2015/16)	Increase (worse)	<ul> <li>Gateshead is currently lower than the North East prevalence (1.06%) and is significantly lower than the England prevalence (1.34%)</li> <li>Gateshead has the 4th lowest prevalence of underweight year 6 pupils in the North East, however there has been an increase on the previous year.</li> </ul>					
Year 6 (10-11 year olds): Prevalence of Healthy weight	60.6% (1146) (2016/17)	61.4% (1145) (2015/16)	Decrease (worse)	<ul> <li>Gateshead is currently significantly lower than the England prevalence (64.4%) and is lower but not significantly lower than the North East prevalence (61.6%).</li> <li>This is the lowest level of healthy weight since the 2009/10 period (60.1%) and is the 2<sup>nd</sup> period in a row now to show a decrease in this.</li> </ul>					
Year 6 (10-11 year olds): Prevalence of Overweight	13.9% (262) (2016/17)	14.8% (276) (2015/16)	Decrease (improved)	<ul> <li>Gateshead is lower but not significantly lower than both the North East (14.8%) and the England prevalence rate (14.3%).</li> <li>This is the lowest level of year 6 pupils classed as overweight since availability of the data and is the 2<sup>nd</sup> lowest rate in the North East.</li> <li>This is continuing a trend which shows an increase one year immediately followed by a similar or larger decrease the following year.</li> </ul>					
Year 6 (10-11 year olds): Prevalence of Obese	24.6% (465) (2016/17)	23.2% (432) (2015/16)	Increase (worse)	<ul> <li>Gateshead is significantly higher than both the North East prevalence (22.5%) and the England prevalence (20.0%).</li> <li>Gateshead has the highest level of year 6 pupils classed as obese in the North East and is the 21st highest of the 150 publish English UTLA's</li> <li>This is Gateshead's highest level of year 6 obesity since the data became available and is the 2nd year in a row to show an increase.</li> </ul>					
(SOI 10) (LW4) Reduce Excess Weight in 10-11 year olds.	35.5% (727) (2016/17)	37.9% (708) (2015/16)	Increase (worse)	<ul> <li>Gateshead is higher than the North East prevalence (37.3%) and significantly higher than the England prevalence (34.2%).</li> <li>Gateshead has the 3<sup>rd</sup> highest prevalence of excess weight for Year 6 pupils in the North East and is the 31<sup>st</sup> highest of the 150 published English UTLA's.</li> <li>This is the highest level of excess weight for year 6 children since 2009/10 and is the 2<sup>nd</sup> year in a row to have shown an increase in this indicator</li> </ul>					
Year 6 (10-11 year olds): Prevalence of Severe Obesity	6.03% (114) (2016/17)	Not previously published	N/a	<ul> <li>Brand New Indicator for 2016/17</li> <li>Gateshead is significantly higher than the North East (4.95%) and is significantly higher than the England average (4.07%)</li> </ul>					

Indicator	Most Recent Performanc e	Previous Performanc e	Direction of Travel	Comments and Actions
				<ul> <li>Highest of the North East LA's</li> <li>15<sup>th</sup> highest of the 150 published English LA's</li> </ul>
NCMP Participation rate: Year 6	96.3% (1922) (2016/17)	95.7% (1903) (2015/16)	Increase (improved)	<ul> <li>Gateshead is higher than the North East (95.5%) and the England (94.2%) participation rates.</li> <li>Gateshead has the 4<sup>th</sup> highest participation rate for year 6 pupils in the North East</li> </ul>

Appendix 2 Reception Children with Excess weight 2016/2017 & Index of multiple Deprivation 2015 (overall)



Appendix 2 Year 6 Children with Excess weight 2016/2017 & Index of multiple Deprivation 2015 (overall)



# Appendix 3 -Estimated adult Prevalence of Obesity by Ward

(Estimated ward prevalences based on actual for a) practice prevalence and b) distibution of practice population by ward of residence)

Ward	18+ Population (Mid-Year 2015)	Number Obese (January 2018)	Prevalence		
Birtley	6,705	1,302	19.4%		
Blaydon	8,334	1,240	14.9%		
Bridges	7,670	1,281	16.7%		
Chopwell and Rowlands Gill	7,413	1,144	15.4%		
Chowdene	6,709	1,101	16.4%		
Crawcrook and Greenside	6,261	916	14.6%		
Deckham	7,588	1,390	18.3%		
Dunston and Teams	7,591	1,323	17.4%		
Dunston Hill and Whickham East	7,272	1,188	16.3%		
Felling	6,124	1,309	21.4%		
High Fell	7,331	1,533	20.9%		
Lamesley	7,175	1,381	19.2%		
Lobley Hill and Bensham	10,396	1,690	16.3%		
Low Fell	7,791	1,179	15.1%		
Pelaw and Heworth	6,570	1,201	18.3%		
Ryton, Crookhill and Stella	7,780	1,073	13.8%		
Saltwell	7,760	1,441	18.6%		
Wardley and Leam Lane	7,353	1,400	19.0%		

Whickham North	6,180	997	16.1%
Whickham South and Sunniside	6,860	1,134	16.5%
Windy Nook and Whitehills	7,699	1,496	19.4%
Winlaton and High Spen	6,558	907	13.8%
Gateshead	161,120	27,626	17.1%

**Significantly Lower than the Gateshead Prevalence** 

**Significantly Higher than the Gateshead Prevalence** 

Provided by North of England Commissioning Support Unit Data Team ( NECS)

#### Appendix 4 Body mass index (BMI), overweight and obesity prevalence, by region and sex1

Health Survey for England 2016. Aged 16 and over with valid height and weight measurements

BMI in kg/m², BMI status (%)²					Region				
	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East	South West
Men									
Observed									
Mean BMI	28.1	27.2	27.4	27.6	28.2	27.7	26.7	26.7	28.1
Standard error of the mean	0.42	0.29	0.42	0.45	0.28	0.33	0.36	0.24	0.43
% Underweight	2	1	2	5	1	2	1	3	0
% Normal	26	34	29	28	27	27	41	37	32
% Overweight	40	42	47	36	41	44	37	38	38
% Obese, excluding morbidly obese	29	22	21	30	30	26	18	22	26
% Morbidly obese	3	2	1	1	2	2	2	1	4
% Overweight, including obese	72	65	69	67	73	71	57	60	68
% Obese	32	24	23	31	31	28	20	23	29
Standardised									
Mean BMI	28.1	27.2	27.3	27.4	28.1	27.6	27.0	27.0	28.1
Standard error of the mean	0.40	0.29	0.41	0.54	0.29	0.34	0.33	0.22	0.46
% Underweight	2	1	2	6	1	2	1	2	0
% Normal	26	34	29	29	27	27	39	36	34
% Overweight	41	42	47	33	41	44	38	38	36
% Obese, excluding morbidly obese	29	21	21	31	30	25	19	23	26

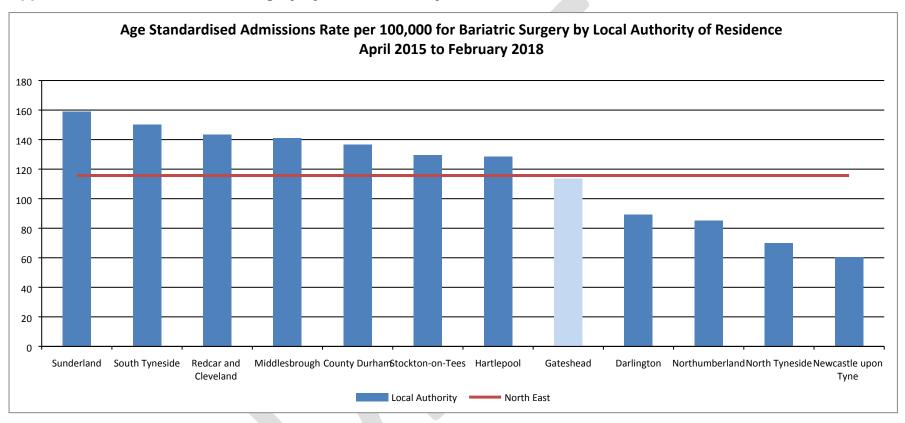
% Morbidly obese	3	2	1	1	2	2	3	1	4
% Overweight, including obese	72	65	69	65	72	71	60	62	66
% Obese	32	23	22	32	31	27	22	24	30
Women									
Observed									
Mean BMI	28.5	27.3	27.7	27.8	27.8	27.0	26.1	27.2	26.9
Standard error of the mean	0.44	0.28	0.48	0.42	0.44	0.34	0.28	0.24	0.25
% Underweight	1	1	3	1	3	3	4	1	3
% Normal	34	40	37	38	36	43	47	41	41
% Overweight	28	31	30	32	33	29	28	32	32
% Obese, excluding morbidly obese	33	25	25	23	25	22	19	21	20
% Morbidly obese	5	3	6	6	4	4	2	4	4
% Overweight, including obese	65	58	60	61	62	55	49	57	56
% Obese	37	28	31	29	29	26	21	25	24
Standardised									
Mean BMI	28.4	27.3	27.8	27.8	27.7	26.9	26.4	27.0	26.8
Standard error of the mean	0.47	0.28	0.46	0.41	0.46	0.33	0.32	0.25	0.26
% Underweight	1	1	2	1	3	3	3	1	4
% Normal	35	40	37	38	38	43	45	43	42
% Overweight	28	31	30	32	31	29	29	32	31
% Obese, excluding morbidly obese	31	25	25	23	24	21	21	21	20
% Morbidly obese	5	2	6	6	4	4	2	4	4
% Overweight, including obese	64	58	61	61	59	54	52	56	54
% Obese	36	27	31	29	28	25	23	24	24

Appendix 5- Table Bariatric Surgery for Gateshead residents

Lacal Authority as	20	15/16		2016/17	2017/18 (A	April to February)	April 2015 to February 2018		
Local Authority of Residence	Admissions	Directly Standardised Rate per 100,000	Number	Directly Standardised Rate per 100,000	Number	Directly Standardised Rate per 100,000	Number	Directly Standardised Rate per 100,000	
County Durham	246	48.1	191	37.4	201	43.4	638		
Darlington	34	32.7	24	23.1	27	28.3	85	89.1	
Gateshead	74	37.4	55 28.3		76 41.9		205	113.6	
Hartlepool	29	32.8	39	43.0	38	45.7	106	128.4	
Middlesbrough	65	51.6	50	39.4	49	41.6	164	140.9	
Newcastle upon Tyne	36	14.8	56	23.2	44 19.0		136	60.5	
North Tyneside	53	25.8	49	24.2	29	15.2	131	69.8	
Northumberland	84	26.6	109	33.7	56	19.4	249	85.2	
Redcar and Cleveland	55	42.2	65	50.2	49	42.6	169	143.3	
South Tyneside	70	48.0	69	46.5	63	47.1	202	150.1	
Stockton-on-Tees	91	48.1	79	41.0	56	32.1	226	129.3	
Sunderland	133	48.5	134	49.3	129	52.2	396	158.9	
North East	972	38.1	920	35.9	817	35.0	2707	115.7	
	Signifi	cantly Lower thar	n the North	ı East Rate	Signi	ficantly Higher tha	an the No	rth East Rate	

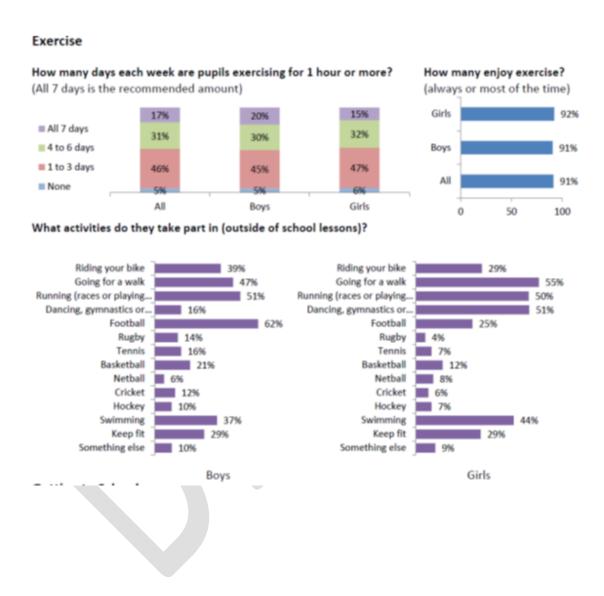
Data provided by North of England Commissioning Support Unit (NECS)

# Appendix 6 -Rates of bariatric surgery by Local Authority

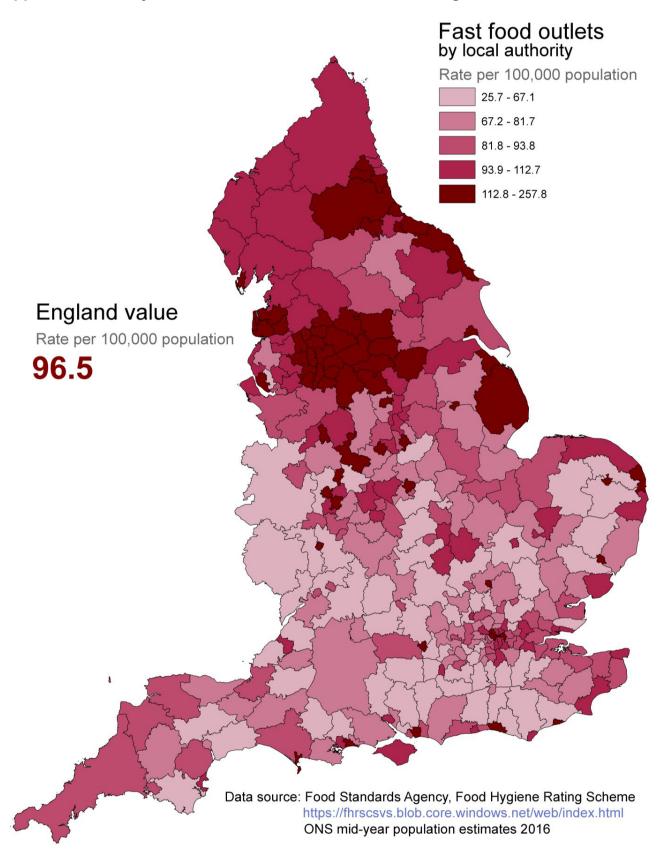


# **Appendix 7 Physical Acitivty Gateshead**

The Gateshead Schools Health and Wellbeing Survey (SHAWS) survey results 2016/2017



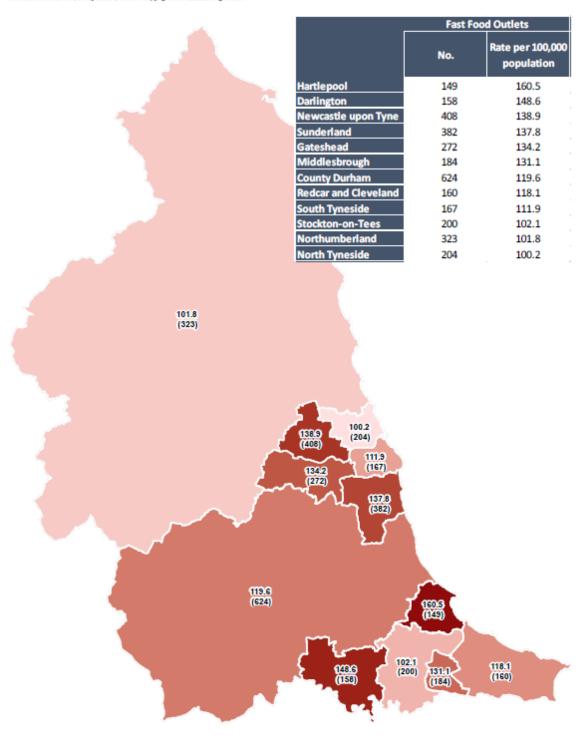
# Appendix 8 Density of fats food outlets in the North East region



#### Fast Food Outlets in the North East

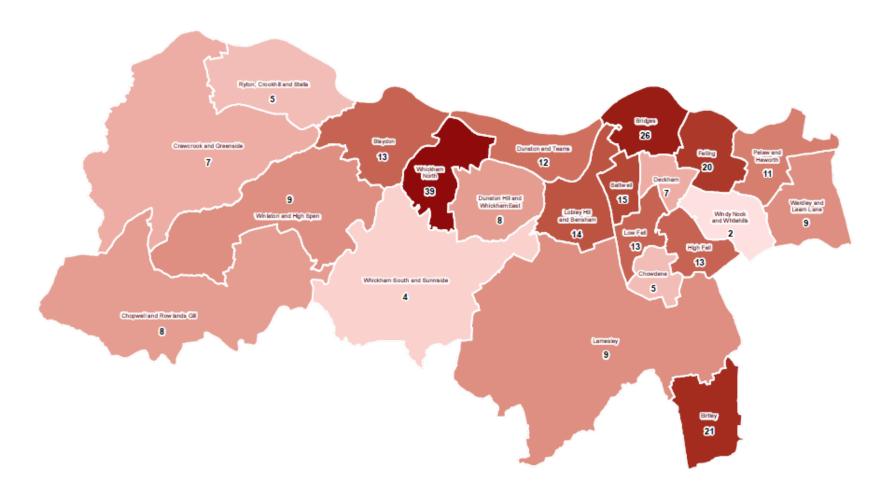
(Rate Per 100,000 shown above number of outlets in brackets)

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#### Fast Food Outlets in Gateshead Wards

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	Whirkham					Lobley Hill and Bensham				Dunston	Pelaw and		Wardley	Winlaton and High	Dunston Hill and Whickham	Chopwell and Rowlands	Crawcrook			Ryton, Crookbill	Whickham South and	Windy Nook and
	North	Bridges	Birtley	Felling	Saltwell	Bensham	Blaydon	High Fell	Low Fell	and Teams	Heworth	Lamesley	Lane	Spen	East	GIII	Greenside	Deckham	Chowdene	and Stella	Sunniside	Whitehills
Fast Food Outlets	39	26	21	20	15	14	13	13		12		_					7		5	5	4	2