

Public Health

Framing obesity in UK policy from the Blair years, 1997–2015: the persistence of individualistic approaches despite overwhelming evidence of societal and economic factors, and the need for collective responsibility

Stanley J. Ulijaszek and Amy K. McLennan

School of Anthropology and Museum
Ethnography, University of Oxford, Oxford, UK

*Received 23 October 2015; revised 15
December 2015; accepted 1 January 2016*

Address for correspondence: A McLennan,
School of Anthropology and Museum
Ethnography, University of Oxford, Oxford OX2
6PE, UK.
E-mail: amy.mclennan@anthro.ox.ac.uk

Summary

Since 1997, and despite several political changes, obesity policy in the UK has overwhelmingly framed obesity as a problem of individual responsibility. Reports, policies and interventions have emphasized that it is the responsibility of individual consumers to make personal changes to reduce obesity. The Foresight Report ‘Tackling Obesity: Future Choices’ (2007) attempted to reframe obesity as a complex problem that required multiple sites of intervention well beyond the range of personal responsibility. This framing formed the basis for policy and coincided with increasing acknowledgement of the complex nature of obesity in obesity research. Yet policy and interventions developed following Foresight, such as the Change4Life social marketing campaign, targeted individual consumer behaviour. With the Conservative-Liberal Democrat government of 2011, intervention shifted to corporate and individual responsibility, making corporations voluntarily responsible for motivating individual consumers to change. This article examines shifts in the framing of obesity from a problem of individual responsibility, towards collective responsibility, and back to the individual in UK government reports, policies and interventions between 1997 and 2015. We show that UK obesity policies reflect the landscape of policymakers, advisors, political pressures and values, as much as, if not more than, the landscape of evidence. The view that the individual should be the central site for obesity prevention and intervention has remained central to the political framing of population-level obesity, despite strong evidence contrary to this. Power dynamics in obesity governance processes have remained unchallenged by the UK government, and individualistic framing of obesity policy continues to offer the path of least resistance. © 2016 World Obesity

Keywords: Consumption, individualism, obesity policy, UK.

obesity reviews (2016) **17**, 397–411

Introduction

Many of the factors that have contributed to obesity across recent decades involve consumption not only of high energy

dense food and drinks but also of other goods and services. For example, the consumption of motor cars and personal computers can facilitate inactivity. Concurrently, consumer citizenship has been a cornerstone of the market liberal

approach to addressing many problems in UK society since the 1980s (1). Under the administration of Margaret Thatcher (1979–1990), the key political unit became ‘not society, whose common good was pursued, but the individual’ (2). UK government policies since then have been overwhelmingly framed around the construct of the individual consumer as the target for policy-based intervention. This construct has been described as a novel product of an ‘advanced liberal’ form of governmentality that took hold initially in the UK with the Thatcher administration and which has persisted in varying forms ever since (3).

In the late 1990s, the Labour administration of Tony Blair maintained a strong emphasis on individualism but added a moral dimension. In 1995, in a speech entitled ‘The Rights We Enjoy Reflect the Duties We Owe’, Blair argued that Thatcher’s individualism did not sufficiently recognize that individuals have rights and responsibilities in all aspects of life, from parenting decisions to consumption choices (all aspects of life were framed as being rooted in individual cognition rather than social patterning). As a result, Labour shifted away from notions of social justice and towards a focus on individual opportunity (4). At the same time, the government embraced growing market globalization and the market economy.

In this Labour administration formulation of consumer citizenship, individuals ‘are not merely “free to choose”, but obliged to be free to understand and enact their lives in terms of choice’ (3). A contradiction in this formulation of individualism is that, according to Mol (2009), political theory defines individual citizens as being willing to serve the ‘common good’ (fulfilling a moral responsibility to society) while individual consumers are supposed to seek ‘pleasure’ (fulfilling a moral responsibility to the economy) (5). This contradiction is apparent in regard to obesity, where individual citizens are expected to adhere to specific dietary and physical activity recommendations (and are blamed as contributing to health-related economic and social burdens if they do not), while individual consumers are expected to choose freely from the entire market so as to best attend to their own needs (where free-market consumption strengthens the national and/or global economy). The two forms of individual consumption – responsible and hedonistic – often pull in different directions, perhaps nowhere more than in obesity governance, because population-level obesity is overwhelmingly represented in UK society by the media, medical establishment and the government as an issue of personal responsibility and control.

The election of the Blair Labour administration into power in 1997 coincided with growing political interest in obesity in the UK. This interest culminated in a major government review of obesity under the Foresight programme, which was launched under Blair’s Labour leadership (1997–2007) and released under Gordon Brown’s Labour leadership (2007–2010). In 2007, the Foresight review and its outputs – the report,

‘Tackling Obesities: Future Choices’ (henceforth Foresight Obesities) (6), and the iconic system diagram, ‘Foresight Obesity Systems Map’ (FOSM) (7) – offered a seemingly alternative approach to the individualist policy responses to obesity which preceded it. Foresight Obesities differed from other government approaches to obesity in its scope and ambition: to reframe obesity as a complex issue that required new system-wide approaches and multiple sites of intervention well beyond the range of personal responsibility. Another objective of this particular Foresight project was to ‘de-silo’ obesity policy by bringing together very diverse stakeholders, and to develop directives that would recruit ‘joined-up’ government (a favourite idea of the Blair and Brown Labour administrations) to the cause of obesity control.

The Foresight process more generally was used to offer science-based solutions to complex problems; it applied state-of-the-art systems mapping and scenario development approaches to define and study problems of key government interest. Obesity became an object of government interest in the late 1990s, in no small part as a result of growing concerns about its economic impacts; as a result, obesity was put through Foresight processes and so entered the sphere of complex problems that defied political resolution and to which systems thinking (as opposed to other forms of modelling) was applied (8). The type of complexity favoured by Foresight was an upward-looking one that could be ordered at a more macro-level and which underplayed possible medical interventions (8). The Foresight Obesities process led to a report and sets of policy response options suited to different political ideologies (9).

Framing, broadly, is the creation of an overall description of an issue or problem which emphasizes particular definitions or interpretations, and omits others, according to ideology, perspective or interests of the framing body (10). The framing of obesity is a form of political influence that can disadvantage some groups and not others (10,11). By framing obesity as complex, Foresight Obesities had the potential to fundamentally influence obesity research, policy and practice by reframing obesity in public, political, policy and scientific discourses. But, as we illustrate here, public, political, policy and scientific pressures also had the potential to re-frame the scientific evidence presented in Foresight Obesities.

The framing of obesity within policy as a complex phenomenon disappeared when Foresight Obesities was operationalized, both under the Labour administration of the time and under the subsequent Conservative-Liberal Democrat coalition government led by Cameron (2011 to 2015). This article examines the shifting of the framing of obesity in UK policy in the years preceding Foresight Obesities, then post-Foresight to 2015. Over this period, the focus of obesity policy moved away from individual responsibility towards system-wide action, then back to the individual again. This analysis of key government reports and policies is set in comparison with obesity

science (which has increasingly emphasized complexity and structural drivers since the late 1990s (12) and increasingly since 2007), and UK obesity interventions (which have overwhelmingly continued to focus on the individual).

Methods

This paper is a textual policy analysis that draws on 22 key national policy documents and reports published by the UK government between 1997 (the start of the Blair Labour administration) and 2015 (the start of the Cameron Conservative administration) (Table 1). This includes 12 reports published under the Labour government between 1997 and 2010 (13) and 10 published by the Conservative-Liberal Democrat coalition government between 2011 and 2015 (14,15). It is carried out by a researcher who was involved as an expert in the UK government's Foresight process, and a researcher with prior experience working in state and federal levels of the Australian civil service.

All reports were read for their framing of obesity as a matter for individual responsibility, as against one of collective action. The framing of obesity with respect to the individual was overtly stated in all of these reports; this is perhaps unsurprising given the centrality of the consumer citizenship to political framing across the time period studied. Reports were read in detail to ensure that the key framing identified was repeated and dominant throughout the document. Where this dominant framing is contradicted within any of the reports, these contradictions are presented and discussed.

The 2011 to 2015 government policy, including the Food Network Responsibility Deal (FNRD) (launched in 2011), is also included in the analysis. Ten pledges currently exist for the FNRD. The key message of each pledge (as identified in the opening and overarching summary statement for each one) is documented in Table 2. In this table, and throughout this paper, underlining is added to text to highlight claims relevant to this paper.

The analysis has been made without any reference to key experts involved in the process of developing the reports, and without any reference to pressure on researchers and public officials by companies and lobby groups. Ultimately, only expert advice that was accepted and published by government is included in this analysis, and it must be noted that advice that does not align with the prevailing government's political philosophy is unlikely to ever be placed in the public domain. This may mean some expert advice is simply missing, while other reports may not necessarily reflect expert opinion as much as subsequent political filtering and framing. Likewise, reaching political consensus on issues often requires compromise both within and between parties; government documents do not clearly delineate who is responsible for modifying advice to achieve consensus, or the rationale for making certain changes.

Relying predominantly on text-based analysis has its limitations. Not all sources used in policymaking are explicitly stated in published documents. And not all of the values and relationships inherent in the policymaking process are reported, especially when considering that policy is expected to be based on 'rational' and 'unbiased' evidence. Nevertheless, this paper presents an example of how values and ideologies enter into UK obesity policymaking, and discusses several consequences of this.

Results

Obesity policy and intervention, 1997–2007

The state of obesity policy in the UK prior to 2007 was one of increasing concern, especially with a rising health budget predicted to result from rising obesity rates (15,16). In 1999, the Blair government published the White Paper 'Saving Lives: Our Healthier Nation', which broadly laid out the new government's health agenda (17). It made several references to obesity and was the first report to do so in over a decade (16). It maintained the focus on the role of the individual in achieving good health and nutrition that had come to dominate in the previous decades. However, it also emphasized issues of social inequality and inclusion; this remained a key focus of the Blair government (which introduced the 'Social Exclusion Unit' in 1997), but this emphasis was reduced in subsequent obesity-specific reports.

In 2001, a report by the Comptroller and Auditor General, head of the National Audit Office (NAO), was commissioned with the aim of achieving financial savings and efficiency gains in the UK government (18). It highlighted that obesity interventions to that time by the National Health Service (NHS) and Department of Health were largely either local strategies, or involved care (screening, personal advice, drug therapy and referrals) delivered through general practice. The report spoke to the significant amount of joined-up cross-governmental work on obesity prevention that was already in place, although the existence at the time of eight different strategies for promoting activity and healthy eating among children and adults undermines this assertion from the NAO. The report concluded by making 'recommendations that might help to create a climate in which individuals are aware of the consequences of obesity, and can make informed decisions about their lifestyle' (18). It centred, therefore, on the individual as a key target for intervention, but highlighted that the problem was of concern because of the financial costs to society.

Subsequent policy reports have continued to foreground obesity as an issue facing society, and the consuming individual as the key locus for change. The House of Commons Health Committee report on obesity (2004) was no exception. It opened with the following observation:

Table 1 Key obesity policy and related documents in the UK between 1997 and 2015

Document	Year	Agency	Individual responsibility / collective action?
Saving lives: our healthier nation (17)	1999	Secretary of State for Health	States that 'People can make individual decisions about their and their families' health. ... People can improve their own health, through physical activity, better diet and quitting smoking. Individuals and their families need to be properly informed about risk to make decisions.' (p. 2)
Tackling obesity in England (18)	2001	National Audit Office	Aims to give recommendations that can help create an environment in which 'individuals are aware of the consequences of obesity, and can make informed decisions about their lifestyle.' (p. 7)
Annual Report of the Chief Medical Officer 2002 (56)	2003	Chief Medical Officer	Calls for action from a broad range of stakeholders (including industry, marketing, food standards agencies and drug companies), but summarizes these recommendations by stating that 'action is needed to help and support people – particularly children – to reshape their diet. Action is also needed to increase the amount of regular physical activity that people take.' (p. 3)
At least five a week: evidence on the impact of physical activity and its relationship to health (57)	2004	Chief Medical Officer	Begins with: 'This report must be the wake-up call that changes attitudes to active lifestyles in every household. Being active is no longer simply an option – it is essential if we are to live healthy and fulfilling lives into old age.' (p. iii)
Obesity: third report of session 2003-04 (58)	2004	House of Commons Health Committee	Centres on moral judgement of the individual consumer, with the 'key question... Should obesity be blamed on gluttony, sloth, or both?' (p. 23)
Securing good health for the whole population (59)	2004	Derek Wanless, HM Treasury	Based on the premise: 'Individuals are ultimately responsible for their own and their children's health and it is the aggregate actions of individuals, which will ultimately be responsible for whether or not such an optimistic scenario as "fully engaged" unfolds. People need to be supported more actively to make better decisions about their own health and welfare because there are widespread, systematic failures that influence the decisions individuals currently make' (p. 4)
Choosing health: making healthy choices easier (21)	2004	Department of Health	Foreword summarises the White Paper as follows: 'Choosing health sets out how we will work to provide more of the opportunities, support and information people want to enable them to choose health. It aims to inform and encourage people as individuals, and to help shape the commercial and cultural environment we live in so that it is easier to choose a healthy lifestyle. Small changes in the choices people make can make a big difference. Taken together, these changes can lead to huge improvements in health across society. But changes need to be based on choices, not direction. We are clear that Government cannot - and should not - pretend it can "make" the population healthy. But it can - and should - support people in making better choices for their health and the health of their families. It is for people to make the healthy choice if they wish to. Choosing health sets out what this Government will do to help them.' (p. 3)
Choosing a better diet: a food and health action plan (60)	2005	Department of Health	An action plan arising from the Choosing Health White Paper. Some actions are structural (including promoting healthy eating in the public sector and local communities). But focus is on the ideas laid out in the White Paper: 'A core principle of the White Paper is informed choice: helping people make their own decisions about choices that affect health. To that end, the Government is introducing a new strategy for promoting health by influencing people's attitudes to the choices they make.' (p. 11)
Tackling child obesity: first steps (61)	2006	National Audit Office	A central stated challenge is that 'an overarching difficulty with reducing child obesity is the inherent complexity of the issue, including changing the behaviour of children and their parents, and attitudes in society generally.' (p. 6)
Tackling obesities: future choices (6)	2007	Foresight	States that 'people in the UK today don't have less willpower and are not more gluttonous than previous generations. Nor is their biology significantly different to that of their forefathers. Society, however, has radically altered over the past five decades, with major changes in work patterns, transport, food production and food sales. These

(Continues)

Table 1. (Continued)

Document	Year	Agency	Individual responsibility / collective action?
Healthy weight, healthy lives: a cross-government strategy for England (62)	2008	Cross-Government Obesity Unit	changes have exposed an underlying biological tendency, possessed by many people, to both put on weight and retain it.' (p. 5) 'This strategy is the first step in achieving a new ambition of enabling everyone in society to maintain a healthy weight.' (p. vii)
Healthy lives, healthy people: our strategy for public health in England (33)	2010	HM Government White Paper	Premised on the following: 'The dilemma for government is this: it is simply not possible to promote healthier lifestyles through Whitehall diktat and nannying about the way people should live... We need a new approach that empowers individuals to make healthy choices and gives communities the tools to address their own, particular needs.' (p. 2)
Fair society, healthy lives: strategic review of health inequalities in England post-2010 (63)	2010	Michael Marmot, Institute of Health Equity	Recommends addressing the causes of obesity across the social gradient through population-wide interventions such as improving food access and availability. Individuals are referred to only in social context, for example in the Executive Summary: 'Effective local delivery requires effective participatory decision-making at local level. This can only happen by empowering individuals and local communities.' (p. 9)
Equality analysis: a call to action on obesity in England (72)	2011	Department of Health	Summarises the new focus on the lifecourse (derived from the Marmot Report and Foresight) as increasing the focus on the individual: 'A consequence of the move towards the lifecourse approach will be greater emphasis on supporting individuals who are overweight or obese in moving towards and maintaining a healthier weight.' (p. 9)
Strategic high impact changes: childhood obesity (64)	2011	Childhood Obesity National Support Team, Department of Health	Based on the premise that 'tackling obesity remains an important issue: it does not just reduce the number of overweight people in Britain, but can also lead to broader changes in behaviour which, in turn, empower individuals to lead healthier, longer and more fulfilling lives.' (p. 2)
Public health outcomes framework 2013 to 2016 (65)	2012	Department of Health	Based on the premise that 'the responsibility to improve and protect our health lies with us all – government, local communities and with ourselves as individuals.' (p. 1)
Living well for longer: a call to action to reduce avoidable premature mortality (66)	2013	Department of Health	Seeks to 'build a movement... to inspire and combine ideas and action from individuals and organisations across the health and care system.' (p. 23)
From evidence into action: opportunities to protect and improve the nation's health (67)	2014	Public Health England	Recommends improving public health education about diet and physical activity and 'supporting local authorities to deliver whole system approaches to tackle obesity, including through supporting healthier and more sustainable food procurement'. Suggests producing a report on fiscal measures to intervene in sugar and diet (p.15).
Moving more, living more: the physical activity olympic and paralympic games legacy for the nation (68)	2014	Cabinet Office	States that there is 'no single answer to the question of how to reduce physical inactivity', but suggestions of action are limited to varied ways to 'encourage' people (individuals, workplace groups and communities) to achieve recommended physical activity levels.
Chief medical officer annual report 2012: surveillance volume (69)	2014	Chief Medical Officer	Highlights that many people do not achieve government recommendations for physical activity and diet. Recommends product reformulation, public health education about sugar and investigation of the links between fast food outlets and deprivation, but emphasises a need for more research and data about these to inform future policy making.
Living well for longer: progress 1 year on (70)	2015	Department of Health	Looks to 'stimulate a focus on creating and protecting health, not only treating ill-health; identifying the opportunities for tackling the major public health issues using evidence including behavioural sciences.' (p. 12)
2010 to 2015 Government policy: obesity and healthy eating (40)	2015	Department of Health [current policy]	The key actions of this policy are summarised by the sub-title 'Helping people to make healthier choices', where 'it is important that we encourage and help people to: eat and drink more healthily, [and] be more active' (p. 1). These actions will be achieved through giving people advice and guidance, and improving food labelling so that people can make healthy choices.

Most policy interventions reviewed here overwhelmingly frame obesity as a problem of individual consumption and behaviour, and propose individual consumer decision-making as the key targets for interventions. Less attention is paid to the role of civil society more broadly (including organizations and businesses) or to society-wide structural drivers.

The promotional efforts of the food industry are frequently directed towards children. While we recognise that it is entirely appropriate for parents to retain control over their children's diet, we were shocked to find evidence that in its campaign for Walkers Wotsits, Abbot Mead Vickers advertising agency deliberately aimed to undermine parental control... We have recommended tighter controls on the advertising and promotion of foods to children, though we favour a voluntary approach in the first instance (58).

Despite 'shocking' evidence that the ideals of individual choice were being deliberately undermined and exploited by markets, this observation had only a minor impact in the report. Policy recommendations put forward strongly favoured voluntary participation from companies. Individual consumers remained the main target for intervention; however, there was recognition that people perceived as being unable to make good informed choices (children, for example) required protection. In this case, it was the responsibility of other individuals (such as parents) to intervene and protect. While efforts to encourage self-regulation among companies have been largely ineffective, at least as far as voluntarily reducing advertising is concerned (19), emphasis on parental responsibility has increased.

The dominant framing of obesity within the House of Commons Health Committee report – that gluttonous and/or slothful individuals are ultimately responsible for choosing a morally-appropriate lifestyle – appears at odds with the introductory remarks about the 'shocking' ways in which individuals' choices were being manipulated by larger powers. The predominant framing does, however, reflect the ideological positions of key consultants working on this report. The report asserts that a 1995 article by key advisors who were central to shaping the consultation (20) was influential in positioning obesity as a problem of (morally incorrect) individual behaviour. While the tension between responsible and hedonistic consumer plays out in this report, the dominant framing of obesity as a product of morally-incorrect individual choices can be traced more readily to ideologies and power imbalances implicit in the policy making process than to recently-reported evidence.

The focus on individual consumer choice is further elaborated in the 2004 report 'Choosing Health: Making Healthy Choices Easier' (21). This report was based on the premise that life in UK has changed since the mid-20th century and that people in the early 2000s value the freedom of individual choice. Echoing the values of Thatcherism in a Labour administration, it argued that in modern consumer society, the public has become used to consuming a wide range of goods and services while enjoying a wide range of choices of consumer items. This report discussed the role of industry and its potential to

assist in providing information to consumers to better equip them to make 'good' choices. In this context, 'good' choices were described as balancing exercise with food intake, drinking 'sensibly', practising safe sex and not smoking. While it implied that some choices might be better than others (e.g. '...alcohol and fast food are portrayed as offering excitement, escape and instant gratification. Television, computer games and the sofa offer attractive entertainment options. In contrast, the portrayal of healthy lifestyles by government can seem preachy, boring and too much like hard work') it fell short of being prescriptive about which foods and activities constituted 'good' choices for consumers. Instead, the report proposed that the Department of Health develop criteria and guidelines for good health to better inform consumers in future. The report also laid out an intention to have discussions with the food industry in the future to discuss its role in individual health education. Solutions proposed were NHS-linked personal health kits (so people could develop their own personal health guides, set their own priorities, and self-monitor appropriately) and advisors (to help people learn what they needed to know to lose weight and make decisions that were recognized as responsible). Here again, the paradox faced by individual consumers was clear: individuals would be given resources to help them freely set their own priorities in line with their own desires, and instruction about what those choices should be in order to be healthy and productive members of society.

Foresight obesity, 2007

Foresight is a British Government-sponsored future-thinking programme that has, since its inception in 1994, been seated in the Government Office for Science, within the Department for Business, Innovation and Skills. It was initially broadly focused on science and technology; with the Blair administration in 2000, it was reviewed, re-staffed and refocused on themes of specific interest to the government of the day (22). Obesity was one of these themes. Foresight Obesity set out to 'challenge the simple portrayal of obesity as an issue of personal willpower – eating too much and doing too little' (6). It claimed that this oversimplified view, which was predominant to that time, did not help the government to develop a sustained response to the problem of obesity. This did not appear to be a direct response to previous UK Government reports about obesity, but instead a response to 'extensive media coverage' and 'popular views' that drew on stereotypes when discussing obesity. Such an introductory framing of the report – as a response to popular opinion rather than to the many previous UK Government reports – suggests there were multiple obesity narratives within government, as obesity had become an issue that many departments had engaged with according to the particular institutional culture of each, but not in particularly joined-up ways.

Table 2 Public health responsibility deal food pledges

Pledge name	Number of signatories (in May 2015)*	Pledge
F1. Out of home energy (kJ/kcal) labelling	45	'We will provide energy information for food and non alcoholic drink for our customers in out of home settings from 1 September 2011 in accordance with the principles for energy labelling agreed by the Responsibility Deal.'
F2. Salt reduction (pledge now closed)	78	'We commit to the salt targets for the end of 2012 agreed by the Responsibility Deal, which collectively will deliver a further 15% reduction on 2010 targets.' [Replaced by F9]
F3a. Non-use of artificial trans fat	90	'We do not use ingredients that contain artificial trans fats.'
F3b. Artificial trans fat removal	11	'We are working to remove artificial trans fats from our products within the next 12 months.'
F4. Calorie reduction	43	'Recognising that the Call to Action on Obesity in England set out the importance of action on obesity, and issued a challenge to the population to reduce its total calorie consumption by 5 billion calories (kcal) a day, we will support and enable our customers to eat and drink fewer calories through actions such as product/ menu reformulation, reviewing portion sizes, education and information, and actions to shift the marketing mix towards lower calorie options. We will monitor and report on our actions on an annual basis.'
F5a. Salt catering: training and kitchen practice	15	'We will support and enable consumers to reduce their dietary salt intake. We will do this by reducing the amount of salt used in our kitchens by at least an initial 15%, within a specified 2-year period...'
F5b. Salt catering: reformulation of products as purchased by the customer	10	'We will support and enable customers to reduce their dietary salt intakes by establishing the salt levels in all standardised products as they are offered to the final consumer, prioritising top-selling products where appropriate; and in accordance with EU Food Information for Consumers Regulation No. 1169/2011 (EU FIC) – we commit to providing information on the amount of energy, fat, saturates, sugars and salt for each standardised product, both on our website and in the menu information guides that are made available in our catering establishments. The information may be provided in the following formats: per 100g/100ml only; per 100g/100ml plus per portion; or per portion only.'
F5c. Salt catering: procurement	9	'We will support and enable customers to reduce their dietary salt intake by taking the following actions in respect of procurement of products: We will meet the 2017 salt targets for at least 50% of the products we procure (by volume of products) by the end of 2017 and will report on progress year on year.'
F6. Fruit and vegetables	48	'We will do more to create a positive environment that supports and enables people to increase their consumption of fruit and vegetables.'
F7a. Front of pack nutrition labelling	23	'We will adopt and implement the UK Governments' 2013 recommended Front of Pack Nutrition Labelling Scheme'
F7b. Front of pack nutrition labelling	17	'We will promote, and explain to consumers how to use the UK Governments' 2013 recommended Front of Pack Nutrition Labelling Scheme.'
F8. Saturated fat reduction	18	'We will support and enable people to consume less saturated fat through actions such as product/menu reformulation, reviewing portion sizes, education and information and incentivising consumers to choose healthier options. We will monitor and report on our actions on an annual basis. Progress in reducing people's saturated fat intakes will be measured via the National Diet and Nutrition Survey.'
F9. Salt reduction 2017	39	'We will support and enable individuals to further reduce their salt intake by continuing to review and lower levels of salt in food. We commit to working towards achieving the salt targets by December 2017. For some products this will require acceptable technical solutions which we are working to identify and implement.'
F10. Out of home maximum per serving salt targets	7	'We will support and enable customers to reduce their dietary salt intakes by committing to meet all relevant maximum per serving salt targets within 2 years of signing up to this pledge.'

*The number of signatories is out of a total of 7 000 manufacturing, 213 000 wholesale and 52 000 retail food enterprises, as listed in the food statistics pocketbook (71) (source: (73); underlining added).

Advisors to the Foresight process held a diversity of views, not all of which aligned with the political directions of the ruling administration (23). The Foresight Obesity process was, for many researchers and experts involved in the process, an attempt to reframe the issue in light of growing evidence for a need to look beyond individualism in addressing obesity. In line with this, the summary of the report observed that

the pace of the technological revolution is outstripping human evolution and, for an increasing number of people, weight gain is the inevitable – and largely involuntary – consequence of exposure to a modern lifestyle. This is not to dismiss personal responsibility altogether, but to highlight a reality: that the forces that drive obesity are, for many people, overwhelming (6).

Evidence supporting this claim was summarized in the report. In an accompanying assessment of policy options, a social democratic response (using economic and social interventions to promote social justice) was projected to offer the best outcomes in terms of reducing population-level obesity, childhood obesity and socioeconomic disparities in obesity rates, while a market liberal response (emphasizing free markets and targeting individual consumers) would only lead to increased obesity in all three epidemiological categories (9).

At the end of the process, the group was disbanded; however, this did not mean that all of the advisers ceased working with the government. Indeed, some of the advisers that formed the expert advisory group in the Foresight Obesity process, and who subsequently supported the development of strategies and implementation of programmes, had also been key figures in previous government-led obesity consultations. This is important because advisers, who remain key national experts in their field even when not engaged by governments, may at times offer more institutional memory and continuity of framings than civil servants, many of whom can regularly change projects and posts within the broader organization of government. Many of the documents and reports reviewed in this paper attest to this: they list consultations with similar expert advisers (especially those whose advice readily aligns with political priorities and framings), but different civil servants are engaged with preparing the reports (noting that only the more senior of the policy-writing team are acknowledged by name in the reports produced).

From a government perspective, the purpose of Foresight Obesity was to broaden the explanatory framing of obesity, but within bounds. So while the breadth of disciplines engaged with was far greater than any other similar scoping exercise in the past, there were some notable omissions. For example, Foresight Obesity did not encourage engagement with the moral implications of obesity (24), nor did it examine values and norms surrounding large body size, including blame and stigma (25,26). It did not seek to engage consumers in any detail, especially not those in lower socioeconomic strata and those for whom business-like consultation meetings were completely inaccessible. It did not consider how market liberal approaches to governance might contribute to obesity (27), or how the lobbying power of the media and food corporations can impact, implicitly or explicitly, both public opinion and government decision-making. In addition, it did not interrogate cross-cutting themes such as equity, despite this being a stated concern for the Blair government in its first report on health (17).

Systems mapping was used to collate factors identified as contributing to obesity through selective soliciting of expert opinion and research evidence. This permitted the visual linking of diverse forms of evidence in order to build a single picture of the biological and social complexity of

obesity. A qualitative obesity systems map, FOSM, was constructed using detailed advice from a large group of experts drawn from a range of disciplines and interests. The modelling process (described in (7)) claimed not to privilege any particular disciplinary perspective within those initially selected. Although

the system map, together with scientific and other evidence, confirms that energy balance (or imbalance) is determined by a complex multifaceted system of determinants (causes) where no single influence dominates (6),

the individual and his or her energy intake and expenditure were positioned prominently as central to the process of obesity production. The report justifies this by stating: ‘At the heart of the issue of excess weight lies a homeostatic biological system, struggling to cope in a fast-changing world...’ (6). Thus, while it does not privilege any single influence of those included in the consultation, it does privilege one central framing: that at the heart of the obesity crisis lies an individual struggling to balance his or her energy intake and expenditure.

This central positioning of individual energy imbalance may have been an analytic failure. According to Sørensen *et al.* (29),

energy balance theory is valid, with conditional clauses, for physiological observations of body fatness gains due to imbalance in intake and expenditure. But there is no proof of the causal role of energy imbalance for the development of obesity at the population level. The energy balance model has been extended beyond its boundaries in being applied as an explanation for population-level obesity, and several assumptions which underpin its use in this way have been questioned. Furthermore, multiple large-scale population-based studies have been unable to consistently show that differences in observable individual behaviours, which influence energy balance at a given point in time, predict subsequent long-term weight gain and eventual obesity development (30).

This is not to say that factors connected to physical activity or eating do not matter; there is good evidence supporting their association with obesity. However, such evidence does not necessarily support the presumption that the mechanisms through which they act are simple disruptions of individual-energy balance. The body-as-energy-consuming-machine analogy may have been extended too far in its application to explaining population-level obesity trends.

The Foresight Obesity planning and consultation processes began to shift the framing of obesity from a problem of individual to collective responsibility (this is reflected in the final report), but there is no particular systems modelling reason (8) or scientific rationale why the individual

should be at the centre of the model. However, the iconic model that emerged from the process maintained clear focus on the individual and their energy balance as the prime reason for obesity at the population level.

Implementation of foresight obesity, 2007–2011

Implementation of the Foresight Obesity report reflected the central positioning of the individual in the model, rather than the evidence, which pointed to complexity and market failure. To understand why, it is necessary to look at the political processes of implementing policy and expert advice.

Foresight Obesity was intended as a tool for national policy planning looking forward to 2050 and had to be able to withstand changes in political leadership across time. In order to future-proof the approach in case of a change of government, public servants filtered the many policy options offered by the Foresight process with a version of Schwarz and Thompson's 'group grid typology of social solidarities' (31) but without acknowledging the source of their framing. Different clusters of policy scenarios would apply depending on which ideological quadrant a government adhered to (Fig. 1). And if there was a change of politics, policies in line with the new dominant national political ideology could just be recruited through a different quadrant of the grid.

Despite being a seemingly neutral policy process, Foresight Obesity was a selective political act in respect of the type of solution sought and the types of experts and agencies that would help achieve the necessary aim (8). Much as other projects previously conducted by Foresight, this was an instrument of modernization of policymaking within the Labour administration of the time (8). The Blair administration, and subsequently that of Brown, was concerned with addressing 'wicked' issues (32), and government departments and units were pressed to deliver outcomes on such problems regardless of departmental boundaries. Any outcomes had to align with broader political philosophies of moral individualism and market liberalism. The FOSM was a key output of Foresight and illustrated the need for joined-up government: when government departments responsible for different policy areas were mapped onto FOSM, the small extent to which any of them overlapped with respect to anti-obesity policy showed the need for more integration.

Another key outcome of the Foresight Obesity process, which called for collective responses to obesity, was the formation of the Cross-Government Obesity Unit in 2008 (Department of Health and Department of Children, Schools and Families). This unit was responsible for the initiation of the White Paper entitled 'Healthy Lives, Healthy People' (33) and the cross-government strategy 'Healthy Weight, Healthy Lives' (2008–2012), which aimed to shift emphasis in anti-obesity policy from the individual to a broad set of social and environmental factors. There was no direct link between the civil servants who prepared

Foresight and those responsible for writing 'Healthy Weight, Healthy Lives', although some advisors did continue in their roles. One consequence of this that it was easy to default to the previously held view and widespread framing, that obesity was largely an issue of individual responsibility. Conversely, relationships among obesity researchers in different fields were promoted by the Foresight process; there continues to be academic attention paid to complexity, interdisciplinarity (28) and the need for structural reform (34,54,55), and this was arguably amplified by the Foresight process.

The main policy intervention resulting from Foresight Obesity and the Cross-Government Obesity Unit was the Change4Life programme. It focused on modifying individual behaviour as a means of addressing population-level obesity. Change4Life was initiated as a 3-year social marketing campaign in 2009. It was a flagship intervention that claimed to be the most ambitious launched anywhere in the world (36). It aimed to mobilize social marketing and advertising techniques through the use of media, public and private sector partners to

...catalyse social change... [and] create a movement in which everyone in society plays their part, helping to create fundamental changes to those behaviours that can lead to people becoming overweight and obese (36).

Change4Life sought consumer-driven change, in which it ambitiously aimed to use advertising to produce enlightened consumers who would drive change in the market. Private industry was involved only insofar as sponsors were encouraged to support Change4Life and assist in altering consumer behaviour. This presented opportunities for publicity, product placement and advertising, and permitted industry partners to participate in obesity reduction in ways that did not conflict with demands of turnover and profitability. Where initiatives intended to improve the food environment were implemented, such as stocking stores in deprived areas with fresh foods, emphasis was on the provision of goods rather than communication and collective action (37).

The discourse of complexity promoted by Foresight Obesity was absent from the Change4Life roll-out. While Change4Life claimed that it aimed to 'reframe the issue of obesity' so that it was seen as being 'not the fault of individuals or families but the result of modern life' (36), this was not foregrounded in the report (it appears just once, on page 43 of the Marketing Strategy document) and did not translate into practice. Individual consumer behaviour was foregrounded as the target for change. Change4Life distributed information and tools to help people make better lifestyle choices. While Change4Life sought to acknowledge that obesity-related health is relational, there was simultaneously an underlying 'assumed necessity to target particular individuals and families' and 'an ideal, rational [consumer-] subject remains at the heart of what is considered healthy' (38).

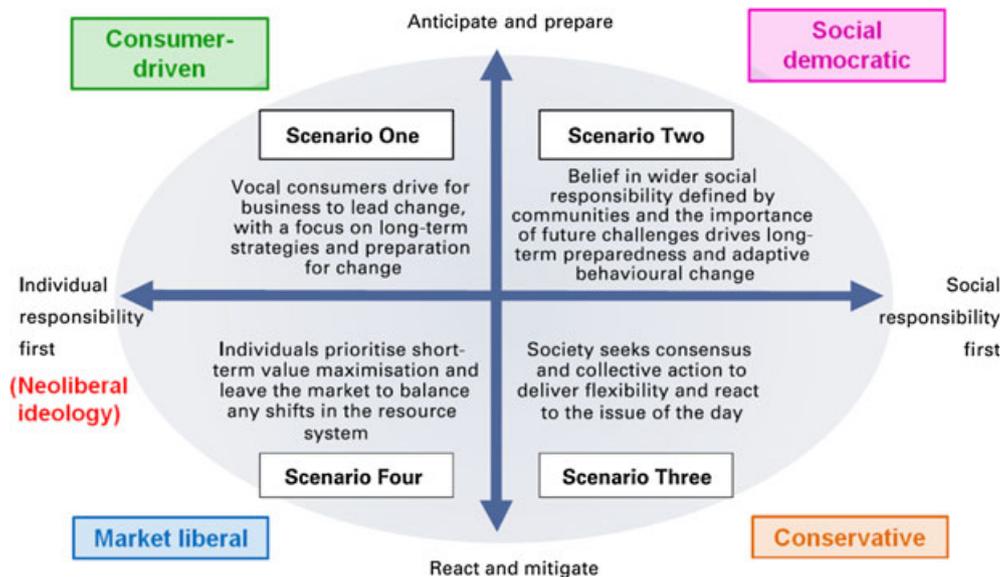


Figure 1 Foresight Obesity policy options were filtered into groups, or scenarios, according to the ideology underpinning them. In Scenario 1, enlightened consumers would fix obesity through driving the market towards healthy offerings. In Scenario 2, social democratic governments would anticipate the future, and plan obesity away, through upstream levers such as taxation. In Scenario 3, conservative approaches would rely on tradition to find responses to obesity, letting it run its course locally. And in Scenario 4, market liberal approaches would seek individualist responses to obesity. Adapted from (6), which was adapted from (31).

Obesity policy and implementation after foresight, 2010–2015

The 2010 election resulted in a change in government – and hence political filter – from Labour to a Conservative-Liberal Democrat coalition. Foresight Obesity continued to inform obesity policy, as the approach shifted from enlightened consumerism to market liberalism (Fig. 1, from Scenario 1 to Scenario 4). Ideals of individualism and individual choice, which in practice manifest as social patterns of consumption, are central to market liberal ideologies. The government's 2010–2015 policy paper on obesity and healthy eating, entitled 'Helping People Make Healthier Choices', made these ideals clear. The government would offer advice and guidance to improve labelling and consumer information, and encourage businesses to include information on and with their food products so that people could make healthier choices. The resultant Public Health Responsibility Deal (PHRD) was initiated in 2011, as national government funding for Change4Life was reduced to around a fifth of its previous level. Change4Life continued beyond its initial 3 years, as sponsorship from commercial brands and non-governmental organizations increasingly funded it, with matched funding from government, on a project-by-project basis. This has led to some ambiguous messages to programme participants about what constitutes 'good' consumption, because consumption, which is good for income generation of sponsors and supporters, is not necessarily good for health. An example of this is described in Fig. 2.

Within the PHRD was the FNRD, which was formally initiated in 2013. While framed as a partnership, most of

the work programme was (and still is) guided by the food industry. The FNRD is underpinned by government emphasis on market growth. The Calorie Reduction Pledge (F4), for example,

...encapsulates the Government's priorities of supporting sustainable and responsible economic growth. It sees the health and growth objectives as intertwined and mutually reinforcing. The innovation and competition which drives growth in the food industry and which remains a priority – can also powerfully help to drive forward its contribution to the national ambition to reduce calorie intake (39).

However, while the FNRD ostensibly places responsibility on the food industry to drive change, in practice, the consumer is framed as ultimately responsible for their own consumption behaviours (Table 2).

Interventions since Foresight have continued to focus on the individual, and the discourse of complexity has dropped out of obesity-related policy documents (Table 1). In addition, while the problem of obesity is a concern for government and its citizens, and the individual consumer continues to be framed as having the power to solve the problem (40), the balance of power in obesity governance in the UK has increasingly moved away from both, towards corporations. For example, while the consuming citizen is framed in the FNRD as having the power to address nationwide obesity trends, a very different balance of power is apparent in practice. Membership of the FNRD Steering Group, and at all levels of the FNRD, favours very high levels of representation from

the food (and drink) industry. Industry representatives have a majority in the nine-person Steering Group, with five full members; two additional Steering Group members, the Independent Chair and Senior Academic, have links with industry (41). Where larger-scale society-wide interventions are attempted, the majority are carried out with the intent of ‘nudging’ or facilitating individual behaviour change through approaches such as social marketing (42).

Discussion

Despite a changing political landscape in the UK between 2000 and 2015, there is surprising continuity in the framing of obesity across this time. Given that there is limited scientific evidence to directly support this framing, why might it persist? Political values of individualism and market liberalism, in one form or another, are continuous and have infused policy documents with recommendations based on individualist behaviour and practice, even when the rhetoric of obesity policy veered towards collective action with Foresight Obesities. The framing of obesity is consistent, despite the diversity of advice and opinion that inform government reports, suggesting that political processes of filtering scientific advice and reaching consensus on it (both within and now also across parties) play an important role in shaping research directions, obesity interventions and therefore national obesity outcomes. Governance structures and ideologies, as well as lobbying by companies and media, can influence these processes and yet are rendered invisible in consultations and the reports produced. There is also considerable continuity of key advisors involved in informing and developing policy across the period, and little research has been carried out to understand how their own views and values may affect the advice they give. This has implications for the framing of obesity, and for any possibilities for its reframing.

The idea that individual consumers will provide the solutions to a broad-scale problem such as obesity is firmly based on the idea of the imagined responsible consumer who will rationally steer the market away from obesity. But the consumer society of the present-day UK encourages passive pleasures and, through advertising and branding, growing expectations about the status and pleasure that consumption can bring. Such consumption is often well beyond the population’s ability to pay for those expectations: the UK has one of the lowest levels of household savings among the OECD countries and above-average rates of household debt (43).

At the same time, market theory assumes that the individual consumer is able to process all information provided to them about food products and nutritional requirements. This expects a great deal from consumers, and this expectation – along with the assumptions that choice is ‘free’ and that more choice is always better – has been questioned (44–46). A study from Norway, for example, illustrates that

consumers feel well-informed about an average of only one-third of all market choices; where food is concerned, men, young people and those who self-define as being working class particularly struggle to understand the information available to them (46). Reformulation of foods and increasing the extent of information on the differing qualities of food items (including food descriptions, nutrient composition, potential health benefits, positive imagery, storage advice, sell-by and best-before dates and claims of naturalness) is likely to exacerbate the ‘consumer attention deficit’ defined by these authors (46). Food advertising, on the other hand, relies on cultivating social influences (such as status seeking, social trends, identity formation and peer-to-peer pressures) in addition to broadcasting both sentiment and information (47). It does not appeal to a rationally moral consumer but a socially-embedded feeling and sensing consumer who is encouraged by it to seek pleasure, happiness and the ‘good life’.

The Foresight Obesity Systems Map and interventions arising from it both diffused responsibility (by emphasising complexity and multiple causal factors) and perpetuated the neoliberal construct of the individual consumer-citizen (by placing it prominently at the centre of the model). Causal factors visually blur together in a messy web around the prominent consuming individual, who stands alone as a feasible target for interventions. This framing, constructed in spite of claims to neutrality, illustrates the extent to which social values are implicit even in evidence-based research and policymaking.

The FOSM framing of obesity may have inadvertently weakened efforts to initiate any reforms that do not explicitly target the individual, for two reasons. First, it reinforces emphasis on the individual consumer in policy and popular discourse, which both encourages stigmatization and social fragmentation, and leads intervention to be publicly perceived as an infringement of so-called freedoms of consumer choice. This is in contrast to current developments in Mexico, for example, where state interventions such as taxes are being framed as mechanisms to protect vulnerable societies from international corporate powers (48). Second, it permits industrial lobby groups, whose interest is in encouraging consumption, to make two parallel points that permit deflection of efforts to intervene beyond the individual. These are that individuals are ultimately responsible for their own health, so more nutrition education is the key, and complexity is the cause of obesity so any singling out of specific ingredients, products or locations of eating is not useful. For example, in its response to the WHO Draft Guidelines for Sugar Intake (2014), the Managing Director of British Sugar stated:

[1]...it is important to help educate everyone on the importance of balancing energy (calories) in and energy (calories) out, and to provide accurate information based



Figure 2 Change4Life sponsorship at a cricket match illustrates contradictory messaging about 'good' consumption. Change4Life banners with the slogan 'eat well, move more, live longer' are displayed prominently on fences, while players' attire showcase logos for brands of alcoholic beverages. Children wear Change4Life t-shirts while consuming the types of branded foods (soft drinks and crisps) that are readily available and marketed at the event, but which the programme encourages participants to resist (Pakistan-Australia Test Match, Ricky Ponting batting, Headingley, 2010; photographs courtesy S. Ulijaszek).

on facts and science so that the public can make considered decisions..., and

[2]...sugar is just one source of calories, and reducing intake of it alone will not solve the obesity crisis, for which there is no quick fix... (49).

Likewise, in response to the Department for Education Consultation on Draft School Food Standards (2014), the UK Food and Drink Federation stated:

[1] Only by teaching children about diet and health... can changes in pupils' diets really start to happen. DfE should

also encourage schools to engage parents in activities alongside their children such as cookery clubs..., and

[2]...out of the school environment, children are faced with an unconstrained choice, and need to learn how to balance their diets and make healthier choices. FDF believes that teaching children about how to consume products which may be higher in fat, salt and sugars in the context of an overall balanced diet is likely to have more of a positive impact than an outright ban on products... (50).

Statements like these both exploit the messy complexity of obesity highlighted by Foresight and focus on the individual as the locus of change. Such statements have complicated efforts to introduce new and different approaches to obesity. They have also amplified the focus on the individual consumer, an aim that is inherent in FNRD pledges. This positions the individual once again as being responsible for national health outcomes. This is not to say that industry is solely to blame for population-level obesity; in complex problems, there are many concurrent society-wide drivers (e.g. insecurity, inequality and lack of access to resources), many of which require changing population-wide social norms and culturally accepted practices that are associated with free markets and which facilitate mass consumption. However, addressing such drivers simultaneously is difficult when attention is constantly deflected back onto the individual because alternative policy options cannot be enacted for a range of political and pragmatic reasons.

There are increasing calls to understand health and health outcomes as products of interconnectedness rather than individual choice (51–53). Foresight Obesity made a partial attempt to reframe obesity in this way. But in a political setting that emphasizes the consumer as its individual analytical unit, such a paradigm shift has proved unsuccessful. Current obesity policy is centred around the core objective of ‘helping people make healthier choices’ (40). While there are increasing calls for collective cross-system action and solidarity in addressing global health challenges (51) and obesity specifically (54,55), individualist ideologies prevail in practice. While the causal complexity central to Foresight represents a strong attempt to reframe obesity, its specific framing and details of its analysis too easily lent themselves to an individualistic approach and – perhaps unexpectedly – could be used to discredit firmer regulatory responses.

In creating the FOSM, where some linkages in the network of factors were weighted but all factors appeared as equally sized nodes, Foresight Obesity concealed power relations, hierarchies and values inherent in the obesity system of everyday life. For example, in the UK food environment, power (political, financial and social) is concentrated in very few key stakeholders, including those in government, business and the media. This power is much greater than that of any individual or local community. Foresight Obesity

also took the powerful emphasis on choice and consumption as fact rather than as a social and political value that emerged in the UK during the 1980s. Further, the balance of power in favour of businesses and large multinational organizations – powerful organisations that play a governing role over large parts of the food supply – increasingly emphasizes and normalizes the importance of being an individual whose identity is formed by consumption. This is unsurprising; in a political context where collective society has been reframed as a collection of individuals driven by consumption (whether responsible or hedonistic), then the broader social and political drivers of health patterns cease to exist.

Obesity policymaking is not neutral; it is a process that takes place within societies. Societies, in turn, have specific social values, norms and power hierarchies, which vary between and within nations, and across time. The people involved in policymaking processes have particular backgrounds, ideologies and interrelations, all of which influence how they act. And the pressures that shape policymaking and government reporting frequently go unreported or even unnoticed. Policies which emerge reflect the landscape of policymakers, advisors, political pressures and values, as much – if not more – than the landscape of evidence. The power position of industry and those supported by it, for example, remains largely unchallenged; in this case, individualistic framing offers the path of least resistance. With this in mind, new approaches to obesity may come from acknowledging and understanding the social and political context in which obesity is governed.

Conflicts of interest statement

No conflict of interest was declared.

Acknowledgements

An early version of this paper was presented during a panel at the European Congress on Obesity (Prague, 2015). For this we thank the organizers of ECO and of the panel, in particular Line Hillersdal and the Governing Obesity research cluster at the University of Copenhagen.

References

1. Pollitt C. Bringing consumers into performance measurement: concepts, consequences and constraints. *Policy Polit* 1988; 16: 77–87.
2. Loughlin J. Regional autonomy and state paradigm shifts in Western Europe. *Reg Fed Stud* 2000; 10: 10–34.
3. Rose N. *The Power of Freedom. Reframing Political Thought*. Cambridge University Press: Cambridge, 1999.
4. Driver S, Martell L. New labour: culture and economy. In: Ray L, Sayer A (eds). *Culture and Economy after the Cultural Turn*. Sage: London, 1999.

5. Mol A. Good taste. The embodied normativity of the consumer-citizen. *J Cult Econ* 2009; 2: 269–83.
6. Butland B, Jebb S, Kopelman P *et al*. FORESIGHT. Tackling Obesity: Future Choices – Project Report (2nd Edition). Foresight. UK Government Office for Science: London, 2007.
7. Vandenbroeck P, Goossens J, Clemens M. Tackling Obesity: Future Choices – Building the Obesity System Map. Foresight - Government Office for Science: London, 2007.
8. Ulijaszek SJ. With the benefit of foresight: obesity, complexity and joined-up government. *Biosocieties* 2015; 10: 213–28.
9. Chipperfield T, O'Brien R, Bolderson T *et al*. Foresight Tackling Obesity: Future Choices – Qualitative Modelling of Policy Options. UK Government Office for Science: London, 2007.
10. Jenkin GL, Signal L, Thomson G. Framing obesity: the framing contest between industry and public health at the New Zealand inquiry into obesity. *Obes Rev* 2011; 12: 1022–30.
11. Kwan S. Framing the fat body: contested meanings between government, activists, and industry. *Sociol Inq* 2009; 79: 25–50.
12. Swinburn BA, Egger G, Raza F. Dissecting obesogenic environments: the development and application of a framework for identifying and prioritizing environmental interventions for obesity. *Prev Med (Baltim)* 1999 Dec; 29: 563–70.
13. Association for the Study of Obesity. Obesity Policy in England. Association for the Study of Obesity: Kent, 2011.
14. UK Government. Policy: obesity and healthy eating [Internet]. 2015 [cited 2015 Jun 15]. Available from: <https://www.gov.uk/government/policies/obesity-and-healthy-eating>
15. Oyebo O, Mindell J. Use of data from the Health Survey for England in obesity policy making and monitoring. *Obes Rev* [Internet]. 2013;14:463–76. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23463960>
16. Jebb SA, Aveyard PN, Hawkes C. The evolution of policy and actions to tackle obesity in England. *Obes Rev* 2013; 14: 42–59.
17. Department of Health. White Paper – Saving Lives: Our Healthier Nation [Internet]. London: The Stationery Office; 1999. Available from: <http://goo.gl/QWO5Tq>
18. UK National Audit Office. Tackling obesity in England. Report by the Comptroller and Auditor General, Session 2000–01. London; 2001.
19. Kunkel DL, Castonguay JS, Filer CR. Evaluating industry self-regulation of food marketing to children. *Am J Prev Med* 2015; 49: 181–7.
20. Prentice AM, Jebb SA. Obesity in Britain: gluttony or sloth? *BMJ* 1995; 311: 437–9.
21. UK Government Department of Health. Choosing health: making healthy choices easier [Internet]. London; 2004. Available from: http://webarchive.nationalarchives.gov.uk/+/dh.gov.uk/en/publicationsandstatistics/publications/policyandguidance/dh_4094550/nhttp://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/
22. Miles I. Foresight in the UK 1994–2014: Impacts and Insights. Higher School of Economics Annual Conference on Foresight and STI Policy (Moscow) [Internet]. Moscow: University of Manchester; 2014. Available from: <http://www.slideshare.net/IanMiles/what-has-happened-to-foresight-in-the-uk>
23. Wise J. UK government disbands advisory group on obesity. *BMJ* 2011; 343: d7425–d7425.
24. Gard M, Wright J. The Obesity Epidemic: Science, Morality and Ideology. Routledge: London, 2005.
25. Puhl RM, Heuer CA. The stigma of obesity: a review and update. *Obesity* 2009; 17: 941–64.
26. Brewis AA. Stigma and the perpetuation of obesity. *Soc Sci Med. Elsevier Ltd* 2014 Oct; 118: 152–8.
27. Offer A, Pechey R, Ulijaszek SJ, editors. Insecurity, Inequality and Obesity in Affluent Societies. Proceedings of the British Academy (174). Oxford University Press: Oxford, 2012.
28. Rutter H. Where next for obesity? *Lancet. Elsevier Ltd* 2011 Aug; 378: 746–7.
29. Sørensen TIA, Rokholm B, Ajslev TA. The History of the Obesity Epidemic in Denmark. Insecurity, Inequality and Obesity in Affluent Societies. Oxford University Press: Oxford, 2012 p, pp. 161–78.
30. Summerbell CD, Douthwaite W, Whittaker V *et al*. The association between diet and physical activity and subsequent excess weight gain and obesity assessed at 5 years of age or older: a systematic review of the epidemiological evidence. *Int J Obes* 2009; 33: S1–92.
31. Schwarz M, Thompson M. Divided We Stand: Re-Defining Politics, Technology and Social Choice. University of Pennsylvania Press: Philadelphia, 1990.
32. Kavanagh D, Richards D. Departmentalism and joined-up government: back to the future? *Parliam Aff* 2001; 54: 1–18.
33. UK Government. Healthy lives, healthy people: our strategy for public health in England (white paper, CM7985). London; 2010.
34. Hawkes C. Uneven dietary development: linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases. *Global Health* [Internet]. 2006 Jan [cited 2013 Nov 11];2:4. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1440852&ctool=pmcentrez&rendertype=abstract>
35. Marmot M, Wilkinson RG (eds). Social Determinants of Health. Oxford University Press: Oxford, 1999.
36. UK Government Department of Health. Change4Life marketing strategy. London; 2009.
37. Adams J, Halligan J, Watson DB *et al*. The Change4Life convenience store programme to increase retail access to fresh fruit and vegetables: a mixed methods process evaluation. *PLoS One* 2012; 7: e39431.
38. Evans B, Colls R, Hörschelmann K. “Change4Life for your kids”: embodied collectives and public health pedagogy. *Sport Educ Soc* [Internet]. 2011;16:323–41. Available from: 10.1016/j.worlddev.2005.07.015
39. UK Government Department of Health. F4. Calorie Reduction [Internet]. Public Health Responsibility Deal. 2012 [cited 2015 Jun 21]. Available from: <https://responsibilitydeal.dh.gov.uk/f4-factsheet/>
40. UK Government Department of Health. Policy paper. 2010 to 2015 Government policy: obesity and healthy eating [Internet]. London; 2015 [cited 2015 Jun 15]. Available from: <https://www.gov.uk/government/publications/2010-to-2015-government-policy-obesity-and-healthy-eating/2010-to-2015-government-policy-obesity-and-healthy-eating>
41. Gornall J. Sugar: spinning a web of influence. *BMJ* [Internet]. 2015;350:h231–h231. Available from: <http://www.bmj.com/cgi/doi/10.1136/bmj.h231>
42. Thaler RH, Sunstein CR. Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, 2008.
43. OECD Data. Household accounts [Internet]. 2015 [cited 2015 Oct 18]. Available from: <https://data.oecd.org/hha/household-savings.htm#indicator-chart>
44. Whybrow PC. American Mania: When More is Not Enough. WW Norton and Company: New York, 2005.
45. Schwartz B. The Paradox of Choice: Why More is Less. Harper Perennial: New York, 2004.
46. Berg L, Gornitzka A. The consumer attention deficit syndrome: consumer choices in complex markets. *Acta Sociol* 2012; 55: 159–78.
47. Nestle M. Food marketing and childhood obesity – a matter of policy. *N Engl J Med* 2006; 354: 2527–9.
48. Donaldson E. Advocating for Sugar-Sweetened Beverage Taxation: A Case Study of Mexico [Internet]. Baltimore: Johns

- Hopkins Bloomberg School of Public Health; 2015. Available from: http://www.jhsph.edu/departments/health-behavior-and-society/_pdf/Advocating_For_Sugar_Sweetened_Beverage_Taxation.pdf
49. Pike R. Response to launch of WHO Draft Guidelines: sugars intake for adults and children (07 March) [Internet]. 2014. Available from: <http://www.britishsugar.co.uk/Media/2014/Response-to-launch-of-WHO-Draft-Guidelines.aspx>
50. Food and Drink Federation. Response to DfE Consultation on Draft School Food Standards (11 April 2014) [Internet]. London; 2014. Available from: <https://www.fdf.org.uk/responses/Response-DfE-School-Food-Standards.pdf>
51. Frenk J, Gómez-Dantés O, Moon S. From sovereignty to solidarity: a renewed concept of global health for an era of complex interdependence. *Lancet* 2014; 383: 94–7.
52. McLennan AK, Uliaszek SJ. An anthropological insight into the Pacific Island diabetes crisis and its clinical implications. *Diabetes Manag* 2015; 5: 143–145.
53. Holt-Lunstad J, Smith TB, Layton JB. Social relationships and mortality risk: a meta-analytic review. *PLoS Med* [Internet]. 2010 Jul [cited 2011 Jul 29];7:e1000316. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2910600&tool=pmcentrez&rendertype=abstract>
54. Lang T, Rayner G. Overcoming policy cacophony on obesity: an ecological public health framework for policymakers. *Obes Rev* 2007 Mar; 8: 165–81.
55. Gortmaker SL, Swinburn BA, Levy D *et al*. Changing the future of obesity: science, policy, and action. *Lancet. Elsevier Ltd* 2011 Aug; 378: 838–47.
56. UK Government Department of Health. On the state of public health: annual report of the chief medical officer [Internet]. London; 2002. Available from: http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4081860.pdf
57. UK Government Department of Health. At least five a week: evidence on the impact of physical activity and its relationship to health. A report from the Chief Medical Officer. London; 2004.
58. House of Commons Health Committee. Obesity (Volume 1). Third report of session 2003-04. London; 2004.
59. Wanless D. Securing good health for the whole population. London; 2004.
60. UK Government Department of Health. Choosing a better diet: a food and health action plan. London; 2005.
61. Comptroller and Auditor General. Tackling child obesity – first steps. London; 2006.
62. Cross-Government Obesity Unit. Healthy weight, healthy lives: a cross-government strategy for England [Internet]. London; 2008. Available from: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_113486
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_112529
<http://webarchive.nationalarchives.gov.uk/20100>
63. Marmot M. Fair society, healthy lives. The Marmot Review. University College London; London; 2010. Available from: <http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>
64. Haste K, Yates P. Strategic High Impact Changes: Childhood Obesity National Support Team. UK Government Department of Health & Childhood Obesity National Support Team: London, 2011.
65. Department of Health for England. The Public Health Outcomes Framework, 2013-2016. Crown Copyright: London, 2012.
66. UK Government Department of Health. Living well for longer: a call to action to reduce avoidable premature mortality. London; 2013.
67. Public Health England. From evidence into action: opportunities to protect and improve the nation's health. London; 2014.
68. HM Government. Moving more, living more. The physical activity Olympic and paralympic legacy for the nation. London; 2014.
69. UK Government Department of Health. Annual Report of the Chief Medical Officer. Surveillance Volume 2012. London; 2014.
70. UK Government Department of Health. Living Well for Longer: One Year On. Public Health Policy and Strategy Unit, Department of Health: London, 2015.
71. Department for Environment Food & Rural Affairs. Food Statistics Pocketbook. Food Statistics Team, DEFRA: London, 2014.
72. UK Government Department of Health. Equality analysis: A call to action on obesity in England [Internet]. Department of Health: London; 2011. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213721/dh_130511.pdf
73. UK Government Department of Health. Public health responsibility deal [Internet]. 2015 [cited 2015 Jun 15]. Available from: <https://responsibilitydeal.dh.gov.uk/>