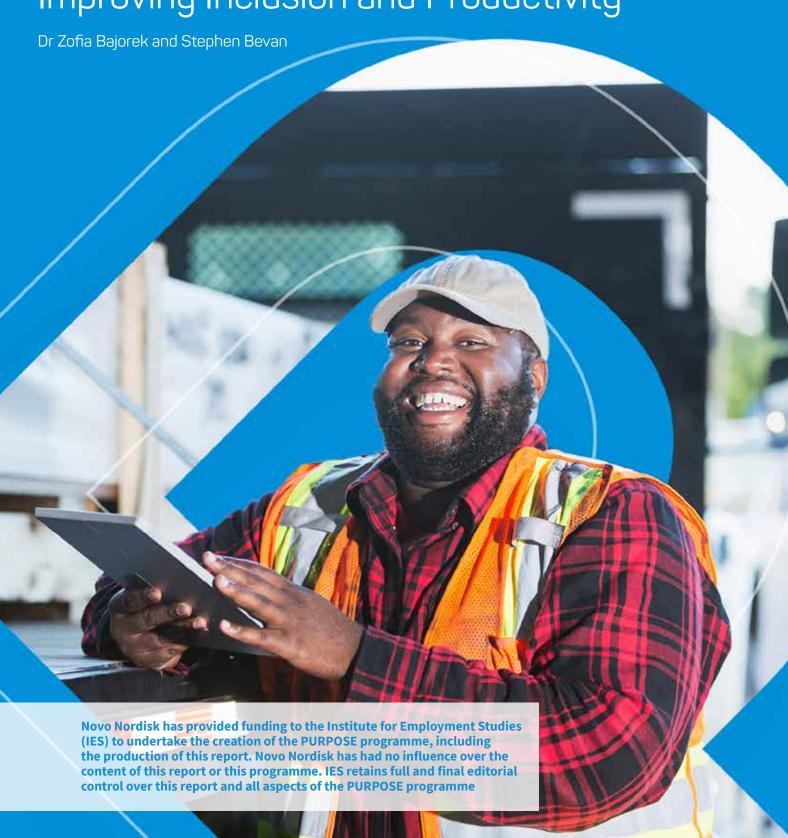
## Purpose

Promoting Understanding & Research into Productivity, Obesity Stigma & Employment

### Obesity Stigma at Work: Improving Inclusion and Productivity





IES is an independent, apolitical, international centre of research and consultancy in public employment policy and HR management. It works closely with employers in all sectors, government departments, agencies, professional bodies and associations. IES is a focus of knowledge and practical experience in employment and training policy, the operation of labour markets, and HR planning and development. IES is a not-for-profit organisation.

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#### 1. Executive Summary

Obesity is a challenging, complex and controversial public health issue, and a topic that most people have an opinion on. However, on many occasions such opinions can be stigmatising for those living with obesity, and this stigma can reinforce barriers to understanding its causes, prevalence and access to treatment. The Purpose Programme (Promoting Understanding and Research into Productivity, Obesity Stigma and Employment), launched by the Institute for Employment Studies (IES), focusses especially on the way in which employment and labour market outcomes for those living with overweight or obesity can be improved. This is important because despite the growth in equalities legislation in the UK, discrimination on the basis of overweight and obesity remains a common feature of the labour market. The Purpose Programme also aims to move the dial from analysis to action, to shift the way in which employers make resourcing decisions and the way that the government delivers policies to help give people living with obesity the best chance to live fulfilling working lives.

Obesity has been defined as "abnormal and excessive fat accumulation that may impair health" (WHO, 2016), and is commonly classified by an individual's Body Mass Index (BMI). Over recent years debates have arisen regarding whether obesity is a 'disease', and although a number of international and national bodies do recognise obesity as a disease, this is not yet the case in the United Kingdom (UK). What is not in contention is the concern regarding the increasing prevalence of obesity worldwide, and the implications that this can have for both health and economic outcomes. Levels of obesity among the working age population have increased over the last decade across the UK, which provides a compelling case for action to prevent this worsening in the future, and to understand the levels and implications of obesity stigma in employment.

Although the popular perception exists that people living with obesity can control their weight by 'eating less and doing more', the causes of obesity are far more complex, multifactorial and interrelated. Factors that have been identified that can contribute to causing obesity include: an individual's biology, their environment (both in terms of their access to physical activity infrastructure and their food environment), social and economic inequalities, employment and stress and/or mental health. Individuals living with overweight and obesity are also at more risk of developing other mental or physical comorbid conditions that can also lead to detrimental long-term consequences to both their health and employment outcomes. Common comorbid conditions can include type 2 diabetes, arthritis, some cancers and cardiovascular disease. In the recent COVID-19 pandemic it has been seen that those living with overweight or obesity were more vulnerable to the infection, to complications and required more advanced treatment. The consequences of obesity for both individual health and the economy have been estimated, indicating that treatment costs for overweight and obesity (including comorbid conditions) to be up to 20 percent of healthcare spending. Life-long employment and the economic costs of living with obesity have also shown the potential for negative outcomes when taking a life-course approach.

Alongside the rise in the prevalence of overweight and obesity globally, has been the pervasive weight bias, stigma and discrimination that people living with overweight and obesity experience. A number of theories have been suggested to help explain the increase in weight-based stigma, with the hope that by understanding its causes, steps might be taken to challenge widespread beliefs and misconceptions. Common theories include 'attribution theory' (negative stigma towards those living with obesity arise as a result of the perception that weight is under personal control); the 'thin ideal' (the degree to which an individual buys in to what social standards deem to be attractive), and the role of the media regularly portraying those living with obesity as unattractive and lacking in self-control, or using dehumanising or unflattering images.

Weight-based stigma is pervasive in society and in a range of groups and settings including: among parents, families, in education, in employment, from healthcare professionals and even among

people living with obesity themselves. It is important to understand the causes and prevalence of weight-based stigma as this can have a number of negative implications for both the physical and mental health of those living with obesity. For example, experiencing weight-based stigma is associated with increased morbidity, negative mental health outcomes, and limiting participation in activities that would improve both mental and physical health.

Alongside this increase in obesity prevalence, there has been a greater awareness and acknowledgement of the importance of health and wellbeing at work and the health benefits of 'good work'. However, for some employees there are still barriers and stigma that prevent them from experiencing good work, and for many of those living with overweight and obesity this too often remains the case. There is also evidence of an 'aesthetic labour market' where employers are specifying the personal characteristics that they are seeking in their employees, and this has been identified in certain 'service based sectors' where terms such as 'outgoing', 'attractive' and 'smart appearance' are commonly used. Evidence now suggests that weight-based stigma is common in employment and occurs at every stage of the employment cycle.

Weight-based stigma is evident at recruitment and selection, with evidence suggesting this occurs as a result of employers not understanding the causes of obesity, holding the stereotypical belief that those living with obesity are lazy, less conscientious and incompetent. Some employers argue that recruits must fit the image which the company wishes to project to customers and clients (often a euphemism for 'appearance' or 'grooming'). Such weight-based stigma was also found among HR professionals who are trained and experienced in recruitment and selection to be aware of discriminatory and common judgemental errors. When people living with obesity are employed, the evidence suggests that many (especially women living with obesity) are subject to a wage penalty compared to other women, averaging between 8-10 percent (but which can be as large as 20 percent). Our estimates suggest that a 2 percent wage penalty can result in a £2.3bn annual wage penalty for all employed women living with obesity in the UK, rising to £10.35bn at a wage penalty of 9 percent. Given the evidence of the life-course impact from living with obesity, this provides a further impetus to the evidence that childhood obesity can have a life-course impact on health, employment and economic outcomes.

Employees living with obesity who experience weight-based stigma have also reported feelings of isolation and shame, and have felt powerless to address the stigma as they lack collective forms of support for change. The potential lack of social support from managers and colleagues that employees living with obesity can experience has resulted in reduced wellbeing, increased stresses, and maladaptive coping responses. Employees living with obesity have reported having to make adjustments to how they dressed and behaved at work to reduce the risk of weight-based stigma. Evidence also suggests that obesity stigma can have implications for promotion and progression opportunities (once again seen more among female employees). One important mechanism used to determine an employee's progression and other associated benefits (eg pay rewards, access to training and development) is the performance appraisal. However, there are a number of mechanisms through which intended or unintended weight-based stigma can be experienced in performance appraisal situations.

Finally, employees living with obesity may be more at risk when employee retention strategies are discussed, with evidence of discriminatory termination of employment occurring that were based on weight or perceived attractiveness and not performance or role-based evaluations. There is also a link between obesity and unemployment, with evidence suggesting that employees living with obesity could lead to higher unemployment outcomes.

The evidence presented in this report illustrates no shortage of clinical, psychological and economic evidence of the nature, extent and the consequences of weight-based stigma in employment yet

there is a lack of focus on employment outcomes in what remains a very clinically oriented debate. The report makes a number of recommendations to a range of stakeholders to raise awareness of what needs to be done to ensure both an active and fair participation in the labour market for those living with obesity.

- **Employers** should include obesity and overweight explicitly in equality, diversity and inclusion policies. They should also review any workplace health and wellbeing practices, or health promotion policies to ensure that these support rather than stigmatise employees living with obesity. They should focus on capacity and not incapacity (ie the skills and competencies which employees bring to their work rather than assumptions about how their health may impair their ability to perform in their jobs), and employees with obesity should not be subject to stereotypical attitudes or expectations. There should be a safe and supportive working environment for employees to safely disclose any work-limiting health conditions. Employers should also consider the way in which work is designed to assist job retention for employees living with obesity, especially those living with additional health conditions associated with overweight and obesity. Employers who intervene early and with compassion find this benefits both the employee living with obesity and the organisation.
- If **employees** feel they have experienced unequal treatment as a result of their weight, it is important to find an advocate or supporter to help navigate through organisational policies and employment law. It may be useful to have informal discussions with a line manager, HR or a trade union representative. If a decision is made to make a formal complaint, then employees should review their position with a trusted third party (eg ACAS, Obesity UK), who will be able to help. It is important that employees know their rights. Self-management of any health condition associated with obesity is also important and could minimise their impact on functioning and wellbeing.
- Healthcare professionals can identify where job retention or early return to work is good for
  patients for whom obesity and related health conditions are causing sickness absence or workrelated impairments. If possible, healthcare professionals should refer patients to specialist
  teams for early intervention and management of any associated health conditions, and
  encourage self-management.
- The Government must provide clear guidance to employers on the legal status of obesity discrimination in employment, and if obesity is not included as a protected characteristic under the Equalities Act, then clearer guidance needs to be made to understand what obesity-related conditions are in scope and what legal duties this implies for employers. The goal of making work as a priority clinical outcome of care should be part of the Obesity Strategies of both the UK government and the devolved administrations. The Government Equalities Office and the Employers Health and Inclusive Employment Unit should reflect on the public health implications of obesity in the UK, and the consequences for labour market access, social inclusion, equality of opportunity and productivity. Better measures are needed to assess the social, economic and work impact of obesity to allow NICE guidelines to take these more explicitly into account when evaluating treatments and therapies.
- In the **media** it is, sadly, still acceptable to use stigmatising language to discuss the causes and consequences of obesity. In some quarters, this has been exacerbated by the COVID-19 crisis, where there has not always been a well-informed public debate about the elevated risk of complications and poor outcomes linked to high levels of BMI. This must change and media outlets should adopt and adhere to guidelines on language promoted by organisations such as Obesity UK. The media should use 'people first language' and use non-stigmatising images when reporting on obesity. This includes avoiding imagery that places an unnecessary emphasis on excess weight, or people living with obesity in stereotypical situations. The media should also avoid the use of weight-based stereotypes as well as avoiding ridiculing those living with obesity for the purpose of humour, and refrain from publishing articles that contain stigmatising attitudes, and report or condemn other outlets who do.

#### 2. Introduction

Obesity is one of the most complex, challenging and controversial public health issues facing modern, developed economies. It is also a crisis about which most people have an opinion. Sadly, these opinions are all too frequently based on a simplistic diagnosis leavened with a tendency to 'dial down' the science and to 'dial up' the moralising rhetoric. It seems that, for many, open discrimination against people living with obesity remains acceptable. As a result, the stigma associated with obesity remains – ironically - one of the most effective barriers to making real progress in reducing its prevalence and impact.

Unfortunately, it is still common to find influential journalists and commentators who are only too willing to exploit and fuel societal stigma towards people living with obesity, safe in the knowledge that many share their instincts. In 2019 the US TV host Bill Maher broadcast a monologue claiming that so-called 'fat-shaming' needed to make a comeback because 'some amount of shame is good....shame is the first step towards reform'.

A few days later, UK TV host James Corden based in the US, who is open about his personal challenges with his weight, set out his reply. 'If making fun of fat people made them lose weight, there'd be no fat kids in schools,' he said. 'And I'd have a six-pack right now. Fat-shaming only does one thing,' he continued, 'it makes people feel ashamed and shame leads to depression, anxiety and self-destructive behaviour—self-destructive behaviour like overeating.'

This, and many other similar exchanges, illustrates the progress that still needs to be made if we are to shift the debate away from casual stigmatisation and towards constructive, evidence-based and empathetic support to help people living with obesity to manage their health and wellbeing effectively and sustainably.

Although this report will reflect some of the evidence, debates and interventions which feature in the wider public health dialogue about overweight and obesity, it is also trying to do something distinctive and, we believe, overdue. With the launch of the Institute for Employment Studies' (IES) new Purpose<sup>2</sup> Programme, we intend to focus on the ways that the employment and labour market outcomes of people living with obesity can be improved with concerted and joined-up action by policymakers, employers, healthcare professionals, the wider public and people living with obesity themselves. Despite a growing amount of clinical research on the causes, consequences and treatment options for people living with obesity, their employment experience remains something of a 'blind spot'.

#### 2.1 Why Study Obesity and Employment?

Despite the growth in equalities legislation in the UK since the 1960's, and more awareness of the need for both the jobs market and workplaces to be open, fair and inclusive, discrimination on the basis of overweight and obesity remains a common (and, perhaps, acceptable) feature of the UK labour market.

For example, it is clear that negative stereotypes about working age people living with obesity persist. They are often seen as lazy, lacking in self-discipline, less competent, less conscientious and unmotivated. Workers living with obesity often have less success in getting jobs and, even if they do get hired, they often receive lower starting pay. One study showed that 45 per cent of employers said they were less inclined to recruit candidates if they had overweight or obesity. Workers living with obesity are less likely to be regarded as able leaders or to have career potential, are more likely to experience bullying and harassment, and women living with obesity are less likely to get

customer-facing jobs and suffer a wage 'penalty' which can stay with them for their whole career.

The Purpose Programme, and this report as the first of a series, aims to frame the debate about obesity, stigma, discrimination and employment in ways which illustrate that much more can be done to recognise that thinking about obesity as a cost to society and a drain on healthcare and other resources misses out many other parts of the story. It is story which also focuses on how the productive capacity of the UK workforce, how the inclusiveness of the UK labour market and how the richness and diversity of UK workplaces can be enhanced if the systemic and structural disadvantage faced by many workers living with obesity were to be eliminated

#### 2.2 From Analysis to Action

One of the goals of the Purpose Programme is to lay out, in accessible terms, the evidence which exists about the stigma and discrimination faced by working age adults in the UK who are living with obesity. We will highlight what the evidence says about why this stigma exists, its practical consequences and the impact it has on the working lives of people living with obesity, their families, the organisations where they earn their living, the communities in which they live and the wider economy and society of which they are a part.

But analysis of the problem is no longer sufficient. The extraordinary times we are living in during 2020 and 2021, compel us to move with more energy from analysis to action. The COVID-19 pandemic, and the now well-established facts about the elevated vulnerability to the virus of those living with obesity, is now part of the mainstream story about the impact of workforce health and wellbeing on UK productivity. In addition, the UK government's recently published Obesity Strategy has put more energy behind the public health community's efforts to address the challenges of both childhood and adult obesity, though employment features only fleetingly in its scope.

This means the Purpose Programme will attempt to collect and present evidence about the labour market and productivity impact of obesity in the UK in ways which help to shift the ways that employers make resourcing decisions, the way that healthcare professionals support people living with obesity to stay in and thrive at work, and the way that government frames, connects and delivers policies which give people living with obesity the best chance to live full and fulfilling working lives.

While this report is primarily a review of the evidence we have to date on the extent and impact of obesity-related stigma and discrimination in employment settings, it will also highlight areas where a range of stakeholders should focus if we are to see an improvement in labour market, employment and productivity outcomes.

# What is Obesity?



#### 3. What is Obesity?

#### 3.1 Definition of Obesity

The World Health Organisation (WHO) (2016) defined overweight and obesity as "abnormal or excessive fat accumulation that may impair health". A common measure through which overweight and obesity is classified is the Body Mass Index (BMI), which is calculated as weight in kilograms, divided by height in metres squared (kg/m²). Using BMI, overweight is then defined as a BMI of 25-29.9 kg/m² and obesity defined as a BMI of 30 kg/m² and above. However, this can be further broken down into three standard classes of obesity: Class I Obesity (low risk) with a BMI of 30-34.9 kg/m², Class II Obesity (moderate risk) with a BMI of 35-39.9 kg/m², and Class III Obesity (high risk) with a BMI of 40 kg/m² and above (Yarborough et al., 2018). However, lower BMI cut-offs are used to define obesity in ethnic minorities, as there is a higher risk of type 2 diabetes and cardiovascular disease among Asian groups (NICE, 2013). BMI is routinely used in diagnostic situations, self-check recommendations, treatment guidelines and clinical practice (Levay, 2014).

There have been discussions regarding whether BMI is a suitable measure through which obesity could and should be defined. The main advantage for using BMI is that it can be seen as an easy way to obtain and use calculations on both individuals and vast populations and can be conveniently tracked and compared across different populations over time (Levay, 2014). However, for some, BMI is seen as a crude measure and this has placed BMI use under further scrutiny. Although a person's height is taken into consideration, their overall build is not, and consequently it is not possible to distinguish between lean body mass (i.e. muscle) and body fat mass (Nuttall, 2015).

Another concern about using BMI as a measure for obesity is that it does not provide information as to where in a person's body the fat is located. This is important as subcutaneous fat in the hips, may not be as serious a health risk as somebody with the same BMI whose fat is located in the abdominal area. Abdominal obesity is associated with increased risks for diabetes, hypertension and heart disease, which is why such distinctions are necessary (Purnell, 2018). Consequently, other measures such as waist circumference, waist-to-hip ratio and skinfold measures could also be used as proxies of abdominal adiposity (Twells, Janssen and Kuk, 2020), to estimate the level and potential impact of abdominal obesity. However, once again these measures do not directly measure the total or regional levels of body fat. If waist circumference is used as a measure of obesity, the cut off values used to gauge health risks have been defined as >102 cm (40 inches) in men and > 88 (35 inches) in women. As with BMI, there are lower cut-offs for ethnic minorities (NICE, 2013).

The Edmonton Obesity Staging System (EOSS) is another obesity assessment criteria that has been developed, specifically to assess obesity within the context of its impact on multiple domains including metabolic health, mental health and mobility. The EOSS is a five-stage system for classifying obesity that considers the metabolic, physical and psychological parameters of the condition, which can then help determine what the optimal obesity treatment should be (Canning, Brown, Wharton et al., 2015). Twells, Janssen and Kuk (2020) explain that the EOSS predicts mortality independent of or in addition to BMI and waist circumference in clinical settings when both screening for and assessing an individual's health risk for obesity.

Body fat percentage has also been used as a method through which obesity can be defined and has been viewed as an accurate measure to assess adiposity (Obesity Medicine Association, 2017). Measurements can be obtained through a number of ways including scanning, air or water displacement. Although testing can be more expensive to perform (and may be limited in availability – the test has a limited role on a population level and outside specialist centres), the

measure does account for differences in gender, age, body frame size and muscle mass. Using this measure, obesity is defined as  $\geq$  25 percent body fat in males and  $\geq$  32 percent body fat for females.

#### 3.1.1 Is Obesity a Disease?

Over recent years a debate has arisen regarding whether obesity should be classed as a 'disease'. A number of international and national bodies have started to define obesity as a disease. For example, in 2000 WHO and the International Task Force published: "Obesity: Preventing and managing the Global Epidemic" which defined obesity as a disease: "Obesity is a complex and incompletely understood disease..." (page 4). The report goes on to say: "Obesity can be defined simply as the disease in which excess body fat has accumulated to such an extent that health may be adversely affected" (page 6). Throughout the report obesity is also described as a chronic disease that requires long-term strategies for both management and prevention.

After this classification, a number of other institutions have defined obesity as a disease, notably the American Medical Association (AMA) who officially recognised obesity as a disease in 2013. This decision did capture a significant amount of attention (Kyle, Dhurandhar and Allison, 2017), but the recognition that "obesity is a disease state with multiple pathophysiological aspects requiring a range of interventions to advance obesity treatment and prevention" (page 3) was important in the way that obesity is addressed both in the medical community and to help improve the public understanding of the causes of obesity to reduce the stigma associated with it. Rubino et al., (2020) note that the criteria that have been used for recognition of disease status can be clearly fulfilled by individuals living with obesity. For example, the criteria can include specific signs or symptoms, reduced quality of life, increased risk of further illness, complications and deviations from normal physiology. Most recently, Obesity Canada in their Canadian Adult Obesity Guidelines have also declared obesity to be a "chronic disease characterised by the presence of excessive and/or dysfunctional adipose tissue that impairs health and wellbeing" (Twells, Janssen and Kuk, 2020), acknowledging that recognising obesity as a disease helps ensure that appropriate treatment options are available for patients.

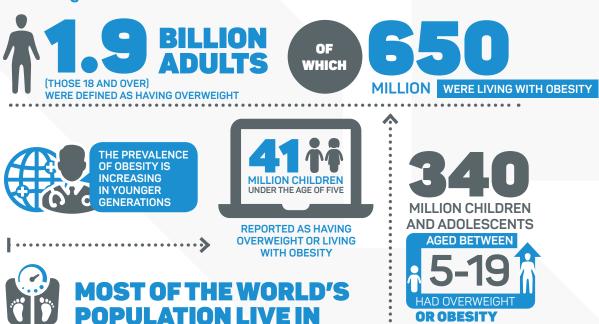
In the UK, the Royal College of Physicians (RCP) is calling for obesity to be recognised as a disease. They believe that disease recognition will necessitate a change in approach from multi stakeholders, ensuring that obesity treatment is adequately prioritised and funded. The RCP also believe that recognising obesity as a disease may help those living with obesity with the stigma that they experience, may also help individuals to understand the seriousness of the consequences of living with obesity, and encourage them to discuss their concerns with healthcare professionals. In this way, recognising obesity as a disease could help remove barriers to treatment options.

However, a number of arguments have been raised in opposition to obesity being recognised as a disease. In a 'Head to Head' debate, Richard Pile (in the British Medical Journal, 2019), a General Practitioner with a specialism in cardiology argued that classifying obesity as a disease could run the risk of affecting people living with obesity by "reducing autonomy, disempowering and robbing people of their intrinsic motivation that is such an important enabler for change" (page 2). He argued that there is a psychological difference in having a 'risk factor' that an individual has some responsibility for and control over, and a disease (if it were to be classified) that somebody else is responsible for treating, and this is something that he has witnessed throughout his clinical career. The RCP (2018) although wanting obesity recognised as a disease have considered the arguments against this, including whether people living with obesity want to be seen as 'living with a disease', and the psychological implications this will have for patients. They also note concerns surrounding whether this would overwhelm GP work (or whether this would improve the referral process to more specialist weight management services).

Although the British Psychological Society (BPS) (2019), in their report: "Psychological perspectives on obesity: Addressing policy, practice and research priorities" suggested that defining obesity as a disease could help situate the causes of obesity as not solely within an individual's control or being 'their fault' they believe that defining obesity as a disease is unhelpful. In their view labelling obesity as a disease takes away from some of the social and psychological influences on people's behaviours. They were also concerned that interventions may not focus on or include psychological support or behaviour change. Instead they argue that change is required in systems and people's attitudes.

The Italian Parliament recognised obesity as a chronic disease in November 2019, and in June 2020, the German medical and scientific community and patient organisations recognised obesity as a chronic disease in Parliament, in the context of the launch of a new comprehensive German national diabetes strategy. In a statement read by the Alexander Krauß a Member of Parliament, it was commented that, "Obesity is not yet recognised as a disease in Germany...In this motion we refer to obesity as a disease. Today a very important milestone has been reached for obesity sufferers: the recognition of their disease by the German Bundestag." The statement continued to highlight how people living with obesity in Germany suffer unequal treatment in a range of settings, and that more understanding and information is needed about the disease to help those living with it. More recently, in October 2020, a compromise amendment in the EU4Health proposal was made, listing obesity as a chronic disease. The was voted for by the ENVI Committee (The Committee on the Environment, Public Health and Food Safety), and was passed with an overwhelming majority. It is hoped that this will push forward the motion to reframe obesity as a chronic and relapsing disease.

#### 3.2 Obesity Prevalence

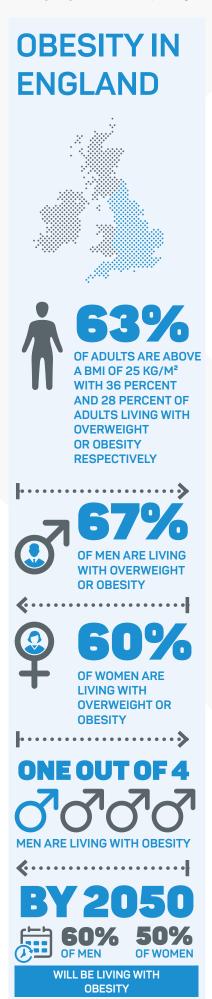


Over the past few decades, the number of people worldwide classified with overweight or obesity has increased. Obesity is now viewed as a growing risk to the health of people in developed nations and has been described as an epidemic that has become a global concern (Goettler et al., 2017). Recent statistics reported by the WHO have shown that worldwide, obesity has nearly tripled since 1975.

COUNTRIES WHERE LIVING WITH OVERWEIGHT OR OBESITY KILLS MORE PEOPLE THAN LIVING WITH

The statistics also indicate that in 2016:

UNDERWEIGHT.



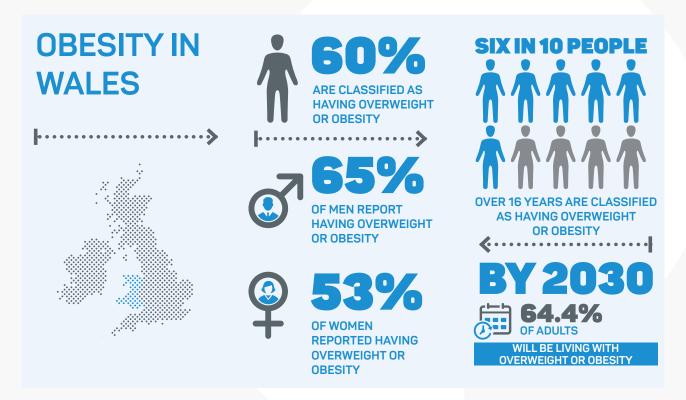
- More than 1.9 billion adults (those 18 and over) were defined as having overweight, of which 650 million were living with obesity.
- Most of the world's population live in countries where living with overweight or obesity kills more people than living with underweight.
- The prevalence of obesity is increasing in younger generations, with 41 million children under the age of five being reported as living with overweight or living with obesity and over 340 million children and adolescents aged between five-nineteen had overweight or obesity.

#### 3.2.1 Obesity in England

In England, the Health Survey for England is used to measure a representative sample of adults aged above sixteen to provide an estimate of the level of obesity in the country (House of Commons Library, 2019). In a recent report by Public Health England (2020), it was reported that:

- 63 percent of adults in England are above a BMI of 25 kg/m<sup>2</sup> with 36 percent and 28 percent of adults living with overweight or obesity respectively.
- Two-thirds of men are living with overweight or obesity (67 percent) and 6 out of 10 women are living with overweight or obesity (60 percent).
- One out of 4 men is living with obesity (26 percent) and 29 percent of women are living with obesity.
- The prevalence of people living with severe obesity (BMI > 40 kg/m<sup>2</sup>) has increased since 1993 for both men and women.
- Overweight and obesity tends to increase with increasing age. The lowest prevalence was seen in 16-24 year olds, whereas the peak occurs for men at the 55-64 year age group (82 percent) and in the 65-74 year age group in women (70 percent), followed by a decline in the oldest age group for men and women.
- Some groups have higher levels of overweight and obesity than others (House of Commons Library, 2019).
  - » In the most deprived areas of England, prevalence of excess weight is 11 percentage points higher than in the least deprived areas.
  - » Individual's living with disabilities are more likely to display excess weight than among those without disabilities (by 11 percentage points).
  - » BAME communities are more likely to report overweight and obesity.
  - » People with no qualifications are more likely than those with level 4 qualifications or above (i.e. degree level) to report excess weight (by 12 percentage points).
- Forecast data up to 2024, suggests that without intervention, obesity rates will continue to rise among the adult population. If trends continue at their current rate Agha et al., (2017) calculated that by 2050, 60 percent of males and 50 percent of women will be living with obesity.

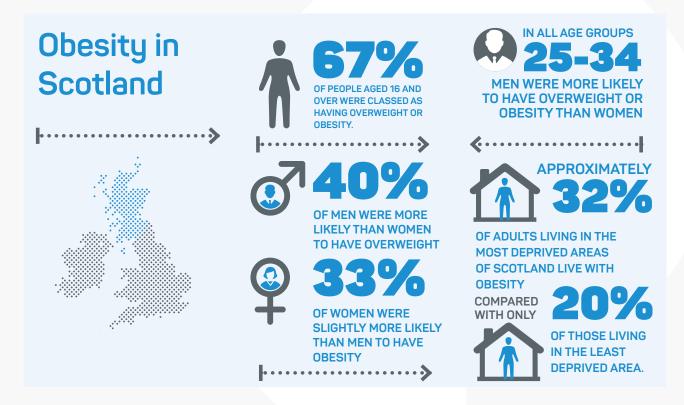
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#### 3.2.2 Obesity in Wales

In Wales, information about obesity among adults is measured in the National Survey for Wales based on self-reported data. Recent statistics published by Public Health Wales (2018) found that:

- Six in 10 people aged over 16 years (60 percent) are classified as having overweight or obesity and 1 in 5 (22 percent) are classified as living with obesity.
- Levels of obesity peak in the 55-64 year age group (40 percent classed as having overweight and 27 percent classed as having obesity), and this is likely to be associated with significant obesity related health problems in this age group.
- It is estimated that there are over 1.47 million adults in Wales classified as having overweight or obesity with 2.5 percent being classified as living with severe obesity.
- There are more men than women who have overweight or obesity. For males, 65 percent report living with overweight or obesity (of which 24 percent report living with obesity), and for women 53 percent reported having overweight or obesity (of which 22 percent were living with obesity).
- From 2003/04 to 2015, the percentage of adults with overweight or obesity (16 and above) increased from 54 percent to 60 percent. This equates to a 6 percentage point increase. There has been a similar increase in obesity from 17.8 percent to 23.6 percent over the same period of time.
- If an approach for managing obesity in Wales is not implemented effectively (the Healthy Weight, Healthy Wales strategy was published in 2019 with a commitment to role out level 3 multidisciplinary weight management services across Local Health Boards), it has been calculated that obesity prevalence in Wales is projected to rise by an additional 160,000 people to 1.63 million by 2030, increasing from 59 percent in 2015 to 64.4 percent if past trends continue unchanged.



#### 3.2.3 Obesity in Scotland

In Scotland, adult obesity is measured as part of the Scottish Health Survey.

- 67 percent of people aged 16 and above were classed as having overweight or obesity. The prevalence of obesity including morbid obesity was 28 percent among adults in 2018.
- Women were slightly more likely than men to have obesity (33 percent and 30 percent respectively).
- Men were more likely than women to have overweight (40 percent and 33 percent respectively).
- In a report by the Scottish Government (2018) it was noted that the prevalence of obesity varies significantly by age, with those aged between 45-54 reporting the highest levels of obesity (36 percent).
- In all age groups above 25-34, men were more likely than women to have overweight or obesity.
- Approximately 32 percent of adults living in the most deprived areas of Scotland live with obesity, compared with only 20 percent of those living in the least deprived areas.

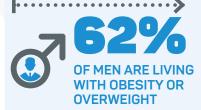
# OBESITY IN NORTHERN IRELAND



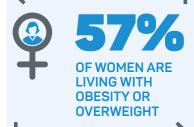
either living with

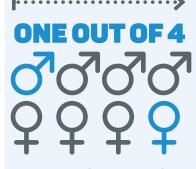
overweight (37%) or

living with obesity



(25%)





MEN AND WOMEN LIVING IN OECD COUNTRIES AND EU28 MEMBER STATES ARE LIVING WITH OBESITY.

#### 3.2.4 Obesity in Northern Ireland

Levels of obesity in Northern Ireland are captured in the Health Survey Northern Ireland (Department of Health, 2020). The results of the 2018/2019 survey show that:

- 62 percent of adults were either living with overweight (37 percent) or living with obesity (25 percent), similar to the 2017/2018 figures.
- Females had a greater tendency to be average weight than males (42 and 31 percent respectively), while males had a greater tendency to have overweight then females (32 percent).
- Men are more likely to be living with obesity or overweight (62 percent) than women (57 percent).

Although obesity in the devolved nations is increasing, a similar pattern has been seen across all OECD countries. In "The Heavy Burden of Obesity: The economics of prevention", the OECD (2019) found that:

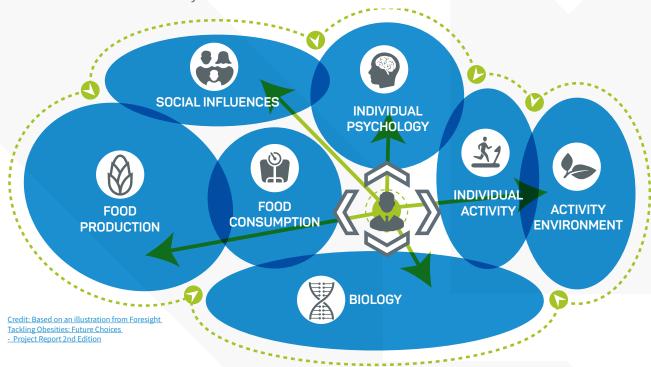
- Obesity and overweight have become widespread almost 60 percent have overweight, of which nearly 25 percent have obesity.
- In 34 out of the 36 OECD countries, more than half the population now have overweight, and almost one in four people have obesity. Between 2010 and 2016 an additional 50 million have been reported as living with obesity.
- Men and women are equally likely to have obesity but, overall, men are more likely to have overweight. On average, almost one in four men and women living in OECD countries and EU28 member states have obesity. In G20 countries, women are slightly more likely than men to have obesity (24 percent of women versus 19 percent of men).
- In 34 out of 36 OECD member countries, more than half of the population now have overweight.
- In the last few years there has also been a significant growth in people living with morbid obesity. In the OECD, EU28 and G20 countries, mild obesity and morbid obesity rates have grown by an average of 0.19-0.23 percentage points per threeyear period. In the most recent biennium for which data is available, morbid obesity growth accounted for up to half of the increase in total obesity rates.

The scale of this obesity epidemic, especially among the working age population, provides a compelling case for action to address these challenges and offer the opportunity for improvement in the future, and to understand the level and implications of obesity stigma and discrimination in employment.

#### 3.3 Causes of Obesity

Over the past two decades there has been an influx of research looking into the causes of obesity. A popular perception of the cause of obesity is attributed to factors that individuals can control – the 'eat less, do more' notion, which links with typical images of people living with obesity lacking will power and self-discipline. The British Social Attitudes Survey (NatCen, 2016) reported on attitudes of people in Britain towards obesity, its causes and what could be introduced to reduce its prevalence. The findings of the survey revealed that the majority of those surveyed (81 percent) agreed with the statement that 'most people who are overweight have put on weight because they eat too much'. Again, 81 percent agreed that 'most people who are overweight have put on weight because they exercise too little'. These statistics highlight that there is still a common perception that obesity is caused simply by an increased calorific intake and decreased physical effort. However, increased research into the causes of obesity have indicated that these are far more complex, multifactorial and interrelated. The Foresight report "Tackling Obesities: Future Choices" (2007), discussed the many causes of obesity, and developed a model detailing the complexity of the condition:

Some of the causes of obesity will be discussed in more detail below:



#### 3.3.1 Biology

Lau and Wharton (2020) reported on the neurological and physiological causes of obesity, noting that the brain plays an important role in obesity and energy balance. Three areas in particular that regulate weight are the hypothalamus, the mesolimbic area and the cognitive lobe, and having a greater understanding of these areas and the connections between them will improve our knowledge of obesity. The hypothalamus plays a central role in the regulation of energy intake and expenditure, which can affect body weight regulation. The mesolimbic area is more associated with feelings of reward and pleasure associated with seeing, smelling and eating food, and the release of dopamine signalling a desire to eat. It has been found that some people living with obesity may have a heightened anticipation of the pleasure of food that has been driven by a dysregulation of obesity, resulting in over-eating to fulfil this need. The cognitive lobe is responsible for executive functioning and it has been found that people living with obesity have a 'dysfunctional connection' between the cognitive lobe and the rest of the brain, that can lead to an inability to control eating behaviours.

The researchers also discussed the role of genetic variability and the influence that this can have on self-regulation of food intake and provided this as an explanation for why not everyone develops obesity. Studies have indicated that more than 140 genetic regions are known to influence obesity traits and have been linked to the development of obesity. Lau and Wharton (2020) explained that twin studies have also shown a relatively high degree of concordance of body mass and eating behaviours. The Foresight Report (2007) also discussed the variations in genes, identifying critical hormones and feedback loops, especially the role of the hormone leptin, and its involvement in energy intake in relation to adipose tissue and body fat mass. The system is finely tuned in some individuals so the appetite control system precisely matches hormonal secretion to ensure that energy intake is meeting energy needs. However, in others this is not the case, resulting in food intake that is above energy needs, which makes them more susceptible to obesity.

#### 3.3.2 Obesogenic Environment

This term refers to the role that environmental factors can have for the development of obesity. The Foresight Report (2007) notes that the obesogenic environment can be defined as: "the sum of influences that the surroundings, opportunities or conditions of life have on promoting obesity in individuals and populations" (page 57). These influences could include both social and cultural factors that influence an individual's decisions and ability to adopt a healthy lifestyle. Two factors that have been predominantly discussed in this area are the opportunities that individuals have to engage in physical activity and the food environment.

#### Physical Activity

Townshend and Lake (2017) discussed the hypothesis that an environment's physical design, landuse patterns and transportation systems can have an influence on an individual's likelihood to have an active lifestyle. For example, areas where there are accessible local facilities for exercise, where infrastructure supports easy active travel (walking and cycling) and an environment that is regarded as safe and pleasant should support increased physical activity. Although early studies produced encouraging results associating those living near high quality parks showing greater levels of activity in their 'recreational or spare time', the evidence still remains unclear. The Foresight Report (2007) reported some evidence suggesting an association between participation in physical activity and the availability and density of recreation facilities, but this was also related to social inequalities and levels of deprivation.

#### Food Environment

The food environment has also been hypothesised as one of the factors that could be associated with obesity. Environmental influences on an individual's access to food can include the ease of access to food and drink, the density of 'fast-food' outlets, and where food is prepared and consumed. Lachat et al., (2012) found in their England-wide study that the density of fast-food outlets in local neighbourhoods was associated with higher levels of children who had overweight or obesity (the opposite was also found for the areas where food outlets sold 'healthier food'). This was supported by Public Health England (2018) who mapped the density of fast-food outlets in local authorities across England, reporting an association between exposure to fast food outlets and obesity. The report, however, did also chart an association between the density of fast-food outlets and social deprivation (the areas of higher social deprivation had greater density of fast-food outlets). In these areas there was also a reduction in consumption of fruit and vegetables.

Townshend and Lake (2017) also commented that food that is prepared out of the home tends to be less healthy than food prepared at home, and that eating pre-prepared or take-away food is a growing trend. In the UK it is reported that a quarter of adults and a fifth of children eat out, or have take-aways at least once a week, and that this could have implications for dietary outcomes, such as an increased propensity for overweight or obesity.

Discussions have also focussed on the pricing of food and how this can have an impact on decision making and food consumption. The Foresight Report (2007) highlighted how cheaper food sources are energy-dense but nutrition poor, in that they have relatively few vitamins and minerals but provide a lot of calories in the form of fat and sugar. Chandon and Wansink (2012), when researching food marketing and pricing, found that pricing is one of the strongest marketing factors that predict energy intake and obesity and suggested that this was why lower-income consumers are predominantly affected by overweight and obesity. The BPS (2019) report also commented that food promotions also have a role to play, for example price reductions and offers (eg buy one get one free) and where products are displayed increase their purchasing appeal, estimating that this can increase total food purchasing by one fifth, and sugar consumption by one sixth. It was also noted that portion sizes have increased, encouraging customers to eat more.

#### 3.3.3 Obesity and Inequalities

Causes of obesity are also thought to be social and economic (as alluded to above in terms of access to fitness facilities and food consumption). The WHO (2014) described how unequal distribution of income, power, goods and services and poor and unequal living conditions could lead to health inequalities (in this paper, differing levels of obesity). The report provided evidence suggesting that:

- There are large socioeconomic, gender and ethnic inequities that exist in terms of obesity in Europe.
- For 26 percent of males, and 50 percent of females, obesity can be attributed to inequalities in educational status.
- Women with lower levels of education can be up to five times more likely to have obesity than those with higher education.
- Obesity in Europe was also reported to be strongly related to the socioeconomic status of parents – the higher the level of income inequality, the greater extent to which children have overweight.
- Children born to mothers living with obesity are more likely to have poor eating habits and live with overweight. In this way, obesity that is increasingly related to poverty is more likely to be passed on to subsequent generations.

The OECD (2019) also recognised social-economic inequalities when discussing the causes of obesity, in that results showed that across OECD countries, individuals in the lowest income group are consistently more likely to have obesity, with inequalities more significant in women than in men. It was also reported that that in the EU28, women and men in the lowest income group are, respectively, 90 percent and 50 percent more likely to have obesity, in comparison to the highest income group.

In his report "Health Equity in England: The Marmot review 10 years on", Marmot et al., (2020), argued that health is closely linked to the conditions in which people are born, grow and live and those in more deprived areas have greater health inequalities. With regards to obesity, it was reported that those in persistent poverty were at more risk of having poor physical and mental health, and children in persistent poverty were more likely to develop longstanding illnesses, in which obesity was mentioned. Additionally, those living in household debt were also seen as at risk of a greater propensity for developing obesity, potentially linked to limited or uncertain access to adequate food due to financial constraints (Adams, 2020). Marmot et al., (2020) also noted that in deprived innercity areas that have five times less the amount of good-quality green space, higher levels of pollution and cluttered pavements in comparison to more urban areas, individuals had greater vulnerabilities to a number of health conditions including obesity (as a result of lower levels of physical exercise).

#### 3.3.4 Employment

There is now a growing evidence base to suggest that the workplace environment and the way in which jobs are designed can have an impact on obesity.

#### Shift Work

With changes in work design and work patterns, and the need for an 'always on' culture to enhance flexibility, some employees are expected to work unconventional hours or in shift patterns, which can have implications for overweight and obesity (Eberly and Feldman, 2012; Nigatu et al., 2016). This can be as a result from the changes in biological rhythms, sleeps patterns and social isolation (Oksanen et al., 2013), or as a result of the food consumed on night shifts (either sugary foods to help employees combat tiredness, or the limited availability of healthy options for night shift workers) (Nobrega et al., 2016; Yarborough et al., 2018).

#### Working Hours

How many hours employees work has also been associated with obesity, especially if they are also exposed to a hostile work environment (Yarborough et al., 2018). Women working increasingly longer hours per week are associated with higher levels of weight gain, as well as elderly employees who worked over 59 hours a week (these were nearly 30 percent more likely to gain weight in comparison to those who worked less) (Au et al., 2012).

#### Psychosocial Work Factors

Employees with low levels of autonomy and high job pressures and demands have reported fewer opportunities for breaks, which has implications for the type and quality of food chosen and the pace in which it is eaten. The associated stress also led to snacking and increased 'comfort food' consumption, which was linked to weight gain (Nobrega et al., 2016). Social stressors (eg levels of job control, opportunities to be involved in organisational decisions and conflict with co-workers) have been positively associated with increased BMI (Yarborough et al., 2018). Experiencing harassment at work is also a characteristic of the workplace environment that has been associated with obesity (Nelson et al., 2014). The role of leaders and line managers has also been researched, indicating that high-quality leadership was associated with weight loss among male employees, but high role conflict was a factor associated with weight gain in female employees (Quist et al., 2013). Poor interpersonal treatment at work has been associated with increased depression/stress, resulting in altered eating patterns (predominantly overeating, but in a few cases undereating) (Nobrega et al., 2016).

#### Sedentary Behaviour

As the workplace has evolved technologically over the last decade, some have argued that the associated sedentary behaviour in some roles has resulted in employee weight gain. Occupational physical activity and energy expenditure was researched over the last five decades alongside the relationship with obesity, finding that energy expenditure has decreased more than 100 calories, which accounted for a significant weight gain in employees (Church et al., 2011). However, other research studying sedentary behaviour at work and implications for obesity has proved inconclusive (Shrestha et al., 2016).

#### 3.3.5 Mental Health/Stress

Taylor et al., (2020) in the recently published Obesity Canada clinical practice guidelines wrote "much like trying to untangle the etiology of obesity, trying to understand the association between weight gain and mental illness is currently beyond our ability" (page 3). However, what is important is the recognition that people with mental health conditions are vulnerable to weight increases, however conversely, increasing weight can also have implications for mental health. This was

supported by Rajan and Menon (2017), in their review of the literature into the association between mental and psychiatric conditions and obesity. The studies reported that there was evidence of a bidirectional link between obesity and depression. People living with depression had a propensity to develop obesity, but longitudinal studies also suggested that those living with obesity may also develop depression. Gender was also found to be a significant moderator in this obesity-depression association.

Taylor et al., (2020) reported that the underlying mechanisms for the association between mental health are multi-faceted and can include biological and psychological factors, that could be exacerbated by social and economic factors too. There is a clear link between some psychiatric medications and weight gain, and whilst this is most clearly documented in relation to antipsychotic medication, there is also evidence now suggesting that medications used to help treat bipolar disorder, major depressive disorder and anxiety can also be associated with weight gain. For example, prescribed antipsychotics, anti-depressants and mood stabilisers can cause between a 2kg-17kg weight gain over the course of an individual's clinical treatment (Nihalani et al., 2011). Reasons provided for this included: changes to neurotransmitters, receptors and neurocircuits associated with food intake, appetite stimulation and the slowing of the metabolism. The first few months after starting medication have been researched to be when the most weight is gained, and those who gain the most weight in those months are at higher risk of developing overweight or obesity in the longer term (Centre for Mental Health, 2020). The report also noted the experience of those living with mental health conditions and overweight and obesity which highlighted that medication could also have sedating effects which made it difficult for individuals to make that step towards losing weight if they wished to, often relying on sugary energy drinks to 'get them going', which could reverse any progress.

The BPS (2019) also discussed the link between stress and obesity in adulthood. The report highlights that chronic activation of the stress system (through issues such as financial insecurity, stigma, mental illness etc.) can result in a greater accumulation of internal body fat that is stored around the abdomen or surrounding organs that is prevalent in people living with obesity. It was also reported that stress can lead to a range of behaviours which could have implications for overweight and obesity, including sensitivity to certain food cues and increased cravings which could result in individuals eating more, or choosing foods with higher calorific contents. In an article published by Harvard Health (2020), there was evidence to suggest that there could also be gender differences in stress-coping behaviours, with women more likely to rely on food as a coping-mechanism, whereas men chose smoking or alcohol. The article also discussed the relationship between stress and obesity with regards to the level of cortisol that is produced when individuals experience a stressful situation.

#### 3.4 Comorbid Health Conditions

Individuals living with overweight or obesity may also have a higher risk of developing other mental or physical comorbid conditions, that can have detrimental long-term consequences to their quality of life (Agha et al., 2017). Conditions commonly associated with obesity include:



• **Type 2 Diabetes:** The susceptibility of diabetes is 80 times greater among adults with obesity than those without obesity (Agha et al., 2017). Individuals with a BMI of 35 have a 92-fold increase in risk of diabetes compared with a BMI of 22. It has been calculated that if the obesity trend in the UK continues as projected, by 2025 a quarter of the health budget will be spent on treating type 2 diabetes. Consequences for individual health associated with diabetes include kidney failure, blindness, leg ulcers and congestive heart disease.



**Coronary Heart Disease:** Agha et al., (2017) reported that coronary heart disease susceptibility increases 2-3 times more in adults living with obesity. If the obesity trend continues at its current rate, it is predicted that coronary heart disease rates will increase to 20 percent in 2035. It has also been calculated that obesity counts for 5 percent of coronary heart disease in men, and 6 percent in women.



• Cancer: Individuals living with obesity have an increased risk of developing cancer (Apovian, 2016). A number of cancers have been particularly associated with overweight and obesity. For example, it has been found that 41 percent of cases of uterine cancer and more than 10 percent of gallbladder, kidney, liver and colon cancers were attributable to having overweight or obesity However, having a higher BMI is also positively correlated with a higher risk of gallbladder, kidney, cervical, thyroid, ovarian and postmenopausal breast cancers. Adults living with obesity are 40 percent more likely to die from cancer than those not living with obesity.



Osteoarthritis: For those living with overweight and obesity, developing osteoarthritis can affect the knees, hips and lower back, by placing extra pressure on the joints and wearing away cartilage (Agha at al., 2017). It is thought that osteoarthritis is associated with more than 11 million working days lost in Britain. Apovian (2016), also showed that obesity has been shown to increase rheumatoid arthritis, and it has been found that there is a 13 percent risk of developing rheumatoid arthritis for every 5 kg/m² increase in BMI.



**Emotional and Psychological Damage:** It is thought that the emotional and psychological conditions that can arise as a result of overweight and obesity are a major public health problem (Agha et al., 2017). For example, people living with obesity are 3-4 times more likely to be depressed then those who are not obese. It has also been reported that emotional damage caused by obesity can result in binge eating, low confidence and social isolation. Women with a baseline BMI of 30 or higher risk developing major depressive disorder, independent of other risk factors such as age, social support, and prior mental health conditions (Apovian, 2016). Research has also indicated that psychological wellbeing can be compromised in people living with obesity (Rand et al., 2017). Women with a BMI of over 30 are also at greater risk of developing general anxiety disorder.



**Respiratory Conditions:** Compared with individuals of a healthy weight, those living with obesity are more likely to experience respiratory conditions, including obstructive sleep apnoea and asthma (Public Health England, 2020).



**COVID-19:** During the COVID-19 pandemic, it was suggested that people living with overweight and obesity were at a higher risk of a positive test, hospitalisation, advanced level of treatment (including mechanical ventilation or admission to intensive care units/critical care) and death as a result of contracting COVID-19 (Public Health England, 2020; Frühbeck et al., 2020). Data in England, Wales and Northern Ireland has shown that there was a higher percentage of patients with a BMI over 30 in intensive care units with a confirmed case of COVID-19 in comparison to patients of a healthy weight, and these findings have been supported by analyses conducted in a range of other countries (Public Health England, 2020). Docherty et al., (2020) reported that of patients hospitalised in 208 UK hospitals confirmed with COVID-19, there was a 33 percent



increased risk of mortality for those recognised by clinical staff as living with obesity (after adjusting for age, sex and other major comorbidities). Townsend et al., (2020) also reported a link between COVID-19 and disparities in obesity by ethnicity, with BAME individuals comprising over 30 percent of COVID-19 hospitalised and critically ill patients

It is important to understand the implications of these comorbidities for obesity. The OECD (2019) has predicted that from 2020-2050, overweight, obesity and related comorbid conditions will reduce life expectancy by about 3 years across OECD countries, and that as many as 92 million people could die prematurely. Three obesity related conditions will also affect an individual's quality of life, having an impact on employment and social situations.

#### 3.5 Consequences of Obesity for Health and the Economy

Research has also been focussing on the consequences of obesity for individual health and the economy. The McKinsey Global Institute (2014) reported that:

OBESITY IS RESPONSIBLE FOR OF ALL GLOBAL DEATHS

0"0

In developed economies the healthcare spending attributed to obesity is estimated to be between 2-7 percent.

IN THE UK, HEALTHCARE SPENDING FOR OBESITY COULD ACCOUNT FOR

**11-14%**OF GDP BY 2040

**+** 

THE OECD (2019) REPORTED THAT PEOPLE WITH OVERWEIGHT USE HEALTHCARE SERVICES MORE AND UNDERGO MORE SURGERY.

THE GLOBAL ECONOMIC IMPACT OF OBESITY IS ROUGHLY

**\$2.0** 

OR OR

2.8%

OF GLOBAL GDP

IN THE UK THE TOTAL IMPACT OF OBESITY ON EMPLOYERS WAS

\$7<sub>BILLION</sub>

- Obesity is responsible for around 5 percent of all global deaths.
- The global economic impact of obesity is roughly \$2.0 trillion, or 2.8 percent of global GDP (which is estimated to be roughly equivalent to smoking, or armed violence, war and terrorism).
- In developed economies the toll of obesity on healthcare spending is between 2-7 percent. This, however, does not take into account the cost of treating associated or comorbid conditions, which can take the healthcare costs (in some estimates) to 20 percent. In the UK, healthcare spending for obesity could account for 11 to 14 percent of GDP by 2040.
- The OECD (2019) reported that people with overweight use healthcare services more and undergo more surgery. They may also have more than twice as many prescriptions compared to individuals with a healthy weight. In OECD countries from 2020 to 2050, overweight will be responsible for 70 percent of all treatment costs for diabetes, 23 percent of treatment costs for cardiovascular diseases and 9 percent for cancers.
- There is also evidence to suggest that obesity could have implications for employee productivity, sickness absence and presenteeism (Bajorek and Bevan, 2019), but as will be discussed, this may be related to the way that employees with obesity are treated once in work.
- The McKinsey Global Institute (2014) estimated that in the UK the total impact of obesity on

employers was \$7 billion, of which \$5 billion came from decreased productivity in the workplace rather than absenteeism.

People living with obesity may also be more at risk of permanent work loss (Goettler et al., 2017) and unemployment (Black, 2016), which could increase risks related to unemployment benefits, and may lead to further implications for healthcare systems. The OECD (2019) found that people living with obesity with at least one chronic disease are 8 percent less likely to be employed the following year.

Concerningly, the research about the life-long employment and economic costs of obesity shows the potential for negative outcomes when taking a life-course approach. The OECD (2019) provided evidence to show that children who have overweight do less well at school (lower marks, more likely to miss school and are three times more likely than healthy weight children to be bullied – which could explain the underperformance), and are less likely to complete higher education. These findings are true even after taking into account other confounding factors. This creates potential conditions for lower levels of human capital in the future.

#### 3.6 Chapter Summary

Obesity is commonly defined as 'abnormal or excessive fat accumulation that may impair health', and BMI is usually used in a range of settings to classify overweight and obesity severity. However, as knowledge about overweight and obesity develops alternative measures through which obesity is classified have emerged (including waist-hip ratio and body fat percentage). There are also discussions about whether obesity should be recognised as a 'disease'. A range of international bodies (including the WHO, the AMA and Obesity Canada) have already defined obesity as a disease with the hope that this will help improve access to treatment options for people living with obesity. However, there are those who believe that defining obesity as a disease will risk disempowering individuals with regards to what they can do to help themselves manage their condition. One aspect of obesity that is not contentious is its prevalence – obesity levels are rising globally and it is now a major health concern. Levels of overweight and obesity are also increasing in younger generations, providing a compelling case for more action to be taken now to address the rising prevalence and prevent obesity comorbidities worsening in the future.

Although the simplistic notion that overweight and obesity is caused by increased calorific intake and decreased physical activity is still very popular and commonly discussed, the causes of obesity are complex and multi-factorial, including (but not exhaustively) biological factors, an obesogenic environment (notably access to physical activity facilities and the food environment), social and economic inequalities, employment and mental health.

Overweight and obesity are also associated with a range of comorbid conditions that can lead to further health complications. Common comorbid conditions include: diabetes, coronary heart disease, cancer, osteoarthritis and respiratory conditions. During the recent COVID-19 pandemic individuals living with obesity were found to be more vulnerable if they contracted COVID-19, resulting in greater need for hospitalisation, Intensive Care Unit (ICU) medical intervention, and sadly greater mortality.

The social, economic and health consequences of obesity have been estimated, indicating that treatment costs for overweight and obesity including comorbid conditions can be up to 20 percent of all healthcare spending. Addressing obesity requires a concerted effort by a range of stakeholders, one being employers. However, for this to be effective the stigma surrounding obesity needs to be overcome first.





#### Weight Bias, Stigma and Discrimination

Alongside the rise in prevalence of overweight and obesity globally, has been the pervasive weight bias, stigma and discrimination that people living with overweight and obesity experience (O'Brien et al., 2013; Albury et al., 2020; Le Brocq et al., 2020; Rubino et al., 2020). Such attitudes have been reported in a range of settings, including education, employment and healthcare, and can have a number of often negative consequences for individuals living with obesity. Research has been undertaken to seek to understand the reasons for these weight bias behaviours, their prevalence and what the impact of these behaviours are.

#### 4.1 Definition of Terms

The recently published Obesity Canada guidelines for clinical practice included a chapter specifically focussing on reducing weight bias, stigma and discrimination, recognising the challenges that this can bring in many areas of policy and practice (Kirk et al., 2020). The guidelines highlighted that in the literature the terms weight bias, stigma and discrimination are used interchangeably, but they do in fact have subtle differences that can be viewed on a continuum of prejudicial attitudes.

#### Weight Bias

The guidelines defined weight bias as "the negative weight-related attitudes, beliefs, assumptions and judgements in society that are held about people living in large bodies" (page 3). Different forms of weight bias have been researched. 'Explicit weight bias' is described as having overtly negative attitudes towards people living with obesity (for example, the assumptions that those living with overweight and obesity are unmotivated, lazy, lacking in self-discipline, lacking in willpower, less competent, sloppy and who are not compliant with their weight medication) (Puhl and Heuer, 2009). 'Implicit weight bias' has been defined as having unconscious negative attitudes towards people with larger bodies. In this way, implicit weight bias attitudes are not acknowledged by those who hold them, but they do shape the way in which people both view and treat individuals who live with overweight and obesity. There is also an 'internalised weight bias', which refers to the extent to which a person who lives with overweight and obesity endorse or take on the negative weight-based beliefs about themselves.

#### Weight Stigma

Kirk et al., (2020) define weight stigma as, "the manifestation of weight bias through harmful social stereotypes that are associated with people living with obesity" (page 3). Pearl (2018) noted weight stigma could be seen as, "negative, prejudicial attitudes towards people living with obesity" (page 147). Additionally, Tomiyama et al., (2018), defined weight stigma as, "the social rejection and devaluation that accrues to those who do not comply with the prevailing social norms of adequate body weight or shape" (page 1). Lewis et al., (2011) reported that as a result of such stigma, no matter how an individual living with obesity presents themselves in a given situation, those holding stigmatising beliefs will only see the stigmatising characteristics rather than the 'true person' (page 1350).

#### Weight Discrimination

Weight-based stigma, if acted on behaviourally can lead to weight discrimination, which Kirk et al., (2020) described as, "unjust treatment of individuals because of their weight". The continuum from weight-based stigma to weight discrimination was highlighted by Fiske (2020) who suggested that weight-based stigma can be manifested emotionally (prejudicial attitudes), mentally (through stereotypes) and behaviourally (discriminatory practices). This was also explained by Link and Phelan (2001) in their model of stigma which had five distinct phases:

- Identifying and labelling human differences.
- Showing societal beliefs which can then result in labelled differences that can then be associated with negative stereotypes.
- These labels then result in 'us' vs 'them' groups.
- Those in the 'them' group then experience discrimination and status loss that can result in subsequent inequity in social and economic situations.
- The difference in social, economic and sometimes political power between the separate 'them' and 'us' group results in disapproval, rejection, discrimination and exclusion.

It has also been found that weight discrimination can be enacted differently and covers a wide range of experiences, including minor everyday instances of differential treatment (microaggressions) (for example, being treated in different ways in very subtle forms), to being treated unjustly in specific contexts (for example, and relevant to this context, being denied employment because of weight specifically) (Pearl, 2018).

For ease of terminology throughout the rest of this research report, the term weight-stigma will be used, with the understanding that stigma can result in cases of discrimination.

#### 4.2 'Weight-Stigma' Theories

Attempts to understand why weight-based stigma occurs have been seen in the literature, as this can help with interventions introduced to challenge and change deep rooted widespread beliefs about overweight and obesity. A number of theories regarding the cause of weight-based stigma have been identified and are discussed below.

#### **Attribution Theory**

Findings from several countries have suggested that attribution theory may contribute to the development of weight-based stigma (Rubino et al., 2020). The theory suggests that individuals seek out causal explanations for outcomes or conditions. Weiner (1985) when explaining attribution theory stated that people evaluate how much an individual is personally responsible for causing a success or a failure, in part based on the perceived amount of control they have over an outcome (Beames et al., 2016; Pearl, 2018). Consequently, if a failure in something is seen to have been within a person's control a negative evaluation will be made, which is often displayed in the form of blame. In the case of obesity, a negative stigma towards people living with overweight or obesity arises as a result of the perception that weight is under personal control (Nutter et al., 2016).

Weiner et al., (1988) when conducting research into attribution theory found that when certain conditions are perceived to be uncontrollable, then other individuals are more likely to respond by displaying increased concern, pity or liking. However, when conditions such as obesity are perceived to be controllable, where individuals are perceived as being personally responsible for the onset of obesity, then responses are more likely to display dislike, anger and negative judgements which can lead to the development of weight-based stigma. Even though, as discussed in the previous chapter, there is now evidence showing that the causes of obesity are complex and multi-factorial, research still shows evidence that the public still view weight as under an individual's control, and people living with obesity lack willpower and personal responsibility, are lazy and lack discipline (Pearl, 2018).

Van Leeuwen et al., (2015) highlighted research providing evidence to suggest that attribution theory could lead to weight-based stigma. Participants in one study were provided with evidence statements highlighting biological (or uncontrollable) causes of obesity, and results indicated that these participants reported less antipathy towards people living with obesity in comparison to a

control group. Conversely, those provided with statements that obesity resulted primarily from overeating and lack of physical exercise responded with increased implicit negativity towards people living with obesity. Similar results have been found in other studies, for example Godfree (2020) described a study in which school aged participants rated people living with obesity as less self-disciplined and more indulgent than average weight individuals, however when the cause of obesity was attributed to a biological cause (in this study a glandular disorder) this was no longer the case. Allison and Lee (2015) also reported that when obesity was attributed to medical causes (therefore uncontrollable), those living with obesity were rated with more positive attributes.

Attribution theory has also been supported in qualitative studies. Lewis et al., (2011) undertook a study into how individuals living with obesity perceive and respond to the obesity stigma they encounter. Some reported that as a result of the visibility of their obesity, they were often the topic of negative conversations, and in some cases openly criticised as being to blame for their obesity. In the study, a participant described a situation where a parent said to their child "that's what happens when you eat too much" (page 1352), and when in a restaurant overhearing other customers saying: "I bet you they are going to eat two meals" (page 1352).

#### The Thin Ideal

Others have questioned whether weight-based stigma has arisen as a result of the 'thin ideal', or the degree to which an individual has bought into what social standards deem to be attractive (Nutter et al., 2016). For many this can derive from a culture where being thin and a 'diet culture' has a strong value, and consequently 'thinness' represents health and morality (Godfree, 2020). Over the last few decades there has been a shift in what 'the ideal body standards' are. For women, the ideal body is prescribed as 'thin, with large breasts and toned muscles', and for men it is 'lean and muscular, with wide shoulders and a narrow waist' (Nutter et al., 2016). This can have implications for weight-based stigma as a result of how important individuals consider the socially defined ideals of attractiveness are, and how they then adapt their thoughts and behaviours to fit into these ideals. Research has provided support for this 'thin ideal' as studies have shown increased disgust responses to images of individuals with larger bodies, increasing weight-stigma (Nutter et al., 2016). The thin ideal hypothesis may also be supported by the finding that improving physical attractiveness is a common motivation for those who enter weight-loss and weight-management programmes (van Leeuwen et al., 2015).

Pearl (2018) also discussed the 'thin ideal', and how perceived physical attractiveness can add to negative personality traits attributed to those living with obesity. There is evidence of the 'halo effect', with the supposition that people who are seen as 'more attractive' or who fit into the 'ideal' must also have good behaviours, are socially responsible and also have greater intellectual competence. Alternatively, those who do not comply with the ideal, and live with overweight and obesity are therefore commonly perceived to be unattractive, unpopular and incompetent.

#### Media

Researchers have looked at the role that the media has played in contributing to negative weight-based stigma. Danielsdóttir et al., (2010) reported that analyses of both print and screen media revealed that people living with obesity are regularly portrayed more negatively than those of a 'healthy weight', usually portrayed as being unattractive and lacking in self-control. Media images of people living with obesity are often dehumanising and unflattering (often headless, and focussing on midriffs over-spilling trousers, or ill-fitting clothing), and contain individuals engaging in stereotypically unhealthy behaviours, such as watching television whilst eating fast food (Heuer et al., 2011). Television shows, advertisements and a vast majority of public health campaigns (especially those that have arisen since COVID-19) that focus on weight loss and/or obesity prevention contain weight-stigmatizing content, that seems to perpetuate the myth that a person's weight is completely within their control (Pearl, 2018; Puhl et al., 2013), and that 'eat less do more' is the only treatment.

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There is some evidence to suggest that in entertainment media, weight-based stigma is clearly expressed, as characters with obesity are more associated with negative characteristics than their thinner counterparts, and are also more likely to receive negative comments in television shows (Yoo and Kim, 2012). Research by Yoo and Kim (2012) looked into the concept of 'framing', which is 'the process by which people develop a particular conceptualisation of an issue or reorient their thinking about an issue' (page 87) and it seems that in the media, obesity is still very much framed to be in the individuals control and caused by lack of willpower, thus shaping an audience's view and about people living with obesity and reinforcing stigma. However, Yoo and Kim (2012) found that such messages were still being promoted on 'newer' forms of media (in this study, YouTube). The majority of the videos analysed in the study portrayed unhealthy food consumption and a sedentary lifestyle as the major causes of obesity, and that behavioural change (healthy eating and exercise) was the best solution for improving obesity outcomes. There was some evidence to suggest that the obesogenic environment also had a role to play, or that obesity was a result of a complex number of interrelated factors. However, there was also evidence to show that videos on YouTube often reinforced weight-based stigma, as those living with obesity in videos were most likely to receive teasing and derogatory comments, and these were also viewed, rated and commented on more frequently. The researchers suggested that this could affect a viewers' attitude towards people living with obesity.

Flint et al., (2018) also commented that these 'stigmatising and inaccurate' images of obesity in the media are rarely challenged, and that is why they are continually used in mainstream media. Flint et al., (2018) highlighted a number of headlines in major newspaper publications that perpetuated the stereotypes that obesity was solely controllable by lifestyle behaviours, and that laziness was the main cause of obesity. This has led to a call for the media to use non-stigmatising imagery, and more collaborative and proactive work to reduce the weight-based stigma that exists and shift the narrative relating to overweight and obesity.

One part of this change in narrative would be the greater adoption of people-first language when discussing obesity. Kyle and Puhl (2014) reported that people-first language is "the standard for respectfully addressing people with chronic disease, rather than labelling them by their illness" (page 1211), and noted that the Obesity Society have affirmed people-first language as the standard for their programmes and publications. Although people-first language has become the standard language to use and is widely adopted for most other chronic conditions and disabilities, the same standard has not yet been used for obesity. The authors argued that the use of people-first language and addressing the disease separately from the person (especially if this is done consistently), could help reduce stigma and lead to greater respect for those affected.

#### Social Consensus Theory

Related to the role that the media has in perpetuating weight-based stigma stereotypes, is the idea that an individual's beliefs are influenced by those around them (Pearl, 2018). Puhl and Brownell (2003) demonstrated that people are likely to change their attitudes and behaviours in response to other people's attitudes, and the social acceptability of the stigma. In this way, an individual may then compare their beliefs and conform to what is considered to be the social consensus potentially driven by the need for social acceptance, or the need to be viewed as similar to others. In relation to weight-based stigma, research has indicated that people living with obesity receive stronger negative attitudes towards them, and they are teased and bullied more than people of other typically stigmatised groups (including race, age and religious minorities) (Pearl, 2018; Phelan et at., 2014).

#### Lack-of-Fit Model

The Lack-of-Fit model (Heilman,1983) was originally developed for investigating gender discrimination practices at work. According to the model, employers seek employees and make

decisions about their recruitment and selection, and then career advancement, based on how well a candidate is perceived to fit into the position (Lindeman et al., 2017). The incongruity that results leads to the development of negative expectations about a person's performance, which has an impact on how any information about an individual is processed, facilitating stigmatising beliefs and discriminatory behaviours (Heilman and Caleo, 2018). Applying this model to people living with obesity, the model would hypothesise employees living with obesity disqualify them from fitting in with an organisation's ideal, leading to stigmatising behaviours.

#### Avoidance Theory

This theory of the cause of weight-based stigma has been discussed less in the literature but has arisen as a result of one of Goffman's (1963) typologies of stigma – a physical deformity. It has been argued that obesity can be conceptualised as a condition that fits into this category, as it has been defined as an observable physical attribute that is commonly believed to be undesirable and/or a sign of a physical illness (Pearl, 2018). Avoidance theory proposes that obesity may be unconsciously marked as a disease, leading people to avoid individuals living with obesity for fear of infection. Van Leeuwen (2015) noted that visible symptoms can induce emotional and behavioural responses (commonly disgust and physical distancing), which results in the onset of weight-stigma behaviours.

#### 4.3 Weight Stigma Prevalence

In their seminal review of the literature concerning stigma and obesity, Puhl and Heuer (2009) found that in the US the prevalence of weight discrimination had increased by 66 percent over the previous decade, and was now comparable to rates of racial discrimination (especially among women). Watson et al., (2018) reported evidence showing that 46 percent of individuals would rather give up a year of life than have obesity, 30 percent would rather be divorced then have obesity, 25 percent would rather be unable to have children, 15 percent would rather be severely depressed and 14 percent would rather be an alcoholic, and that it is becoming more socially acceptable to express such stigmatising attitudes towards those living with obesity.

In their report, Flint, Hudson and Lavalle (2015) examined implicit and explicit attitudes towards obesity in UK adults to understand the level and nature of weight-based stigma prevalence in the UK. The results indicated that:

- Overall, there is evidence of an implicit 'anti-fat' or 'pro-thin' bias in the sample and scores on explicit measures indicated negative attitudes towards obesity. (This was measured using the Anti-Fat Attitudes Scale which measures the magnitude of anti-fat attitudes via 5 items; the 14 item Fat Phobia Scale which measures the degree to which individuals associate stereotypical characteristics with being 'fat' and the Implicit Association Test which provides an indication of implicit preference towards 'fatness' or 'thinness').
- Males reported more negative attitudes towards people living with obesity, greater 'anti-fat' attitudes and greater 'fatphobias' than females (as defined in the scales).
- Females reported a stronger belief that obesity is controllable and perceived the words 'fat' and 'obese' as more insulting (as measured using the above scales).
- Those between the ages of 18-25 reported more negative attitudes towards those living with obesity, greater 'anti-fat' attitudes and greater 'fat phobia' than 26-50 year olds (as defined and measured by the scales used in the research).
   18-25 year olds also reported stronger beliefs that obesity is controllable than 36-50 years olds.
- Participants who exercised for 8 hours or more a week reported more negative attitude towards people living with obesity and greater 'anti-fat' attitudes in comparison to those who exercise up to 3 hours a week.
- Average weight participants believed that obesity is more controllable than participants who had underweight or living with obesity.
- Results of the study suggested that 'anti-fat' attitudes in UK adults appear to be widespread, and support previous research indicating that 'anti-fat' attitudes are partially derived from the belief that obesity is controllable, and that people living with obesity are responsible for their condition.

Kirk et al., (2020) reported that weight-based stigma is pervasive in society, and that approximately 40 percent of adults report a history of some form of weight bias or weight stigma. They also



found that weight-based stigma has been reported in a range of settings, including: among parents and families, adolescent peers, teachers, employers, human resource professionals, healthcare workers and even among individuals living with obesity themselves. They also noted that the prevalence of weight-based stigma across these many domains can vary dependent on the level of obesity. For example, for those with a BMI between 30-35 kg/m² 19.2 percent of people living with obesity reported some form of weight-based stigma or discrimination. However, this rises to 41.8 percent among individuals living with severe obesity (over 35 kg/m²).

Lewis et al., (2011) conducted research on the nature of stigma that people living with obesity experienced, finding that the majority of the participants interviewed for their study (121 out of 141 interviewed) were able to describe stigmatising experiences, and a range of social settings or situations in which they felt more vulnerable. Those who did not discuss such a phenomenon were most likely to be male, and/or have a BMI of less than 35 kg/m². The report mentioned that most direct forms of stigma occurred in face-to-face interactions, and most were based on what was classed as 'moral' judgements about the reasons why somebody lived with overweight or obesity. Participants would describe how often judgements were made within their earshot, and how because obesity is visible, they were often the topic of negative conversations that occurred around them, but did not include them.

As well as experiencing explicit comments or actions regarding their weight, people living with obesity in the study also reported more indirect forms of stigma, which were just as upsetting, and often reported as being harder to challenge. For example, participants described situations where they perceived that others were staring at them when eating in restaurants, or that judgements were made about the contents of shopping trolleys. One participant said: "I loathe buying groceries. I feel that if I have a packet of Tim Tams in my hand they're thinking 'look at yourself, you're letting yourself go and you should know better...that is why you are so big." (page 1353). Others feared being mocked or looked at in physical activity settings, had experiences where they felt they were ignored by customer services, and younger participants felt they were less likely to be invited out socially, as their friends would lose credibility by being seen with a 'fat friend'. The report concluded that participants felt that 'anti-fat' attitudes and weight stigma were everywhere, and often unavoidable, and that with increased media and government attention about obesity, these attitudes would not go away.

#### 4.4 Consequences of Weight Stigma

One of the main reasons for attempting to understand the cause and prevalence of weight-based stigma is because there is an accumulating evidence base suggesting that this can have a number of negative consequences for both the physical and mental health of people living with obesity. Studies among children living with obesity have shown that they are more likely to be subject to weight-based bullying and experience social isolation (Rubino et al., 2020). As discussed below, the impact of weight-based stigma can have negative consequences for both the physical and mental health of individuals living with obesity.

#### Physical Consequences

Kirk et al., (2020) reported that like other forms of stigma (including racism), weight-based stigma is associated with increased morbidity. This is related to physiological mechanisms, such as increased levels of chronic stress, which can result in increased levels of cortisol being released affecting levels of adiposity in those living with obesity. The authors cited research indicating that experiencing weight discrimination was associated with a 60 percent mortality risk, comparable to other established risk factors such as smoking and disease burden.

There is also evidence to show that individuals who perceived unfair treatment as a result of their weight are more likely to engage in behaviours that are conducive to obesity (Sutin et al., 2016).

Purpose Purpose

For example, they are more likely to overeat or eat at regular intervals (Major et al., 2012). Research by Vartanian and Novak (2011) also reported that experiences of weight-based stigma resulted in reductions or avoidance of physical activity. Seacat et al., (2014) undertook diary studies of people living with obesity, finding that weight discrimination was associated with worse eating habits, leading to a greater risk of further weight gain over time, resulting in a vicious circle of further weight-based stigma.

Other physical consequences of those reporting weight discrimination include: declines in functional disability and movement; difficulties in managing diabetes; and declines in subjective wellbeing and increased loneliness (Sutin et al., 2016). Across an eight-day study period examining whether perceived weight discrimination is associated with changes in health markers, Sutin et al., (2016) concluded that weight discrimination was associated with increased fatigue, backache, joint pain, stomach symptoms and chest pain. What was also evident was that the effects of weight-based stigma last longer than an immediate emotional or physical response and can have long-term consequences. Those who experience more daily physical symptoms were more likely to develop a chronic condition and other functional limitations over time.

#### Mental Consequences

Evidence has now accumulated which suggests that individuals who are the target of weight-based stigma and discrimination experience negative mental health outcomes. Statistics from the USA have found that individuals who perceived weight-based stigma were approximately 2.5 times more likely to experience mood or anxiety disorders than those who did not (Tomiyama et al., 2018), and research across other countries have also shown that weight-related stigma predicts higher risks of depression and other mood disorders. Mental health and depression (as discussed in the previous chapter) is associated with weight gain, and thus individuals living with obesity may find themselves trapped in unhelpful weight-gain patterns.

Kirk et al., (2020) report that global measures of mental health have indicated that experiences of weight-based stigma are commonly associated with psychological distress in both treatment and community samples, and also correlate with medication non-adherence, anxiety, perceived stress, antisocial behaviour, poor coping strategies and substance abuse. Sutin et al., (2016) found that individuals living with obesity who experience weight-based stigma were more likely to report feelings of stress, anger and having arguments with others if they had experienced discrimination that day. Weight-based stigma was also associated with feelings of frustration and upset. Pearl (2018) provided evidence suggesting that weight-based stigma may be a stronger predictor of psychological distress than other forms of enacted stigma (including sex and race) and can lead to low self-esteem and suicide ideation.

#### Weight-Bias Internalisation

Weight-bias internalisation or self-directed stigma occurs when an individual has an awareness of the negative stereotypes that exist about their social identity, they agree with the stereotypes and apply the stereotypes to themselves often in a self-devaluating way (Pearl and Puhl, 2018). Little empirical research has been undertaken on weight-bias internalisation, but estimates suggest that 40 percent of adults living with overweight and obesity have internalised weight-bias, with 20 percent showing high levels of the concept. Pearl and Puhl (2018) commented that research from other stigmatised social identities (i.e. sexual orientation, race and mental health) has shown that internalised stigma can have implications for both mental and physical outcomes, and investigated whether the same occurred in individuals living with obesity. Their findings showed that weight-bias internalisation is consistently associated with negative health outcomes (depression, anxiety, poor self-esteem and disordered eating), with clearer associations seen between weight-bias internalisation and higher severity of obesity and a reduced motivation to engage in health-promoting behaviours. In other words, if a person living with obesity believes that they are deserving of weight-based stigma, this could lead to worse outcomes then the weight-based stigma itself (Kirk et al., 2020).

#### Behavioural Consequences

Lewis et al., (2011) described how participants living with obesity responded to the types of stigma they experienced. They found that individuals rarely challenged stigmatising attitudes, often reporting that they blamed themselves for the stigmatising or discriminating situations they experienced. Implicit or subtle forms of stigma were more difficult to respond to, and with people commenting that they felt 'completely helpless' to respond. Others reported believing that they deserved the criticisms they received, and as a result engaged in extreme weight-loss techniques in an attempt to reduce any further stigmatising comments in the future. However, Puhl and Heuer (2010) found that, in both child and adult studies, those living with obesity and experiencing weightbased stigma have an increased likelihood of engaging in more frequent binge-eating, and are at increased risks of developing mal-adaptive eating patterns, and in some cases eating disorder symptoms, including being more likely to have a diagnosis of binge eating disorders. Puhl and Brownell (2006) found that among 2,400 women living with overweight and obesity, 79 percent responded to weight-based stigma by eating more food and 75 percent refused to diet. In their study Rand et al., (2017) described how food was a coping mechanism for weight-based stigma, but then also became a source of emotional stress, as participants discussed how compulsive eating triggered mental distress, thus entering a perpetuating cycle.

There is also evidence to suggest that being exposed to stigmatising attitudes meant that people living with obesity limited their participation in activities that would improve both physical health and wellbeing (Lewis et al., 2011). This was particularly reported in respect to using public exercise facilities, for fear of being laughed at, stared at and ridiculed. Weight discrimination also led to periods of social isolation for fear of what would happen in social settings. Lewis et al., (2011) also noted that for some participants in their study, their experience of weight-based stigma meant that individuals did not pursue personal ambitions, including applying to university, filling in job applications, or engaging in new relationships.

#### 4.5 Chapter Summary

Alongside the rise in the prevalence of obesity has been an increase in the negative perceptions of those living with obesity, and research has discussed the impact of weight-based bias, stigma and discrimination that people living with obesity face. In some literature these terms are used interchangeably, however there are subtle differences between them and how they fit on a prejudicial attitude continuum. However, weight-based stigma occurs in a myriad of contexts, including at school, work, in healthcare and even in the home.

A number of hypotheses as to why weight-based stigma occurs have been offered. The most common in the research is attribution theory, with the idea that a person living with obesity has control over their weight and are therefore personally responsible for their condition. This could explain the common stereotypes that people living with obesity may experience, including laziness, lacking in self-control and lacking in will power.

Another common theory is based on the cultural idea of the thin ideal, and what society deems as socially acceptable, and how those living with obesity seemingly go against this trend. This thin ideal is often encouraged in the media, and the media also have a role to play in the negative portrayal of people living with obesity, perpetuating any existing stigmas. Research has shown that weight-based stigma is pervasive, but may be experienced more by females, and that it could be expressed more among younger generations.

However, it is important to understand the implications of weight-based stigma for those living with obesity. Experiencing weight-based stigma can result in people reducing their physical exercise and eating more as coping responses to how they have been made to feel. Mental health is also seen to be negatively affected if someone living with obesity experiences weight-based stigma, and individuals may develop maladaptive coping responses.



#### 5. Implications for Employment

#### 5.1 Introduction

Over the last two decades there has been an accumulation of research into the importance of health and wellbeing at work. Dame Carol Black's (2008) seminal report 'Working for a healthier tomorrow' provided evidence showing the link between good employee health and wellbeing and business, individual and societal outcomes. One of the main conclusions of the report was that if organisations placed an increased focus on improving workplace health then cost saving can be generated for the organisation and the government. The review also recognised the importance for organisations to have a conscious shift in attitude to ensure that both employees and employers understand and recognise the importance of preventing ill-health so that the workforce is motivated and resourceful. Although rates of sickness absence in the UK are reducing, both musculoskeletal disorders and mental health conditions are cited as the most common causes. Reducing long-term sickness absence is both a UK government and organisational priority.

Alongside this health and wellbeing focus, there has been an interest in the 'good work' agenda. Waddell and Burton (2006) in their review reported that good work and health and wellbeing were closely related and that work is generally good for health and wellbeing, but "the provisos are that account must be taken for the nature and the quality of the work and it's social context; jobs should be safe and accommodating" (page ix). The Taylor Review (2017) propelled good work back into the policy agenda, acknowledging that all should have access to 'good quality work', and if this was provided then this could have important implications for both health and productivity outcomes. A number of factors lead to 'good work' including:

- Secure employment
- Autonomy, control, ownership and task discretion
- A fair workplace
- Effort-reward balance
- · Learning, development and skill use
- Employee voice
- Strong working relationships
- Line management support
- Varied and interesting work

With the rise in employee long-term health conditions, putting employee participation with such conditions in work at risk, it is becoming more important than ever to develop work environments where everyone has a chance to fulfil their full potential. But, for some employees, there are still barriers and stigma preventing 'good work', and for those living with obesity this could be the case.

It has been argued that employees with obesity are not as productive as average weight employees, for example:

Goettler et al., (2016) in their systematic review looking into obesity and productivity reported
that the majority of studies found that employees living with overweight and obesity cost
organisations more in short-term sickness absence costs in comparison to average weight
employees. Employees living with obesity missed more time from work and worked less
productively whilst at work (resulting in higher indirect costs). There was also evidence to

suggest that employees working with obesity displayed higher organisational costs as a result of increased levels of presenteeism. Public Health England (2014) also reported that in 2014 there were 16 million days of sickness absence reported as a result of obesity. People living with obesity have an average additional 3.1 days of absenteeism in comparison to those of average weight.

- Nigatu et al., (2015) found that work functioning (defined in their study as the ability of
  employees to meet demands) was significantly lower in employees living with obesity as
  compared to overweight or average weight employees. In particular, scores for physical
  demands were significantly lower in workers with obesity (which could have an impact on the
  type of roles and tasks they are able to complete).
- NICE (2013a) and Black (2016) reported that individuals living with obesity are less likely to be in employment, suggesting that having obesity could itself be a cause of unemployment.

Alongside this has been the notable rise of the 'aesthetic labour market', where employers specify personal characteristics they are seeking in their employees, as well as the job-related skills that are necessary. The theory behind the aesthetic labour market started from a range of observations that certain 'service based' sectors (eg retail and hospitality) put terms such as 'outgoing', 'attractive' and of 'smart appearance' in job adverts (Karlsson, 2011). The term has now become translated into the popular term of 'looking good and/or sounding right' (Nickson, Warhurst and Dutton, 2004), with lookism now being considered as a key feature of the contemporary workplace. Nickson, Warhurst and Dutton (2004) had found that employers do recognise the need to look good is very important, can help to create a distinct image, but can also provide a competitive advantage (especially in retail and hospitality). This aesthetic labour market could be seen as a barrier to those living with obesity.

There is accumulating evidence to suggest that this could be related to the level of weight-based stigma that individuals living with obesity experience throughout all stages of the employment cycle. Do employees living with obesity have access to good work?

# 5.2 Employment Stages

The previous chapter discussed how the prevalence of weight-based stigma was common in a range of settings, in which employment is cited. Gabel et al., (2009) reported that employers in their study were more likely to view obesity as a result of poor lifestyle choices, or that it was preventable (87 percent) than out of an individual's control (41 percent), or futile to treat (18 percent). In their review into the stigma of obesity, Puhl and Heuer (2009), found that:



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- In a study of women who were living with overweight and obesity, 25 percent of participants reported experiencing job discrimination because of their weight. Additionally, 54 percent reported weight-based stigma from their co-workers or colleagues and 43 percent reported weight-based stigma from their employers or supervisors.
- Examples of weight-based stigma reported by employees in organisational settings include being a target of derogatory humour and differential treatment.
- Results from the National Survey of Midlife Development in the US found that employees who
  had overweight were 12 times more likely, employees living with obesity were 37 times more
  likely and employees living with severe obesity were 100 times more likely than average weight
  employees to report employment discrimination.
- Women were 16 times more likely to report weight-related employment discrimination than males.
- Among individuals who had reported weight discrimination at work, almost 60 percent had experienced this type of mistreatment at least four times during their life.
- Survey results found that 26 percent of people living with obesity and 31 percent of people
  living with severe obesity reported discrimination in the workplace which was attributed to
  both their weight and their appearance. Additionally, those living with severe obesity working
  in professional roles were more likely to report discrimination in comparison to those in nonprofessional roles.

Thus, it appears that weight-based stigma in employment is pervasive, and there is research suggesting that this happens at every stage of the employment cycle.

#### 5.2.1 Recruitment and Selection

Weight-based stigma has been seen to occur at the recruitment and selection phase of the employment cycle. Early research in this area suggests a lack of education by employers regarding the causes of obesity, leading to stigmatising recruitment and selection decisions. Chernov (2006) found that employers predominantly viewed obesity as within an individual's control, resulting in common stereotypical beliefs of people living with obesity as being lazy, less conscientious and incompetent. The research also noted that people living with obesity were not selected for roles as they may not 'fit' into the organisations representational image, and they may have physical limitations meaning they would not be productive, especially if physical activity was an important part of the role. However, and crucially with regards to weight-based stigma, this is not a true reflection of an individual and their actual ability to undertake a role, just the employers perception of what an individual living with obesity may or may not be able to achieve. Similarly, Morris (2007) suggested that weight-based stigma can occur in the recruitment and selection process as a result of common employer stereotypes (and the negative outcomes are greater for females than males) surrounding an individual's health and competence at work.

Giel et al., (2010), conducted a literature review looking into weight-based stigma in work settings, as studies have suggested that physical appearance can lead to stereotypical beliefs regarding the actions and behaviours of those living with obesity. The results indicated that there is a range of evidence showing the potential influence of applicants' BMI on hiring decisions. In many of the studies, subjects were asked to judge job related qualities and the employment outcomes of respective candidates based on written descriptions or photographs/videos of job applicants who were of various weights.

#### Studies found that:

- Using photographs and videotapes, students in studies making recruitment and selection decisions were less likely to recommend the candidates living with obesity for fictional positions.
- In a study where actors allowed for other physical confounds and played candidates both at an average weight and living with obesity, subjects still recommended the applicant with obesity less frequently for recruitment, and were even less likely to choose female applicants with obesity than their male counterparts (even when all other information given was held constant, eg job qualifications, degree results).
- There was also evidence to suggest recruitment of applicants in the presence of an individual
  with an increased BMI could be negatively affected. One study found that when a fictional
  candidate was photographed sitting next to someone living with obesity they were rated as
  being less desirable for hiring in comparison to when they sat next to someone of average
  weight.
- The research also found that obesity could also be a barrier to certain professions. For example, individuals living with obesity are underrepresented in managerial and technical occupations (for both men and women), whereas women living with obesity were overrepresented in administration and service classification professions.
- Potential job candidates living with obesity when applying for sales positions were more likely to be placed in telephone sales roles than in face-to-face positions.

HR professionals are usually trained and experienced in recruitment and selection processes to be aware of discriminatory and common judgemental errors that could have a negative impact of employee outcomes. However, Giel et al., (2012) found that HR professionals are also prone to displaying weight-based stigma in recruitment and selection situations, as those living with obesity were disqualified by 42 percent of HR professionals as applicants they would absolutely not hire. Additionally, only 2 percent of the study participants credited females living with obesity with having the ability to work in an occupation of high prestige such as medical doctor or architect.

Flint et al., (2016) argued that the hiring process in employment is an important area for research given this is the first point in the employment cycle where weight-based stigma can be displayed, and it could have further implications for discrimination when in work and also for unemployment. Their research provided evidence to suggest that people still report negative implicit and explicit attitudes towards individuals living with obesity, and a belief that obesity is controllable. In fact, more negative attitudes were reported towards people living with obesity when there was a stronger belief that obesity is controllable. When the workplace required more physical activity, greater stigma was displayed towards female candidates with obesity. Personal suitability to organisational roles were judged to be significantly different when photos of candidates were shown. Candidates with obesity were judged to be significantly less suitable than average weight candidates. The research also provided evidence to suggest that candidates with obesity applying for work in more active environments received more weight-based stigma than in non-active environments. The researchers concluded that irrespective of the level of physical demand in the role, candidates living with obesity were perceived to be less suitable for the role, when compared to candidates of average weight. It was thought that typical obesity-based stereotypes contributed to these decisions. Finally, the research also suggests that female candidates with obesity are more likely to receive weight-based stigma in comparison to male candidates with obesity. This finding was also supported by Vanhove and Gordon (2014) who also reported that women were more susceptible to weight-based discrimination in employment, and a candidate's weight had implications for their job opportunity outcomes.

A factor that has been proposed to have an influence on weight-based stigma throughout the recruitment process is physical attractiveness, especially if roles require high visibility, or are customer facing. Allan et al., (2016) cite research supporting the adage that 'what is beautiful is

good', and in recruitment situations, interviewers can draw on positive associations between a candidate and their suitability to the role, based on their perceived beauty. As obesity has been, and sometimes still is associated with unattractiveness, then selection opportunities can diminish for candidates with obesity. Research undertaken by Bartels and Nordstrom (2013) noted that when participants were asked to rate one of four job applicants in their hiring suitability for different level jobs with differing amounts of visibility and physical demands, women who were overweight experienced weight-based stigma when applying for such roles (in both levels of visibility and physical demands).

Carels et al., (2015), provided evidence to support the attribution and weight bias in recruitment. In their study they discussed whether how a job candidate lost weight has an impact on employability, as there is evidence to suggest that individuals who have elected to have bariatric surgery are often regarded less favourably than those who have lost weight through diet and exercise. This was because bariatric surgery is usually deemed as a 'quick fix' and is associated with characteristics of people living with obesity as being lazy and undisciplined. Their research based on a series of vignettes suggested that women who had lost weight behaviourally were more likely to be hired than if they had undertaken bariatric surgery, as they were perceived to be more responsible.

Research has also now been conducted on whether weight-based stigma in recruitment and selection is present among millennials. Allan et al., (2016) noted that for millennials (maybe more so than other cohorts), many hold fewer negative attitudes towards people living with obesity, as it is thought they place a higher value on workplace diversity. In their study Allan et al., (2016) reported that a slightly larger percentage of the millennial candidates would select an average weight candidate over the candidate with obesity for an available position, but that the difference was 'neither sizable in magnitude nor statistically significant'. The data found that although some discriminatory attitudes towards people living with obesity remained, they did not appear to translate into stigmatising behaviours when millennials were selecting job candidates.

# 5.2.2 Wage Penalty

In her 2016 report Dame Carol Black reviewed the evidence on the employment impact of obesity and noted that the so-called wage penalty faced by people living with obesity averaged out at 10 percent (Black, 2016). The review did not look in great depth at the causes of this penalty nor the groups which were most affected. She did however make the link between obesity and income, raising a legitimate question about the direction of causality in this relationship. It makes sense to conclude, for example, that people on low incomes have an elevated risk of overweight or obesity. The work of Marmot et al., in 2020 and many others have highlighted the links between poverty, employment and health inequality on obesity. Another perspective on the income obesity link argues that living with obesity is associated with lower wages and household income because of gaps in educational attainment, the impact of obesity on health sickness absence and productivity, and because of stigma and discrimination in the job market and in workplaces. Unpacking the complexity of these relationships is difficult as is capturing reliable data on all of the variables, but several recent studies have helped to shed more light on not just the magnitude and persistence of the obesity wage penalty but also on its main drivers.

The wage penalty has been a particular focus for the Purpose Programme because of our interest in the impact of stigma and discrimination on work outcomes for people living with obesity and our interest in quantifying the economic and productivity consequences for the UK economy, for employers and for people living with obesity themselves. Our findings are stark:

• The overwhelming evidence is that it is only women living with obesity who experience the obesity wage penalty. Indeed, some studies suggest that men living with obesity enjoy a small wage premium and that men are only subject to a wage penalty if they are living with clinical underweight (Lee et al., 2019).

- There are many studies which have sought to quantify the obesity wage penalty for women
  and although these estimates range between 0 and 20 percent the consensus is that an 8 to 10
  percent gap in average earnings is the most likely. Most of these studies use existing data sets
  and apply a range of univariate and multivariate techniques to isolate the association between
  obesity and wages.
- It is not just in the annual earnings figures that this wage penalty appears. There is strong evidence of a cohort effect, with adolescent obesity contributing to a wage penalty in early to mid-career. One study tracked women both in 1979 and 1997 (Brown and Routon, 2018). The obesity wage gap for those in the 1979 cohort was 8 percent and 10 percent for those in the 1997 cohort, suggesting that the penalty was widening across generations. Sargent and Blanchflower (1994) found that 11-year olds living with obesity received 3.5 percent lower wages than colleagues of average weight when they were 23 years old. These conclusions are supported by other reviews of the evidence (Reiband et al., 2020).
- In addition, women living with obesity at the age of 16 have a 34 percent lower household income at the age of 42 compared with women of average weight (Black et al., 2018).
- There is evidence that women's earnings peak at a BMI of 20 to 22 and then steadily decrease as BMI increases. One study suggested that a one-point increase in BMI is associated with a decrease in wages of 0.6 percent (Caliendo and Gehrsitz, 2014). Another calculated that one standard deviation increase in BMI resulted in a 16 percent decrease in the hourly wage rate received by women living with obesity (Campos-Vasquez and Nunez, 2019). Chu and Ohinmaa (2014) found that, for women, a one-point increase in BMI led to 4 percent reduction in personal income 4 years later.
- Maralini and McKee (2017) found that wage rates for women fell consistently beyond a BMI of 32
  and that the probability of being married declines with BMI, with a concomitant impact on the
  household incomes of women living with obesity.
- One study found that the obesity wage penalty was considerably lower in unionised workplaces (Debeaumont and Nsiah, 2016), and another found that women living with obesity who were also mothers earned 6.7 percent less than mothers of average weight and 8.3 percent less than women living with obesity who had no children (Trombley et al., 2018). The same study found that women living with obesity who are single mothers faced an average wage penalty or 7.6 percent per child.
- Another way that income for women living with obesity can be reduced is if they need to reduce
  their hours or even leave the labour market prematurely. In a recent study Linaker et al., (2020)
  found that severe obesity (BMI >40) predicted prolonged sickness absence from work after
  adjustment for age, and also health-related job loss (HRJL) after adjusting for age, proximity to
  retirement, financial difficulties, lifestyle factors and the existence of other health conditions.
  The authors concluded that stigma and discrimination were likely to be significant contributors
  to these poor work outcomes once other confounding factors were controlled for in their
  analysis.

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These studies are all describing wage penalty effects which account for higher rates of part time working among women in most countries and they are all assessing the size of the wage penalty by taking into account the existing gender pay gap. So, what is going on here?

There are several explanations for the obesity wage penalty experienced by working age women. Four of the most common are described briefly below:

- Human capital differences: That women living with obesity have lower educational attainment, have limited work experience, and are subject to occupational segregation into lower-paid, lowerskilled and lower-status work. Recent work by Buder (2020) finds a strong link between obesity, 'occupational prestige' and both health and employment outcomes for women.
- **Life-course barriers:** That women living with obesity find it harder to shake off the health and education inequalities of childhood and adolescence and that they risk living in lower income households because they are less likely to marry or cohabit than women of average weight.
- **Health difference:** That women living with obesity have more health conditions and comorbidities which affect their ability to find and retain work. These health conditions lead to reduced functional capacity, increased sickness absence and an elevated risk of premature withdrawal from the labour market for health reasons.
- **Stigma or 'taste based' discrimination:** That women living with obesity are subject to systemic discrimination in the jobs market and in workplaces which means that they are sorted into low paying jobs for which they may be over qualified where opportunities for job and pay progression are constrained, and where negative stereotypes and weight-based stigma are common and normalised.

It has traditionally been difficult to construct studies to test the relative impact of these sometimes overlapping explanations. However recent evidence suggests that when each of these factors is controlled for in statistical analysis of cohorts of women living with obesity, none have the explanatory power of stigma or taste-based discrimination. Two studies have both found that negative outcomes for women living with obesity remained even when human capital and other health differences were stripped out of the analysis (Bozoyan and Wolbring, 2018; Linaker et al., 2020).

The conclusion from this review therefore is that the multiple employment disadvantages already experienced by women living with obesity are being compounded in a very tangible way by a pervasive wage penalty which, for many, is established in adolescence and follows them into adulthood and throughout their careers.

So, what are the costs of the obesity wage penalty to women living with obesity to the wider economy in terms of tax revenues, spending power and consumption? Our analysis has looked at four scenarios based on different estimates of the size of the obesity wage penalty ranging from 2 to 13 percent. These estimates are well within the upper and lower estimates suggested by numerous studies with a suggested 'central' case being based on a 9 percent wage penalty. The results of our scenarios are presented in Table 2, below.

#### Wage Penalty for Women in the UK - Four Scenarios

## **Baseline Assumptions:**

- 1. Average annual earnings for women in the UK: £25,000
- 2. Over 15.6m women in employment in the UK (Devine and Foley, 2020)
- 3. 30 percent of adult women in the UK are living with obesity
- 4. A total of 4.6m working women in the UK are living with obesity

## Scenario One - a 2 percent wage penalty

- A 2 percent reduction in annual earnings for a woman living with obesity is £500
- A £500 per annum wage penalty for all employed UK women living with obesity equates to a wage penalty £2.3bn each year

#### Scenario Two - a 5 percent wage penalty

- A 5 percent reduction in annual earnings for a woman living with obesity is £1,250
- A £1,250 per annum wage penalty for all employed UK women living with obesity equates to a wage penalty £5.75bn each year

#### Scenario Three - a 9 percent wage penalty

- A 9 percent reduction in annual earnings for a woman living with obesity is £2,250
- A £2,250 per annum wage penalty for all employed UK women living with obesity equates to a wage penalty £10.35bn each year

#### Scenario Four - a 13 percent wage penalty

- A 13 percent reduction in annual earnings for a woman living with obesity is £3,250
- A £3,250 per annum wage penalty for all employed UK women living with obesity equates to a wage penalty £14.95bn each year

These figures suggest that the obesity wage penalty, especially for women, represents a considerable financial cost to individuals and their families, and may also result in a reduction in both tax revenues and spending power in the wider economy. The wage penalty may also be playing a role in perpetuating existing employment and health inequalities. Given the evidence of a life-course impact, these data also give further impetus to efforts to reduce childhood obesity,

especially if wage disadvantage is 'baked in' to the work and career prospects of some children even before they leave full-time education.

## 5.2.3 Employee Relationships and Wellbeing

One of the aspects of good quality work is the importance of strong working relationships and support at work. However, there is evidence to suggest that employees living with obesity may not have such positive employee relationships, and this may have an impact on their health and wellbeing at work.

Lewis et al., (2011) in their study of how people living with obesity perceive the stigma they experience, included examples of when individuals had encountered weight-based stigma in employment, which on many occasions led to feelings of isolation and shame. Certain situations in the work environment could make employees with obesity feel embarrassed, and there are circumstances that average weight employees do not have to think about, but for an employee with obesity can create a great sense of distress. For example, one participant described 'the daily humiliation and distress caused by seating options where work meetings were held' (page 1352). The participant said: "we've got couches where we have our office and work meetings, and everyone sits on the couches. And I don't fit. And I have trouble getting out of them because they're low. It's just distressing and embarrassing" (page 1352-1353). On many occasions participants in the study discussed how they felt powerless to address such forms of stigma, and that they lacked collective forms of support to advocate for change. The participants also said that weight-based stigma had an impact on their emotional health and wellbeing, especially in relation to their feeling of self-worth and self-esteem.

Obara-Gołębiowska (2016) analysed personal and subjective experiences related to weight-based stigma against female employees with obesity in Poland. Participants often described feeling negative emotions, including humiliation, sadness, anger at themselves and others, and experiencing a sense of injustice. For some, experiencing weight-based stigma had a negative impact on their motivation, but for others it increased their motivation to improve their self-esteem and get respect from their colleagues and employers. From interviews with the participants, employees living with obesity commented that: managers had made comments about their suitability for a role as a result of their post-pregnancy weight gain; co-workers made teasing comments about their weight; they were excluded from out of work social gatherings; had pressure put on them by their managers to be more active at work so that they lose weight; and felt embarrassed to eat their lunch in front of colleagues, as they had previously remarked about the amount of food they were consuming. As a result of the stigma, interviewees mentioned that it resulted in significant mood disturbances, emotional discomfort and social isolation.

There is a convincing body of evidence to suggest that social support and social networks are important for health and wellbeing, and that social support in work settings could be beneficial for buffering negative workplace conditions and stigma (Kungu et al., 2018). Employees who report having greater perceived support have documented feeling that they have a greater capacity to cope in such situations as the social resources and support they receive reduces the level of stress and other maladaptive cognitive, emotional and behavioural responses (Hargrove et al., 2011). It has been hypothesised that employees with obesity may benefit from informal support from colleagues and supervisors, especially as they are not afforded protection from Equality legislation and often other formal organisational policies (Griggs et al., 2013). Supervisors are important for providing valuable feedback to employees, whereas colleagues can listen and empathise with each other. Kungu et al., (2018) undertook research looking into the role of social support for those experiencing weight-based stigma at work. Their results indicated that BMI was positively correlated with chronic job discrimination, and negatively associated with family and friend

support. Chronic job discrimination was negatively correlated with supervisor support, co-worker support, family support, friend support and religious support. Average weight respondents had significantly less chronic job discrimination scores in comparison to those living with obesity and severe obesity and reported more family and friend support (although these differences were small). The results also found that family support, supervisor support and co-worker support were significant in predicting a decrease in chronic job discrimination scores. Finally, the relationship between BMI and chronic job discrimination decreased in magnitude when different forms of social support were present. Supervisor support was also found to be an important factor in reducing weight-based stigma at work and could serve as a key part of an organisation's mission to offer a counter narrative to any stigmatising messages in organisations.

The impact of weight-based stigma on the wellbeing of employees with obesity was also studied by Magallares et al., (2011). They highlight that other vulnerable or stigmatised groups have reported reduced wellbeing and were interested to see whether individuals working with obesity would be similarly affected. Results showed that work-based stigma generates a decline in the psychological wellbeing of people living with obesity, where they often displayed reductions in psychological health, self-esteem and life satisfaction. Participants reported a reduced lack of 'belonging', which was associated with reduced wellbeing. The research also found that employees living with obesity who experienced work-based stigma reported a reduced perception of their job skills and believed they were less skilled for certain positions.

Some weight-based stigma in employment research has indicated that female employees are more likely to experience stigma. Ruggs et al., (2015) looked to see if there was any evidence of males living with obesity experiencing workplace stigma and its implications. Their results found that males with overweight or obesity were not immune to interpersonal discrimination in retail employment settings and were subject to more negative treatment in comparison to their average weight counterparts.

Van Amsterdam and Eck (2019) explored how women working with overweight and obesity managed their stigmatised identity at work so as to ameliorate their social status and reduce the social exclusion that they may experience. Participant narratives showed that employees with overweight or obesity felt impelled to project a professional identity at work, against the backdrop that people with obesity are ugly and unfashionable. One participant commented that, "For me it is really important to look well-groomed, because I will get judged sooner than someone else" (page 50). By cleverly choosing work outfits to 'smarten up', participants indicated that they tried to conceal their body fat as much as possible, to mitigate negative reactions from others in their workplace. They also spoke about trying to 'hide themselves' in organisational spaces so they did not stand out as much as other colleagues. The researchers explained that this behaviour indicated that women with obesity at work may anticipate stigma, and so attempt to make themselves less visible.

The research also highlighted behaviours that employees with obesity displayed to overcome the common obesity stereotypes. These could include working extra hours 'so they were taken more seriously', with one participant commenting that the fear of obesity stigma fed her perfectionism; "I often feel like I am not taken seriously and therefore I go the extra mile. So when I have to deliver a report, I check it an extra time. I really want to prove that I do things perfectly...I notice that I compensate in case of possible prejudices, I try to make sure I don't comply with these prejudices." (page 51). Others have used tactics such as visibly wearing badges that show their qualifications (to counteract the stereotypes of low status and reduced educational opportunities) and using humour to highlight positive attributes. The research concluded that employees with obesity have to undertake a vast amount of extra work to manage their identity at work, so they do not reinforce the commonly held stereotypes that still exist regarding people living with obesity. This resulted in a lot of emotional stress for the individuals and the feeling that they had to 'perform' at work.

## 5.2.4 Progression and Promotion

Another reason why obesity stigma in employment situations should be addressed is because it can have implications on progression and promotion opportunities (Levay, 2014). In their review of the literature, Giel et al., (2010) reported on a number of studies where obesity was seen as a barrier to professional success and progression. For example, in one study employees with obesity were assigned to unfavourable positions, or areas where sales are challenging, or with fewer opportunities to perform well and be recommended for a promotion to higher positions. Another study where participants were asked to evaluate the promotion prospects of hypothetical employees without health problems, or those with health problems (including cancers, an amputation, diabetes and obesity), candidates with obesity were less likely to be recommended for promotion than their disabled counterparts, despite having the same qualifications.

In a study where HR professionals were asked to make career decisions about employees, based on photographs where individuals differed with respect to gender, ethnicity and BMI, Giel et al., (2012) noted that candidates with obesity were nominated significantly less often than the non-ethnic and non-overweight counterparts for a supervisory position. Average weight candidates had a 4.6 times higher chance of being nominated in comparison to the candidates with obesity. The researchers concluded that HR professionals show an overestimation of the prestige and capabilities of average weight employees, and an underestimation when someone has obesity. Only 6 percent of the HR professionals considered a female employee with obesity to be suitable for a supervisory position.

Similar findings were discussed by O'Brien et al., (2013) who conducted a study where participants were asked to assess female employees with obesity, and female average weight counterparts who were applying for managerial positions. The results indicated that the candidates with obesity were rated significantly lower in comparison with average weight candidates, receiving more negative responses on leadership potential, predicted success, salary, total employment ratings and rank order of preference.

Lindeman et al., (2017) specifically looked at the messages of the causes of obesity (in this study related to an individual's level of control over their obesity), and how this affects the level of workplace stigma somebody may experience. They highlighted how in previous research female employees with obesity were more likely to experience stigma in disciplinary actions and decisions, so wanted to investigate how supervisors reacted when employees made mistakes in the workplace. The results of the study suggested that when the message that obesity was controllable through lifestyle factors was offered, this increased the likelihood that women with obesity in the workplace were treated differently – in this study, they were more likely to be withheld a pay rise or a promotion when an error was made in comparison to an average weight counterpart. Conversely, when their weight was related to uncontrollable causes no stigmatising behaviour was reported.

Lewis et al., (2011) provided an example of weight-based stigma in their study of experiences of individuals living with obesity. As well as participants receiving diet advice and 'healthy eating tips' whilst at work, some had direct experiences of being warned about lack of career advancement and progression opportunities as a result of their weight, and were also informed that their weight was compromising their workplace performance. For example, one participant in the study said: "The manager told me that I had to lose weight because it was affecting my work. I work on the web, making websites available to people with disabilities. My weight is completely irrelevant. I was so stunned that she thought that she could call me on that." (page 1352).

One important aspect that is often used in determining an employee's progression or promotion opportunities is the performance appraisal. Bento et al., (2012) proposed that performance appraisals should be fair and based on a 'foundation of rationality, objectivity and impartiality

in decision making' (page 3196), so that they can motivate employees, and are fair. However, an employee who is in a stigmatised minority or an outgroup (which in some organisations employees with obesity may be) may experience intended, or unintended stigma in performance appraisal situations. While appraisals ideally should be objective and fair, they are still vulnerable to bias in a number of ways. For example, the role of the individual performing the appraisal is significant with regards to how they perceive and store information about a stigmatised group, and how they filter this information when making performance decisions. If possible, implications of weight-based stigma should be ignored in appraisal decisions for processes such as pay rewards, access to training and development and promotions, as this could have negative consequences for employees with obesity.

Bento et al., (2012) also argued that individual factors in both the employee with obesity and the appraiser can influence outcomes. How individuals living with obesity present themselves at work, their overall health conditions and their ability to cope with the physical demands of a role are important in how they may increase or reduce any stigma related to obesity. Appraisers may also vary with their experiences of working with employees who have obesity, or how they feel about their own physique could have an impact on their cognitive and behavioural responses. Finally, the researchers also discussed the importance of the factors that were included in the performance appraisal and how these could lead to more stigmatised behaviours. For example, is an individual's contribution to a task being fairly assessed, how visible and measurable are their inputs and outcomes, and how reliable are self-reviews/peer reviews that can also be included in appraisals are factors that should be taken into consideration. The authors concluded that it is important to understand the nature and prevalence of obesity stigma in organisations as this could have implications for the appraisal and the wider organisational reward decisions that are typically tied to performance.

## 5.2.5 Employment Retention

In January 2019, it was reported that Pakistan International Airlines sent an internal memo to all their cabin crew, with the warning "Lose your weight, or lose your job". The memo sent to 1,800 cabin crew staff members warned staff that they would be grounded if they are overweight and would not be able to work until the weight was lost. The memo continued by warning staff that their weight would be measured over the coming months, and if they had 'excess weight', then they would be given monthly weight targets to lose. If the cabin crew did not reach these targets, then they would be suspended from their in-air duties. The memo gave no indication about what the desired weight for cabin crew staff was but added that cabin crew are expected to be 'slim' as well as smart and fit. When employees start at the airline, they are however given a suggested weight chart.

The above example is anecdotal evidence suggesting that an employee's weight may be a factor when employment retention issues need to be discussed. However, there is evidence in the literature that obesity can result in instances of wrongful termination of employment. Puhl and Heuer (2009) cited instances in their review of obesity stigma where legal cases had been filed in relation to employees being concerned that they were fired because of their weight despite receiving positive performance evaluations and/or the dismissal as a result of their weight being unrelated to their role. In such cases the authors concluded that employees perceived that weight-based stigma was the deciding factor for job termination. Pearl (2018) also reported that employees with obesity spend fewer years employed. It has been argued that this could be as a result of health-related disabilities, but weight-based stigma could also play a role.

Commisso and Finkelstein (2012) studied the role of physical attractiveness bias in employee termination. Having reported on evidence showing that employees deemed to be more

physically attractive have greater opportunities for selection, progression and pay, they wanted to know whether physical attractiveness protects employees from 'the bad stuff' – in this case job termination. Although there can be many reasons for employee termination, it has been hypothesised that physical attractiveness (which can include weight-based bias) can play a role. Their research indicated that there was a slight bias in the termination of employment based on physical attractiveness, in that employers were more likely to terminate contracts of those perceived to be unattractive, in comparison to those moderately or extremely attractive. In addition to this, employees perceived to be unattractive were liked significantly less than those perceived to be moderately and extremely attractive (based solely on photographs), indicating that stereotypes can have an influence on decision making. Although in this study obesity was not the main focus, it is commonly reported that people perceive those living with obesity to be unattractive, and thus the results could be transferred to weight-based stigma in termination.

## 5.2.6 Unemployment

Evidence also seems to suggest that there is a link between obesity and unemployment. NICE (2013) reported that those living with obesity were less likely to be in employment than those of an average weight. Morris (2007) has provided a number of explanations as to why unemployment and obesity could be related. For example, it has been suggested that as obesity can be seen as a debilitating condition, with all else being equal, employees living with obesity have been reported as being less productive and as a result less likely to be employed.

Magallares et al., (2011) cited evidence indicating that obesity could lead to higher unemployment outcomes. In one study, even after controlling for other variables that could affect unemployment (eg educational level, experience in work), living with overweight or obesity raised the likelihood of being unemployed by 4.6 percent, which rose to 8 percent for women, once again highlighting the greater handicap that women with obesity may experience.

Black (2016) undertook a review to ameliorate the human, social and economic cost of obesity (and drug and alcohol addiction), by addressing challenges in finding work, and the consequences for those affected. In the review there was evidence to suggest that living with obesity could be a cause of unemployment, with the analysis of available data finding that there was a two percentage point gap between the employment rate of normal adults and those living with overweight, and the rate of adults living with obesity. For those classed as living with severe obesity the gap widened to 10 percentage points. These differences can be explained by factors not related to weight, and that a direct causal relationship between obesity and unemployment could not be inferred. Additionally, the review reported that there are many individuals living with obesity in employment, providing further evidence for other factors such as weight-based stigma or organisational cultures contributing to the obesity-unemployment link. There was also evidence in the report that obesity could be associated with early retirement, as individuals with obesity and severe obesity were overrepresented among those aged 55 and above who had retired from work.

The review also reported on the number of individuals living with obesity who were claiming benefits, with the hypothesis that if obesity does lead to job losses as a result of health conditions, then they could be over-represented in the benefits system. Figures found that currently in the UK there are 1,600 claimants of Employment and Support Allowance (ESA), where the main disabling condition was obesity. This was considered to be very low. One explanation for this could be that people living with obesity were claiming for other conditions that are typically associated with obesity, with further analysis suggesting that 35 percent of the ESA case load (or 807,000 cases) have conditions that could be comorbid or associated with obesity.

## 5.3 Chapter Summary

Over the last two decades there has been an accumulation of evidence suggesting that employees who experience good work have improved health and wellbeing outcomes, which can lead to improved organisational and productivity outcomes. The concept of 'good work' has now also been propelled into the policy agenda, but there are questions regarding whether all employees experience good work in their organisational settings.

Although there is some evidence to suggest that employees living with obesity may have reduced productive capacity, this may be because they don't experience good work and be subject to work-based obesity stigma at all important employment stages. Individuals living with obesity experience weight-based stigma during the recruitment and selection process – especially female employees. This was seen in both photograph/vignette studies and qualitative studies discussing lived experiences, and most worrying in HR professionals who have had training to reduce bias in organisational processes.

There is now also a large evidence base suggesting that employees with obesity (especially females) are subject to a wage penalty, even when all other factors are controlled for, indicating that weight-based stigma is prevalent in wages. This wage penalty does represent a financial cost to individuals and their families, which may also perpetuate any existing employment and health inequalities.

Once in work, the level of support from colleagues and managers is also reduced for employees with obesity in comparison to those of average weight, which also has implications for employee health and wellbeing. The evidence also suggested that employees with obesity may not receive a fair performance appraisal, which has implications for progression and promotion opportunities, which may further add to the wage penalty. Lived experience research has highlighted that weight-based stigma for promotion can occur, even when an employee's weight was completely irrelevant to their performance in the role.

Finally, employees living with obesity have a greater propensity for having their employment terminated and being unemployed. Consequently, individuals living with obesity, experience work-based stigma at every stage of the employment cycle.



# Conclusions and Recommendations

Good quality work is, unambiguously, good for our wellbeing (Waddell and Burton, 2006). It provides us with income, generates social capital and gives us purpose and meaning. The wider definition of wellbeing includes dignity at work and workplaces free from discrimination and bullying. It also includes physical and emotional wellbeing. Even when unwell or injured, remaining in work – at least in some capacity – is often better for recovery than long periods away from work. If the UK workforce is to be productive and competitive in the global economy, and if the quality of our working lives is to be enhanced, we need to ensure that we are all, as far as possible, fit for work.

The evidence presented in this report illustrates that a large proportion of working age people in the UK are, or will be, directly affected by the challenges of obesity and the discrimination and health conditions commonly associated with it. As we have seen, these can have very significant social and economic consequences for these individuals and their families, it can impede the productive capacity of the total workforce and parts of UK industry and it can draw heavily on the resources of both the NHS and the social welfare system.

There is no shortage of clinical, epidemiological, psychological and economic evidence on the nature, extent and consequences of the obesity problem in the UK. Despite this, there still seems to be a lack of coherence or 'joined-up' thinking and action which focuses sufficiently on people living with obesity as workers rather than as patients.

The Purpose Programme has a number of recommendations for stakeholders in this area. While we acknowledge that there have been considerable improvements in our understanding of the causes and consequences of obesity as a public health issue in the last two decades, much more needs to be done to promote better, more inclusive and less discriminatory practices both in the wider UK labour market and in many if not most UK workplaces. Below we set out some of the steps which some of the key players in this field must take to recognise that more can be done to ensure that continued active and fair participation in the labour market for people living with obesity is almost always a strongly positive force for health, fulfilment and for prosperity.

# 6.1 Recommendations for Employers

- Include obesity and overweight explicitly in your equalities, diversity and inclusion policies. Obesity is a risk factor for many health conditions which already fall under the provisions of the Equalities Act. This means that recruitment, progression and pay equity, together with access to workplace adjustments should be open to all employees and that discrimination based on disability, health conditions or impairment related to obesity may violate these provisions.
- Ensure that any requirements for employees to comply with standards of appearance, personal grooming or dress while at work should avoid any provisions which could be interpreted as direct or indirect discrimination against employees living with obesity. This is especially, but not exclusively, relevant to female employees in customer-facing roles, where research suggests that such discrimination is most common.
- Review any workplace health and wellbeing practices, or health promotion policies to ensure
  that these are supportive of, and not stigmatising towards, employees living with obesity. This
  includes the use of health risk assessments (HRAs) which collect data on BMI, cholesterol etc.
  Ensure that employer-sponsored weight-management, nutrition, exercise programmes and
  related initiatives no matter how well-intentioned are designed, implemented and evaluated
  in conjunction with employees and that any risk of these interventions perpetuating weightbased stigma is eliminated.
- Focus on capacity not incapacity. It can be easy for employers to concentrate on the ways they believe that employees living with obesity and related health conditions may have

their attendance, performance or productivity at work impaired by their weight. However, this mindset can obscure the fact that most workers living with obesity can make a great contribution at work if they are given a 'voice', supported and if they are not subject to stereotypical attitudes or expectations.

- Encourage safe and supported disclosure of work-limiting health conditions by employees, including those health conditions related to obesity and overweight. In doing so, employers should recognise that fear of stigma (and self-stigma) may inhibit some employees living with obesity to come forward. It is also important to recognise that depression or anxiety can also affect some people living with obesity, especially if they are living with pain (eg from osteoarthritis) or other symptoms (eg hypertension) and if they have been the subject of inappropriate or hurtful comments or discrimination from customers, clients or co-workers because of their weight or appearance.
- Imaginative job design can assist job retention and rehabilitation for employees with health
  conditions associated with obesity and overweight. Managers can change the way work is
  organised (including simple changes to working time arrangements) to help prevent poor health
  getting worse and to help employees living with obesity to return to work after any absences
  from work. They need to do this in a way which preserves job quality, avoids excessive or
  damaging job demands and takes heed of ergonomic good practice.
- Intervene early. Employers should always take action sooner rather than later to support an
  employee whose health may affect their attendance and performance at work because caution
  and delay can only make matters worse. Employers who behave compassionately and make
  decisions on rehabilitation and workplace adjustments based on evidence and on expert
  opinion, find that delivering early interventions can benefit the employee and the employer.
  In practice, this means early involvement of occupational health (OH) expertise. In addition,
  vocational rehabilitation, carefully organised and tailored to the individual, can make a real
  difference to the success and sustainability of return to work plans, productivity, morale and
  performance.
- Try to avoid a 'risk management' mentality when supporting employees living with obesity, this can underplay the contributions they make to the productive capacity and social capital of organisations and can perpetuate the notion that they a 'liability' rather than an 'asset' to the business.

## 6.2 Recommendations for Employees

- If you feel you have been subjected to unequal treatment, discrimination or bullying which you attribute to weight-related bias or stigma, a good first step is to find an 'advocate' or supporter who can help you navigate through both the policies of your employer or, indeed, employment law, to assess whether you have been treated unfairly. Some people prefer to have informal discussions first with their line manager, an HR professional, a colleague or a trade union representative and this may lead to an amicable resolution of the problem. The decision to escalate a complaint or a grievance might be best taken after informal discussions have taken place and if your concerns are still dismissed, denied or contested. Employees experiencing discrimination often fear making things worse or being branded as a 'trouble maker' and if you fear that making a formal complaint will lead to further stigmatisation or anxiety, then you should review your position with the support of a trusted third party (union official, ACAS, Citizen's Advice, Obesity UK etc). These bodies will advise on what evidence you need to bring a complaint or grievance and how to keep your day to day relationship with your employer and co-workers professional if you decide to take your complaint further.
- If you have health conditions which are related to your weight, it is important that you play an active part in their management. Long-term health conditions such as type 2 diabetes or arthritis can sometimes make you feel that they are controlling your life at home and at work. But you don't need to be a passive victim of pain, fatigue, low mood or immobility. Find out more about your condition, watch for patterns in pain or fatigue and learn how you can minimise their impact on your functioning and your emotional wellbeing. This can sometimes be very hard to do, but persevere people who play an active part in the management of their health condition tend to have fewer days off through sickness and get back to work more quickly.

Know your rights. As both a patient and as a worker you should know what support and advice
you are entitled to. Your employer should have a staff handbook or a collection of policy
documents setting out your rights at work and your line manager or HR manager should make
this accessible to you. If you are a trade union member, your union should be able to guide you
on much of this

## 6.3 Recommendations for Healthcare Professionals

- Identify where job retention or early return to work is good for patients for whom obesity and related health conditions are causing sickness absence from work or are associated with work-related impairments. It is easy to assume that work is bad for your patient, especially if you suspect that aspects of their job or the work environment makes their symptoms or their exposure to discrimination or bullying worse. The Fit Note process allows you to send a clear message to employers about what they can do to help an employee remain active at work. For example, staying at work on lighter duties or with adjusted hours might still be a better option than a prolonged absence from work. The bottom line is that healthcare professionals should always ask themselves whether helping an employee with obesity or related health issues to stay in or return to work is a positive clinical goal of treatment, referral or commissioning.
- Think beyond the physical symptoms. Bring to bear your understanding of the biopsychosocial model and the limitations of the biomedical model in your diagnosis of the patient and most importantly your assessment of the role that their job might play in helping them stay active and avoid isolation. Healthcare professionals in Primary Care, for example, are ideally placed to identify the early presentation of many obesity-related health problems and any comorbid mental health issues. Where appropriate, you should provide appropriate support and seek to refer patients to specialist teams or support services as early as practicable, to enable the management of the condition to begin in ways which support continued working.
- Avoid catastrophising. A patient can hold a very negative view of the causes, impact and likely consequences of their obesity and any related health conditions if the way that clinicians present it focuses on incapacity rather than capacity.
- Encourage self-management. Try to ensure that the patient can adopt strategies to manage aspects of their own condition, especially if they are staying in or returning to work. A feeling of empowerment and control will help their mood and ensure that they can keep on top of important aspects of their health while at work.
- Early intervention. The evidence suggests that long periods away from work are usually bad for patients living with obesity and related conditions. The longer they are away from work, the more difficult it is to return. Early action, preferably in partnership with the patient and their employer, can help achieve a balance between the individual's need for respite and their need to work.

#### 6.4 Recommendations for Government

- Provide clear guidance to employers on the legal status of obesity discrimination in employment. If obesity itself is not to be included as a 'protected characteristic' under the definition contained in the Equalities Act, then clearer guidance should be made available to clarify which obesity-related conditions are included within it's scope and what legal duties this implies for employers.
- Help make GPs more effective in handling occupational health issues related to obesity and related health conditions. This will require an input into GP training, through the General Medical Council, and medical training at all levels from undergraduate to continuing professional development would benefit from inclusion of health and work issues.
- The government should, as part of its Obesity Strategy, embed the principle that work must be a priority clinical outcome of care, recognising the benefits of staying in, thriving in and returning sustainably to work. This principle should be reflected in a number of different aspects of policy and practice, for example:
  - » Commissioning & referral in Primary care.
  - » Clinical guidance and Care pathways.
  - » Shared decision-making tools and protocols.
  - » Including more routinely the 'voice' of people living with obesity in the shaping and evaluation of government policy relating to obesity and employment.
  - » Clinical trials, where work status should be recorded routinely among subjects and as an outcome measure.
  - » The government response to the forthcoming National Food Strategy (part 2) and the role which employers might play in delivering on its recommendations.
  - » Better coordination of effort between policy makers in Whitehall and the in the devolved administrations to ensure that data, good practice and innovations are shared, especially where interventions to improve labour market outcomes for people living with obesity are being formulated.
- The work of the Government Equalities Office (GEO) and the Employers Health and Inclusive Employment (EHIE) Unit in the Department for Work and Pensions should also should reflect that the public health implications of obesity in the UK also have consequences for labour market access, social inclusion, equality of opportunity and productivity.
- We need some better measures to assess the social, economic and work impact of obesity to allow NICE guidelines to take these more explicitly into account when evaluating treatments and therapies through Health Technology Appraisal (HTA). Changes to the NICE Statutory Instrument would allow them to take appropriate account (the so-called 'societal perspective') of the benefits of full and active labour market participation.

#### 6.5 Recommendations for the Media

- In the UK the public conversation about obesity lags far behind other areas of equality and
  inclusion. For too many commentators, it remains acceptable to use stigmatising language to
  describe the causes and consequences of obesity. We recommend that all major media outlets
  (print, broadcast and online) adopt and adhere to the guidelines on language promoted by
  Obesity UK.
- The media should use person first language (eg putting people before a characteristic of disability). For instance, rather than using "obese people are likely to...", people first language would be "people with obesity are likely to...". Labelling an individual by their disease or disability is dehumanising, and is becoming increasingly uncommon with other conditions, thus obesity must be given the same respect as other diseases.
- Non-stigmatising images when reporting on obesity should be used. Images used when discussing obesity in the media are often depersonalising and only continue to contribute to weight-based stigma. The media should avoid imagery that places an unnecessary emphasis on excess weight, or isolates certain body parts (eg the abdomen, or things), and images in which individuals living with obesity are partaking in stereotypical behaviours (eg eating fast food, or engaging in sedentary behaviour). The media should instead use appropriate photographs, videos or images that show people living with obesity (of all ethnicities) engaging in diverse activities, careers and lifestyle behaviours, in appropriate fitting clothing and appearing well-kept, and in an environment that is free from any additional characteristics.
- The media needs to avoid the use of weight-based stereotypes (eg that people living with obesity lack willpower or are lazy), as well as avoiding ridiculing those living with obesity for the purpose of humour. When discussing obesity, the media should consider using unoffensive language and appropriate terminology.
- It is important to consider what is published and accessible to audiences. The media should refrain from publishing articles that contain stigmatising attitudes, and report or condemn other outlets who publish stigmatising articles, as is already done for other protected characteristics such as race and mental health.

The Purpose Programme has further work planned in many of these areas and we will be publishing more evidence-based guidance, tools and research reports on the employment and labour market consequences of the high prevalence of obesity across the UK's working age population. In doing so, we hope to be able to play a part in engaging employers, healthcare professionals, people living with obesity, policy makers and others in a forward-looking and more enlightened debate about how we can make work a more fulfilling and productive experience for people living with obesity.

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