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Foreword

The rise of the obesity epidemic...made in England

Welcome to my third annual report as Director of Public Health for Gateshead.

This year’s report, “Obesity; Made in England” focuses on the issue society has in maintaining a healthy weight. The report describes the challenge of obesity today, a challenge, that we are struggling to tackle effectively.

Weight is a very personal issue. It seems so easy, it’s just a case of energy balance...isn’t it?

Knowing and making the right choices? Eating well and exercising more.....right?

Those of us that have struggled to maintain a healthy weight will be acutely aware of how judged you can feel. Young people have told us that being overweight is a key trigger for bullying. The stigma faced by people who are overweight is significant and as such I feel it’s important to address this explicitly before I start.

We are bombarded by media headlines which, often place the blame firmly at the door of individuals. The news media regularly takes a victim-blaming approach, attributing weight problems to poor choices and laziness. For example, an article in the Daily Mail illustrates the theme ‘Too little exercise’, and reads, “get half an hour’s walking exercise a day. That’s all you need to do” (MacRae, 2009, p. 11).

This article, like many others, also promotes the message that combating obesity is simple, which serves to reinforce a belief that obesity is totally controllable by individuals.

Headlines in the past few years have blamed people experiencing obesity for rising fuel prices, global warming and causing weight gain in their friends. A label used in numerous newspaper articles is “fatty” or “fatties” (Ferrier 2009, p. 37). A number of headlines also play on words to present obesity in a derogatory or humorous manner. News stories are particularly influential and insidious given that their content is readily available through various sources and is rarely challenged (Heuer et al, 2011).

To date the majority of research examining obesity in the media has focused on entertainment media, including television and magazine portrayals (Greenberg et al, 2003 & Latner et al, 2007).

In response to this, as might be expected, obese people are often stigmatized; for example, Greenberg et al (2003) reported that obese television characters had fewer romantic relationships and friendship interactions and were less likely than non-obese characters to have positive interactions with others.
Since 1946, every generation has been heavier than the previous one.

The way we live, work, travel, play, shop and eat has been transformed greatly in recent decades.

Put simply, the fundamental cause of obesity and overweight is an energy imbalance between calories consumed and calories expended. Globally, there has been:

- An increase in the availability and intake of energy dense foods that are high in fat.
- A decrease in physical activity due to the increasing sedentary nature of our lives (e.g. work, play and transport).

Whilst I accept that personal responsibility appears to play a crucial part in weight gain our human biology is constantly being overwhelmed by the effects of today’s ‘obesogenic’ environment. This is a term used to describe how we live in an environment that encourages weight gain and obesity through an abundance of energy dense food, clever marketing that disproportionately focuses on the promotion of energy dense options, motorised transport and sedentary lifestyles.

We know that both the physical and psychological drivers as human beings mean that the vast majority of us are predisposed to gaining weight. Given all the external pressures, it is not surprising that for the majority of people in the UK, body mass index (BMI) is now above that considered to be in the ‘healthy’ range. We evolved in a world of relative food scarcity, very different food production methods and hard physical work – obesity is one of the penalties of our modern world.

“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, transport, food production and food sales” (Butland 2007).

In this report I will describe how societal changes over recent decades have exacerbated our risk of obesity. I will also set out the unacceptable inequalities faced by some communities alongside some of the opportunities we have to address this through enabling communities to take their own action. Some progress has been made, however beneath the surface, huge disparities in health remain and as the proportion of working families living in poverty rises, this is only likely to get worse.
I intend to set out the case for a whole system approach that places greater emphasis on action to address the wider environmental and societal issues that contribute to increasing obesity levels. We need to work together to create the conditions for healthy weight.

The obesity epidemic is not inevitable. We, as society have created many of the problems that have created the obesity epidemic and therefore, we, are also the people who have the power to solve it.

Alice Wiseman
Director of Public Health
Gateshead
Introduction

Obesity population levels are a key preventable cause of death and disease in the UK and a priority for public health. 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 diseases and 670,000 new cases of cancer (UK Health Forum & Cancer Research UK, 2016).

The worldwide prevalence of obesity nearly tripled between 1975 and 2016.

- In 2016, more than 1.9 billion adults, 18 years and older, were overweight. Of these over 650 million were obese.
- Most of the world’s population live in countries where overweight and obesity kills more people than being underweight.
- 41 million children under the age of 5 were overweight or obese in 2016.
- Over 340 million children and adolescents aged 5-19 were overweight or obese in 2016 (WHO Fact sheet, 2018).

Why is it getting harder to achieve a healthy weight?

- It is three times more expensive to get the energy we need from healthy foods than unhealthy foods.
- One can of cola contains nine cubes of sugar – two cubes more than an adult's maximum daily recommended intake.
- It is harder to buy health foods in deprived parts of the UK – there is also a higher density of fast food outlets in these areas.
- 1.2% of advertising spend each year goes on vegetables, yet 22% is spent on confectionery, cakes, biscuits and ice cream.

(The Health Foundation 2017)
The figures for Gateshead make difficult reading but are not different to many other areas in the country (NCMP data 2017/2018) (NHS Digital 2017).

Current data shows

- **69.4%** of adults in Gateshead have excess weight.
- **Two in every three** adults in Gateshead has excess weight.
- **One in four** adults in Gateshead are obese.
- In the most deprived areas of Gateshead the proportion of obese adults is almost **double** that in the least deprived.

By Year 6, in Gateshead **over 1 in three** children are overweight or obese.

Over **one in five** children in Gateshead start school overweight or obese.
Prevalence of overweight and obese children by area - year 6

Prevalence by Local Authority

Map Key

- Less than 28
- 28 to 32
- 32-38
- 38 and over

Gateshead


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Where do we start?

In Gateshead we understand the obesity agenda is complex, and it is tough to prevent and tackle at an individual, community and societal level. This doesn't mean we can just give up. The scale of this challenge requires drive and commitment to make positive changes that will impact upon the people and communities of Gateshead.

We also know that whilst no one is ‘immune’ to obesity, some people are at greater risk of becoming overweight or obese than others. The Marmot review highlighted that income, social deprivation and ethnicity have an important impact on the likelihood of becoming obese (Marmot, 2010). Moreover, it has been found that there is also a clear socioeconomic gradient in body mass index (BMI) for residents living in more deprived neighbourhoods, independent of individual socioeconomic position (Ge Van Lenthe and Mackenbach 2002). Geographical inequalities are also evident in England, with hotspots in the North East, Yorkshire and Humber.

Longitudinal studies also suggest that the social gradient in obesity is associated with the accumulation of disadvantage throughout the life course and contributes to widening inequalities in obesity in adulthood and this trend is more pronounced for women (Law et al, 2007).

The ultimate source of any society’s wealth is its people. Investing in their health is a wise choice in the best of times, and an urgent necessity in the worst of times.

(David Stuckler The Body Economic: Why Austerity Kills 2014)

Making obesity everybody’s business: A system and place-based approach to obesity

To address obesity, we need to take a radically different approach. We know that one to one interventions are important to help individuals tackle their own weight; however, this isn’t sufficient to tackle the issue and we have to take action at a population level. In Gateshead 69% of adults are overweight and obese. We therefore need to consider the complexity of the issue and plans need to refocus on the medium and longer term (beyond 5 years).

The evidence shows a collaborative whole systems approach is likely to be more effective in promoting healthy weight in children, young people and families rather than single interventions on their own. Local partnerships including the ‘Health and Care System’ the voluntary sector, local communities and local businesses should work in partnership to tackle obesity in Gateshead. This report seeks to identify some of the areas of the whole system in which change could be affected and recommends actions that can contribute to the commitment to end obesity in Gateshead.

In Gateshead we want to reframe the obesity agenda so that we talk about the ‘healthy weight’ agenda, so that we are all clear about the positive long-term vision for Gateshead.

The focus is on creating conditions for people to remain at a healthy weight from birth.
Finding Solutions

Although people seemingly make their own choices about the factors that influence their health – how much physical activity they do, the nature of their diet – these decisions are heavily influenced by society and the environment and the range of choices available. Tighter legislation on tobacco, has led to significant reductions in smoking and changed attitudes towards tobacco. However, the introduction of this legislation would not have been possible without many years spent building public acceptance of the case for Government intervention.

The healthy weight agenda is not yet at the point where the case for change has been made.

Because most people’s behaviours and decisions are fast, instinctive and automatic, rather than slow, considered and logical (Kahneman 2011), environments and initiatives that are conducive to healthier automatic choices are the most sustainable and should be targeted as part of public health efforts.

- As a local authority we can continue to influence through the planning system, food procurement and sales. There are more opportunities locally to, reduce pressures on families to buy less healthy foods and rebalance calorie intake by utilising powers such as planning and licensing.

- Adopting a ‘Health in all Policies’ (HiAP) approach will provide a useful framework which supports whole system working across the Council for tackling obesity and embedding health in the work of all partners.

Place-based or community centred approaches aim to develop local solutions that draw on all the assets and resources of an area, building resilience in communities. These approaches enable communities to take control of their health and wellbeing and allow them more influence on the factors that underpin good health. ‘Fit for the Future’ was a focused piece of work in Gateshead providing an example of a place based and community centred approach to promote healthy weight in children, young people and families. This case study is highlighted later in the report and offers us important learning.

A whole systems approach for Gateshead is underpinned by the following aspirations.

- To ensure Gateshead is a place where everyone thrives.
- To ensure everyone is able to achieve and maintain a healthy weight.
- To promote an environment that supports healthy weight and wellbeing as the norm.
- To support our communities and families to become healthier and more resilient, which includes addressing the wider determinants of health.
a) A Global Problem

What do we mean by obesity? It is a term used to describe someone who is very overweight, with a high degree of body fat that may have a negative effect on their emotional and physical health and wellbeing. It refers to someone with a body mass index (BMI) of over 30.

For most adults, a BMI of

- 18.5 to 24.9 means you’re a healthy weight
- 25 to 29.9 means you’re overweight
- 30 to 39.9 means you’re obese
- 40 or above means you’re severely obese

High cost to the world

Obesity is considered to be one of the top three most costly social burdens generated by human beings globally, above air pollution, climate change, drug use and road accidents.

### Obesity levels in countries with measured data

2015 or nearest year

<table>
<thead>
<tr>
<th>Country</th>
<th>Obesity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>38%</td>
</tr>
<tr>
<td>Mexico</td>
<td>32%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>31%</td>
</tr>
<tr>
<td>Hungary</td>
<td>30%</td>
</tr>
<tr>
<td>Australia</td>
<td>28%</td>
</tr>
<tr>
<td>UK</td>
<td>27%</td>
</tr>
<tr>
<td>Canada</td>
<td>26%</td>
</tr>
<tr>
<td>Chile</td>
<td>25%</td>
</tr>
<tr>
<td>Finland</td>
<td>25%</td>
</tr>
<tr>
<td>Germany</td>
<td>24%</td>
</tr>
<tr>
<td>Ireland</td>
<td>23%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>23%</td>
</tr>
<tr>
<td>Turkey</td>
<td>22%</td>
</tr>
<tr>
<td>Czechia</td>
<td>21%</td>
</tr>
<tr>
<td>Brazil</td>
<td>21%</td>
</tr>
<tr>
<td>Belgium</td>
<td>19%</td>
</tr>
<tr>
<td>Estonia</td>
<td>18%</td>
</tr>
<tr>
<td>South Korea</td>
<td>5%</td>
</tr>
<tr>
<td>Japan</td>
<td>4%</td>
</tr>
</tbody>
</table>

Obesity update, OECD (2017)
• Worldwide obesity has nearly tripled since 1975 and by 2016, more than 1.9 billion adults were overweight. Of these over 650 million were obese. Meanwhile, 340 million children and adolescents aged 5-19 were overweight or obese in 2016.

• Adult obesity rates are highest in the United States, Mexico, New Zealand and Hungary, while they are lowest in Japan and Korea.

A global obesity epidemic. How have we got to this point?

The reality is that westernised countries could be the first to see a generation that will die earlier than their parents, not because of poor sanitation or an outbreak of infectious disease but due to obesity and people gaining too much weight; an issue which has been manufactured and grown by society and is preventable!
A time before obesity?

For centuries, the human race struggled to overcome food scarcity, disease, and the hostile environment, when faced with challenges such as war and the industrial revolution. However, increasing the average body size in the population has become an important social and political issue.

Historical records from developed countries indicate that height and weight increased progressively, particularly during the 19th century.

By the 1930s, life insurance companies were already using body weight data to determine premiums, having identified an association between excess weight and premature death.

In the early 1950s, a direct link was proposed between the increasing prevalence of obesity and the increasing rates of cardiovascular disease in the US population.

Clear evidence of the alarming trend in obesity rates was provided by the regular national surveys performed since the 1960s, allowing us to see the continuing rise in prevalence over recent decades.

During the 20th century, as populations from better-off countries began to approach their genetic potential, they began to gain proportionally more weight than height and this resulted in an increase in BMI.

By the year 2000, the human race for the first time in human evolution had more adults with excess weight than adults who are underweight. (Caballero 2007).

But why did this happen? Is it as simple as just eating too much and not doing enough exercise or is there more to the story?

b) The first 1001 days

The first 1001 days (from conception to a child’s second birthday) are widely considered to be the most significant in a child’s development. Before infants are conscious of what they eat and drink and what they like and dislike, their health behaviours are already being heavily influenced.

It is argued that the first 1001 days have more impact on a child’s future than any other time in their life. (The Centre for Social Justice 2017).

Positive early experiences are vital to ensure children are ready to learn, ready for school, and have good life chances.
We know
Obesity in pregnancy has serious risks for both mother and child. Evidence from the UK shows that high maternal body mass index (BMI) is also associated with increased health service usage and healthcare cost. It is still one of the leading causes of maternal death. Data shows that for maternal deaths 47% of mothers who died from direct causes were either overweight or obese, as were 50% of women who died from indirect causes (PHA CMACE data 2006–2008).  

We know
There is a relationship with deprivation and inequalities, with deprivation significantly related to maternal death. The 2007 CMACE 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 areas, and this is compounded with increasing levels of obesity which pose further major health inequality issues for women. (Lewis 2007)  

We know
Mothers who breastfeed provide their child, amongst other things, with protection against excess weight in later life. Children who are breastfed for more than 12 weeks are also significantly less likely to be obese in later childhood. There is mounting evidence that breastfeeding may have a protective effect against obesity (Hediger et al, 2001). Mothers who are young, white and from routine and manual professions and who leave education early are least likely to breastfeed (Davies, 2014).  

Gateshead Data
In England 27% of women are overweight and 21% of women are obese at the start of pregnancy (NHS Digital, 2017).  

For 2016/2017 breastfeeding rates in Gateshead are measured from birth, with the proportion of mothers breastfeeding at 75.6%, which is better than the national average of 74.5%. However the number of women continuing to breastfeed at 6-8 weeks reduces to 36.7%. The 6-8-week Gateshead rate is higher than the regional rate of 31.3% but lower than the national figure of 43.2%.
c) Children and young people - A growing problem

Did you know? In the UK, one in ten children start school obese, this is enough to fill London’s Olympic Stadium four times over. It is important to highlight that studies have shown that a child with at least one obese parent is more likely to be obese themselves (Perez-Pastor EM, 2009).

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

The evidence shows that overweight and obese children consume between 140 and 500 excess calories per day, depending on their age and sex (PHE, 2018). The majority of children (92.3% of boys and 90.7% of girls) do not eat the recommended minimum of 5 portions of a variety of fruit and vegetables per day and children’s consumption of added or processed sugars (non-milk extrinsic) significantly exceeds the maximum recommended level (PHE, 2016).

The National Diet and Nutrition Survey found that sugary drinks accounted for 30% of 4 to 10 year olds’ daily sugar intake (PHE 2016). In addition to sugar consumption having an impact on children’s weight, it also has a significant effect on oral health with almost one in 4 children aged 5 suffering from tooth decay (PHE, 2018).

Dental disease

In Gateshead -

A survey of 5 year olds showed differences in children experiencing any dental disease across Gateshead. The highest levels of dental disease were in Felling Ward (47%) while the lowest was in Whickham South and Sunniside (9%) (PHE, 2014).
Did you know?

- Obesity prevalence for children living in the most deprived areas is more than double that of those living in the least deprived areas for both Reception and Year 6 children.

- Obesity rates are higher in some ethnic minority groups of children (particularly Black African and Bangladeshi ethnicities) and for children with disabilities (particularly those with learning difficulties) (NHS Digital, 2007).

Is there a problem in Gateshead?

Since 2006 we have weighed and measured children in Gateshead at age 4-5 years (reception) and 10-11 years (year 6). This programme is called the National Child Measurement Programme. Our NCMP data shows the rates of overweight and obese children changes each year and there is not a clear pattern to the data. What is clear is that the current figures are not acceptable, with still 22.5% of children aged 4-5 and 36.8% of children ages 10-11 in 2017/2018 being overweight or obese.

Prevalence of excess weight (overweight and obese) for reception children (aged 4-5 years).

Prevalence of excess weight (overweight and obese) for Year 6 children (aged 10-11 years).
Are young people physically active?

According to Sport England, 80 per cent of the seven million children aged five to fifteen 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.

Did you know?

- The number of boys who did not meet the physical activity guidelines (60 minutes or more on all 7 days of the week, excluding activities in school) was 79% in 2012, and 77% in 2015.
- The proportion of girls in comparison was higher at 84% in 2012 and 80% in 2015.
- Time spent being sedentary during the week and at weekends increased with age for 5-15 year olds. (Health Survey for England 2015).

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

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Weekdays</th>
<th>Weekends</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-4</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>5-7</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>8-10</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>11-12</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>13-15</td>
<td>25</td>
<td>30</td>
</tr>
</tbody>
</table>
**d) Adults - a weighty issue**

- Nationally, one out of four men is obese (25.7%) and seven out of ten are overweight or obese.

- For women, one out of four is obese (25.8%) and six out of ten are overweight or obese. By 2050, modelling indicates that 60% of adult men, 50% of adult women could be obese. (Health Survey for England 2013 to 2015).  

- Current data shows that 69.0% of adults in Gateshead have excess weight (overweight and obese) according to survey data (2015/16). This is significantly worse than the England and North East region figures.

<table>
<thead>
<tr>
<th>Area</th>
<th>Recent Trend</th>
<th>Count</th>
<th>Value</th>
<th>Proportion %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>95% Lower CI</td>
</tr>
<tr>
<td>England</td>
<td>-</td>
<td>-</td>
<td>61.3</td>
<td>61.1</td>
</tr>
<tr>
<td>North East Region</td>
<td>-</td>
<td>-</td>
<td>66.3</td>
<td>65.2</td>
</tr>
<tr>
<td>Country Durham</td>
<td>-</td>
<td>-</td>
<td>67.5</td>
<td>67.3</td>
</tr>
<tr>
<td>Darlington</td>
<td>-</td>
<td>-</td>
<td>71.7</td>
<td>64.6</td>
</tr>
<tr>
<td>Gateshead</td>
<td>-</td>
<td>-</td>
<td>69.0</td>
<td>64.6</td>
</tr>
<tr>
<td>Hartlepool</td>
<td>-</td>
<td>-</td>
<td>67.5</td>
<td>62.3</td>
</tr>
<tr>
<td>Middlesbrough</td>
<td>-</td>
<td>-</td>
<td>67.7</td>
<td>63.1</td>
</tr>
<tr>
<td>Newcastle upon Tyne</td>
<td>-</td>
<td>-</td>
<td>63.2</td>
<td>61.1</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>-</td>
<td>-</td>
<td>69.6</td>
<td>64.8</td>
</tr>
<tr>
<td>Northumberland</td>
<td>-</td>
<td>-</td>
<td>61.4</td>
<td>57.7</td>
</tr>
<tr>
<td>Redcar and Cleveland</td>
<td>-</td>
<td>-</td>
<td>68.8</td>
<td>64.0</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>-</td>
<td>-</td>
<td>69.4</td>
<td>63.3</td>
</tr>
<tr>
<td>Stockton-on-Tees</td>
<td>-</td>
<td>-</td>
<td>65.3</td>
<td>60.7</td>
</tr>
<tr>
<td>Sunderland</td>
<td>-</td>
<td>-</td>
<td>64.8</td>
<td>61.9</td>
</tr>
</tbody>
</table>

Trends over time - What’s normal? What are we comparing?

There has been an increase in mean waist circumference among both men and women since 1993.

**Adult (aged 16 years and over) waist circumference** (Health Survey for England, 2013)

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean Waist Circumference (cm)</th>
<th>% with Raised* Waist Circumference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>82cm</td>
<td>27%</td>
</tr>
<tr>
<td>2012</td>
<td>88cm</td>
<td>46%</td>
</tr>
<tr>
<td>1993</td>
<td>93cm</td>
<td>21%</td>
</tr>
<tr>
<td>2012</td>
<td>97cm</td>
<td>34%</td>
</tr>
</tbody>
</table>

*Raised waist circumference is taken to be greater than 102cm in men and greater than 88cm in women

There are links between high levels of central obesity in adults, measured by waist circumference, waist-to-height or waist-to-hip ratio and risk of obesity-related conditions including type 2 diabetes, hypertension and heart disease.

If you are born in Gateshead what does that mean?

The 2016 Gateshead Health and Lifestyle Survey highlighted wide variations in adult obesity across Gateshead with the highest levels in the most deprived areas. For example, in the most deprived parts of Gateshead, the proportion of obese adults is almost double the proportion in 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.

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.
Physical activity

We are the first generation that need to make a conscious decision to build physical activity into our daily lives. Fewer of us have manual jobs. Technology dominates at home and at work, the places where we spend most of our time. Societal changes such as how to get to work or school have designed physical activity out of our lives.

Did you know?

Physical inactivity is responsible for one in six UK deaths (equal to smoking) and is estimated to cost the UK £7.4 billion annually.

What could be done with 7.4 billion annually?

This is equivalent to building approximately three thousand, three hundred affordable sports centres with community 25 metre pools. (Sport England costs, 2018, estimates)

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. Between 1961 and 2005 physical activity levels in the UK decreased by 20% and are projected to decrease further to 35% by 2030. The biggest decrease over this time period was in occupational and domestic physical activity. Societal change has contributed towards a decline in everyday activity levels, and this has been associated with the obesogenic environment and the widespread use of cars, an increase in sedentary work and leisure, and developments of technology in the home and workplace (Foresight, 2007).

Historic and physical activity levels for the UK

The decline in physical activity by activity area

*Metabolic equivalent of task
What happened to us?

- 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.

- 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!

- For most people, the easiest and most acceptable form of physical activity are those that can be incorporated into everyday life. There is a need to build incidental activity into everyone’s daily life, for example through creating safe and attractive environments that enable anyone of any age or ability to travel actively (PHE, 2014).

The benefits of physical activity extend further to improved productivity in the workplace, reduced congestion and pollution through active travel, and healthy development of children and young people.
From age 7 active life slows down. Really?

The Gateshead Millennium study looked to identify the timing of changes in physical activity during childhood and adolescence. Previously there had been a widely held view among researchers that physical activity begins to decline in adolescence. However findings from the Gateshead Millennium Cohort Study indicate that physical activity is actually in decline from age 7 among boys and girls, challenging previously held beliefs and suggesting a need to understand why this change takes place. Habitual physical activity measurements in the cohort began when participants were 7 years of age (October 2006 to October 2007), and were repeated at 9, 12, and 15 years of age.

Analysis of the study findings highlighted that the decline in physical activity was not uniform.

Four distinct patterns were evident for boys. Patterns included: low levels of physical activity that slowly tailed off from age seven (in 3% of the sample); initially high levels of physical activity with rapidly declining levels from age 7 (17%); moderate levels of physical activity that gradually tailed off from age 7 (61%); and stable levels of moderate to vigorous activity that remained across ages (19%).

In contrast there were three distinct patterns evident for girls. Patterns included; low levels of physical activity to start with which slowly declined from the age of 7 (19%); moderate levels of physical activity that gradually tailed off from the age of 7 (62%); and high initial levels of physical activity that fell sharply from the age of 7 onwards (19%).

e) A cost to high to pay

Health costs

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:

- 5 times more likely to develop type 2 diabetes.
- 3 times more likely to develop cancer of the colon.
- more than 2 1/2 times more likely to develop high blood pressure – a major risk factor.
- Approximately 8 to 10 year loss of life (equivalent to the effects of lifelong smoking).

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

- almost 13 times more likely to develop type 2 diabetes.
- more than 4 times more likely to develop high blood pressure.
- more than 3 times more likely to have a heart attack.
The wider costs

- Obesity can harm people’s prospects in life, their self-esteem and their underlying mental health. We know that that people who are obese or overweight are less likely to exercise in public as they feel discriminated against because of their weight.

- More broadly, obesity has a serious impact on economic development. The overall cost of obesity to wider society is estimated at £27 billion.

- Annual spend on the treatment of obesity and diabetes is greater than the amount spent on the police, the fire service and the judicial system combined.

Future costs

It is estimated that by 2050, obesity and overweight will cost the NHS almost £10 billion a year, and the full economic cost will rise from around £27 billion today to £50 billion by 2050 (Foresight, 2007).

f) Health inequalities and obesity

Being overweight or obese both influences and reinforces health inequalities, and can contribute to a vicious cycle of health inequalities continuing across the generations. And the problem is getting worse.

Obesity does not affect all groups equally, for example:

- Rates of excess weight are higher in adults with severe mental illnesses.
- Rates of excess weight are twice as prevalent in adults aged 18-35 years old with a learning disability.
- Obesity was more common among men (between 1994 and 2013) from the skilled manual class who consistently have the highest obesity prevalence and professional men the lowest prevalence.
- Women (between 1994 and 2013) from the professional social class had the lowest prevalence of obesity. Women in the unskilled manual class consistently had the highest prevalence of obesity.
- Around a third of adults who leave school with no qualifications are obese, compared with less than a fifth of adults with degree level qualifications (Roberts et al 2013).
Children living in deprivation are more likely to consume 10 per cent less fruit and vegetables than the least deprived children.

Healthy foods are three times more expensive per calorie than less healthy foods, and less healthy foods tend to have greater price reductions in retail promotions than healthy foods.

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.

Despite spending less on food in real terms than more affluent families, the amount less affluent parents spend is double the percentage of their income compared to parents with more disposable income.

Disadvantaged families are also more likely to live in poor, unsuitable or overcrowded housing, making cooking and eating at a table together difficult or impossible. Furthermore they are also more likely to experience a combination of family breakdown, stress, mental health issues and financial problems. This can impair parents’ ability to make rational and controlled decisions including healthy decisions for themselves and their children.

Clearly, a ‘one size fits all’ approach is not going to work, and policy interventions must be tailored accordingly to the specific needs of communities. Ultimately, we need a fundamental change at the population level on the scale of the culture shift we’ve previously seen for smoking and seat belt wearing. This will take time. When it comes down to it, if we want to tackle childhood obesity, we need to tackle health inequality. (The Marmot review 2010)

‘Children are among some of the most vulnerable groups in society, and they all deserve an equal chance at a healthy life. ‘Health is a human right. We need to do something. We need to do more. And we need to do it better.’ Marmot 2010"
a) No one answer

On the face of it obesity appears relatively simple to understand. If we consume too much food and don’t expend sufficient energy, then overweight and obesity rates increase. Conversely, if we reverse this then we should achieve an energy balance that sees the problem reduce over time. However, this is a simplistic view which overlooks the fact that the causes of overweight and obesity are complex, with many and multi-layered factors at work. NO SINGLE MEASURE is likely to be effective on its own in tackling obesity.

However, public, political and media conversations are dominated by a persistent idea that the problem is driven by individual level choices. This is the idea that often looks out from the headlines of newspapers and swirls around social media, rather than a more balanced view which explains a complex societal problem primarily driven by the obesogenic environment in which we live. The problem arises when this dominant view is then reflected in policies and actions that act at individual or group level and that focus on individual level behaviour change, rather than creating the right conditions which facilitate healthy weight. This misplaced focus on individuals, increases stigma by placing attention on the behavioural decisions of those who are overweight and obese rather than on the context in which decisions are made.

Health inequalities that could be avoided by reasonable means are unfair. Putting them right is a matter of social justice. (The Marmot Review, 2010). For instance, the discussion is almost always about the responsibilities of individuals and very rarely about the responsibilities of corporations to their customers or wider society.

The ‘system map’ in Appendix 3 was produced for the Foresight Report (2007) on obesity and demonstrates that there are over a hundred different factors which result in more than three hundred different reinforcing or balancing relationships that cause overweight or obesity. The map confirms that energy balance (or imbalance) is determined by a complex multi-layered system of determinants (causes) where no single influence dominates. The causes of obesity are extremely complex and involve both biology and behaviour, but importantly are firmly set within a cultural, environmental and social framework.

To respond to this complexity it is important that we move away from the idea of obesity as being caused by ‘lifestyle choices’ and instead recognise that the true causes of obesity are often a result of environmental, social, political and economic pressures.
An initial step may be to acknowledge a challenging truth: (the most important intervention to tackle obesity, as noted by Professor Harry Rutter, is “to understand that there is no single most important intervention” (Rutter, 2010).

b) Our food environment

In the past, obesity was commonly associated with gluttony and lack of self-control at the table. Solutions have focused on solving the problem by focusing on treatment and prevention. Over recent decades, as the obesity epidemic has continued to advance, there has been a greater focus on the environment and key things than can and will disrupt our energy balance.

As I have already set out overweight and obesity is linked to social developments and changes in food production, motorised transport and work/home lifestyle patterns. The term obesogenic environment refers to the role that environmental factors may play in determining both energy intake and expenditure. For example, specific environmental factors may shape the availability and consumption of different foods or the levels of physical activity undertaken by populations, thus limiting choices for some people and communities.

Research into what may have caused the rise in prevalence of obesity has shown that most people across the whole population became heavier at about the same time in the late 1970s across the whole population. Is it possible to consider that all communities in society had a decline in willpower related to healthy nutrition and exercise at the same time? The answer of course is NO.

In the 1970’s there was

- a rapid increase in food production
- an increase in food portion sizes
- accelerated marketing
- availability, and affordability of energy dense foods, and widespread introduction of cheap and potent sweetening agents

These factors impacted on the food system and affected the whole population simultaneously.
Food production and consumption

Food is everywhere. We are faced with approximately 22 food decisions every day – more than we can consciously process! Many of our decisions about the food we eat aren’t taken as conscious or deliberative choices but rather on instinct and in response to the environment around us – at work, at home, at college, at the shops. Although we might not like to admit it, our eating behaviour is heavily influenced by our environment, and many environments are currently designed and planned to encourage eating at every opportunity!

We also know that people consistently underestimate the amount of food they consume. We now have easier access to a wider variety of highly tasty, high energy foods than ever before. This food is cheap and widely promoted, both in the media and in shops. As most people don’t realise they are eating too much it is incredibly difficult for people to know that they need to reduce how much they eat.

It’s all in the size

How much do we eat?

Our plates and size of products have increased

The effect of our environment on what we eat is particularly strong when we are in stressful situations and this is particularly true of people living in deprived areas and on low incomes who are facing challenging times. For instance, the stress of wanting to plan and provide healthy meals is heightened when you are unable to do this realistically due to financial pressure. This leads to extra stress and a likely reliance on the convenient, unhealthy food outlets right on the doorstep with cheap, accessible unhealthy foods.

In short, we need to have a realistic view of people’s eating behaviour and the daily pressures they face just to survive, and to design the environment (our schools, shops and homes) with this in mind.

(The Centre for Social Justice, 2017)
Eating out and fast food outlets

- For the majority, eating out is no longer a treat or for special occasions. It has become the norm, which means out-of-home food and drinks are as important as the food and drinks prepared at home.

- Over a quarter of adults and one in five children eat food from out of the home at least once a week and these foods and drinks are associated with having more calories and being unhealthy.

- In 2017, there were 56,638 takeaway outlets in England, a rise of 8% (4,000 restaurants) in the past three years.

- Fast food outlets account for more than a quarter (26%) of all eateries in England.

- Around a third of fast food outlets in England are found in the most deprived communities. (see graph below)

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 average. In Gateshead the areas with the highest rate of fast food outlets are the Metro Centre, Bridges ward and Birtley.

Fast food outlets in the North East
(Rate per 100,000 shown above number of outlets in brackets)

<table>
<thead>
<tr>
<th>Rate per 100,000 population</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hartlepool</td>
<td>160.5</td>
</tr>
<tr>
<td>2 Darlington</td>
<td>148.6</td>
</tr>
<tr>
<td>3 Newcastle Upon Tyne</td>
<td>138.9</td>
</tr>
<tr>
<td>4 Sunderland</td>
<td>137.8</td>
</tr>
<tr>
<td>5 Gateshead</td>
<td>134.2</td>
</tr>
<tr>
<td>6 Middlesbrough</td>
<td>131.1</td>
</tr>
<tr>
<td>7 County Durham</td>
<td>119.6</td>
</tr>
<tr>
<td>8 Redcar &amp; Cleveland</td>
<td>118.1</td>
</tr>
<tr>
<td>9 South Tyneside</td>
<td>111.9</td>
</tr>
<tr>
<td>10 Stockton-on-Tees</td>
<td>102.1</td>
</tr>
<tr>
<td>11 Northumberland</td>
<td>101.8</td>
</tr>
<tr>
<td>12 Stockton-on-Tees</td>
<td>100.2</td>
</tr>
</tbody>
</table>

Ordinance survey data (2018)
It is only recently that local authorities have started to use the legal and planning systems to regulate the growth of fast food restaurants, in particular those near schools. There is some evidence that the type of food on sale nearest to schools influences the diet of schoolchildren.

**Case study** by Lucy Greenfield, Planning Officer, Gateshead Council.

**Using the planning systems to limit hot food takeaways in Gateshead**

A number of important publications have already drawn attention to the potential for local government to use its powers in a variety of ways to combat obesity and try to dilute some of the effects of the obesogenic environment. The planning system is one area in which local government can act.

In Gateshead, a Supplementary Planning Document (SPD), supported by an integrated public health policy, has been used successfully to control the proliferation of hot food takeaways in areas with high levels of child obesity. (ref: case study in tipping the scales UK Health Forum 2016)
What was involved?

We first set out the evidence of need, which showed that nearly a quarter (23%) of 10 and 11 year olds in Gateshead are obese, above the national average (19%), and the trend in obesity which has risen in recent years. Physical activity declines markedly during childhood, and many children and young people in the area do not eat a healthy diet as measured by 5 or more portions of fruit and vegetables a day.

The Gateshead Independent Takeaway Study Analysis of Nutrient Data, 2013 established that hot takeaway food in Gateshead is unhealthy. The study sampled foods from all 187 independent takeaways in Gateshead and found that a large proportion of takeaway food contained more calories, fat and saturated fat in one portion than 66 per cent of the recommended daily intake for a female, and in many cases nearly 100 per cent of the recommended daily intake.

The Gateshead and Newcastle Core Strategy and Urban Core Plan (2015) set out an expressed intention to improve access to healthier food and control the location of and access to unhealthy food outlets. The Council had set a target to reduce childhood obesity to no more than 10% among Year 6 children in every ward. The Council was aware that a multi-stranded approach to healthy weight would be necessary, of which use of its regulatory functions would be only one part; planning policy could halt any further overconcentration of takeaways, but environmental health officers would also have to work with businesses to help make their menus less detrimental to health.

Although some local authorities have focused on clustering of fast food outlets around schools, Gateshead wanted to look more broadly at places where young people live and congregate and also to ensure that it considered the locational aspect in terms of those wards with the high incidence of obesity.

Gateshead Council therefore developed a hot food takeaway Supplementary Planning Document (SPD). In addition to a number of other criteria such as residential amenity, planning permission for a hot food takeaway will not be given where:

- children and young people congregate
- high levels of obesity are observed (using National Child Measurement Programme data).
- there is an over proliferation of hot food takeaways
- clustering of hot food takeaways will have a negative impact on the vitality of the local area

All future hot food takeaway applications now need to be accompanied by a health impact assessment.
What worked well?
To produce the SPD and inform its content:

- food samples from takeaway outlets were collected and tested for nutritional quality and portion size
- the concentration of hot food takeaway outlets within each ward was measured by checking the retail health checks survey
- academic evidence on the link between obesity and exposure to takeaway outlets was reviewed
- ward level prevalence of obesity among Year 6 children was obtained from the NCMP

Next Steps
The conditions set out in the SPD mean that there are currently no locations where opening a new hot food takeaway would be accepted. Since the SPD was adopted, no new planning applications for hot food takeaways have been approved. The number of applications has also dropped.

We know the planning system alone cannot solve the problem of obesity whose causes are many and complex. One obvious obstacle is that councils’ planning powers can do nothing to address the clustering of fast food outlets that are already in place. The planning system is not designed to deal with the detail of how a business is operated, but rather with how land is used: the licensing system, if it were strengthened, might be a more effective route for looking at issues of quality. The food environment is one aspect; however, it is important to recognise that there are also links with the built environment and its impact on health.

Gateshead council is monitoring changes of use from restaurants to takeaways on an annual basis in order to monitor the success of the policy. There are still challenges for the future:

- This SPD applies only to Hot Food Takeaway’s (A5 use), not fast food outlets (A3 restaurant use). This is a real limitation.
- There are issues controlling mixed use developments /ancillary use
- It doesn’t impact on existing premises – the public don’t see much change
- Many other initiatives across the system are needed to tackle obesity - one initiative alone won’t work
Key drivers of food production and consumption

We can now see that there are more factors at work here than individual choice, and that in reality, a whole range of factors have contributed to the obesogenic environment in which we live:

• An increase in income and lower food prices led to an increased consumption of processed foods;

• Urbanisation increased the number of people leading more sedentary lives while consuming more energy-dense, convenient and fast foods;

• How we trade food has reduced the price and increased the availability of unhealthy, energy dense, nutrient-poor foods;

• The rise and increased expansion of major food corporations such as McDonald’s, KFC and Nestlé, contributed to the development and availability of fast food and energy dense alternatives to traditional meals;

• Convenience - The increase of supermarkets includes the availability of readily available, cheap and unhealthy foods;

• The rise in food industry marketing has had a major impact on what we eat and drink. TV advertising is potentially the single most significant factor responsible for the childhood obesity epidemic.

• The shift in consumer attitudes and behaviours away from necessity towards a society that just consumes, which is made possible by the availability of cheap and convenient food and drink.

• Food promotions in Britain are the highest in Europe, and 40% of our expenditure on food and drink consumed at home come from foods on promotion, which are often the usually unhealthy food option.

“People think [being] overweight is an abnormal response to a normal environment. That’s not true at all. It’s a normal response to an abnormal environment”

Professor Jaap Seidell, Free University, Amsterdam 2018.
c) **Our physical environment**

Some aspects of the built environment encourage behaviours that lead to obesity

*Imagine* a city which has cleaned up its rivers, provides footpaths and cycleways along them, links with larger open spaces such as parks and squares, invests in tree planting in green public spaces and streets, develops community gardens and has an educational programme to encourage people to be more active in the outdoors.

*As a result,* the city’s flood risk will reduce; there will be improvements in air and water quality, active travel will grow, the number of people walking, running and cycling for fun, and growing their own food will increase; and there will also be more opportunities for communities to come together. All these changes will have positive impacts on people’s health and wellbeing, including obesity.
Case study by Claire Thompson, North East Nature Partnership

Green infrastructure across the life course

Greenspace or green infrastructure (GI) includes parks, woodlands, street trees, rivers and canals. Increasing and indeed just maintaining the current level and access to greenspace is becoming more challenging for local councils, however when the true value of these spaces is really understood the case for investment becomes much more difficult to refute.

Until very recently the role of nature or green infrastructure was considered to mainly be of benefit to our physical health. More recently, this has also included mental health, with a wealth of evidence demonstrating exposure to naturalised environments has a positive impact on mental health and is even more pronounced in those that need it the most. In 2018, the North East England Nature Partnership collaborated with Public Health England and local public health teams to review the evidence for nature and health to demonstrate the multiple benefits of green infrastructure.

Benefits across the life-course

• Being born into a clean, accessible and sustainable environment and improving access to biodiverse natural environments, children can be enabled to live healthier lives. In early childhood, this will increase the chance of experiencing the best start in life, as clean air reduces the risk of infant mortality, respiration problems and supports the developing brain.

• Importantly, recent evidence shows that children living in greener urban neighbourhoods have better spatial working memory which is vital important for cognitive development and related to academic performance, specifically mathematical ability.

• When children spend more time outdoors, distance vision is increased, this combined with the protective effect of sunlight on the eye reduces the risk of developing myopia.

• This preventative role of GI through passive exposure to nature can continue population wide throughout the rest of our lives. In teenage years, regular use of the natural environment will help to maintain a healthy weight, good mental health and connections to their community. The greatest population-wide health benefits come from daily passive exposure to nature. This means the aspects of nature we can experience every day when going about our daily lives such as: street trees, woodlands, hedgerows, wildflowers, ponds, pollinators and birds.

• Throughout adulthood the benefits will continue to accumulate and reduce the likelihood of many major diseases; cardio vascular disease, some cancers, COPD, type 2 diabetes and mental ill health. The benefits will persist into older years, where there is less likelihood of having a stroke and the long lasting mental and physical health benefits of exposure to GI in earlier years will be experienced.
Out in the great outdoors

- 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 and those with close access to green space live longer than those without it (this considered factors such social class, employment and smoking).\(^{47}\)

- The health of older people increases where there is more space for walking near home, with parks and tree-lined streets nearby and children become more active when they live closer to parks, playgrounds and recreation areas.\(^{48}\)

- Evidence shows that children living near green spaces are less likely to experience an increase in body mass index (BMI)\(^{49}\) over time.

Individuals living in the most deprived areas are less likely to live in areas of green space, therefore have less opportunity to gain the health benefits of green space compared to those individuals who live in the least deprived areas (CABE, 2010).\(^{50}\) People in more deprived areas may live close to green spaces but they can be infrequently used due to concerns about crime and community safety. Low-income areas are associated with lower quality housing and less access to good quality green space (Houses of Parliament Parliamentary Office of Science and Technology (2016)).\(^{51}\)

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.

One of the most significant movements engaging people in physical activity in green space that has appeared in recent years is Parkrun UK, which engages thousands of people of all fitness levels in different localities on a weekly basis.

It’s all in the design

An ever-increasing body of research indicates the environment in which we live is inextricably linked to our health across the whole life course (PHE, 2017).\(^{45}\)

The way land is used in communities can have a significant impact on the public’s health, and the design and quality of the environment can influence the choices made by individuals and communities. Planning authorities can influence the built environment to improve health and reduce the extent to which it increases obesity.

For instance, promotion of ‘active transport’ (walking and cycling) is one way of increasing activity and helping to combat obesity, but without broader environmental changes to tackle issues such as commuting distances, safety, issues of confidence and infrastructure, its impact may be limited. It is therefore critical to consider urban design, including the distance to shops, workplaces and schools, along with the range of land uses in a neighbourhood.
The phrase ‘healthy placemaking’ has been defined by the Design Council as: (“Tackling preventable disease by shaping the built environment so that healthy activities and experience are integral to people’s lives.”) (The Design Council and Social Change UK, 2018).52

As well as the space between buildings, the design and layout of buildings themselves can support physical activity with, for example, prominent and appealing staircases, rather than escalators or lifts, make it easier to be active in our everyday lives. A healthy weight environment is one that prioritises walking, cycling and public transport use and minimises car use (TCPA/PHE 2014).53

- Disadvantaged areas tend to have more main roads, leading to poorer air quality, higher noise levels and higher collision rates.
- The obesogenic environment heavily impacts the most disadvantaged groups, which discourages walking and cycling and further exacerbates health inequalities.

The Cycling and Walking Infrastructure Strategy outlines the Government’s ambition to make cycling and walking a natural choice for shorter journeys or as part of longer journeys by 2040. One of the aims is to increase the percentage of children aged 5 to 10 years that usually walk to school from 49% in 2014 to 55% in 2025. (DFT, 2016).54
Case study
by Ian Burchell  Urban Designer-Built and Natural Environment, Gateshead Council

Healthy by Design - The role of an urban designer in the built and natural environment

My role in the Council is to champion good design – influence the design of development in Gateshead – help develop planning policies to promote and encourage the delivery of well-designed developments, especially at the moment with regard to new housing (with the release of our 8 green belt sites for circa 2,400 new homes).

My role is not just restricted to the built form, urban design deals with the whole environment – from the internal spaces within new buildings and especially homes, to include the design of all external spaces and routes/links. This incorporates strategic green and blue infrastructure, working closely with natural environment colleagues and engineers so I can potentially have an impact on the quality of all aspects of Gateshead’s environment.

Health and wellbeing is a growing concern, and this is one of my main focusses when discussing new development with external partners/developers. I consider how well-designed places (internal and external) can bring massive benefits to occupants – a comfortable living environment with enough internal space for socialising, privacy, study, play, storage etc. and decent outdoor spaces with good links to the countryside / parks / open spaces / rivers etc. - including public footpaths, wagonways, cycle paths etc. encouraging interaction with nature. Also, more locally I am concerned with well-designed housing estates with pedestrian friendly streets and open spaces, well landscaped and including opportunities for informal play / outdoor fitness (green gyms etc.)

Planners have an enabling role to ensure facilities and infrastructures exist to give everyone the opportunity to live in a healthy-weight environment. The ‘6 Healthy Weight Environment elements’ are outlined by the Town and Country Planning Agency and Public Health England (2014):

- movement and access: sustainable travel or active travel
- open spaces, play and recreation: green infrastructure, formal and informal play areas
- healthy food environments: food growing and access to healthy food retail
- neighbourhood spaces: public spaces that are attractive, easy to get to, and designed for a variety of uses
- buildings: design and layout of homes and commercial space
- local economy: town centre retail and food diversity.
d) Marketing and technology

The impact of the mass media

Evidence shows that exposure to food advertising can have both an immediate and longer-term impact on child’s health, by encouraging greater consumption immediately after watching the advert as well as altering a child’s food preferences. Over time we know that small daily increases in child’s calorie intakes will lead to weight gain and obesity and increase the risk of 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, which is defined as content that is directed to, or likely to appeal to children.

The newly developed ‘chapter 2 of the ‘child obesity plan’ ‘highlights that ‘unhealthy food and drink marketing dominates many public spaces’, and this creates the difficulties children and families face in making healthy choices. There is a substantial body of evidence to demonstrate that junk food marketing negatively affects children’s dietary health. Research has shown that an increase in children’s exposure to marketing can result in the normalisation of junk food consumption, increased preference for junk food, greater pestering of parents to buy junk food, higher consumption of unhealthy foods and lower intake of healthy food and a greater body weight.

When walking down any town or city centre high street you are bombarded with advertisements for food and drink, the majority of which is classed as HFSS (High in fat, salt or sugar). You take a bus or train and the same adverts appear. Even on the short walk from the car to the school gates, children can be subjected to advertising. Whilst payphones are rarely used in modern day society, there is a loophole in terms of planning permission and as a result, they are becoming more and more popular on the highstreets, not for their original intended purpose of phone calls, but as another platform to advertise unhealthy food and drink products.
The impact of technology

In England, the average child aged between five and fifteen spends an estimated 16 hours a week online and 13.5 hours watching television, which is more than double the recommended amount of screen time for children and exposes them to more adverts for unhealthy food and drink. It is recommended that children should have no more than two hours of screen-based entertainment per day.

Children now make up more than 25 per cent of the overall television audience, and it is often hard to encourage children away from their devices or the television. It is acknowledged that children from lower-income backgrounds typically spend more time in sedentary activities due to financial constraints associated with sporting activities.

The advancement of technology has tended to remove physical activity out of the environment in the past few decades. This is compounded by the same trend seen in the built environment that decreases and disincentives the need to walk, and in the decline of manual occupations. Households that have more home appliances, and which show increased use of online shopping show reduced levels of physical activity. There is no reason to suppose that the direction of this trend will change in response to new technologies.\(^{37}\)

e) It’s not just our genes

In spite of research over recent decades, the reasons why people gain excessive body weight are still only partially understood. Often people will link experience of obesity to their genetic make up. Every person born has their own unique genetic identity and this can give particular people a biological weakness to weight gain when combined with other factors such as lifestyle, calorie consumption, and activity levels.

There is strong evidence that humans are predisposed to put on weight by their biology and this has been compounded exposed by the cultural, environmental and social factors that make up modern lifestyles. Our biological systems are not well adapted to a fast-changing world, where the pace of technological progress has outstripped human evolution, and for an increasing number of people, weight gain is the inevitable, and largely involuntary consequence of exposure to a modern lifestyle.\(^{37}\)

The Foresight Report (2007) states that studies in humans have now identified a number of specific genes associated with obesity. Often we can see that obese children will have parents who are struggling with their weight. There is also a generational link to obesity and we know the most significant predictor of childhood obesity is parental obesity (obesity in a parent increases the risk of childhood obesity by 10%). Although this is the result of many biological, social and environmental factors, it is really important to break this pattern (Maio, Manstead et al, all. (2007).\(^{56}\)
Fat cells facts – Did you know?

• The number of fat cells we start life with and where these are located are inherited and established as we grow into young adults. You can’t change this!

• Our mother’s diet and lifestyle choices are important during pregnancy. Afterwards what parents feed their children may influence the baby’s future behaviours and body structure.

• We know that women who gain excessive weight during pregnancy are more likely to have heavier 3-year-olds.

• While genetics and early life factors are not just responsible for obesity, they do contribute to the problem. (Foresight, 2007).

• However, our genetic factors do affect our vulnerability to gain weight, but it is a combination of other factors such as lifestyle including what we eat and how active we are, that shape our weight also. (Foresight, 2007)
Summary of next steps, examples of good practice opportunities and recommendations – a Whole System Approach

a) Where do we go from here?

Obesity is widely recognised as a ‘wicked issue’ with all the evidence suggesting that it will not be resolved through single agency responses. Instead it requires a joint approach from multiple agencies with a long-term perspective. It is an issue that affects all people in all sectors but also requires targeted action to reduce inequalities. 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.’ A whole systems approach for Gateshead would be underpinned by the following aspirations.

- Ensure Gateshead is a place where everyone thrives.
- In Gateshead everyone is able to achieve and maintain a healthy weight.
- Promote an environment that supports healthy weight and wellbeing as the norm.
- Supporting our communities and families to become healthier and more resilient, which includes addressing the wider determinants of health.

b) Learning from others

It is acknowledged that there are significant limitations in effective interventions to help children or adults identified as overweight or obese, making it all the more important to focus on prevention. To date no country in the world has developed a long term strategy in which both evidence and policy are effectively addressing the problem. 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 and community capacity building, are promising strategies.

The Foresight report provided a comprehensive review of the evidence base for the prevention of obesity which includes a life course approach, behaviour change and the wider environment. Lessons can be learnt from other other areas of work, including Amsterdam, which has a long history in effective public health approaches, in particular. Amsterdam was one of the first European cities to call a halt to HIV and Aids.
Learning from the Amsterdam Healthy Weight Approach.

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 achieved 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 necessarily innovative in isolation, however the approach to focus on a number of areas as priorities appear to have made a difference.

Case study by Mandy Cheetham, Teesside University

An example of good practice in Gateshead - Fit for the Future

A different approach - In order to address inequalities in health, research is needed in areas of socio-economic disadvantage, to examine the role of place in offering practical opportunities for active engagement, social connection and community participation (Doroud et al 2018). Findings, presented in this case study, are an example of a collaborative, community-led, place-based approach to address childhood obesity. The project deliberately did not specify a pre-set intervention, but encouraged community members to develop their own plans.

What we found - The findings show that community-led interventions can be effective in improving wellbeing and addressing aspects of childhood obesity, if a non-judgemental approach is used. There were a number of reports of children and young people feeling unsafe or threatened, in public places, parks, and around the shops. Parents saw themselves as an important part of the solution by encouraging or modelling healthy behaviours, as one participant commented:

“If you change, your kids can change, and its small steps” (Community Member IV2: 8),

However adults were frustrated by the combination of environmental hazards and the pull of screen-based games which conspired to keep children indoors and inactive. Whilst parents and community members agreed that childhood obesity is an important issue, and one that they felt motivated to address as parents, the challenges were clear:

“We don’t want the kids to be like us. I don’t want my kids to be fat.”

In addition to practical barriers, staff and community members described multiple environmental, social, psychological and attitudinal barriers to using local sport and leisure facilities, including an international sports stadium run by the LA, which was close by:

“Well I wouldn’t want to go to the Stadium. I wouldn’t want to go to the gym in front of other people really” (Community Member FG1: 30).
Key areas from the research are shown below:

**Increasing access to the Stadium**

Community members reported that they did not find the local sports stadium accessible or affordable and did not know what facilities were available. The research provided opportunities to facilitate relationships between community members and stadium staff and exchange ideas. These included buggy walks around the athletics track, future use of the stadium space by the youth group, gym tours for adults, affordable taster sessions to try out fitness classes, inflatable sports day for adults and children over the summer holidays. Some of these may not ‘fit’ traditional ideas of addressing childhood obesity but they ignited the enthusiasm of community members keen to have fun while getting fit.

A worker from Pattinson House, a community project, developed links with the stadium through a running club and brought young people along to the weekly running club at the stadium. Young people reported improved or new friendships; widening social networks; a sense of achievement; improved mental and physical health and better relationships with family. Two of the girls proactively arranged to attend other training sessions at the Stadium. One young person commented:

“I didn’t know I could run”

The ‘lean machines’ (women’s healthy weight) group arranged a visit to the stadium gym. Women from the estate have started using the gym with friends.

The idea of a summer family fun day at the stadium and a football tournament for children and young people are being explored with a neighbouring community project.

**Traffic calming**

The research findings revealed concerns among local parents and children about traffic outside two of the local primary schools. This was preventing children from walking safely to school. Parents, head teachers, and community members came together with the local elected member to discuss ways to address these concerns. A volunteer who helped organise the meeting commented:

“It’s given me more confidence, like being involved and having a role and that”

(Focus group 5:3)

The Council planning department have monitored the volume and average speed of traffic in the area. Proposals for parking restrictions and safety barriers have been drawn up and are currently being discussed with community members. The involvement of community members with knowledge of the local area increases the likelihood of plans being feasible, workable and addressing community concerns.
Conclusions

Complex public health issues, like obesity, require whole system approaches developed and delivered by statutory and voluntary organisations working in partnership with local communities. This study contributes to our understanding of effective ways to improve the health and wellbeing of disadvantaged communities, whose voices are not always central in public health research. Local authorities and wider partners can learn from the findings of this targeted, place-based approach to childhood obesity and wellbeing.
c) Opportunities - what could the future hold

Can you imagine if by 2050 that a place based community approach is the norm. Redesigned local neighbourhoods, shaped by communities where walking and cycling have become the norm across most cities in the UK. Obesity and related health problems are in decline and obesity is becoming rarer and rarer with a supportive healthy local environment. Healthy choices in the environment are in abundance in terms of housing improvements and green infrastructure for everyone.

Advancements in science and food technology have now enabled food to be engineered to avoid obesity and strict regulation of food production supports the possibility of there being the first generation in decades without obesity.

There is no magic bullet and we know that it will take time, commitment, vision, investment and some really hard decisions. The recent childhood obesity strategy Chapter 2 has helped progress national policy areas, especially in the area of marketing and advertising and there are real opportunities to build on this in terms of what has outlined as required at a national and local level to halve childhood obesity by 2030. A number of these actions will have an impact across the life-course, HOWEVER there is still a long way to go.

National Obesity Strategy - A long way to go

- In 2019, Government will look at the level of progress towards a 20% sugar reduction in the foods most commonly eaten by children and will be able to assess if this challenge has been met in 2020.

- A consultation has taken place on an intention to introduce legislation ending the sale of energy drinks to children.

- Consider plans to introduce legislation to mandate consistent calorie labelling for the out of home sector (e.g. restaurants, cafes and takeaways) in England.

- More progress is planned to reduce the marketing and promotion of unhealthy food and drink, an option includes on introducing a 9pm watershed on TV advertising of high fat, salt and sugar (HFSS) products.

- There is an intention to ban price promotions, such as buy one get one free and multi-buy offers or unlimited refills of unhealthy foods and drinks in the retail and out of home sector through legislation.

- There is an intention to ban the promotion of unhealthy food and drink by location (at checkouts, the end of aisles and store entrances) in the retail and out of home sector through legislation.
What we can do at a local level

- Review how the least active children are being engaged in physical activity in and around the school day and promote for every primary school to adopt an active mile initiative, such as the Daily Mile.
- Secure investment to support cycling and walking to school.
- Support local schools to implement the new Ofsted framework that will review how schools build knowledge support pupils’ personal development more broadly, including in relation to healthy behaviours.

Tackling the obesity crisis is a daunting prospect but there is the belief that this can be done if we work together. In future years, when we have successfully tackled the health crisis of obesity, a number of things will have occurred to us.

- First, that its effects were disproportionately centred on poorer families.
- Second, that we spent too long seeing this as a problem of willpower, not environment.
- Third, that although the issue was complex, the solutions were not.
- Fourth, everyone across society needs to be involved in findings solutions to tackle this epidemic.

(Guy’s and St Thomas’ Charity, 2018)

In Gateshead we have a real desire and opportunity to create an environment for change, ensuring that there is sustained support for the design and delivery of a local whole system approach. Obesity like climate change, is a complex problem but that does not mean it’s unsolvable.

“Too many people still think obesity is a result of individual behaviour choices alone. The examples that are often given is of parents who don’t know how to cook and provide a nutritious meal and adults who are just too lazy to exercise.

I hope that you agree that obesity is not a choice that most people make and I hope this report has helped to demonstrate that obesity is driven by lots of things in our lives, many of them outside of our control”.

Alice Wiseman, Director of Public Health Gateshead, 2019.
d) **Recommendations**

**Recommendation 1.**

*A Whole System Approach is needed. Everyone has a role to play.*

Gateshead Council will work with stakeholders and communities to develop an ambition for a healthy weight generation for Gateshead. This will then need to be maintained and developed as a whole system approach, building commitment to early intervention, prevention and a community focused approach to improving the health and wellbeing of Gateshead residents.

- A ‘Health in all Policies’ approach (HiAP) will provide a framework for taking this work forward and to support whole systems working across all sectors in the local authority for tackling complex health issues and embedding health in the work of all wider partners.

- Gateshead Council will work with partners to understand the contribution of each partner and develop a healthy weight declaration or other similar commitment to help galvanise action to promote healthy weight through multi-agency, senior leadership across Gateshead.

- Gateshead will establish a working group to be created to give focus to the whole systems approach for Gateshead for Healthy Weight and to ensure that every service understands the contribution that their work brings to the health of Gateshead residents.

**Recommendation 2.**

*A commitment to a healthy weight future for Gateshead with overt recognition that this will take time and tenacity.*

- Just as obesity develops slowly, both within individuals and populations, it will take time to establish new habits and build new structures that support healthy diets and enhanced physical activity.

- Gateshead requires medium and long-term actions to focus on the built environment, transport and healthy design of our local communities that will span several generations. The aim is to set long term targets to increase the proportion of the population at a healthy weight and our efforts need to focus on creating conditions for people to remain at a healthy weight from childhood. This also means thinking about long-term goals such as how to integrate health more fully into food culture, values and habits which will take time.
Recommendation 3.

Obesity is a problem of inequality, that needs to be tackled so everyone in Gateshead has the opportunity to thrive

- Poverty has a profound impact on people’s lives and the choices they can make. A focus needs to be on strategies to address the healthy weight agenda across the social gradient and, in particular, champion the needs of those facing greater challenges alongside a focus on high risk groups e.g. learning disabilities. A priority for Gateshead needs to be on pre-pregnancy, pregnancy, infancy and early childhood acknowledging these as critical periods for interventions to reduce obesity inequities.

- Gateshead is committed to ensuring there is bold action to address the perpetuating cycle of deprivation and obesity as part of a whole systems approach. The approach we are taking to support population-based policies such as restrictions on marketing foods high in fat, sugar and salt and sugar-sweetened beverages to children are likely to have a greater impact on reducing obesity inequalities than interventions targeted at individuals.

Recommendation 4.

Community led interventions are needed to tackle obesity as part of a placed-based approach

- Local initiatives are needed that promote the healthy weight agenda and address obesity across the whole system, which are driven by the community.

- We need to draw on the strengths of local assets and communicate how we can maximise and align approaches to address obesity. This work will build on the ‘Fit for the Future’ which is a good example of a community centred approaches to address inequalities in health and to promote healthy weight in children, young people and families. Engaging local people in identifying their priorities in relation to weight issues, diet, food preparation and creating active environments in children, young people and families.
Recommendation 5.

A balance between population-level measures and more targeted interventions and approaches across the life course are required.

- Gateshead recognises and understands that a strategy which encompasses both population and targeted measures is required as part of a whole system approach across the life course.
- As the evidence for effective interventions is currently limited it is critical that Gateshead contributes to building the evidence base at both a population and targeted level.
- **Targeted** - Gateshead is committed to develop interventions to help those who are already obese or considered to be at high risk of becoming obese, with a clear priority on children and young people.
- **Population** - A priority focus is on a population approach, centered on healthy weight environments and considering opportunities as part of the whole system, 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.

Recommendation 6.

Call to Action - The Council and its partners should consider measures that could be implemented at an organisational level to minimise the obesogenic environment for its workforce.

- Changing the obesogenic environment is recognised as a critical factor underpinning the efforts to reduce obesity. Gateshead is committed to ensuring there is bold action to provide a supportive environment and workplace culture for good physical and mental wellbeing. Physical activity, along with a healthy balanced diet and a healthier weight are critical to employees health and wellbeing e.g. access to healthier food, consideration of appropriate advertising and promotions and options to reduce sedentary behaviour etc. We know that typically adults in full time work spend about one third of their waking hours at work, so the workplace is the ideal place to create an environment that supports this.

- Action needs to be taken through the development and commitment to a ‘Gateshead agreement on Healthy Weight’ to support partners to exercise their responsibility in developing and implementing policies and practice which promote healthy weight. A declaration, which requires senior level commitment, can encapsulate a vision to promote healthy weight and improve the health and well-being of employees and the local population.
Update on recommendations from Director of Public Health 2017 Inequalities report

Inequalities update

Our work on inequalities is ongoing and we do not expect quick wins. We have rarely seen a period, such as we see now, in which increasing disadvantage has impacted on so many people in our communities.

Participants in the ‘Fit 4 The Future’ study (outlined in the earlier case study) highlighted the profound effects of austerity and welfare reform on Gateshead residents. As a result, the Council commissioned research to explore the impact of the roll out of Universal Credit, which began in October 2017. The study, completed in November 2018, involved 33 Universal Credit claimants and 37 advice and support staff in Gateshead describing their experiences. The findings make sobering reading, suggesting Universal Credit is affecting people’s mental and physical health, social and family lives, financial wellbeing, debt, arrears, fuel and food poverty. The reasearch was reported in The Guardian and the findings used to lobby for national change.

We believe that the broader impact of austerity has obstructed progress in reducing inequality and poverty; with poorer job prospects (particularly for younger people); a decrease in the number of households achieving a minimum income for healthy living (even though they might be working); increases in relative child poverty; and increasing levels of material deprivation. These factors can impact negatively on health and wellbeing in the absence of strong social support systems. (BMA, 2016).

In Gateshead we have seen demand on our foodbanks increase in the last year. Figures from one of Gateshead’s Foodbank run by the ‘Trussell Trust’ from 1st November 2017 to 31st October 2018 shows 6021 people have accessed the foodbanks in this time. This includes 1,903 children and young people 0-16 years. The reasons that people are in crisis and need to use food banks are varied and include benefit delay, child holiday meals, debt, homeless, low income, domestic violence to name a few. There are more food banks in Gateshead and these numbers only reflect a small percentage of the need from people and communities in Gateshead that are in crisis.

Gateshead realises that action needs to be taken and is committed to ‘Making Gateshead a place where everyone thrives’. The Council has taken time to listen, 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 aims to give everyone in Gateshead the chance 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 to ensure there are appropriate and effective approaches that have more sustainable impact and focus help on those people who need it most.
APPENDIX 1

References

16) Obesity Update (2017) OECD


51) Houses of Parliament Parliamentary Office of Science and Technology (2016) Green Space and Health

52) The Design Council and Social Change UK (2018) Healthy place making: The evidence on the positive impact of healthy place making on people is clear – so how can we create places that deliver healthier lives and help prevent avoidable disease?


APPENDIX 2

Acknowledgements

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