Are unfair and avoidable obesity inequalities being addressed or worsened? A review of UK and Scottish Government policy.

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❖ Abstract

Obesity is a complex condition that embodies a myriad of health problems. While physical inactivity and poor diet can lead to obesity, it cannot explain obesity inequalities which exist over a social gradient, with lower socioeconomic groups more likely to be obese than higher socioeconomic groups. As social determinants of health contribute to barriers and facilitators to good health, the obesogenic environment contributes to the barriers and facilitators of obesity. This environment is unfair as it disproportionately affects lower socioeconomic groups across physical, economic, political and sociocultural factors. The political factor also demonstrates that obesity inequalities are avoidable as they have widened as a consequences of policy action and inaction. To suitably address these issues, upstream, structural policies are needed to tackle the obesogenic environment, as opposed to simpler behavioural policies. Using discourse analysis over a variety of Government documents, primarily policy plans, this paper shows that Scottish and UK Governments are now addressing the unfair obesity inequalities, thus making them less avoidable. While this is not done so without flaws, both governments have taken large strides in the last decade to ensure obesity inequalities are not worsened.

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1. Introduction

Obesity is a complex condition that embodies a myriad of health problems such as cardiovascular disease, diabetes mellitus, osteoarthritis, and some cancers (Allen et al 2012), and it has become, "one of the most challenging health concerns to have arisen in the past couple of decades" (WHO 2008, page 62). The rise in obesity has been referred to as an "epidemic", as one billion people worldwide are believed to be overweight and at least three hundred million obese (Devaux et al 2011). In 2014/15, England saw 525,000 patients admitted to hospital with obesity as the primary or secondary diagnosis; 949,000 items were prescribed for treatment of obesity; in 2015, 27% of the population was obese, compared to 15% in 1993; and, in 2016 the net cost of treatment was £9.9m (NHS Digital 2017). Obesity is further complicated as, "there is growing concern with the increasing prevalence of in industrialised countries, a trend that is more apparent in the poor than in the rich" (Reidpath et al 2002, page 141). As countries move through the epidemiological transition, where the primary causes of death move from infectious to chronic, obesity rates and social profiles of countries change (Law et al 2007). The social distribution of obesity has reversed over time; where it was once common in richer groups, it is now seemingly more prevalent in poorer groups (Hojjat 2017).

Explaining growing obesity inequalities, and its origins, are complex (James et al 1999). At its most fundamental level, obesity is caused by hyperphagia – eating beyond one's energy needs on a chronic basis (Allen et al 2012). In 2002, WHO identified physical inactivity and poor diets as key lifestyle risk factors, which contribute to the acquirement of obesity (Jepson et al 2010). While the underlying health consequences of obesity are rooted in science and genetics, this may not reveal why obesity follows a social gradient (Drewnowski et al 2010).

Figure 1 demonstrates differences in obesity rates among male and female adults in the UK depending on their equivalised household income, with the gap as big as 22% between females in the second lowest household income quintile and highest income quintile.

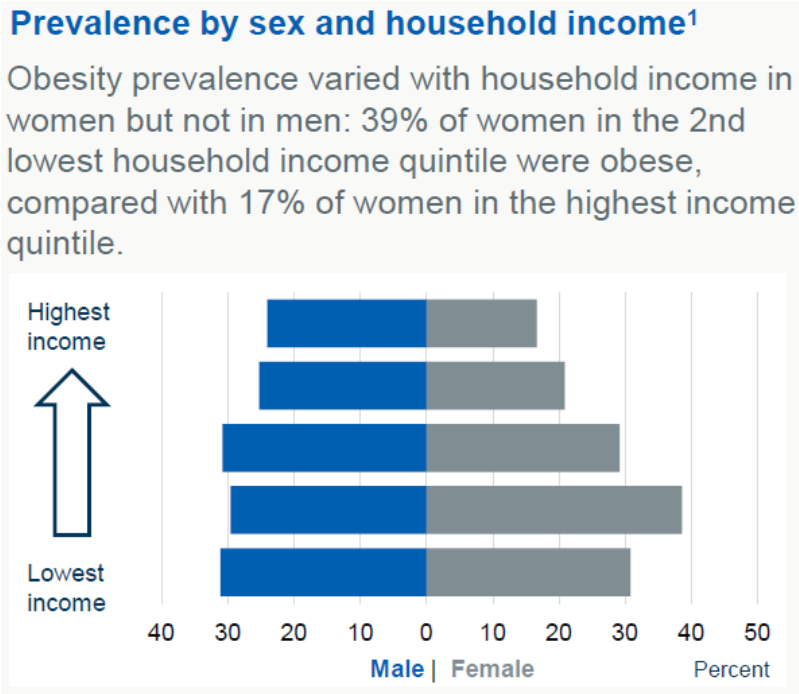

Figure 1: NHS Digital 2017

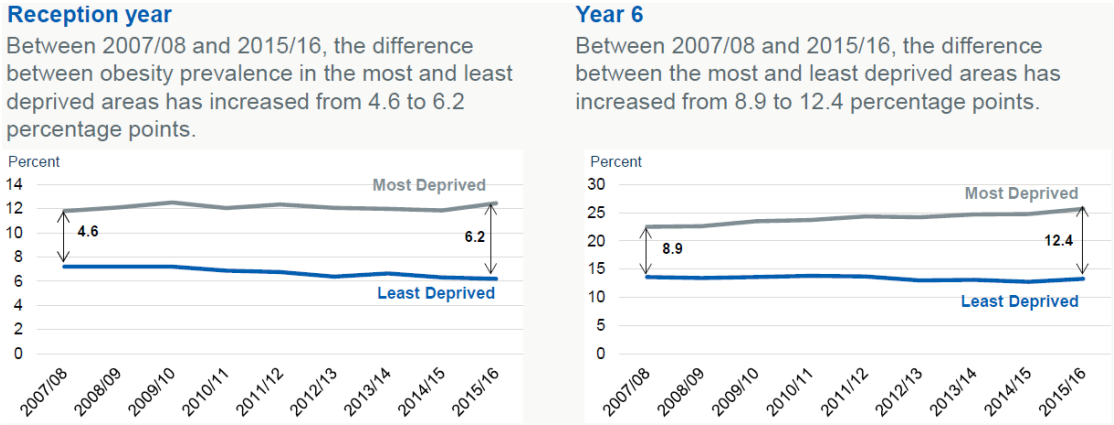

Figure 2: NHS Digital 2017

This gradient is replicated between children in the most deprived areas of the UK and the least deprived, as shown in Figure 2, also indicating that inequalities are growing as children mature, hinting this trend will continue into adulthood.

Picket et al (2005) displays, in Figure 3, this is a consistent trend across 21 rich countries where income inequality is significantly related to obesity among men and women. It also suggests the UK is one of the worst offenders in having a high percentage of obese persons and is also among the highest in terms of obesity and income inequalities.

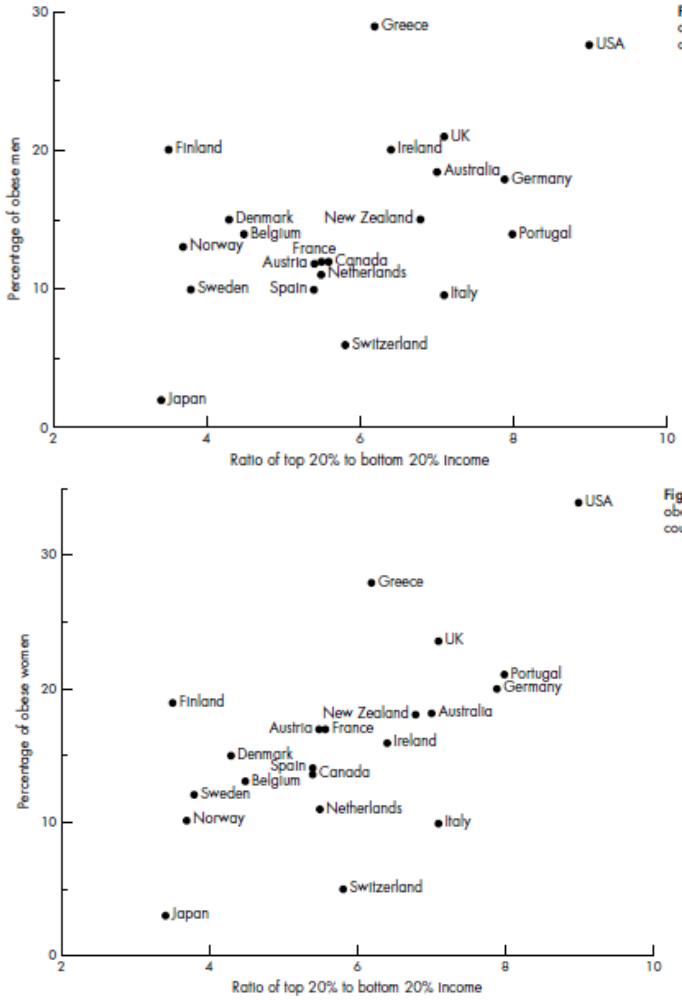

Figure 3: Pickett et al 2005

To understand this pattern, obesity must be understood within a wider context of health inequalities, which are the, "the unfair and avoidable differences in people's health across social groups and between different population groups" (NHS Health Scotland 2015, page 1). Health inequalities are unfair because they do not occur randomly, or by chance, but are socially determined by circumstances largely beyond one's control. They are also

avoidable as they are the consequence of political and social decisions (NHS Health Scotland 2015).

Health outcomes are partially attributable to biology, however, suggesting inequalities are unfair indicates external factors beyond individual control are also accountable (who.int). Therefore, it could be argued that, "social injustice is killing people on a grand scale" (WHO 2008, page 26).

The Black Report (1980) introduced four theoretical approaches to explaining health inequalities: artefact, natural and social selection, structural and behavioural. The first two theories overlook the role of society in shaping health outcomes, the first arguing there is no causal link, and the second that poor social conditions are a consequence of poor health. The structural approach explains health is constructed by people's socioeconomic circumstances, affecting people's lifestyles, life chances and consequently their health. The behavioural proposition argues that individuals choose their health outcomes. Black believed health inequalities were down to a mixture of the structural and behavioural theories. Similarly, Young et al (2016) believe there are three primary causes of obesity: genetic/biological factors; individual behaviours; and systemic/social factors. Black (1980), claimed that tackling individual behaviours and structural factors could minimise inequalities in health, with the former, and distribution of health and wealth, playing the most significant role in creating differences in health. Acheson (1998) argued both upstream (structural) and downstream (behavioural) policies were necessary, while Marmot (2010) introduced the psychosocial theory which placed individual's behaviours at the behest of social factors, aligning with the idea that inequalities are unfair.

Krieger (2001) claimed health inequalities are a social production, mitigated by barriers created from political and economic institutions and policies. Thus, "poor and

unequal living conditions are, in their turn, the consequence of deeper structural conditions that together fashion the way societies are organized" (WHO 2008, page 26). These barriers and constructs are known as the social determinants of health (SDH). SDH indicates how the structural elements can lead to, or deprive of, one's good health, life chances and life choices. Examples of SDH include living conditions, education, employment and access to transport (Bambra et al 2010). Marmot (2005) contended that while inequalities in the social determinants in health and poverty persist, so too will inequalities and the 'causes of the causes'.

This arcs back to the idea that health inequalities are avoidable. If SDH is the root cause of this issue, it suggests political and social decisions, "result in an unequal distribution of income, power and wealth across the population and between groups" (NHS Health Scotland 2015, page 3). This encompasses the unequal distribution of money; control, force or influence over one's actions, or those of others; and, material and capital assets. Figure 4 illustrates how these fundamental causes of wider inequalities, those of income, power and wealth, escalate and cascade into many aspects of social life, and that political action here could abate wider environmental influences on health that may ultimately effect one's individual experiences and the subsequent ramification on one's health chances (NHS Health Scotland 2015).

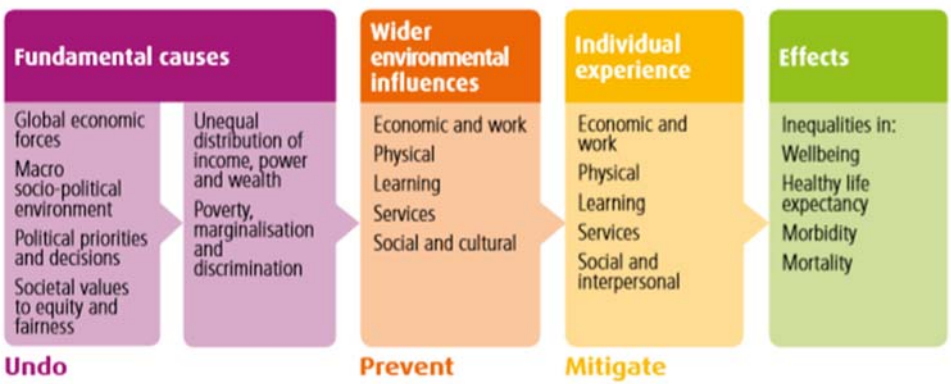

Figure 4: NHS Scotland 2015

NHS Health Scotland (2015) assert that, persistently over time, those who possess income, power and wealth have had better health, and inequalities in access to these resources are shaped by social, political and economic processes; which are dominated by those with these resources in the first place. NHS Health Scotland (2016) suggests all humans, from birth to death, have basic rights to all aspects of life, including rights to adequate standards of living, education and health, and believe the existence of health inequalities indicates these rights are being violated. Thus, it could be said that, "everyone should have the same opportunity to lead a healthy life, no matter where they live or who they are" (Baker et al 2017, page 8), however, only, "when our human rights are fulfilled, we can live free from oppression, discrimination and poverty" (NHS Health Scotland 2016, page 2).

This paper will consider obesity inequalities in the same context as wider health and social inequalities, and attempt to demonstrate why they too may be referred to as unfair and avoidable. This will provide the basis for the literature review, which suggests that barriers and facilitators to obesity arise from the obesogenic environment, and will look at whether these are unfairly distributed in lower socioeconomic groups. The literature review will also explore whether obesity inequalities could be treated as avoidable, by looking at policy trends and how policy narratives are used. It will then explore what governments are being urged to do to address obesity inequalities before looking at what the Scottish and UK Governments have been doing to tackle this over that last decade. By doing a policy review, this paper will compare government policies to what has been deemed necessary in tackling obesity, and determine whether they have worsened the alleged unfair and avoidable nature of obesity inequalities.

2. Literature Review

a) Obesity inequalities are unfair

If SDH is referred to as external factors influencing one's life choices, obesity inequalities may be characterised as the obesogenic environment – an, "environment with particular physical, social and economic characteristics considered to contribute towards the propensity of bodies to be or to become obese/fat" (Colls et al 2014, page 733). The food environment in Western and westernised societies is symbolised by the widespread availability of low cost, energy-dense and highly palatable foods, as well an abundance of external cues that keep thoughts of these foods and beverages virtually ever present in one's mind (Martin et al 2014).

The obesogenic environment implies negative surroundings and conditions in which people live, that can affect access, availability and opportunity to lead a healthy lifestyle, and encourages individual and population obesity (Foresight 2007). Environmental factors linked with obesity are: physical (availability of foods), economic (cost of foods), political (rules on foods), and sociocultural (beliefs towards foods) (Harrington et al 2009). Martin et al (2014) believe the combination of these factors result in the obesogenic environment.

Gauthier et al (2013) feel the obesogenic environment can be separated into two concepts – microenvironments and macroenvironments. The microenvironment concerns itself with physical and economic factors, such as the availability of foods in homes, workplaces and schools, as well as the cost of foods at food retailers. The macroenvironment is related more with political and sociocultural factors, like the provision of public services of transport and health systems; sociocultural pressure via the media, marketing and

advertisement; and the built environment within urban developments. NHS Scotland (2016) refers to these two types of environments as physical (buildings and spaces that make up neighbourhoods) and social (relationships and support that exist within communities). They note that environments can have both positive and negative impacts on health, but warn that these are not distributed equally (NHS Scotland 2016). It is argued that those in areas with greater deprivation are more likely to be exposed to harmful factors than those in less deprived areas, thus, inequalities in environment, "can create serious disadvantages for people living in relatively deprived areas, reinforcing health inequalities" (NHS Scotland 2016).

Turrell et al (2015) indicated twelve factors contributing to the socioeconomic link to poor diets: access and affordability of healthy food; availability to unhealthy food; access to transport; neighbourhood safety; social support and peer networks; time; income; knowledge; beliefs, attitudes and motivations; social norms, preferences and habits; familiarity and tradition; and perceived capabilities. These factors can be considered as barriers to healthy lifestyles and facilitators to unhealthy lifestyles. Kelly et al (2016) developed this idea further in Table 1. They illustrated that health inequalities in diet and physical activity, which contribute to the acquirement of obesity, exist via characteristics of the obesogenic environment such as sociocultural factors, physical environment and economic circumstances.

Table 2. Barriers and Facilitators to the Uptake and Maintenance of Healthy Behaviours by People in Mid-life.

Health behaviour / Theme	Health and quality of life	Sociocultural factors	Physical environment	Access (to facilities and resources)	Psychological factors	Health inequalities
Physical Activity						
Barriers	Physical ailments or chronic conditions	Lack of time. Lack of knowledge. Self-consciousness or social concerns (in women). Low socioeconomic status. More time at home	Neighbourhood safety. Driving instead of walking. Weather	Financial costs. Transport. Lack of availability or access to community physical activity programmes or facilities. Programmes delivered by mobile phones/social networking	Lack of motivation. Low self-efficacy. Perception of lack of capability (in women). Entrenched attitudes and behaviours in midlife	**Ethnic minority groups** Language barriers. Cultural barriers. **Gender** Female gender and gender roles. Hair maintenance **People with disabilities** Barriers relating to the built and natural environment. Barriers relating to cost. Equipment related barriers. Information-related barriers. Emotional and psychological barriers. Perceptions and attitudes relating to accessibility and disability. Lack of resources. **Low SES (as a barrier)**
Facilitators	Enjoyment. Sense of wellbeing/Quality of life. Prevention of illness/Healthy Ageing. Health benefits in general. Previous experience of ill health. Focus on short term benefits. Weight loss/ body image. Specific tools. Integration of physical activity into lifestyle	Support. Being a good role model (men)	None found	Fast, easy websites	None found	**Ethnic minority groups** Type of activity. Having exercise equipment at home **Gender** Physically active, adult, female role models **People with disabilities** Facilitators relating to the built and natural environment. Facilitators relating to cost. Equipment related facilitators. Information-related facilitators. Emotional and psychological facilitators. Perceptions and attitudes relating to accessibility and disability. Resources

Table 2. (*Continued*)

Diet						
Health behaviour / Theme	**Health and quality of life**	**Sociocultural factors**	**Physical environment**	**Access (to facilities and resources)**	**Psychological factors**	**Health inequalities**
Barriers	Misinterpretation of health messages	Social environment around food. Food environment. Eating out of home. Competing priorities. Lack of time. Low socioeconomic status. Unplanned shopping routines. Alcohol consumption. Co-existence of other unhealthy lifestyle behaviours	None found	Financial costs. Food availability. Programmes delivered by mobile phones/social networking. Low SES groups. Access to supermarkets	Lack of motivation. Identity. Perception of lack of capability. Existing entrenched behaviours around eating	**Low SES groups** Access to supermarkets
Facilitators	Clear food choices. Health concerns. Previous experience of ill health. Swapping foods. Weight loss. Specific tools	Support. Social environment around food	None found	Accessibility. Fast, easy websites	Identity	**Disadvantaged groups** Access to supermarkets

Table 1: Kelly et al 2016

For instance, it is indicated that barriers to physical activity such as financial costs and lack of resources inhibit lower socioeconomic groups, while barriers appear to create unequal access supermarkets and better diets in these groups too (Kelly et al 2016).

It is hinted, then, that the obesogenic environment may lead to unfair obesity inequalities. Leaving the political aspect of the obesogenic environment aside, as political actions are more concerned with whether obesity inequalities are avoidable, the other three characteristics of the obesogenic environment will be looked at to examine whether they are unfair.

i. Physical

The built environment is the, "totality of places built or designed by humans, including buildings, grounds around buildings, layout of communities, transportation infrastructure, and park and trails" (Sallis et al 2012). It encompasses a range of different physical and social elements that can influence society. For example, children may be influenced in schools or recreations spaces, while adults might be subject to residential, work and social environment influences. Individual's interactions with these spaces help shape their health, but Papas et al (2007) feel this is accentuated in poorer areas.

It is argued that the physical environment has the potential to affect health through access to amenities (shops, leisure facilities etc.), physical features (greenspaces, pavements etc.), reputation of a neighbourhood (feelings of safety), aesthetics (attractiveness of neighbourhood), and social organisation of local community (social support and capital). The environment can either promote or discourage health, depending on an area's access to these attributes (Poortinga 2006). Sallis et al (2012) consider physical activity as a critical

mechanism by which the built environment may affect health outcomes, and Poortinga (2006) found that lower socioeconomic groups are less likely to engage in sports at least twice a week than other socioeconomic groups. Poortinga also revealed that those less likely to engage in sports are more likely to have fewer social support networks.

Mitchell et al (2008) claim that access to greenspaces, which promote physical activity, can also be psychologically restorative. They found that lower socioeconomic groups had lower exposure to greenspaces, and that income deprivation was lower in areas that had more greenspaces. Meanwhile, Reidpath et al (2002) looked at the escalation of fast-food outlets, believing they further exacerbate obesity inequalities as people in low socioeconomic groups are more prone to being surrounded by them. In looking at the volume of the largest five fast-food chains in Melbourne, Australia, which primarily sell pizza, hamburgers or fried chicken, Reidpath et al showed, in Table 2, there are more fast-food outlets in districts consisting of the lowest income group than all other income groups, and there are less fast-food outlets per person as the income category goes from the lowest to the highest.

Table 1
The number of fast-food outlets, population, and population per fast-food outlet by the median weekly income category from the lowest income group (SES 4), through, to the highest (SES 1)

Income category	Postal districts	Fast-food outlets	Population	Population per fast-food outlet
SES 4	12	29	1,63,589	5641
SES 3	71	109	9,41,527	8638
SES 2	156	171	1,74,442	10196
SES 1	28	22	2,91,093	14256
Total	267	331	31,62,198	9553

Table 2: Reidpath et al 2002

Thus, it appears lower socioeconomic groups face greater exposure to fast-food outlets than higher socioeconomic groups, and may experience more physical obesogenic environments (Reidpath et al 2002). Though it cannot be assumed that this trend is directly transferrable to

the UK, if there was a similar pattern, then the higher levels of fats being consumed when eating out, as shown in Figure 5, could be more concentrated in lower socioeconomic areas.

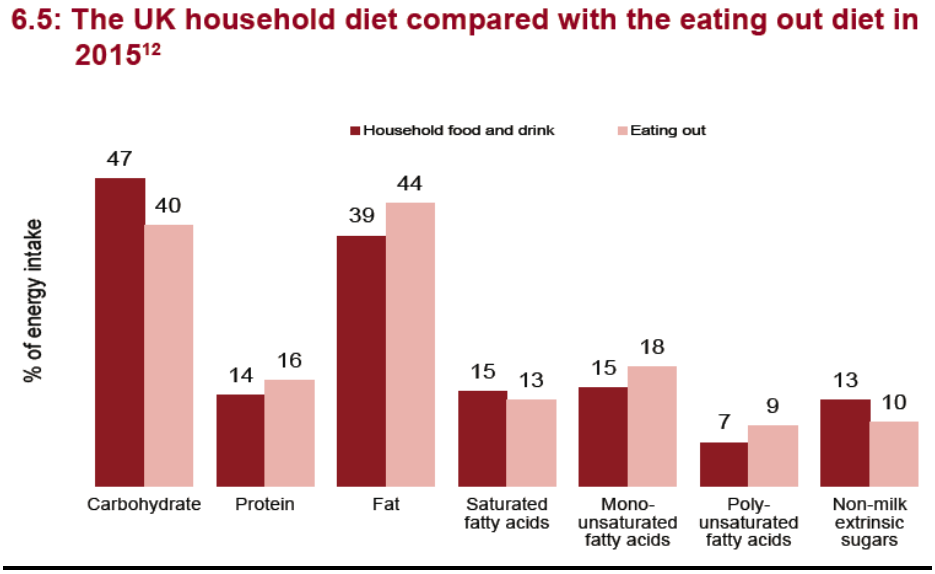

Figure 5: Department for Environment, Food and Rural Affairs 2017

ii. Economic

Drewnowski et al (2010) assert that choosing to have a healthy diet is an economic decision, but as healthier foods cost more, so do healthier diets. Food prices in the UK rose in real terms by 11.5% between 2007 and June 2012, and it is believed any rise in food prices are especially difficult for low income households as it can have a disproportionately large impact on disposable income to spend elsewhere (Department for Environment, Food and Rural Affairs 2017). This is demonstrated in Figure 6, showing that the average UK household spends 10.7% of its total spend on food, while the lowest 20% by equivalised income was 16%.

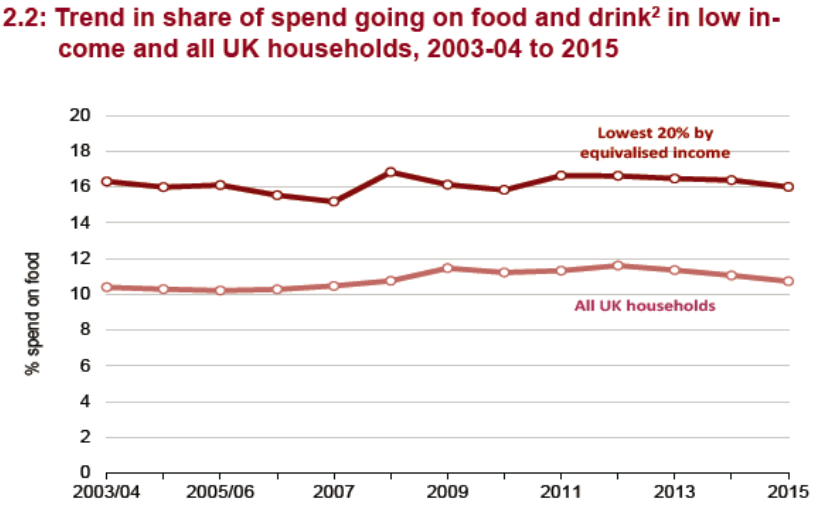

Figure 6: Department for Environment, Food and Rural Affairs 2017

Figure 7 further suggests that choosing healthy diets is an economic decision, as 36% of shoppers named it the most important factor when choosing what to buy, while 90% of shoppers put it in their top five influences.

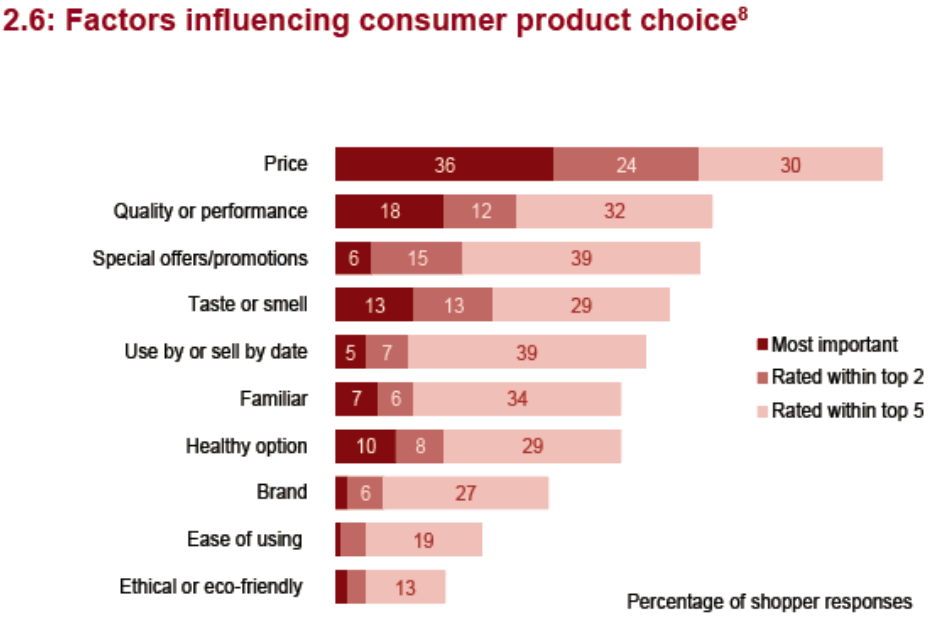

Figure 7: Department for Environment, Food and Rural Affairs 2017

The types of food commonly associated with healthy diets are fruit and veg (decreases risk of cardiovascular disease), fibre (decreases risk of bowel cancer) and oil rich fish

(decreases risk of cardiovascular disease). Meanwhile, foods linked to unhealthy diets include red and processed meats (increases risk of bowel cancer), salt (increases risk of high blood pressure), sugar (increases risk of tooth decay and type 2 diabetes), and saturated fats (increases risk of cardiovascular disease). Poor diets exist across the population, but it is believed that if the most deprived face greater economic pressures, this could lead them to consume more unhealthy foods (Food Standards Scotland 2018). This is because sugars and fats generally provide dietary energy at relatively low costs, and it is this low-cost diet that may predict rising obesity rates (Drewnowski et al 2010). This is exhibited in Figure 8, which hints that lower socioeconomic groups are more likely to purchase more unhealthy foods high in fat and sugar, such as cakes and cheese, and less likely to buy healthy food such as oil rich fish.

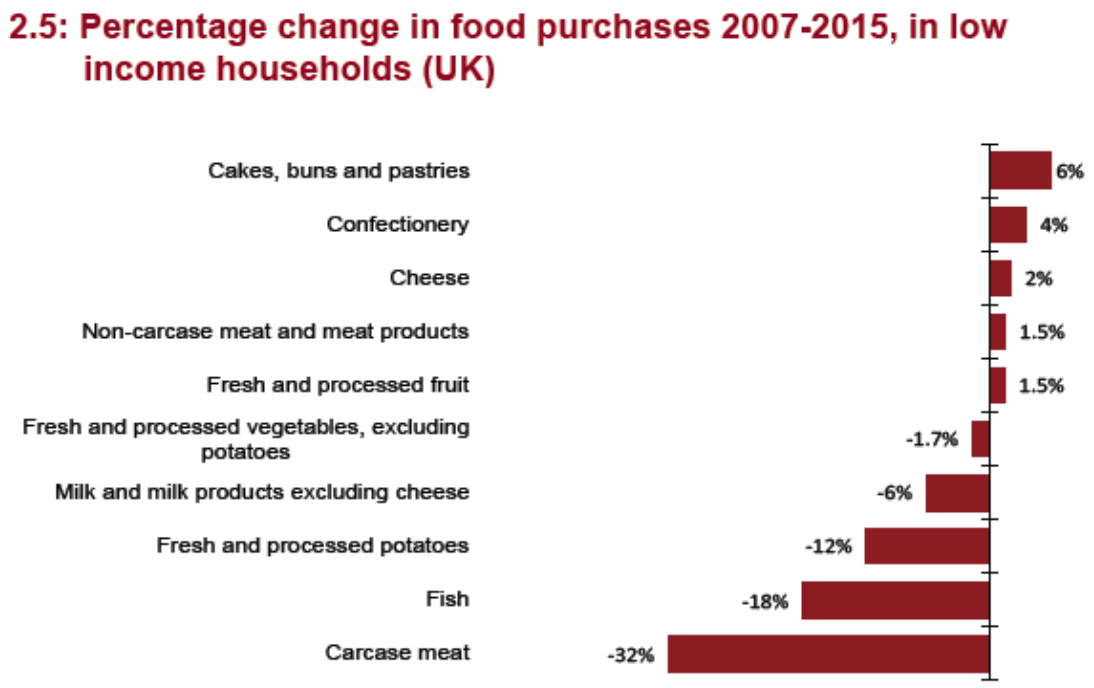

Figure 8: Department for Environment, Food and Rural Affairs 2017

iii. Sociocultural

Cassady et al (2015) argue adults and children as both are subject to their surroundings. For instance, food marketing is said to act as a prompt for automatic eating and, in 2015, 50% of television advertising for food and drink seen by children was for food high in fat, sugar or salt, or for restaurants and bars, while 70% of which was see before the 9pm watershed (Griffith et al 2018). Children are thought to have a remarkable ability to retain visual and aural information, and a trip to the supermarket may trigger recollections of certain adverts (Burki 2018). Children may also be dependent on the social environment and the sociocultural influences their parents or caregivers are subjected to (Gauthier et al 2013). This suggests, that as, as shown, adults in more deprived areas are more likely to be obese, then so too might be their children.

As individual eating habits can be influenced by society, Bambra et al (2010) argues that psychosocial determinants may further exacerbate inequalities, and they become a prominent factor in the determinants of health. The psychosocial element is considered as the way social factors, and the lived experience, affects the state of mind. Psychosocial influences can play a direct role in obesity by (Bell 2017):

- Altering eating habits as dictated by social and cultural norms.
- Affecting food consumption depending on emotional states.
- Weakening reasoning ability to make health food choices.

Giabbanelli et al (2012) suggest obesity can lead to mental health issues, which can develop into a cycle of feeling stressed or depressed about one's weight. It is also possible that stereotypes exist, bringing shame and guilt upon those who are obese, as society pushes towards a culture of healthism and individualism (Rich et al 2005). This is expressed in Table

3, which implies there is a stigma towards obese people, with many of a healthy weight deeming them as lazy, or choosing not to lose weight.

Table 17 Attitudes towards those who are obese by BMI category and sex

	BMI category		
	Healthy	Overweight	Obese
% agree			
Lazy	34	28	18
Lose weight	58	51	47
% disagree			
Appearance	19	16	11
NHS treatment	28	22	16

Table 3: Curtice 2015; Lazy = most overweight people are lazy; lose weight = most overweight people could lose weight if they tried; appearance = most overweight people care less about their appearance; NHS treatment = most overweight people entitled to same level of treatment as healthy people

In 2018, the All-Party Parliamentary Group (APPG) found that 88% of obese people feel stigmatised and 94% believe there is not enough understanding about the causes of obesity among the public, politicians and other stakeholders. APPG contend that stigma associated with obesity affects the mental health of individuals and leads to weight gain, as it generates a loss of motivation, necessary for weight loss, consequently affecting one's self worth, esteem and confidence in dealing with their predicament (APPG 2018).

Healthy eating may contribute to an overall feeling of well-being, but a large proportion of the population is thought to lack basic, material requirements for living, leaving them with a different set of problems and preoccupations. Therefore, they are more likely to suffer from psychosocial determinants (Shepherd et al 2006) (Brunner 2009). Babones (2009) argues that humanity does not focus on each other as equals, and status and social position allow some to have the measure over others. Babones points out that as humans are social

animals, it cannot be a surprise that social environments may affect their health. As a result, Hojjat et al (2017) believe those in lower social positions may suffer from greater anxieties and psychosocial determinants.

It could also be proposed that obesity can become an addictive disorder. Allen et al (2012) argues that obesity matches the seven criteria for substance dependant disorders:

- The need to have more of substance to reach desired effect, or have diminished effect with same amount (rise in consumption of energy rich foods).
- Withdrawal symptoms from substance, or taking substance to relieve symptoms (people eating to ease stress caused from psychosocial determinants).
- Take larger amounts over longer period than intended (portion sizes and energy intake has increased).
- Persistent desires or unsuccessful attempts to cut down (weight cycling, the repetition of gaining and losing weight through diet programs).
- Great amount of time taken to obtain or use (not directly applicable, though people often crave obesogenic food).
- Social or occupational events given up or reduced to substance use (social isolation through stigmatisation).
- Continued substance abuse despite knowledge of consequent health problems (compliance to dietary advice generally poor, people unwilling to give up preferred foods).

The obesogenic environment shows how obesity inequalities may be accentuated by external factors beyond one's control. The prevalence of obesity in lower socioeconomic groups can be dubbed as “deprivation amplification” – a society where individual

characteristics are influenced by environmental determinants (MacIntyre 2007). Tomer (2012) demonstrates in Figure 9 how poor diets and negative lifestyle choices may be the result of a combination of external and internal factors, eventually leading to obesity.

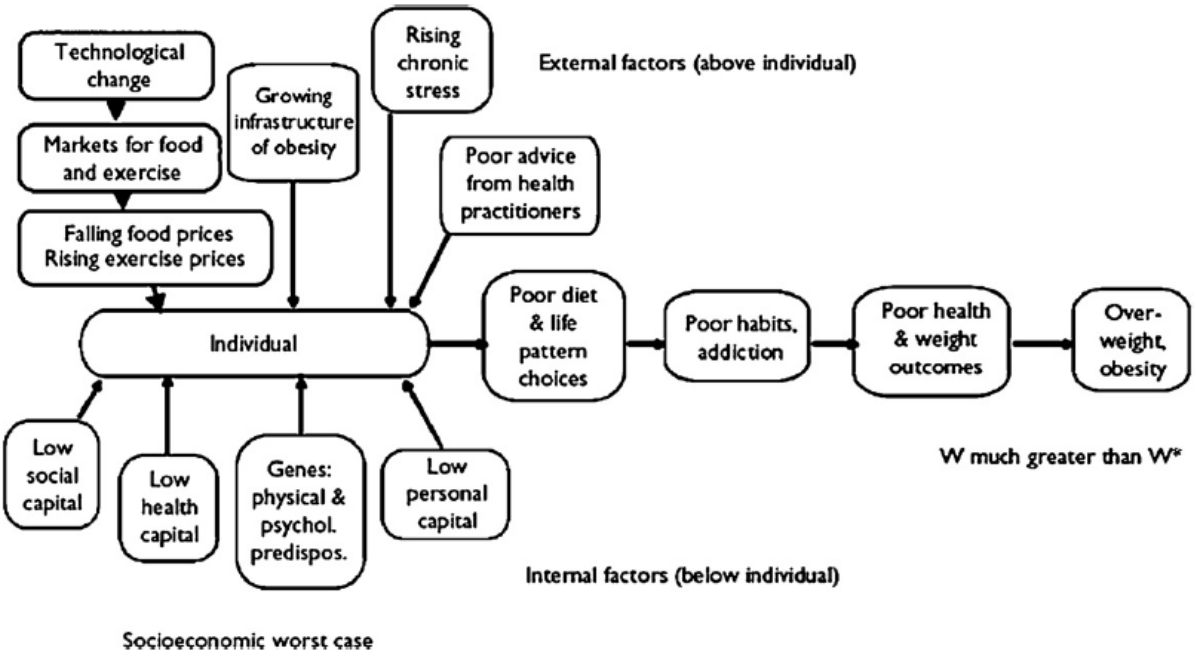

Fig. 1. Factors causing increase in overweight and obese individuals.

Figure 9: Tomer 2012

These factors could affect anyone, but it could also be argued that people in lower socioeconomic groups are more likely to be affected by a greater number of factors because, "people with weak and/or negative social capital are more likely to be vulnerable to the influences of the social and geographical infrastructure toward obesity and the economic incentives regarding food and exercise" (Hojjat et al 2017, page 24)

b) Obesity inequalities are avoidable

To tackle obesity inequalities, "there appears to be a consensus among researchers about the need for upstream, redistributive and public-service-orientated approaches to reducing health inequalities in the UK" (Smith et al 2014, page 15). However, it appears policy, that is, the political factor in obesogenic environments, is dominated by modifying health behaviours and lifestyle choices through individual level interventions (Smith et al 2009) (Katikireddi et al 2013). Table 4 shows that of 129 policies in Europe, 86 focused on behavioural interventions while 43 looked at structural interventions.

Table 1 **Distribution of interventions by type of policy action.**

Policy classification	Total no.	No. in Europe
Interventions supporting more informed choice	*86*	*82*
Advertising controls	6	5
Controls on advertising to children	5	4
Controls on general advertising	1	1
Public information campaigns	39	38
Nutrition education	35	35
For children at school	31	31
For adults/general public (e.g., at workplace)	4	4
Nutrition labeling	5	4
Nutrition information on menus	1	0
Interventions changing the market environment	*43*	*39*
Fiscal measures	4	3
Tax/subsidies on foods to the population at large	1	1
Subsidies to disadvantaged consumers	3	2
Regulation of meals	15	14
School meals (including vending-machine bans and provision of free fruit and vegetables)	13	13
Workplace cafeteria meals	2	1
Nutrition-related standards	1	1
Government action to encourage private-sector action	10	9
Measures to increase availability to disadvantaged consumers	2	2
Liability laws	1	0
Interventions not explicitly targeted at healthy eating	*4*	*4*
Generic interventions	*6*	*6*
Total	*129*	*121*

Table 4: Capacci et al 2011

Without long-term measurements, it was difficult to assess what worked best, but Capacci et al (2011) displayed that there was a bias towards less controversial behaviour policies.

These policies can have positive effects on obesity inequalities, though, as Michie et al (2009) looked at seventeen interventions in industrialised countries that focused on behavioural approaches. They found that nine were effective, seven were indifferent, and

only one had adverse effects. Similarly, Oldroyd et al (2007) looked at six behavioural interventions in industrialised countries, also finding they had a positive effect, but, to a lesser extent in lower socioeconomic groups as opposed to higher socioeconomic groups. Oldroyd et al concluded that as these interventions had some benefits to health, they should not be discounted, but used alongside structural policies.

The use of behavioural policies is thought to follows a rise in behavioural economics in UK politics – a use of subtle interventions and softer governance in securing public compliance, while seemingly leaving the public with a sense of freedom of choice (Mulderrig 2016). Mulderrig argues that behavioural economics is cheaper for the government, and puts the onus on individuals to solve social problems. However, White et al (2009) suggest food choices are not always free choices.

Policies aimed at creating healthy diets seem to assume people have the capacity to make healthier choices, but, despite having the sixth largest economy in the world, in 2014, 10.1% of people aged over 15 (8.4 million people) lived in households with insufficient food and were classified as food insecure in the UK. The term food insecure describes a person who faces limited or uncertain availability of nutritionally adequate, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways. As a result, the number of people requiring three-day emergency use of food banks has risen from 25,899 in 2008/09 to 1,084,604 in 2014/15 (Taylor et al 2016).

Jackson (2017) found that the gulf between the richest and the poorest groups is likely to get bigger too. The labour market is near full, meaning employment will not increase and more work is not available. For those in employment, the incomes of the poorest are falling fast, while the richest will see their incomes rise by a further 4% in the coming years (Jackson 2017). The current tax system is also said to be punishing those with lower incomes as, in

2017, the poorest fifth of the population paid 29.7% of their disposable income on indirect taxes, while the richest fifth paid just 14.6% (Webber et al 2018). This gap in income is relevant as health inequalities appear less harsh in welfare promoting social democratic countries (Brennenstuhl et al 2011) (Mackenbach 2014), while obesity inequalities continue grow in the UK.

Lloyd et al (1995) also argued that securing compliance through choice is difficult to achieve when it comes to obesity, as people are reluctant to diet due to a perceived:

- Reduction in taste quality.
- View that healthy diets are too costly and too inconvenient.
- Lack of family support for changing diet.
- Limit of low-fat alternatives when eating out.
- Lack of knowledge as to what count as effective dieting.

To make behavioural policies compelling, Niederdeppe et al (2015) explain that governments use policy narratives and discourse to highlight its preferred root causes and desired outcomes. For instance, despite obesity being a complex and multifaceted condition, “the public, patients, healthcare practitioners and others, are continually informed that obesity is simple and easily manipulated, which contributes to greater perceptions of individual responsibility, when the evidence suggests that many factors outside of a person’s control influence obesity" (APPG 2018, page 12). This can be regarded as ‘nudge’, requiring careful use of communication through frames and framing (Mulderrig et al 2016).

A frame is a package that involves a description or definition of an issue (explicitly or implicitly), and framing is the selection, emphasis or omission to promote a definition or interpretation of the issue. Framing brands the responsible parties for problems and who

should solve them. Therefore, framing attempts to frame an issue in the eyes of the public, making it the dominant public, political or policy discourse (Jenkin et al 2011). Obesity has been shown to be a complex public issue, but to understand it, the public, media and officials are said to rely on vivid images, narratives and metaphors. This allows policymakers to socially construct the idea of obesity, framing it in policy narratives as a problem either caused by individuals, or the solution being the responsibility of individuals (Husmann 2015). As a result, "the intricacies of such social constructions are alarming as they hamper the policy making process from effectively addressing the issue, instead turning obesity into a wicked, or value-based and intractable problem" (Husmann 2015, page 416).

Policy discourse may frame the issue of obesity using either individualising or systemic frames. That is, framing obesity as government's, businesses and larger social forces being responsible for the issue, with wider social and political reform the solution; or framing individuals as responsible for obesity and making healthy behaviours the solution (Rich et al 2005). It could be suggested that as there has been a tendency to use behavioural policies, policymakers favour individualising frames, which are less likely to burden powerful groups and make political institutions accountable for solving obesity inequalities (Lawrence 2004).

Nathanson (1999)[1] stated there are three key dimensions of how public health risks are framed that influence policy responses: risk is acquired deliberately or involuntarily; universal risk or selective; and arising from individuals or the environment. Stone (1997)[2] added a fourth dimension to this: was the risk knowingly or intentionally created by others? If an issue is framed as being involuntary, universal, environmental and knowingly created, policy responses would be far more likely to burden powerful groups (Lawrence 2004). As

[1] Cited in Lawrence (2004)
[2] Cited in Lawrence (2004)

policies to tackle obesity and its inequalities focus attention on individuals though, it would appear this issue is framed as a selective risk acquired deliberately, arising from individuals.

Schneider and Ingram (1995)[3] proposed four distinct categories of target populations that differ in power and perceived deservedness of policy support: advantaged (the politically powerful and positively constructed); contenders (politically powerful but undeserving of political support); dependants (positively constructed but with little power); and deviants (unworthy of political support and low on political power). Husmann (2015) applied these categories to the context of obesity and its target populations: dependant (obese children who cannot make own rational choices); contenders (food industry who purposefully influence people's choices for profits); deviants (obese individuals, particularly those in lower socioeconomic groups); and advantaged (those with strongest potential for pulling political support). It seems, then, that while the food industry and obese people are considered undeserving of political support, policymakers prefer policies that do not interfere with powerful groups, hence policy narratives and policy solutions are constructed as such.

Rich et al (2015) believe framing obesity inequalities this way pays little attention to ethical implications to people's lives, or to the wider cultural understandings of health and obesity, and it neglects the point "not everyone has the physiological, social and cultural resources to be thin: no matter how hard they try, it may simply not be possible" (Rich et al 2005, page 348).

Policy is determined by the beliefs of the public (Young et al 2016), and in the UK, it appears that the battle to frame obesity in the eyes of the public as individualising frames and obese people as deviants has worked. Table 5 shows that the two least common answers in explaining obesity revolve around social and economic issues.

[3] Cited in Husmann (2015)

Table 8 Attitudes towards circumstances that might contribute to a poor diet or lack of exercise

		Agree	Neither agree nor disagree	Disagree	*Weighted base*	*Unweighted base*
Fast food	%	91	5	4	*2179*	*2188*
Sedentary lifestyle	%	82	8	9	*2179*	*2188*
Time to exercise	%	48	15	37	*2179*	*2188*
Time to cook	%	43	11	45	*2179*	*2188*
Safe places	%	38	15	47	*2179*	*2188*
Healthy food expensive	%	39	11	50	*2179*	*2188*

Table 5: Curtice 2015

Table 6 indicates who the public believe should responsible for solving the problem, with the majority suggesting it should be obese individuals themselves, and only around half citing the food industry and a third citing the government.

Table 10 Perceptions of who should be responsible for trying to reduce obesity

% say should be responsible	
Individuals who are obese themselves	80
Health care professionals	60
Food and drink manufacturers	54
Family and friends of those who are obese	51
Supermarkets	37
Media	36
Government	33
Gyms/leisure centres	28
Companies that help people diet	26
Weighted base	*2179*
Unweighted base	*2188*

***Responses sum to more than 100% as respondents can choose multiple options.*

Note that all of the above figures include 5% that say that all of those named on the list should take responsibility.

Table 6: Curtice 2015

This paper has shown that external factors potentially lead to obesity inequalities, and attribution theory predicts that people will be more sympathetic to others whose weight is

caused by external factors (Young et al 2016). However, seemingly, beliefs and policy solutions have not universally reflected this.

A UK policy example of a behavioural policy response is the Change4Life social market campaign, which, between 2008 and 2011, sought to create a movement which would fundamentally alter the behaviours that lead to obesity. Part of its strategy was to simplify the complex issue of obesity, so that it could be better understood, and be easier to educate people to have healthy diets. By doing this, Piggin (2012) believes it sends the wrong message to citizens about who and what is to blame for ill-health. It also creates a rhetorical battle over causality of the issue, and in the solutions deemed suitable by policy narratives (Piggin 2012). The policy narrative partially contains systemic frames of environmental causes of obesity but promotes the solution through individualising frames. Essentially a nudge campaign, Mulderrig (2016) argues it tries to reach social welfare through cost-effective means, and without challenging market freedoms. Christine Haigh of the Children's Food Campaign proclaimed that this campaign was "insulting" and a great marketing opportunity for the companies involved, but of little benefit to consumers' pockets or health" (Smithers 2011).

c) What's needed

Woodward et al (2000) insist obesity inequalities must be reduced, despite effective policies requiring expensive and sustained commitment for four reasons. Two reasons are that, as suggested, inequalities are unfair and avoidable. Their third argument is that inequalities affect everyone in society. Social issues and corresponding health issues ‘spillover’ to the rest of the population as, “health is an exquisitely sensitive mirror of social

circumstances" (Woodward et al 2000, page 925). Lastly, they argue that potential cost-effective interventions are available to productively tackle inequalities. They believe that by tackling fundamental inequalities, larger gains in health status can be achieved than through similar expenditure elsewhere.

As was shown in Figure 4, fundamental causes of inequalities lead to societal and health outcomes.

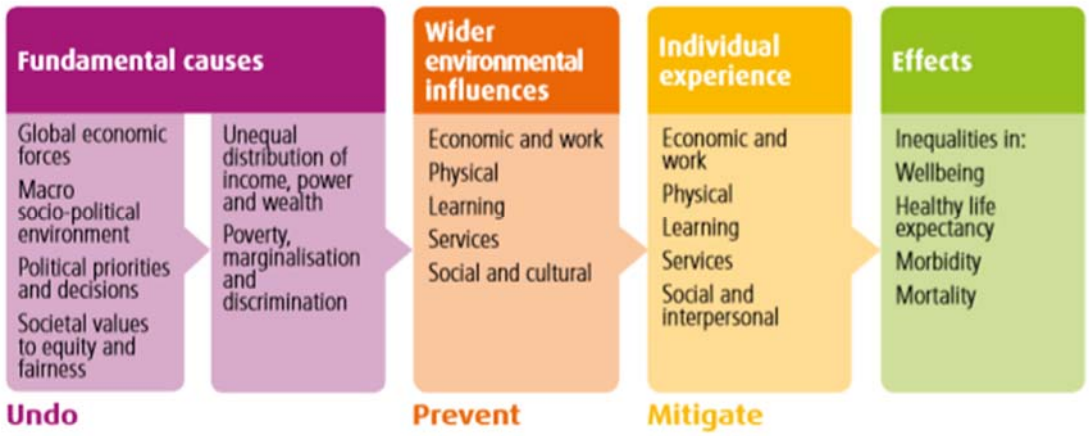

Figure 4: NHS Scotland 2015

NHS Scotland (2015) proclaim that action to address social inequalities will undo health and obesity inequalities, requiring governments to cover a broad spectrum of policy areas. For instance, they could introduce a progressive individual and corporate taxation system that could provide ample income for healthy living for all; or create a vibrant democracy with greater and more equitable political participation. NHS Scotland also recognises that action is needed to prevent and mitigate inequalities. Preventing wider environmental influences should provide fair distribution of good work and high quality accessible education and public services. This is considered the most effective, and potentially the most cost-effective, way of tackling health and obesity inequalities as taxation and regulation can tackle the causes of poor health. Examples include raising the price on harmful commodities or

providing access to high quality green spaces for physical activity. Finally, to mitigate the individual experiences and effects of fundamental causes and environmental impacts, despite not addressing causes of inequalities, policy interventions would aim to provide equal access to services by targeting high risk individuals. Policy examples include providing training for professionals to care for certain individuals, or providing targeted services in areas where they are most needed (NHS Scotland 2015).

Law et al (2007) believe two approaches are important in addressing obesity inequalities: the life-course approach (looking at the causes of inequalities and using prevention strategies); and the ecological approach (addressing the social and environmental effects on individuals). Both approaches revolve around upstream policies to tackle obesity inequalities. Graham (2004) promoted three public policy typologies designed to minimise inequalities:

- Remedying disadvantages: Focus policy exclusively on lower socioeconomic groups, ignoring the wider population.
- Narrowing health gaps: Targeted policy on reducing inequalities between only the poorest and wealthiest groups.
- Reducing health gradients: Population level policy based on providing varying degrees of help depending on socioeconomic status.

Graham believed the use of the final typology in public policy would emphasise action on the structural theory of health inequalities, as well allowing for behavioural action to take place.

Health throughout life is a human right, therefore Bell (2017) believes tackling inequalities must take a life-course approach and not advantage or disadvantage one group over another. Marmot (2010) identified six key policy areas that were needed to tackle inequalities, four of which are across the life-course (Baker et al 2017):

- Give every child the best start in life.
- Enable all children, young people and adults to maximise their capabilities and have control over their lives.
- Create fair employment and good work for all.
- Ensure healthy standard of living for all.
- Create and develop healthy and sustainable places and communities.
- Strengthen the role and impact of ill health prevention.

This is in keeping with the apparent need for population level interventions, but suggests they have to be structural policies, as, "the effectiveness of individual measures to tackle obesity, at a population level, is limited. A different approach to tackling obesity is needed" (Local Government Association 2017, page 8).

Baker et al (2017), of Public Health England, proposed the use of a bottom-up place-based system, as demonstrated in Figure 10, using The Population Intervention Triangle.

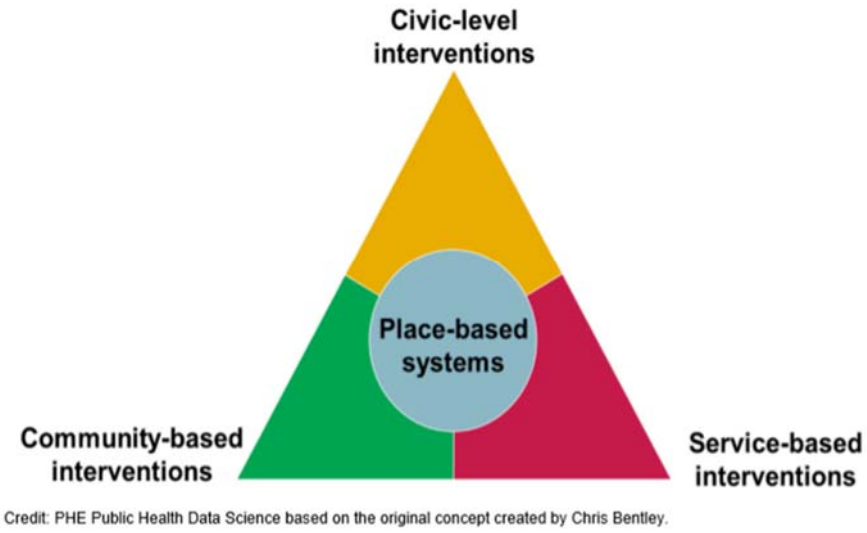

Figure 10: The Population Intervention Triangle – Baker et al 2017

This would entail civic-level interventions (structural), community-based interventions (listening, engaging and empowering communities) and service-based interventions (deliver

services to all to ensure equitable outcomes). At the heart of this system would be people and communities (Baker et al 2017). Empowering people and communities is crucial for health, as it gives one control of their life. Whether this is subjective or objective, control can allow an individual to have psychosocial and/or political control (Bell 2017). However, it is clear from Table 7 that the current system is not providing policy to tackle obesity to its fullest potential.

CURRENT SYSTEM	PLACED-BASED HEALTH
Closed	Open
Separate service silos	Whole system approach
Vertical top down model	Horizontal model across places
Institution led	Person centred
Largely reactive	Largely preventative
Focussed on treating ill health	Focussed on promoting wellbeing
Health in a clinical setting	Wider determinants of health in communities
Services 'done to' citizens	Balance of rights and responsibilities

Reference: NLGN (2016) Placed-based health systems.

Table 7: Baker et al 2017

Current policy is top-down, restricted to health centred policy and reacting to health and obesity inequalities rather than identifying and tackling the root causes (Baker et al 2017).

The Scottish Parliament Information Centre (SPICe) (Grant 2017) conducted research into potential policy interventions for tackling obesity. It combined policy recommendations from the McKinsey Global Institute, Food Standards Scotland, healthcare professionals and from academia, with SPICe finding that the following seven policy intervention areas had been recommended by three or more sources:

- Taxing unhealthy food or drink products.

- Restricting advertising and marketing of unhealthy food or drink.
- Changing the built environment to facilitate active travel.
- Providing health education for parents, children and healthcare professionals.
- Providing healthy meals in schools, workplaces and hospitals.
- Limiting the availability of unhealthy food and drink.
- Better labelling of food, drink and meals.

Table 8 shows only one of these measures is based on education and individual responsibility, while the rest focus on upstream, structural interventions based on addressing the economic, physical and sociocultural factors of the obesogenic environment by looking at themes such as media and marketing and food access and availability.

Theme	Intervention Areas
Economic	Taxing unhealthy food and drink
	Subsidising healthy food and drink
	Removing agricultural subsidies from unhealthy food
	Adding agricultural subsidies to healthy food
Education	Public health campaigns
	Providing health education
	Providing household management education
Environment	Facilitate walking and cycling
	Discourage car usage
	Neighbourhood safety and appeal
	Exercise facilities
	Food facilities
Food access and availability	Access to healthy meals
	Layout and contents of retailers
Food content	Reformulation
	Energy and portion size
Food information	Labelling food and drink products
	Labelling menus
Healthcare	Surgery and pharmaceuticals
	Weight management programmes
	Enabling a healthy lifestyle
	Incentivising a healthy lifestyle
Media and marketing	Advertising
	Price promotions
	Other promotional activity

Table 8: Grant 2017

Bardsley et al (2016) have indicated that there may now be greater public appetite to address inequalities, as 58% of people in Scotland would be willing to pay higher taxes to improve the health of poorer people in Scotland; 61% believe certain people's health is worse than others because of social injustice; 67% believe that some people having lower incomes than others is unfair and because of social injustice; and, 72% say the gap between the highest and lowest incomes is too high.

Perhaps as a result, there have been recent assertions that the "tide seems to be turning" (Pym 2018). Despite presenting obesity inequalities as potentially unfair and avoidable, and lacking action from policymakers to address the situation effectively, "tackling socio-economic disadvantage and narrowing gaps in outcomes are core to what public bodies do now" (Scottish Government 2018, page 17). Customers are supportive of any help they can get with making healthier choices, and politicians are adopting a more activist stance (Pym 2018). Nicola Sturgeon, First Minister of Scotland, has committed to halve childhood obesity in Scotland by 2030 (MacNab 2018). Smith (2013) suggested that Scotland pays more attention inequalities than the UK Government, who have paid this little more than lip service. It would remiss, therefore, not to investigate how and why there has been a change in policy to deal with obesity inequalities, both by the Scotland and UK governments, and whether this is merely rhetoric, or the prelude to minimising obesity inequalities.

3. Methodology

Because the literature appears to suggest that obesity inequalities are unfair and avoidable, and there is a seeming lack of appropriate action taken to tackle the issue, a review of UK and Scottish Government policy is necessary. Especially as there have been recent assertions that the situation may finally be tackled properly, it is important to explore and understand why this rhetoric may be used, and to fully analyse whether it is justified. To do this, empirical research is required, as it is grounded in the belief that direct observation of a phenomena is necessary to measure its reality, thus searching out for the truth of obesity policy (Bhattacharya 2008).

The literature review was inspired by previous academic work on SDH, wider health inequalities and subsequent policymaking. It concluded that the unjust distribution of SDH led to health inequalities, and that this evidence had not stretched to appropriate political actions. During this research, obesity was commonly referred to as a risk factor of poor health. What was especially interesting about obesity was that it appeared to follow a social gradient, epitomising wider health inequalities. By searching for titles related to obesity inequalities, as well as utilising references from other academic pieces of work, this trend became clear. In searching for the causes of obesity, and its inequalities, a wider picture emerged, linking it to the obesogenic environment. With regards to political actions, in searching for titles associated with obesity policies, patterns developed around government favourability of behavioural measures. These pieces of academic work ranged from quantitative research into the number of behavioural polices, to in depth reviews of these policies and the use of narratives in them, all seemingly suggesting that policies had been ineffective, and contributing to the avoidable nature of obesity inequalities. Many of these sources highlighted policy measures necessary to tackle obesity inequalities in consequence

to the behavioural policies they had studied. Some of these studies suggested that obesity be tackled in a similar fashion to tobacco. This could have produced an interesting policy comparison as governments have embraced structural interventions in tackling tobacco, the kind deemed necessary to tackle obesity inequalities, and may have exposed gap in effectiveness between the two target areas. However, given the extent of material available on obesity inequalities, and the possible shifting in policy in tackling it, it was considered that that this paper should focus solely on obesity.

This paper seeks to understand obesity policies. Thus, it is fitting to look at primary sources of information, including policy plans and government consultation papers pertaining to tackling obesity. Looking at policy allows one to consider alternative policies that are expected to produce different policy consequences (Simon 2007). Government policy is an important platform for gaining knowledge over discourses. Policy is not just a document, it is a process which includes influence, policy production and textual expressions. It outlines actions and positions by the state that have direct influence over citizens. They are not written in absolutes, rather they are subject to negotiation, struggle and compromise in formation as well as interpretation of the final document (Spratt 2017). Therefore, this paper takes deliberative policy analysis (DPA) into consideration. This analysis understands that a linear model of policy formulation does not explain how policy decisions are made in tackling obesity. It realises that policies are messy, often built upon existing policies, and subject to governance from multi-level networks and to a wide range of actors. Policy making is pluralistic, leading to conflict between actors. Policy must attempt to find workable solutions for all (Hamilton et al 2007). It is a, "deliberative process of forming practical judgements: deliberative judgement emerges through collective, interactive discourse, the telling and re-telling of stories" (Hamilton et al 2007, page 576). By looking at an array of primary sources,

this paper will be able to show how governments have taken the policy actions they have, as well as highlight the reaction from actors as they react to government policies.

To look at this, one must adopt a methodology, which refers to the acquisition of knowledge (Berg-Schlosser 2016). This paper has used a discourse analysis methodology. However, discourse analysis is also a perspective as well as a method. All research begins with a researcher's philosophy, born out of a basic set of assumptions about the subject, which, in this case is about obesity inequalities and an apparent lack of useful policy to tackle it. Discourse analysis allows the researcher to ask questions about their socially produced ideas around subjects and challenges their "reality" (Phillips et al 2011). Because of this, discourse analysis adopts a constructivist epistemology that requires the researcher to be reflexive and interpretive. Epistemology refers to foundations of the knowledge one holds of the world, and a constructivist epistemology rejects the idea of absolute truth, instead believing that truth is created through one's interactions with the world (Berg-Schlosser 2016) (Gray 2004). As the world is interpreted by individuals based on their version of reality, policymakers may see the world, and what is necessary to tackle inequalities, differently from academics, policy actors, and the researcher.

This further emphasises why it is important to look at an array of documents, to gain as many insights as possible to understand why governments have chosen the action they have. Of course, the researcher too interprets the findings of a policy review and may be bound by their own reality. That is why reflexivity is necessary. Being reflexive is ensuring findings are legitimate, valid and accurate and it is achieved by being self-aware of one's own reality (Pillow 2003). The interpretive nature of discourse analysis does prove a challenge as the researcher must safeguard from analysing the data according to their own interpretation. Discourse analysis cannot be purely neutral or objective (Mauthner et al 2003). Therefore, the findings of the policy review have been judged solely against the evidence presented in the

literature review to avoid my reality interfering with the outcome of the policy review. By allowing the data to do the talking for itself, this paper will avoid academic and moral imperialism (Phillips et al 2011).

Discourse is central to how we live. It makes up how we interact and what we absorb when watching television or reading papers. Today's sociocultural environment is dependent on discourse and the stories they tell (Potter 2004). It is these stories that is the object of discourse analysis. It analyses how language is used and what narratives are created to gain insights. Just as discourse analysis exists in a constructivist setting, so too does discourse itself. Narratives construct their own versions of truth (Hewitt 2009). In doing so, it, "attempts to stabilize, at least temporarily, attributions of meaning and orders of interpretation, and thereby to institutionalize a collectively binding order of knowledge in a social ensemble" (Keller 2015, page 2).

Policies can be understood as practices constituted by narratives, thus are equally trying to convey their own realities as stable orders of knowledge (Abma 2005). The hallmark of policy is its "nonrefutability", that is, positioning itself with high moral posture (Gasper 2000). Policies tell stories to influence actions and social practices, hence narratives are political acts (Abma 2005). Not only is what is written in policy narratives a political act, but so too is what are not in them. Policies frame who and what is included and excluded. They frame problems that need to be tackled by generating the questions posed, with those missing either forgotten or repressed (Gasper 2000). That is why policies must be scrutinised, because while they paint an absolute picture of a problem, they do so subjectively.

Of course, there are advantages and disadvantages of using text for discourse analysis. On the one hand policy only exists in this form, therefore analysing text is of obvious advantage for this research question. Texts are words already printed on a page, which is the

currency of analysis. If one was performing discourse analysis in other forms data collection, such interviews, that data would need to be transferred into text. At the same time, while text is normally naturally occurring and readily available, in the context of obesity policy plans, they are relatively rare (Potter 2004). In the UK and Scotland, there have been a total of six policy plans in since 2008. Not only this, but policy plans are not released with the sole goal of reducing inequalities, but in tackling obesity more generally. Therefore, it is important that policies are fully analysed to identify if governments are taking the necessary steps to tackle obesity and, crucially, to reduce inequalities.

4. Policy Review

a) UK Government

In 2011, Healthy Lives, Healthy People was launched. Believing previous efforts to tackle obesity had failed, it wanted to make it easier for people to make healthier choices. To do so, it stated that a life-course approach was necessary for long- and short-term success in improving health and tackling inequalities, citing fundamental causes for its escalation. The only clear action this policy plan contained was an extension of Change4Life. It required local authorities to create other strategies that would lead to healthy norms. It mentioned the need for environmental changes; to support people; and to understand the role psychosocial factors. However, it did not indicate what or how these steps would be addressed (Department of Health 2011).

Four years later, the House of Commons Health Committee published the report Childhood Obesity – Brave and Bold Action. As the name suggests, it was primarily focussed on tackling obesity among children. Realising campaigns meant to promote healthy choices primarily benefited those capable of changing diets, and likely widening inequalities, it declared few interventions were in place to help obese children, and Government had to look at prevention in the environment. In total, it recommended nine policy areas:

- *Strong controls on price promotions of unhealthy food and drink*: Combat impulse buys and overconsumption, particularly of products that are high in fat, sugar and salt (HFSS).

- *Tougher controls on marketing and advertising of unhealthy food and drink*: Reduce exposure of children to advertising of HFSS products by introducing a 9pm watershed; restrict marketing in other forms of media children are exposed to; and, tighten use of celebrities and cartoons used to advertise unhealthy foods.
- *A centrally led reformulation programme to reduce sugar in food and drink*: Voluntary approach for enterprises to reduce HFSS content of food and portion size.
- *A sugary drinks tax on full sugar soft drinks*: Recommended a 20% tax rate on sugary drinks, aimed at encouraging enterprises to change recipe. The tax should be passed on to the customer, making sugary drinks less affordable, and those in lower socioeconomic groups less likely to purchase them.
- *Labelling of single portions of products with added sugar to show sugar content in teaspoons*: Voluntary measure for enterprises to better label sugar content, hoping to compel them into reformulation.
- *Improved education and information about diet*: Education still has a part to play in tackling obesity and inequality, so long as Government does not rely on it. Information should be broadcast about leading healthy lives as well as raising awareness of the fundamental causes of inequalities.
- *Universal school food standards*: Update nutritional guidelines on what can be served at schools, plus provide advice for parents on what to provide children in lunchboxes.
- *Greater powers for local authorities to tackle the environment leading to obesity*: Allow local authorities to change planning legislation to limit the proliferation of fast-food outlets.
- *Early intervention to offer help to families of children affected by obesity*: Argues that tackling obesity is difficult once already afflicted, thus there is a need for prevention.

The report stated there was already enough evidence for Government to act in these areas, and that it should begin implementing these as soon as possible (House of Commons Health Committee 2015).

In light of these recommendations, in 2016 the UK Government released the policy plan Childhood Obesity: A Plan for Action. The plan intimated that long-term, sustainable change would only be achieved through active engagement of schools, communities, families and individuals, without mentioning the fundamental causes of obesity inequalities. Still, the plan did employ some policy recommendations outlined in the 2015 report. It committed to a soft drinks industry levy (SDIL), encouraging enterprises to find healthier alternatives. It also challenged enterprises to reformulate products, aiming to reduce sugar by 20% by 2020 in products most commonly consumed by children, extending this to the out of home (OOH) sector too (restaurants, cafes and takeaways). However, the plan did not deliver action on the other seven recommendations from the 2015 report. In terms of food labelling and creating universal school food standards, Government felt current practices were sufficient, with the rest of the recommendations left off the policy agenda. The plan supported other measures to tackle the obesogenic environment but did not take a leading role in achieving this. For instance, it declared that healthy choices should be made the easy choices in public sector settings without outlining outline how; and schools were encouraged to conduct their own research and challenge obesity whichever way they saw fit. As for tackling inequalities, the Government would continue to hand out healthy food vouchers to families who needed them most via the Healthy Start scheme (HM Government, 2016).

Later in 2016, the UK Government replied directly to the nine policy proposals from the Brave and Bold Action report. Despite not fully endorsing the report in the policy plan, it stated that the 2015 report represented actions that would have the "largest impact" (Department for Health 2016, page 8). The government response took on each policy recommendation individually:

- *Strong controls on price promotions of unhealthy food and drink:* Government showed no appetite for this, citing promotions as a good thing, driving competition and representing the best value for money for customers.
- *Tougher controls on marketing and advertising of unhealthy food and drink*: Current controls were defended, declaring that they were already tough enough.
- *A centrally led reformulation programme to reduce sugar in food and drink*: This was accepted as a useful tool in combatting obesity and was included in the policy plan.
- *A sugary drinks tax on full sugar soft drinks*: Also endorsed by the Government.
- *Labelling of single portions of products with added sugar to show sugar content in teaspoons*: A voluntary scheme already in place was deemed adequate to label sugar content.
- *Improved education and information about diet*: Recognised that action in this area alone is not sufficient but argued this was a key part of success in tackling obesity.
- *Universal school food standards*: Committed to improving this, but indicated in the policy plan that it would not take a leading role.
- *Greater powers for local authorities to tackle the environment leading to obesity*: Local authorities would receive extra funding, but how to spend the money was up to each individual authority. There would be no clear focus on tackling the environment, indicating that current planning policies were satisfactory.

- *Early intervention to offer help to families of children affected by obesity*: Revenue received from the SDIL would be used to target children most severely affected by obesity.

The House of Commons Health Committee responded to the Government in 2017 with a follow-up report to The Brave and Bold Action report. The committee was pleased action was being taken with sugary drinks and reformulation, but felt extremely disappointed with the 2016 policy plan. This sentiment was echoed by the Association of Directors of Public Health, who stated that the plan was good start, but required more decisive action to tackle obesity. The British Medical Association were strongly supportive of some of the actions in the plan but were also left disappointed by its scope. Even retailers were underwhelmed as Jon Woods, General Manager of Coca-Cola Great Britain, expressed his surprise that the SDIL was the only real concrete measure taken.

Channel 4's dispatches programme obtained a copy of the draft plan and compared it to the final version. They found that the draft version of the plan was significantly more decisive than the final version. For instance, it had originally planned on tackling price promotions in supermarkets, as well as challenging supermarkets to remove unhealthy foods from prominent areas of store; it wanted to restrict advertising of HFSS products from a wider range of television programmes; and it aimed at forcing the OOH sector to label calorie information. Perhaps the biggest indication that the plan was not as bold as it could have been being that it had originally pledged to cut childhood obesity by half by 2026, but the final version of the plan downgraded this to 'significantly reduce'.

The committee expressed doubt that the Government understood the urgency and seriousness of the issue and called on the Government to make clear goals to reduce overall

childhood obesity and the unacceptable and widening levels of inequalities. It called on the Government to extend the SDIL to milk-based sugary drinks; outline what it planned to do if voluntary efforts on reformulation failed; make a stand on promotion and advertising; and alter planning legislation to make it easier for local authorities to limit proliferation of fast-food outlets (House of Commons Health Committee 2017).

The Government, again, responded to the House of Commons Health Committee in 2018. The response stated that policies outlined in the 2016 plan were being implemented with a focus on reducing inequalities, improving the health of the most disadvantaged groups, and addressing the social determinants of poor health. It stated this would be achieved by supporting local authorities, plus embed health inequalities into every health policy.

With regards to specific policy areas, the Government felt milk-based products should remain excluded from the SDIL, rather they should be subject to the overall reformulation effort. The Government defended its current stance on reformulation, arguing that enterprises had shown a willingness to make products healthier. Indeed, by 2018 there had been a reduction in sugar in five out of the eight food categories measured, and a reduction in calorie content in products consumed on a single occasion in four out of the six food categories measured (Public Health England 2018). The Government also continued to reject further action on discounting and price promotions, and on advertising. They claimed that some food retailers were already forward thinking on the matter and felt this choice was their prerogative, while also arguing current advertising of HFSS products was proportionate and had recently been extended across non-broadcast media. The Government conceded, though, that planning legislation needed revision to consider public health, aiming to create healthier diets (Department of Health 2018).

Aware that the Government was about to release an updated Childhood Obesity Action Plan, the House of Commons Health Committee (2018) released a new set of recommendations:

- *A 'whole systems' approach*: Policies need to be made across all departments to tackle obesity and inequalities. It should be made clear that it is everyone's business.
- *Marketing and advertising*: Calls for a 9pm watershed advertising of junk foods, and ban the use of TV and film characters to promote HFSS products.
- *Price promotions*: Restrict promotions of less healthy foods, and remove these foods from prominent areas.
- *Early years and schools*: Place measures on the first 1,000 days of life and improve rates of breastfeeding.
- *Takeaways*: Must be made easier for local authorities to limit proliferation of fast-food outlets and limit advertising of HFSS products near schools.
- *Fiscal measures*: Extend the SDIL to milk-based products.
- *Labelling*: Still too reliant on voluntary commitments, so should become universally applied. Calorie labelling should also be extended to the OOH sector.
- *Services for children living with obesity*: Must identify children who are obese and ensure they are offered effective help. Calls on Government to focus on healthy lifestyles and not use stigmatising language.

The APPG (2018) also made recommendations ahead of the new Childhood Obesity Action Plan:

- Create a national obesity strategy to replicate best practices across the whole country.
- Weight management training should be given to healthcare professionals, so they feel able and comfortable in discussing a person's weight without any stigma or discrimination.
- Implement a 9pm watershed on advertising of HFSS products to limit exposure of children during family viewing time.
- Investigate whether obesity should be classified as a disease.

The Government was strongly encouraged to act on the environmental causes of obesity for several years, though remained mostly unmoved. But in June 2018, the UK Government released its latest policy plan, the Childhood Obesity: A Plan for Action Chapter 2. It recognised childhood obesity was deepest felt in deprived areas, thus set a national ambition to significantly reduce obesity inequalities by 2030. The plan also understood that life could be difficult for obese children, who were more likely to experience bullying, stigmatisation and low self-esteem.

Chapter 2 of the plan explained that the 2016 plan was merely the start of the conversation, not the end. It aimed to allow people to have a choice in what they eat but ensure they could easily navigate the food environment and identify healthy options. To accomplish this, the plan set out five policy areas it would look at.

Sugar reduction: SDIL shows encouraging signs in reducing sugar as enterprises attempt to avoid this additional tax. However, in the drive to reduce 20% of sugar levels in products most commonly consumed by children by 2020, the level of reduction is currently at 2% (Public Health England 2018). Reformulation will remain voluntary for the time being, but the Government has pledged to consider mandatory and fiscal measures if adequate

progress has not been made by 2019. Milk-based products will continue to be excluded from SDIL, but is included in the sugar reduction programme. Though, the Government have pledged to get tough and add it to SDIL if sufficient progress has not been met. The Government will also consult in 2018 on the possibility of banning the sale of caffeinated drinks to children.

Calorie Reduction: The plan vows to reduce calories by 20% in products most commonly consumed by children by 2024. This is to be applied to the OOH sector as well as supermarkets. On top of this, the Government will mandate consistent calorie labelling in England for the OOH sector.

Advertising and promotions: An area the Government has resisted acting on but is now willing to take a harder stance over. The plan admits that exposure to advertising can have immediate and longer-term effects on children's health by encouraging greater consumption of certain foods. Consequently, a consultation will be conducted in 2018 about introducing a 9pm watershed on television advertising of HFSS products. Along with this, the Government plans to ban all price promotions on unhealthy products, as well as banning the placement of unhealthy foods in prominent locations in the retail and OOH sectors. Both aims will be met via legislation, and represent a clear change in tact from the Government.

Local areas: Will ensure children can learn and play in areas that promote making healthier choices and enjoy healthy lifestyles. The plan states this effort is hampered by the proliferation of fast-food outlets, limited green spaces for physical activity, and unhealthy food marketing dominating public spaces. The Government is thus introducing a trailblazer programme with a few select local authorities to work together and decide on what works best. Extra resources will also be provided to local authorities who want to use this power to drive healthier environments. Also, healthcare professionals will be given training on how to

support children and families who are obese, and a consultation will be held in 2018 to strengthen nutritional standards in public sector buildings.

Schools: They play an important role in defining habits and helping students make better choices. Government will therefore update the School Food Standards for all schools to comply with, and will encourage primary schools to adopt an active mile initiative to provide at least 30 minutes of physical activity a day to children. The plan promises to help children from disadvantaged areas and will conduct a consultation in 2018 about how to better support them (Department of Health and Social Care: Global Public Health Directorate).

b) Scottish Government

In 2008, the Scottish Government launched the policy plan Healthy Eating, Active Living: An action plan to improve diet, increase physical activity and tackle obesity. The Government saw obesity as complex, and between the years 2008-2011 action was planned to support healthy diets, encourage physical activity, and maintain and achieve healthy weights. It sought to implement this through a life-course approach. For early years, it recognised a child's health is dependent on the mother's diet and lifestyle pre-birth, and then dependent on parents thereafter. Thus, all pregnant women and pre-school aged children were to be provided with fruit, veg and milk vouchers, and younger mothers would be encouraged to breast feed. Children of school age were to be taught about active and healthy lifestyles. For adults, the Government wanted public sector settings to be exemplars in the provision of healthy choices for others to follow. Healthcare professionals would be provided with the skills for physical activity and were encouraged to pass this on to older people in care homes and hospitals. Finally, the plan aimed at improving outdoor spaces in communities to spur

people into physical activity, and to tighten social ties that would allow people to better support each other.

However, this plan, which was lacking concrete action, was replaced in 2010 with the Preventing Overweight and Obesity in Scotland: A Route Map Towards Healthy Weight. The Route Map appreciated obesity could not be combatted by behavioural change, but required wider societal change and cross sector collaboration. Only by adopting these types of policies could inequalities be tackled, and disadvantaged families be given better life chances. It would:

Reduce energy consumption: Tackle the widespread availability of energy-dense retail outlets and high street eateries encouraging unhealthy choices, to pave way for greater access to healthier, less energy-dense options.

Control exposure to foods in high energy in shops and the OOH sector: Through a voluntary scheme on reformulating product's salt, saturated fat and sugar content, and their portion sizes; labelling that better suit consumer needs; and reducing the ratio of energy-dense foods on shelves. Aimed to control exposure to HFSS foods in schools and communities by offering free school lunches to pupils in earliest years at primary school, plus offer a wider variety of healthier options, making schools meals more appealing. Would also provide guidance to community planners to limit fast-food outlets near schools.

Labelling and marketing campaigns: Labelling should be clear and consistent so consumers can easily understand what is in products, and so they are not distracted by other advertising on packaging. Suggested restricting marketing of HFSS products was necessary across all media platforms, and a 9pm watershed would be useful. However, the Scottish Government is reliant on UK Government acting on this.

Create environments that make physical activity the norm: Move beyond health policy and consider areas such as transport, planning and crime. It encouraged people to undertake active travel by walking or cycling; wanted planning to have positive impacts on healthy weight and active living by constructing accessible and attractive greenspaces, as well as usable paths and cycle lanes; and it planned to make communities safer from crime, causing people to feel secure and more likely to be active outdoors.

Teach young children healthy behaviours: With positive environments, healthy behaviours would be embedded in children from an early age. Pregnant women should be made aware of Healthy Start vouchers if eligible, and all pregnant women were to receive support from healthcare professionals about healthy lifestyles. It also planned on boosting economic growth by creating a healthy workforce. With the public sector making up 25% of Scotland's workforce, promoting exemplar behaviours could have a cascading effect into the private sector.

However, the Scottish Public Health Network (ScotPHN) conducted a review of the Route Map in 2015 and found that few measures had met targets, with those successful largely requiring individuals to opt in. This review identified 63 action plans in the Route Map, and found they were built upon four pillars: energy-in (food), energy-out (physical activity), early years and workplace.

Enery-in: Had 18 action points, most of which were still in progress, but only some had reached short term milestones. A sustained effort would be needed for this pillar, but working closely with industries may have help have a larger impact.

Energy-out: Had 23 action points, 14 of which were still in progress and all met short term milestones apart from two. The other nine were already in place.

Early years: Had 12 action points, with all having seen action taken place. It suggested that this pillar had been ineffective in improving infant feeding, with the strong possibility it had increased inequalities and the prevalence of obesity in both women and the early years.

Workplace: Had 10 action points, five of which have been completed, four had reached early milestones and one that was discontinued. It acknowledged the Route Map had gone some way in raising awareness of healthy lifestyles in the workplace, but this was mostly concentrated within the NHS.

It observed structural and environmental changes were slow to progress and would require time. The Route Map was viewed as an important step, but could have been delivered more effectively. The review stated that health inequalities, realistic timescales, and alcohol factors had not been given enough attention, and recommended a full life-course approach be adopted to include the entire population going forward (Kerr 2015).

In 2017, the Scottish Government released the first of three publications named A Healthier Future. The first was a consultation document centred around policies to tackle obesity, including transforming the food environment with action on promotions, advertising, labelling and reformulation; promoting healthier lives by addressing health inequalities, supporting weight management and encouraging physical activity; and advocating for the public sector to lead by example (Scottish Government 2017)

The second Healthier Future document by the Scottish Government in 2018 presented an analysis of the consultation responses. The consultation received a total of 362 responses – 179 from individuals and 183 were from organisations. 74% of the responses from organisations came from public health, the public sector and third-party organisations; 20%

from the private sector and business organisations (i.e. food and drink industry, media and advertising organisations); and 6% from private sector weight management organisations and regulatory bodies. For the purpose of this paper, individuals will be referred to as group A, public health, public sector, third-party, and private sector weigh management organisations as group B, and private sector and business organisations as group C. The questions asked in the consultation presented ten policy intervention areas that all respondents were asked to give their opinion on (Griesbach et al 2018).

Price promotions of HFSS products: Groups A and B supported action, suggesting food profiling could be conducted to determine which products should have promotions restricted. Their main concern was that this could raise issues of affordability of foods for those on low incomes, especially as healthier foods are deemed expensive already. Group C was against action as it could cause negative consequences, such as a loss of business for retailers, an increase in food waste and lessening consumer choice.

Advertising: Groups A and B believed action would help reduce sales of HFSS products, and many called for a total ban on advertising such products. Group C argued policy here would have limited influence on children's food preferences, but would have extensive consequences for the food and drink, broadcasting, and advertising industries, as well as public transport operators, all of whom rely on advertising.

Development strategy on OOH sector: All groups believed a strategy would be appropriate and called on local government to have an enhanced role. Groups A and B were in favour of labelling calorie content on all OOH menus, while group C were wary this, on top of reducing portion sizes, would prove costly.

Food Labelling: Group C was happy with the current labelling system, with manufacturers not keen on Scotland adopting a separate labelling system to the rest of the

UK, believing it would expensive and wasteful. Groups A and B were also happy with the current labelling system, but felt it should be made mandatory.

Reformulation and innovation: The consultation paper suggested committing £200,000 over three years to small- and medium-sized enterprises (SMEs) to help reformulate and innovate. All groups believed this figure was insufficient, with group C indicating businesses had already made good progress in this area, insisting they were reaching the limit of what they could do.

Healthy weight from birth to adulthood: All groups provided various comments, but the main themes were addressing inequalities; tackling the obesogenic environment; using positive language; ensuring joined up policy; workforce development; and funding. As for the first two themes, it was noted that there is a clear link between deprivation and obesity, and that individual measures only widened inequalities. Therefore, tackling the obesogenic environment was deemed a necessary policy aim as upstream interventions that challenge wider determinants of health can help combat inequalities.

Weight management services and other interventions: The consultation paper indicated £42m would be invested over five years in weight management interventions, primarily for people with type 2 diabetes. All groups felt interventions need to be broad and holistic, not just for those with type 2 diabetes, and cover diet, behaviour, psychological support and education.

Physical activity: Responses came mainly from groups A and B which supported any promotion in this area. They did raise concerns, however, that stigma may prevent some people from participating.

Building on 'whole nation; movement: All groups agreed that everyone needed to be involved in the effort to reduce obesity, requiring good collaboration between public, private and voluntary sectors.

Monitoring change: All groups agreed there was a need for greater surveillance, with group C requesting retail sales, nutritional content and consumption all be monitored pending any action.

With these responses in mind, the Scottish Government pressed ahead with Healthier Future: Delivery Plan (Scottish Government 2018), its latest policy plan. In accord with Nicola Sturgeon's pledge to halve childhood obesity by 2030, the plan insists that it is for everyone in Scotland. With the UK Government releasing Chapter 2 of its Plan for Action, the Scottish Governments wished to work together as some policy plans could only take place at a nationwide level.

In acknowledging the significant scale of obesity inequalities, it was keen to take a human rights-based approach. To make a meaningful impact, the environmental factors encouraging people to make unhealthy choices needed to be tackled. Therefore, the plan is intent on working towards five outcomes:

Giving children the best start in life: Establishing healthy eating habits in early life reduces the risk of becoming obese later in life. To reach this aim, the Government includes measures such as:

- Holding a consultation on a pre-conception action plan to support mothers before and during pregnancy to have healthy weights.

- Giving advice to parents about providing healthy diets to children via professional help and social marketing campaigns.
- Tackling the poverty-related attainment gap by equipping pupils in schools with the skills to make healthier choices.
- Conducting research into the contribution body image makes to poor mental health wellbeing.

Creating a food environment that supports healthier lives: Measures in this area are applicable to all, but particularly children who are especially impressionable. They are also more likely to be effective in reducing health inequalities than changing individual behaviours. To realise this, the Government will:

- Consult on how to restrict the promotion and marketing of HFSS products within premises, with the chosen action to become mandatory.
- Strongly advocate the UK Government to end advertising of HFSS products before the 9pm watershed and prevent the use of cartoons and celebrities in them. It will also engage with local authorities, target companies and media agencies to develop a code of practice in 2019, focussing on removing advertisement of HFSS products within 800 metres of any site with 25% or more footfall by under 16s.
- Consult on an OOH strategy in 2018, focussing on calorie reduction and labelling.
- Advise the UK Government to make front of pack labelling mandatory.
- Commit £200,000 over three years to Scottish SMEs to assist with UK reformulation policy, also proposing the UK Government make reformulation mandatory if voluntary efforts fail.
- Consult on restricting the sale of energy drinks to young people under the age of 16.
- Urge the UK government to include milk-based products in SDIL.

Providing access to effective weight management services: Maintaining a healthy weight in adulthood and childhood is challenging, therefore, providing supportive and effective services, free from stigma, is needed. These will primarily be geared towards those with, or at risk of, type 2 diabetes, but others will be encouraged to access appropriate programmes. Families are key to its success as adults can promote healthier diets in children.

Inspire leadership across all sectors to promote healthy lifestyles: The plan calls for the public sector to lead by example and develop and showcase good food practice, in a bid to inspire others by:

- Improving the food served in public sector buildings.
- Ensuring everyone can eat well, especially those who are food insecure, by supporting community food providers; empower communities to tackle inequalities; and explore how to make healthy food more affordable and accessible.
- Appealing to local authorities to amplify the voices of communities and address wider social determinants.

Reduce diet-related health inequalities: A primary objective of the plan, this is not treated just a matter of social justice, but a question of human rights. For all to enjoy a healthy weight, the underlying factors, principally deprivation, must be challenged. The plan prioritises the health of the most deprived people by:

- Focussing on prevention and early intervention from pre-birth to adulthood.
- Empowering people to make better choices and to work with communities.
- Using measures aimed at improving population health rather than targeted interventions.

c) Policy Responses

The most recent policy plans from the Scottish and UK Governments indicate an improvement on what went before, but have received some mixed responses. The King's Fund (Buck 2018) felt that the original Plan for Action in 2016 was simply not good enough, but Chapter 2 has shown progress and bitten the bullet on some policy areas it had previously resisted. Though, while welcoming a commitment to narrowing health inequalities, they are disappointed there is no clear ambition other than reducing them 'significantly'.

Chris Askew, the Chief Executive of Diabetes UK, welcomed the range of measures, particularly those on labelling, but warns turning these commitments into reality will be challenging (Diabetes UK 2018). Obesity Action Scotland (2018) shared this sentiment with the Delivery Plan. It is pleased with the measures put forward, but is clear that without urgent implementation, a food environment promoting healthy choices will not materialise.

Barbara Crowther, Sustain's Children's Food Campaign Coordinator, feels Chapter 2 of the UK plan promises effective action, but leaves room for more. She argues that while it commits to consultations in some areas, these are not commitments to act. Meanwhile, Tam Fry, the Chairman of the National Obesity Forum, claim this plan is an "absolute travesty" because the time for consultations is past, and now is the time to act (Smith 2018).

Given the way businesses argued against environmental measures in the Healthier Scotland consultation, it is no surprise they are not impressed by the UK and Scottish plans. Tim Rycroft, Food and Drink Federation (FDF) Director of Corporate Affairs, states that FDF were fully engaged with the 2016 UK plan which was comprehensive and world leading, but while committing to participation in upcoming consultations, he feels there will be deep disquiet in the food and drink industry over Chapter 2. He claims shoppers thrive on

advertising and promotions, and risking this could even risk the reformulation programme (FDF 2018).

For Scotland's plan, David Thomson, CEO of FDF Scotland, thought businesses were already taking obesity seriously and had made a great deal of progress with reformulation and education before the latest policy plan. Deeply disappointed that the Government pressed ahead with restrictions on advertising, believing it lacked any evidence it would work, he feels Scottish businesses are being punished by the Government rather than working in partnership with them (FDF 2018). And Pete Cheema, Scottish Grocers Federation Chief Executive, thinks additional measures in Scotland over those in the rest of the UK would place extra costs on Scottish retailers and put them at a disadvantage (Wells 2018).

5. Discussion

Scottish and UK government policies have progressed in the past ten years. Of the seven policy recommendations provided by SPICe, the Scottish Government has adopted them all into their latest plan, despite being unpopular with businesses. Even in the Route Map in 2010, the Scottish Government had made pledges to embrace most of the recommendations. The story is different with the UK Government. In 2010, the UK Government presented a plan with only one clear action plan, based on education. Headway was made in 2016, but that policy plan only met two SPICe recommendations. Perhaps grudgingly, though, the UK Government did match most of these recommendations in 2018.

Further issues have arisen in both governments. The Route Map, while encouraging, failed to implement many of its policy pledges. Akin to this, consultations have been liberally promised, not guaranteeing action. Alas, actions plans are abstract, they define priorities for action but are not legally binding (Knoepfel et al 2007). Therefore, implementation of policy is vital in tackling obesity. Thus, while progress has been made in defining where policies should be aimed, this is not necessarily transferrable to the execution of policies. Given that there have been problems with both governments taking on board recommendations and implementing them, it is evident why obesity inequalities have been avoidable.

However, recent evidence has demonstrated that policies are garnering positive responses from businesses. The UK Government's aim to reduce 20% of sugar levels in products most commonly consumed by children by 2020 has seen progress in five out of the eight food categories measured, despite current reduction levels being at 2% (Public Health England 2018). Also, by the time SDIL had come into effect in April 2018, over 50% of manufacturers had reduced sugar content of drinks since the measure was announced in 2016

(HM Treasury 2018). On top of this, the sales weighted average sugar levels per 100ml fell by 11% between 2015 and 2017 for products included in SDIL (Public Health England 2018).

Comparing the latest policy movements to those needed to tackle obesity inequalities, as indicated, both governments have admitted SPICe recommendations into their policy plans, and both appear intent on focussing on prevention and mitigation strategies. As was highlighted, strategies on preventing wider environmental influences are both effective, and cost-effective ways of tackling obesity inequalities. They do not attempt to undo the fundamental causes of social inequalities, which would require governments to delve deep into society and expose the unfair distribution of income, power and wealth. But in the context of obesity inequalities, adopting preventative measures is more likely to tackle the obesogenic environment with policies such as raising the price of harmful commodities like SDIL, and providing access to high quality green spaces by challenging local authorities to create healthier physical environments.

It was also shown that a life-course, population approach is required to tackle obesity inequalities, however, only the Scottish Government have adopted this, with the UK Government focussing policy plans on childhood obesity. By not taking a life-course approach, it rejects tackling obesity in terms of human rights. As demonstrated, all humans, across all ages, are entitled to basic human rights, with health being one of these. Thus, by focussing policy on children, the UK Government is neglecting other age groups.

Both governments also appear to take on board elements of the place-based system by embracing structural policies aimed at tackling the obesogenic environment; empowering communities to make healthier choices by limiting access to unhealthy foods; and delivering

services via weight management services and the provision of healthy foods in the public sector. These measures are largely preventative and focus on promoting wellbeing.

While both governments are still also attempting to address obesity inequalities with targeted measures, such as the provision of vouchers, by adopting a variety of, or all, population-wide, environmental and preventative strategies, obesity inequalities are likely to be challenged. Is it the case, then, that Scottish and UK governments are addressing unfair and avoidable obesity inequalities, or are they being worsened?

Looking directly at the obesogenic environment in which the unfair nature of obesity inequalities is based, governments are addressing physical, economic, and sociocultural factors with varying degrees of success and benefit:

Physical: Both governments are intent on restricting access to facilitators in making unhealthy foods choices by looking at the placement of HFSS products in shops as well as tackling the proliferation fast-food outlets and lack of greenspaces via local planning.

Economic: This is perhaps the weakest policy area in both governments. Policy efforts aim to promote healthy choices by restricting access and exposure to unhealthy products. This, though, assumes that everyone has the capacity to make healthy choices. With the number of people already using food banks, and the large proportion of people whose food choices are dictated by price, restricting promotions and adding taxes is unlikely to help. As those in lower socioeconomic groups are more likely to consume less healthy products, they are most likely to be negatively impacted by fiscal policies on the environment.

Sociocultural: Progress has been made on reducing advertising and marketing of unhealthy products. This is especially likely to benefit children. But, while assurances have been made to treat people without stigma, there have been no outright policies in reducing

stigma. With unhealthy foods less accessible and more expensive, it is possible stigma around purchasing these products could rise. Governments have also given no credence to the idea that obesity may be considered an addictive disorder.

As for the avoidable quality of obesity inequalities, both governments now recognise that obesity is a complex issue, one not easily dealt with only through behavioural policies. In recognising external factors exist, they also accept these factors disproportionately affect lower socioeconomic groups and begin to use systemic frames in policy discourse.

The overreliance of behavioural policies which typify the avoidable nature of obesity inequalities appear to be over. Policies are no longer used to frame obesity as a simple issue, and nudge can no longer apply to narratives to garner support from the public. The consultation prior to Scotland's delivery plan showed that environmental policies had public support, and the policy responses indicated that only businesses had deeper issues with the policies themselves. Despite initial negativity from businesses, and the fact that many policies are voluntary, it does appear they are complying with UK and Scottish actions.

6. Conclusion

This paper has developed a wide-ranging discussion on obesity inequalities, and wider social inequalities. It has demonstrated that the two are intertwined, and bound by their fundamental causes.

At the same time, while demonstrating that SDH is central to health inequalities, the equivalent in obesity inequalities is the obesogenic environment. All groups experience barriers and facilitators across the obesogenic environment, but these are most commonly experienced by more deprived groups. It is the fact that barriers are not equally distributed between socioeconomic groups that makes the obesogenic environment unfair. Whether it be the disparity in greenspaces or economic capacity, or that as more people from lower socioeconomic groups are obese, they are more likely to be stigmatised.

The paper has also shown that the escalation of unfair obesogenic environments and subsequent obesity inequalities stem from political decisions, making them avoidable. An historic overreliance on behavioural policies have reinforced inequalities, as the ability to make healthy choices have gradually diminished for lower socioeconomic groups compared to others. Not only this, but governments have been able to get away with this by using frames and nudge policies.

However, in the policy review, it was established that over the past ten years, since Change4Life was conceived, policy has radically changed from being centred around behaviours, to being more structural based. As a result, policy has concentrated on altering the unfair obesogenic environment in which obesity inequalities are rooted. The review demonstrated that this was a complicated process, not easily embraced by the Scottish or UK Governments. It was highlighted that, as Smith suggested, Scotland appeared to take

inequalities more seriously than the UK, with the Scottish Government adopting environmental policies and SPICe's recommendations much quicker than the UK. Though the UK Government has now begun to align its policies with those of the Scottish Government. Yet, ultimately, both governments must ensure these policies are fully implemented in an effective way as both have merely made commitments to consultations in areas, with the Scottish Government having already failed to implement the Route Map to its fullest capacity.

It must be said, though, that given where obesity policy was ten years ago, significant improvements have been made. Just as the governments have used frames in the past to garner public support to simple, behavioural policies, now that it has been established that obesity is more deep rooted in the environment, these narratives will likely spill over into the public and raise awareness of barriers and facilitators.

The paper did illustrate that policy acts have been flawed. There are potentially unfair policies in economic trait of the obesogenic environment, and obesity inequalities can still be viewed as avoidable because of the imperfect policy adoptions. The biggest concern is that further movements forward in tackling obesity inequalities prove as difficult as convincing the UK Government in adopting restrictions on advertising, or in ensuring effective policy implementation by the Scottish Government.

Despite this, this paper takes the view that the Scottish and UK Governments are on course to addressing the unfair and avoidable obesity inequalities. A further review is required going forward to track the progress of policies recently rolled out; to establish the outcomes of the promised consultations; and to determine whether the next policy plans continue a trend of favouring environmental policies over behavioural policies. If not, the unfair and avoidable obesity inequalities will continue to exist.

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