Public Health England

Attitudes to obesity

Findings from the 2015 British Social Attitudes survey

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Summary

This paper presents new findings on attitudes in Britain towards obesity and what might be done to reduce its prevalence. Despite appreciating some of the health risks, people tend not to recognise obesity when it does exist – and especially so in men. Obesity is frequently regarded as a problem for individuals and health care professionals rather than society more generally, and those who are obese are often stigmatised. There is significant support for actions aimed at reducing levels of obesity.

People tend to overestimate what obesity means in terms of body size

- 54% correctly identify when a woman is obese
- 39% correctly do this for a man

There is widespread understanding of some, but not all, of the health risks

- over 80% understand that people who are obese are more likely to have heart disease, high blood pressure, and diabetes
- 34% understand the increased risk of liver disease

People who are obese are often the object of stigmatising attitudes

- 53% agree that “most overweight people could lose weight if they tried”
- 75% believe that a person who is not very overweight would be more likely than one who is very overweight to be offered an office manager’s job

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Introduction

In 2015 Public Health England (PHE) commissioned four sets of questions on NatCen's British Social Attitudes survey (BSA). They were designed to measure public attitudes to alcohol, obesity, dementia and mental wellbeing.

This paper presents analysis of the results of the questions on obesity. Obesity is now widely recognised as one of the major health challenges facing both economically advanced and less advanced societies (NCD Risk Factor Collaboration 2016; World Health Organization, 2015). Being overweight or obese has been linked to a higher prevalence of a variety of medical conditions including heart disease, some cancers and diabetes. Public attitudes potentially play an important role in attempts to reduce the prevalence of obesity through the impact they may have both on individual behaviour and on willingness to support collective action designed to address the problem (Butland et al. 2007).

Carried out annually since 1983,[1] BSA is an authoritative, high quality source of data on the views of the British public. It uses random probability sampling to yield a representative sample of adults aged 18+ living in private households in Britain. The majority of questions are asked by an interviewer face-to-face in the form of a Computer Assisted Personal Interview (CAPI), while a smaller number are answered by respondents in a self-completion booklet.

The 2015 survey included 40 questions about obesity, none of which had been asked before. The questions were developed through a process of questionnaire design in consultation with PHE experts, together with piloting potential questions among a small sample of the general public. Some of the questions were included in the face-to-face part of the survey, while others (which might be considered more sensitive) were asked in the self-completion booklet. Both sets of questions are presented in the Appendix accompanying this paper.

Interviewing took place between July and November 2015. The overall response rate, that is the proportion of people who we attempted to contact who completed the survey, was 51%. The questions on obesity were asked of a random half of the sample of the 2015 survey, comprising 2188 people who answered the face-to-face survey, and 1858 who completed the self-completion questionnaire.[2] The data have been weighted to correct for potential bias arising from the pattern of non-response and calibrated to match the population profile on the basis of age, sex and region.[3]

The set of questions on obesity had four main aims. The first was to provide up-to-date evidence on public attitudes towards obesity and how these vary between different sections of the British population. The second was to assess the extent of the match (or otherwise) between public opinion and public policy towards obesity. The third objective was to deepen our understanding of public attitudes towards those who are obese. Finally, the questions were asked with a view to enhancing our perspective on why people hold the views

[1] Apart from in 1988 and 1992 when its core funding was used to fund the British Election Study series.
[2] There were four versions of the survey questionnaire, each asked of a random quarter of the survey sample. The questions on obesity were included on two of the four versions.
[3] www.bsa.natcen.ac.uk/latest-report/british-social-attitudes-33/technical-details.aspx

that they do towards obesity, people who are obese, and public policy designed (wholly or partially), to tackle obesity.

The paper has three main sections that reflect the first three of these aims. First of all, we look at people's perceptions and understanding of obesity. Do people recognise obesity when it exists, and what do they think are its causes and consequences? Second, we look at who and what is thought to be responsible for the problem of obesity and for trying to find and implement a solution. That leads us into attitudes towards potential public policies on obesity such as taxing sugary drinks or fatty foods as well as towards the responsibility of other potential actors, such as supermarkets and food manufacturers. Finally, we look at how people view those who are obese, and in particular, the extent to which they are thought to be the object of social stigma. The objective of understanding why people hold the views that they do is pursued at various points throughout the report, not least by looking at how attitudes vary across different social groups.

All differences described in the text (between different groups of people) are statistically significant at the 95% level or above, unless otherwise specified.

Perceptions and understanding

Perceptions of others' weight

People are unlikely to be concerned about obesity unless they recognise it when it exists. In order to assess how far they do recognise it, we presented respondents with two sets of eight pictures that, as they were read from top left to bottom right, depicted people of increasing body mass index (BMI). One set of pictures (see Chart 1) was of a male figure, the other (Chart 2) of a female one.[4] In each case we invited respondents to say, "at what point, if at all, do you think the pictures show a man/woman who is very overweight, sometimes referred to by doctors as 'obese'?". In both cases, figure H is the 'correct' answer, that is, it is the first of the figures that is intended to represent someone with a BMI of 30 or more.[5] (In both cases, figure G is someone with a BMI of between 28 and 29, while figure H is someone with a BMI of just over 32).

[4] The body image scales shown in these two charts were developed by Martin Tovee at Newcastle University. At the time of the publication of this paper, they had not been published.

[5] Body Mass Index (BMI) is an index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as weight in kilograms divided by the square of height in metres (kg/m^2). Someone with a BMI of less than 18.5 is defined as underweight, while a BMI of 25 or above is regarded as overweight, and one of 30 or above as obese.

Chart 1 Male figures of increasing BMIs presented to respondents

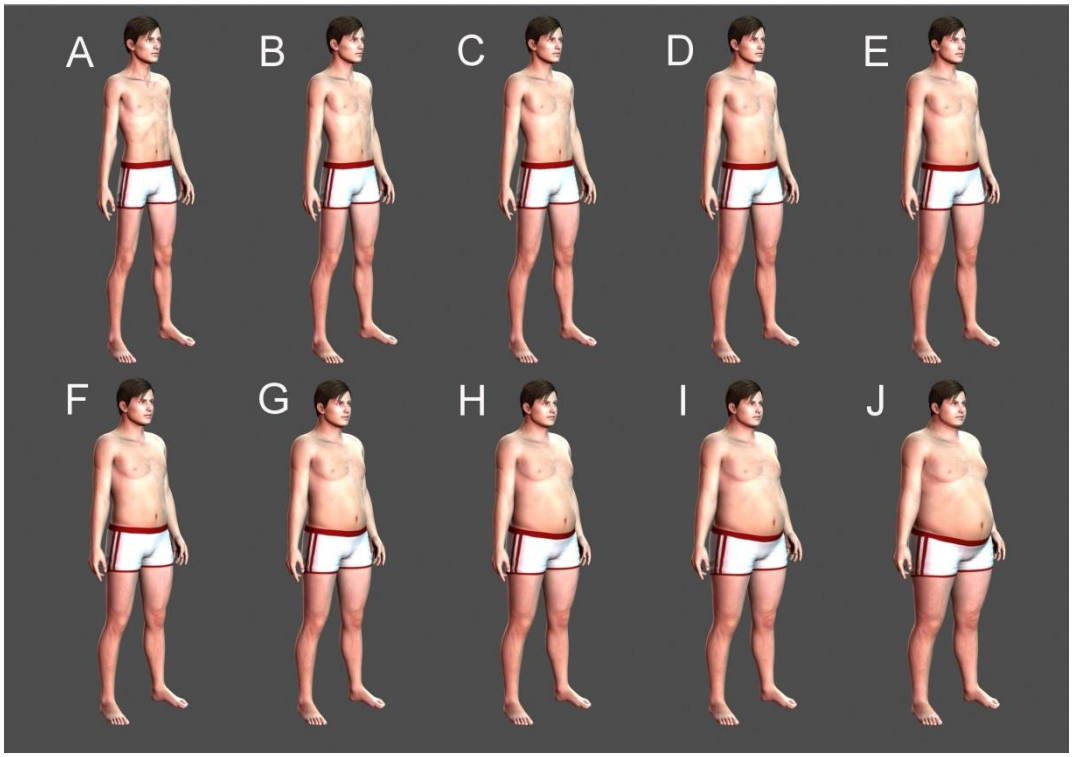
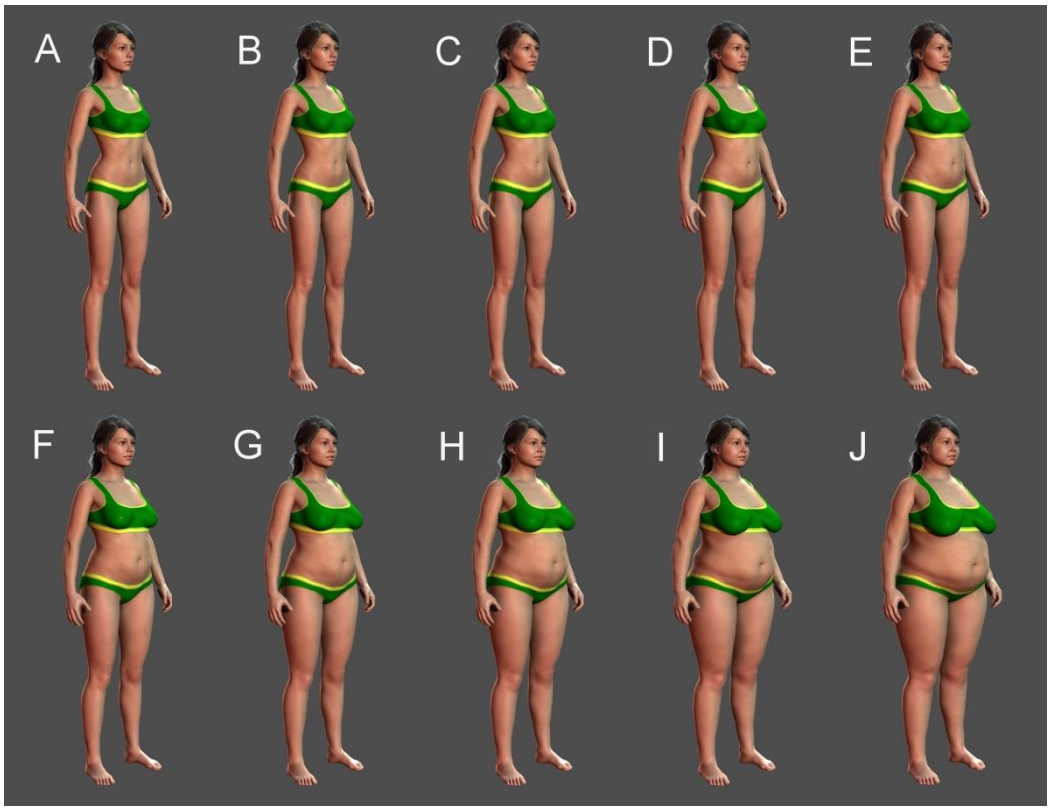


Chart 2 Female figures of increasing BMIs presented to respondents



In practice well under half (39%) regard the male figure H as obese (Table 1). Just 26% choose figure H itself, while 13% pick out one of the figures that shows a lower BMI that that (in most cases, figure G). The median response (that is, the middle figure) is figure I. Around one-third pick figure J – the image showing the highest BMI (of 42). There thus appears to be some tendency for people to fail to recognise obesity in men.

Table 1 Perceptions of which figures represent obesity

% saying first figure to represent someone who was 'obese' is:	Male figure	Female figure
A	*	*
B	*	*
C	*	*
D	1	1
E	1	2
F	2	6
G	9	19
H	26	**25**
I	**23**	18
J	34	25
None of these	2	2
Weighted base	*2179*	*2179*
Unweighted base	*2188*	*2188*

** = Less than 0.5%*

Figures in bold = median response

The same tendency is less evident when respondents are presented with a female figure. Over half (54%) pick out either figure H or a figure showing a lower BMI than that. Thus the correct answer, H, is the median response. However, only one-quarter actually pick figure H, while 28% pick an image showing a lower BMI than H. As many as 45% pick out either figure I or J, or say that none of the figures are obese. Thus, in women too, instances of obesity are not necessarily well-recognised by the public.

Perceptions of own weight

However, being aware of obesity in oneself might be regarded as more important than recognising it in others. To help us establish whether someone is overweight or obese, we asked respondents to say both how tall they are and how much they weigh, the two pieces of information that make up BMI. However, neither was actually measured by the interviewer – we relied wholly on respondents' self-reports. There is a well-recognised risk in the literature that those reports are inaccurate, either because respondents under-report their weight or because they over-estimate their height (or both) (Spencer et al., 2002; Stommel and Schoenborn, 2009). Any such pattern is, however, itself of interest, because it might be regarded as evidence of a reluctance to acknowledge being overweight. We can establish the presence or otherwise of such a pattern by comparing the distribution of BMI that results from our respondents' self-reports with that obtained by a high quality survey; the Health Survey for England (HSE), which does measure respondents' heights and weights directly.

Table 2 shows, separately for men and for women, the distribution of BMI as calculated from the reports of height and weight given by BSA respondents and compares it with the distribution that was obtained when height and weight were measured directly by HSE 2014. HSE 2014 classified around a quarter of its respondents as obese (24% for men, 27% for women), whereas only around one in five of our respondents report a combination of height and weight that place them in that category. Conversely, more respondents report

a healthy BMI than was the case when the measurements were taken by HSE interviewers.

Table 2 Reported BMI, by sex, in BSA 2015 and measured BMI, by sex, in HSE 2014

	BSA 2015 (self-reported)		HSE 2014 (measured)	
	Men	Women	Men	Women
	%	%	%	%
Underweight	1	3	2	2
Healthy weight	40	48	33	40
Overweight	40	29	41	31
Obese	19	19	24	27
Weighted base	*1029*	*962*	*3501*	*3533*
Unweighted base	*936*	*1070*	*3149*	*3794*

Source: HSE 2014: Scantlebury and Moody (2015) except 'underweight' which is taken from Moody (2014)

The pattern of BMI derived from BSA 2015 is much the same as that obtained when self-reported BMI was collected by the HSE itself in 2012 (see Table 3). At 26.8 for men, and 26.1 for women, the average BMI of BSA respondents is slightly higher than that obtained via self-report in HSE 2012 (26.3 for men and 25.7 for women), but nevertheless, the proportion classified as obese is very similar across both surveys (around one-fifth in each). Much the same pattern is seen if the comparison is made with similar data obtained by HSE 2011 (Sutton, 2011).

Table 3 Reported BMI, by sex, in BSA 2015 and HSE 2012

	BSA 2015 (self-reported)		HSE 2012 (self- reported)	
	Men	Women	Men	Women
	%	%	%	%
Underweight	1	3	2	3
Healthy weight	40	48	40	49
Overweight	40	29	40	29
Obese	19	19	18	19
Weighted base	*1029*	*962*	*3837*	*3889*
Unweighted base	*936*	*1070*	*3473*	*4204*

Source: HSE 2012: Moody (2013)

However, when we asked respondents whether they think of themselves as "underweight" (either "very" or "a bit"), "overweight" (again, "very" or "a bit"), or "about the right weight'", as shown in Table 4, most of those whose self-report of weight and height result in a BMI that classified them as overweight or obese say that they are overweight. Eighty nine per cent of those who are classified as obese regard themselves as overweight, as do 74% of those who are categorised as overweight. In contrast, just 24% of those whose self-reported height and weight classified them as having a healthy weight perceive themselves as overweight.

Table 4 Perception of own weight, by self-reported BMI

BMI		Perception of own weight: Underweight	About the right weight	Overweight	*Weighted base*	*Unweighted base*
Underweight	%	37	44	12	*38*	*36*
Healthy weight	%	8	66	24	*739*	*736*
Overweight	%	4	21	74	*608*	*621*
Obese	%	6	3	89	*319*	*331*
All	%	7	36	55	*1841*	*1858*

This pattern, though, is more evident among women than among men. Among those men whose self-reports of weight and height place them in the 'obese' category, just 25% say that they are "very" overweight, whereas 35% of obese women do so. Similarly, 77% of apparently overweight women say they are either "very" or "a bit" overweight, whereas, amongst overweight men, the equivalent figure is 71%. We saw earlier that both men and women are less likely to recognise obesity in a male than in a female figure, and it appears that men are also less likely to recognise when they themselves are obese (Crawford and Campbell, 1999).

This is reinforced when we examine how people respond when they are asked which of the body shapes at Chart 1 or 2 (as appropriate) best represents their own shape (see Table 5). Men are markedly more likely than women to say that their body is best represented by one of the obese figures (H, I or J); 36% of men choose one of those figures compared with 26% of women. The proportion of men choosing an obese shape is considerably greater than the quarter or so that we might expect to do so given the actual prevalence of obesity in the population as measured by the HSE. Among women, in contrast, the proportion is more or less in line with what we would expect, given the known prevalence of obesity.

Table 5 Self-reported figure shape, by sex

% saying own body shape best represented by figure	Male figure	Female figure
A	2	2
B	3	3
C	5	6
D	7	8
E	10	17
F	12	16
G	23	17
H	21	12
I	8	8
J	7	6
None	1	2
Weighted base	*1094*	*1085*
Unweighted base	*992*	*1196*

Even if people do recognise that they are overweight, this does not necessarily mean that they are unhappy with their weight as shown in Table 6. Just 42% of those who say they are overweight also say that they are "unhappy" or "very unhappy" with their weight. A similar pattern is seen when this is analysed by respondents' calculated BMI: only 56% of those classified as obese as a result of their reported height and weight say they are unhappy with their weight, while just 23% of those categorised as overweight do so. Meanwhile 12% of those classified as healthy weight also say they are unhappy with their weight.

Table 6 Happiness with own weight, by perception of own weight

		Happiness with own weight				
Perception of own weight		**Happy**	**Neither happy nor unhappy**	**Unhappy**	*Weighted base*	*Unweighted base*
Underweight	%	36	38	26	*123*	*120*
Neither underweight nor overweight	%	76	21	2	*665*	*657*
Overweight	%	16	42	42	*1014*	*1045*
All	%	39	34	26	*1841*	*1858*

One possible reason for this is that since a majority of adults are overweight, being somewhat overweight at least has been 'normalised', and is therefore not necessarily regarded as something about which to be particularly concerned (Johnson et al., 2008). Slightly more people (46%) agree with the statement, ''There is no reason to worry about being a bit overweight'', than disagree (43%). Men are especially likely to take that view; 52% agree while just 38% disagree. Among women the balance of opinion is slightly in the opposite direction, with 41% agreeing and 48% disagreeing. But one instance where gaining weight is not widely regarded as normal is if it occurs during pregnancy. As many as two-thirds (66%) disagree with the statement, "It doesn't matter how much weight women put on when they are pregnant".

Understanding of health risks

Yet for all the apparent acceptance of at least some degree of being overweight, there is seemingly widespread recognition that obesity represents a risk to health, and especially to cardiovascular health. When presented with a list of medical conditions and asked which are the ones from which people with obesity are more likely to suffer, nine in ten or more pick out heart disease and high blood pressure (see Table 7). The equivalent figure for diabetes is almost as high. However, only between half and two-thirds recognise a link between obesity and stroke, arthritis or depression, while that between obesity and cancer, liver disease and asthma is acknowledged by less than half. (However, nearly all respondents spotted that there is no known link between obesity and shingles, which was included so that respondents could not presume that all of the conditions on the list were ones from which those who are obese are more likely to suffer). Thus while the fact that obesity is associated with greater risk to health is widely recognised in some respects, the full range of the risks associated with the condition is not. This is particularly true of those with fewer educational qualifications. On average,

university graduates picked out 5.7 of the risks associated with obesity whereas those with no qualifications only recognised 4.4 risks.[6]

Table 7 Perceived health risks associated with obesity

% say more likely to get if obese	
Heart disease	92
High blood pressure	90
Diabetes	86
Stroke	65
Arthritis	59
Depression	55
Some cancers	42
Liver disease	34
Asthma	26
Shingles	7
Weighted base	*2179*
Unweighted base	*2188*

Causes of being overweight

There is quite widespread recognition of what are the main causes of being overweight. The majority (81%) agree that ''most people who are overweight have put on weight because they eat too much" while the same proportion (81%) agree that, ''most people who are overweight have put on weight because they exercise too little''. Seventy-two percent agree with both statements. When asked which it is more important for someone trying to lose extra weight to do: "eating a healthier diet" or; "doing more physical activity", 86% say that the two are equally important. Meanwhile, although those with lower levels of educational attainment are less likely to recognise some of the health risks of obesity, they are no less likely than anyone else to identify diet and exercise as the principal factors contributing to being overweight.

Most respondents disagree with two other possible causes of obesity. Firstly, 58% disagree that ''being overweight is something you inherit from your parents", while 24% agree and 18% neither agree nor disagree. Secondly, 50% disagree that ''most overweight people have put on weight because of low metabolism", while 28% agree and 20% neither agree nor disagree. However, while there is no link between educational attainment and the perceived role of inheritance in the likelihood of being overweight, those with no educational qualifications (36%) are more likely than graduates (20%) to say that being overweight is mostly the product of a low metabolism. Meanwhile, men are more likely than women to agree with both statements; 26% of men think that being overweight is inherited compared with 22% of women, and 32% think that it is mostly linked to a low metabolism (24% of women).

It is widely recognised, then, that obesity is risky for health, though some of the risks are more widely recognised than others – particularly among those

[6] There is, though, little difference between the number of conditions mentioned by those who are classified as obese (5.2) or overweight (5.0) than by those who are categorised as of healthy weight (5.3).

with lower levels of educational attainment. For the most part, people are also aware of what are the main causes of obesity. Nevertheless, to some degree at least, there is a common inclination to accept being overweight, while many overestimate what 'obesity' looks like in terms of body size. Acceptance of being overweight seems to be particularly common among men, a phenomenon that may well be linked to the fact that obesity in men is also less likely to be recognised as such (while men are also more inclined to blame being overweight on a "low metabolism"). At the same time, recognition of being overweight does not appear to be helped by the fact that both men and women are inclined to overestimate their height and/or underestimate their weight.

Responsibility and solutions

We now turn to people's perceptions of where they think responsibility for the prevalence of obesity lies, and their attitudes towards how it might be reduced. By responsibility we mean two things; the first comprises people's perceptions of some of the circumstances that might be thought to give rise to a lifestyle that puts people at risk of being overweight or obese. The second concerns who is thought to have some responsibility for trying to reduce the prevalence of obesity. We deal with each of these in turn.

Circumstances that encourage obesity

We presented respondents with a series of statements that were designed to summarise circumstances that might be thought to contribute to an unhealthy diet or a lack of exercise, and invited them to state whether they agreed or disagreed with each. These statements (in the order in which they were presented to respondents) are shown below. The label after each statement represents the shortened name for that item used in Table 8, which shows the proportion who agree or disagree with each.

> ***Healthy food is too expensive for most people*** **(Healthy food expensive)**
>
> ***Most people lack time to make healthy meals*** **(Time to cook)**
>
> ***Finding time to be physically active is difficult for many people*** **(Time to exercise)**
>
> ***Everyday life nowadays means people end up spending too much time sitting down*** **(Sedentary lifestyle)**
>
> ***Generally, there are not enough safe places to walk or cycle in*** **(Safe places)**
>
> ***Cheap fast food is too easily available*** **(Fast food)**

It is apparent that while there is widespread agreement with some of these statements, others are viewed negatively. Overall, 82% feel that modern lifestyles are too sedentary, while 91% feel that fast food is too easily available. However fewer people are likely to agree that there are not enough safe places to walk or cycle (38%) or that healthy food is too expensive (39%). Meanwhile, opinions are relatively evenly divided on whether people have too little time to cook or exercise. So, while it is apparently thought that it is all too

easy to behave unhealthily, at the same time we do not necessarily think it is impossible to live more healthily than many of us currently do.

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*

However, different social groups live their lives in different circumstances. These differences appear to be reflected in the extent to which people agree or disagree with these statements, as illustrated in Table 9. Younger people are typically financially less well-off but physically more active than older people (Scholes and Mindell, 2013; Belfield et al., 2014). It may therefore come as no surprise that they are more likely to feel that healthy food is too expensive and that people have too little time to make healthy meals, but are less likely to feel that life is too sedentary or that there are not enough safe places to exercise. Equally those in routine and semi-routine occupations are likely to be less well paid (Hills, 2010) and tend to have more physically demanding jobs than those in professional and managerial occupations. Reflecting this, while those in routine and semi-routine occupations are more likely to feel that healthy food is too expensive, that there is too little time to cook healthy meals, and that there are not enough safe places in which to exercise, those in professional and managerial jobs are inclined to feel that life is too sedentary. Indeed the views of those in more socially advantaged positions on the questions about time, safety and expense prove to be different from those in less advantageous positions irrespective of whether social or economic position is measured by social class, household income, level of educational attainment or level of deprivation in the area in which the respondent is living. It is also the case that those from a black or minority ethnic (BME) background are more likely than those from a white one to feel that healthy food is too expensive (55% vs. 36%) and that most people lack sufficient time to cook healthy meals (61% vs. 41%). Meanwhile, although women (42%) are markedly more likely than men (34%) to agree that there are not enough safe places to exercise, otherwise there are no significant differences in the pattern of answers by gender.

Table 9 Attitudes towards circumstances that might lead to a poor diet or a lack of exercise, by age and social class

	Age Group		Social class	
% agree	**18-34**	**55 and over**	**Professional & managerial**	**Routine & semi-routine**
Healthy food expensive	45	33	29	53
Time to cook	52	39	37	55
Time to exercise	53	45	44	54
Safe places	32	44	33	46
Sedentary lifestyle	78	85	87	77
Weighted base	*625*	*810*	*827*	*605*
Unweighted base	*465*	*983*	*830*	*621*

Responsibility for reducing obesity

Our second meaning of 'responsibility' relates to who should bear some responsibility for reducing the prevalence of obesity. We presented respondents with a list of people and organisations which might be thought to have some responsibility and asked them to state which ones should be trying to "reduce the number of people in Britain who are very overweight, sometimes referred to by doctors as 'obese'". They were free to choose as many or as few from the list as they wanted. A very clear pattern emerges, as shown in Table 10. In the first instance at least, obesity seems to be regarded primarily as a problem for individuals and medical professionals rather than society more generally. The majority (80%) say that those who are obese themselves should take responsibility, while 60% pick medical professionals and half (51%) pick the family and friends of those who are obese. Otherwise only food manufacturers are selected by slightly more than half (54%). Only around a third attribute responsibility to supermarkets, the media or to government, while even fewer say that responsibility lies with either gyms and local leisure centres or companies that help people diet.

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.

However, that first impression is somewhat misleading. As shown in Table 11, only 22% select one or more of the three options of: obese individuals themselves; their family and friends; or medical professionals *and*, at the same time, do not select *any* of the other possibilities included on the list. In contrast, as many as 73% attribute responsibility to *both* at least one of those three answers *and* at least one of the other options. Only 5% do not attribute responsibility for trying to reduce obesity to people who are obese themselves, their families, or medical professionals. Nevertheless, most people apparently do not regard obesity as *solely* an individual or medical problem. For most, both individual and collective action have a role to play. This outlook is shared by those whom we can categorise on their self-reported height and weight as obese (78%) and by those who feel they are overweight (76%), whose views on this issue are almost exactly the same as those of the rest of the population (and for whom the small differences observed are not statistically significant). Graduates (15%) are a little less likely than those without any educational qualifications (30%) to regard obesity as solely an individual medical problem, but otherwise there is little if any difference between social groups on this issue.

Table 11 Combinations of perceptions of who should be responsible for trying to reduce obesity

	% say should be responsible
Selected one or more of: obese individuals themselves; their family and friends; or medical professionals ONLY	22
Selected at least one of these three answers and at least one of the other options associated with collective action	73
Selected one or more of options associated with collective action only	5
Weighted base	*2179*
Unweighted base	*2188*

Actions to reduce obesity

Although only one in three select the government as one of the organisations that should be trying to reduce obesity, we should not presume that people will necessarily oppose it taking action to achieve that objective, either by encouraging people to behave more healthily or by trying to influence the food industry. To tap attitudes towards encouraging people to behave more healthily, we asked respondents whether they are in favour of or against four possible actions (a short name for each statement is shown in brackets):

> ***Providing many more free weight management courses for people who want to lose weight*** **(More weight courses)**
>
> ***Providing many more operations on the NHS to help people lose weight - for example, fitting 'gastric bands'*** **(More NHS ops)**

Doing more to improve cycle paths and pavements to encourage people to be more active **(Better paths)**

Raising taxes on fuel and parking to encourage people to walk and cycle more **(Higher fuel tax)**

As Table 12 shows, some of these actions are much more popular than others. Those that involve little or no apparent cost, or indeed could be of benefit to everyone, are widely supported. Those that involve an expense, and especially an expense that most people would have to pay, are largely opposed. Thus, doing more to improve cycle paths and pavements and providing more free weight management courses are widely supported. However, over half oppose providing more operations on the NHS that enable people to lose weight and over two-thirds were against increasing fuel tax to encourage people to walk and cycle more. There are apparently quite substantial limits to the governmental actions that might help to reduce obesity that people are willing to support. Apart from a tendency for younger people to be more supportive than older people on the provision of more free weight management courses, there appears to be little or no demographic differences in attitudes towards this subject. While 88% of 18-24 year olds support this idea, 73% of those aged 65 and older do so.

Table 12 Attitudes towards possible actions to encourage healthier lifestyles

		In favour	Neither in favour nor against	Against	*Weighted base*	*Unweighted base*
Better paths	%	81	13	6	*2179*	*2188*
More weight courses	%	81	10	8	*2179*	*2188*
More NHS ops	%	20	22	57	*2179*	*2188*
Higher fuel tax	%	15	16	68	*2179*	*2188*

But what about actions that government might take to discourage the consumption of unhealthy foods, such as controlling advertising, taxing sugary or fatty foods, or which food manufacturers might undertake anyway, such as reducing the sizes of unhealthy snacks or drinks? We asked respondents whether they were in favour or against five such possible actions as follows (again, short name in brackets):

Putting a tax on high fat foods, which would increase the price of things like crisps and chocolate? **(Tax fatty foods)**

Putting a tax on sugary fizzy drinks **(Tax sugary drinks)**

Banning adverts for high fat foods, like crisps and chocolate **(Ban fat food ads)**

Banning adverts for sugary fizzy drinks **(Ban sugar drink ads)**

Reducing the standard size of unhealthy snacks or drinks, like chocolate bars or cans of sugary fizzy drinks **(Cut snack size)**

Previous polls and surveys on this subject have produced different results. On the one hand, Ipsos MORI have reported that around four in ten people support “a tax being added to the cost of all sugary soft drinks in an effort to reduce obesity” (Park, 2013). When the level of this possible tax was not specified, 36% agreed with the idea and 32% disagreed. When the rate of the tax was specified as 20%, 41% agreed and 35% disagreed. On the other hand, in a poll that ComRes undertook for the Institute of Economic Affairs in December 2014, only 37% supported “a new tax on fizzy drinks which would likely increase their price” while 49% were opposed. Similarly, this poll found that only 35% supported “a new tax on food and drinks which contain high levels of sugar and salt which would likely increase their price”, while 50% were opposed (ComRes, 2014).

Our results, shown in Table 13, suggest that all of the possible actions asked about are relatively, though not necessarily overwhelmingly, popular. Support is highest for banning advertisements and taxing of sugary drinks, with well over half supporting these actions. Meanwhile, around half back banning advertisements for fatty foods and cutting the standard size of unhealthy snacks or cans of sugary fizzy drinks, while only around a quarter are opposed. Rather more controversial is the idea of imposing a tax on fatty foods, though even here the proportion who are in favour of the idea is larger than the proportion who are opposed.

Table 13 Attitudes towards actions designed to discourage consumption of unhealthy foods and drinks

		In favour	Neither in favour nor against	Against	*Weighted base*	*Unweighted base*
Ban sugar drink ads	%	58	19	22	*2179*	*2188*
Tax sugary drinks	%	58	13	29	*2179*	*2188*
Ban fat food ads	%	53	22	25	*2179*	*2188*
Cut snack size	%	49	23	28	*2179*	*2188*
Tax fatty foods	%	45	19	36	*2179*	*2188*

This, however, is an area where attitudes vary between social groups. As Table 14 shows, women are slightly more likely than men to support most of these measures, with just the taxation of fatty foods being a possible exception. Those with a child in the household are also a little keener on the taxation of fatty foods and the reduction of snack size. For example, 60% of those living in a household that contains at least one child aged less than 18 agreed with a tax on fatty foods, compared with 56% of those living in household without any children. At the same time, older people are more supportive of action on sugary drinks. There is no apparent association of attitudes with a respondent’s BMI classification or how they view their own weight.

Table 14 Attitudes towards actions designed to discourage consumption of unhealthy foods and drinks, by sex, highest educational qualification and age group

	Sex		Highest qualification		Age Group	
% in favour of action	**Male**	**Female**	**Degree**	**None**	**18-34**	**55 and over**
Ban sugar drink ads	53	62	63	55	52	62
Tax sugary drinks	55	60	68	47	51	60
Ban fat food ads	50	57	58	52	52	58
Cut snack size	44	54	56	44	46	48
Tax fatty foods	44	46	55	36	44	45
Weighted base	*1094*	*1085*	*528*	*394*	*625*	*810*
Unweighted base	*992*	*1196*	*511*	*466*	*465*	*983*

These, however, are far from being the biggest differences. So far as demographics are concerned, it is level of educational attainment that is most strongly associated with views on taking action to discourage the consumption of unhealthy foods. University graduates are more likely than those without any educational qualifications to agree with such action. This is especially true of the taxation of both sugary drinks and fatty foods; in both cases this group are 19 percentage points more likely than those without any educational qualifications to agree with imposing a tax. We showed earlier that people with higher educational qualifications are more likely to be aware of the range of health risks associated with obesity and perhaps it is this that helps explain their greater willingness to take action designed to reduce the consumption of unhealthy foods. Apart from the taxation of fatty foods, those who identified more of the risks associated with obesity were more likely to favour action. For example, 60% of those who identified four or more risks support a tax on sugary drinks, compared with 50% of those who identified three or less.

Despite this link between educational attainment and attitudes towards taking action to reduce the consumption of unhealthy foods, there is relatively little evidence that support for such taxes is less common among those on low incomes, who might be thought most likely to be affected by such taxation. While those whose reported household income puts them in the lowest quartile of such incomes (that is, less than £1,200 per month) are eight percentage points less likely than those in the top quartile (an income of more than £3,700 a month) to support a tax on sugary drinks, a majority (56%) are still in favour. Meanwhile, there is no significant difference between the two groups when it comes to the taxation of fatty foods. It would seem that attitudes towards this subject reflect understanding of the risks involved in obesity rather than apparent economic self-interest.

However, attitudes are not just a reflection of risk; they are also associated with perceptions of responsibility. In Table 15 we compare the attitudes of those who, when asked who should be trying to reduce the prevalence of obesity, selected only the obese themselves, their families and friends, or medical professionals, with those who named at least one other organisation. The former group are those who apparently regard obesity as simply a medical problem faced by individuals. That this is indeed the case appears to be corroborated by the fact that this group is markedly less supportive of any action designed to discourage consumption of unhealthy foods.

Table 15 Attitudes towards actions designed to discourage consumption of unhealthy foods and drinks, by perceptions of responsibility for obesity

	Perceptions of responsibility	
% in favour of action	**Individual & Collective**	**Individual Only**
Ban sugar drink ads	61	46
Tax sugary drinks	62	42
Ban fat food ads	57	41
Cut snack size	53	36
Tax fatty foods	49	29
Weighted base	*1708*	*470*
Unweighted base	*1707*	*481*

We have found then that although obesity is widely regarded as an individual medical problem, this does not necessarily mean that people think that responsibility stops at the door of the individual and their doctor. Other actors are thought to have a role too, including not least food manufacturers. There is, after all, a recognition that some of the circumstances of modern life encourage a lifestyle that might be thought to be relatively unhealthy, albeit that the circumstances in question vary with people's social situation. As a result, there is significant support for collective action to try and tackle the problem – though not if this means using the scarce resources of the NHS or putting measures in place to encourage us to drive less.

Stigma

Finally, we turn to our third subject area, which is how those who are obese are viewed by others. In particular, whether there is evidence that they are the subject of social stigma such that people feel that either they are or should be treated differently. In order to address that question we presented respondents with four statements about those who are obese and asked whether they agreed or disagreed with each. The first two are negative statements that, in effect, suggest that those who are obese only have themselves to blame. The second two are positive statements, including one that refers to their right to equal treatment, in this case in respect of treatment by the NHS. These statements (which were asked on the self-completion questionnaire in order to reduce the risk that respondents would be inclined to give socially desirable answers) (again, the short name is in brackets) are:

> ***Most very overweight people are lazy*** **(Lazy)**
>
> ***Most very overweight people could lose weight if they*** **tried (Lose weight)**
>
> ***People who are very overweight care just as much about their appearance as anyone else*** **(Appearance)**
>
> ***People who are very overweight should have the same right as anyone else to receive expensive NHS treatments*** **(NHS treatment)**

Over half think that most very overweight people could lose weight if they tried, a response that perhaps reflects the fact that most people regard obesity as at least in part an individual, medical problem and perceive very overweight

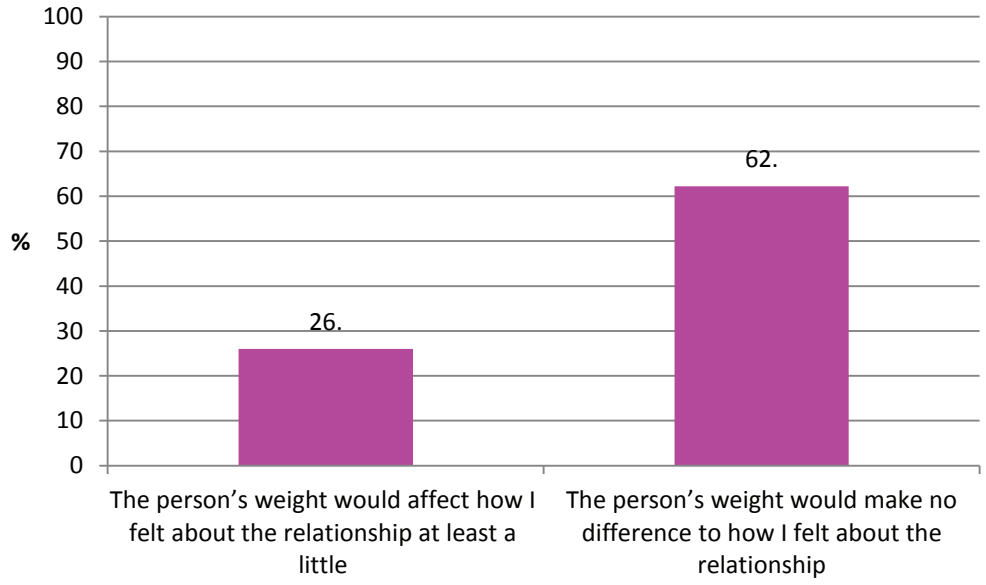
people as lacking willpower (see Table 16). Just over a quarter agree with the suggestion that most very overweight people are lazy, while four in ten disagree - still well under half. Around a quarter think that those who are very overweight should not have as much right as anyone else to receive expensive NHS treatments, while just under half think that they should. However, almost six in ten agree that people who are very overweight care about their appearance just as much as anyone else.

Table 16 Attitudes towards those who are obese

Attitudes towards people who are very overweight		Agree	Neither agree nor disagree	Disagree	*Weighted base*	*Unweighted base*
Lazy	%	28	29	40	*1841*	*1858*
Lose weight	%	53	20	24	*1841*	*1858*
Appearance	%	57	23	16	*1841*	*1858*
NHS treatment	%	48	25	23	*1841*	*1858*

To these items we can add another, addressing a rather more personal issue. This is how people would feel if a close relative of theirs married or formed a long-term relationship with someone who is overweight. As shown in Chart 3, almost two-thirds say that the person's weight "would make no difference to how I felt about the relationship". Nevertheless, a quarter say that it would affect how they felt about the relationship "at least a little".

Chart 3 Feelings towards a relationship between a close relative and someone who is very overweight



Weighted base: 1841
Unweighted base: 1858

However, to better understand the extent to which those who are obese are the subject of stigma, we need to look in particular at the views of those who are not obese, or overweight. After all, this is the group amongst whom we might expect any stigmatising of obese people to occur. Indeed, as Table 17 shows, those who according to their own reports of their height and weight

have a healthy BMI are rather more likely than those who are categorised on this measure as obese to think that those who are very overweight are lazy and that they could lose weight if they wanted to – though only in the latter case does the proportion holding that view exceed a half. Those with a healthy BMI are also more likely to disagree that those who are very overweight are just as concerned about their appearance and that they should have equal access to expensive treatment on the NHS. Meanwhile, whereas just 17% of those who are classified as obese say their view of a close relative's long-term relationship would be affected if it was with someone who was very overweight, amongst those with an apparently healthy BMI that proportion is as high as 32%.

Very similar patterns are seen if we look at how people view their own weight. For example, 34% of those who feel their weight is "about right" say that those who are very overweight are lazy, while 60% feel that they could lose weight if they tried. The equivalent figures amongst those who say they themselves are overweight are 24% and 49% respectively. In short, there is some evidence that those who are obese are the subject of stigma on the part of those who are not overweight.

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

	BMI category			Sex	
	Healthy	**Overweight**	**Obese**	**Male**	**Female**
% agree					
Lazy	34	28	18	32	24
Lose weight	58	51	47	59	47
% disagree					
Appearance	19	16	11	18	14
NHS treatment	28	22	16	24	22
Weighted base	*739*	*608*	*319*	*923*	*918*
Unweighted base	*736*	*621*	*331*	*839*	*1019*

Such a viewpoint is, however, also rather more common among men than women, a pattern that perhaps reflects men's greater reluctance to recognise being overweight in the first place (see Table 17). There is also a tendency for younger people to express more negative attitudes towards those who are overweight. This is particularly true of the perception that most of those who are very overweight are lazy, a statement with which 39% of those aged 18-34 agree, but which just 20% of those aged 55 and over support.

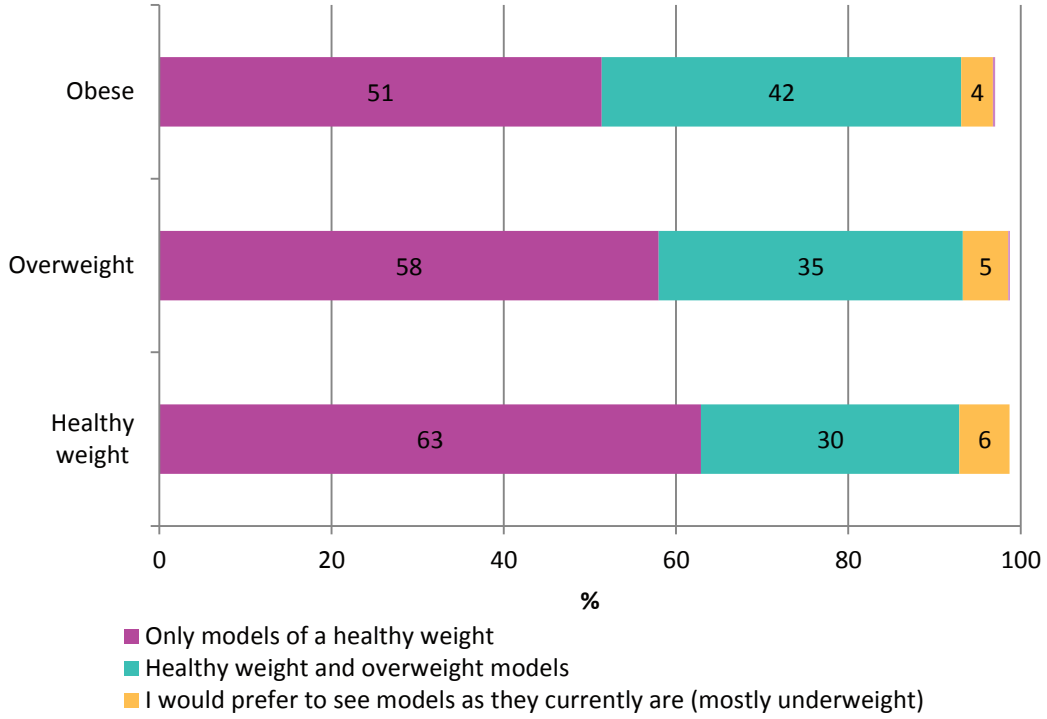
Another way in which stigma might be evident is in a reluctance to see those who are overweight appearing (in a perhaps flattering light) in public. In recent years there has been an emergence of concerns that using very underweight models negatively influences young women and girls' self-esteem and their own body image and can contribute to eating disorders. To explore this issue, we asked respondents about fashion models:

Some people have strong views on what kinds of fashion models newspapers and magazines feature. Other people don't mind either way. What about you - which of the options on this card comes closest to what kinds of fashion models you would like to see?

Only models of a healthy weight (not underweight or overweight)
Healthy weight and overweight models (but not underweight)
I would prefer to see models as they currently are (mostly underweight)

Only a minority (34%) say they would like to see both models of a healthy weight and those who are overweight. As many as 59% say they only wish to see models of a healthy weight, while 5% want to see mostly underweight models. As shown in Chart 4, those who themselves are categorised as having a healthy BMI are markedly less keen on seeing overweight models (30%) than are those who were classified as overweight (35%) or obese (42%). Once again there seems to be evidence of a degree of stigmatisation.

Chart 4 Preferences for the kinds of fashion models would like to see, by BMI



Obese: weighted base 378, unweighted base 393
Overweight: weighted base 873, unweighted base 864
Healthy weight: weighted base 873, unweighted base 864

Meanwhile, whatever may be true of people's own attitudes, there is certainly a common perception that those who are obese can be the object of discrimination. This emerged when we asked respondents:

Say two people who are equally well qualified apply for a job as an office manager. One person is very overweight and the other is not. Who do you think would be more likely to be offered the job - the very overweight person, the person who is not very overweight, or would they both have an equal chance of getting it?

Overall, three-quarters of respondents say that the person who is not very overweight would get the job (75%), while just 22% think that they would have an equal chance and 1% that it would go to the person who was very overweight. These perceptions are in fact in line with the empirical evidence on the relationship between obesity and occupational attainment (Morris, 2006). Older people are particularly inclined to believe that the person who was not overweight would get the job; 80% of those aged 55 and over express that view compared with 66% of those aged 18-34 (see Table 18).

Table 18 When two equally qualified people apply for an office manager job, who would be more likely to be offered the job, by age group

	Age category			All
	18-34	35-54	55+	
	%	%	%	%
The very overweight person	*	1	1	1
The person who is not very overweight	66	76	80	75
Equal chance of getting it	31	22	15	22
(It depends - WRITE IN)	2	1	3	2
Weighted base	*465*	*738*	*983*	*2188*
Unweighted base	*625*	*740*	*810*	*2179*

** = Less than 0.5%*

We have seen then that there is evidence of stigmatisation of those who are obese. Those who are of a healthy weight are more likely to hold negative attitudes towards those who are obese than are those who are overweight or obese themselves. Particularly widespread is the perception that losing weight is a question of willpower, a view that probably arises because obesity is widely seen, at least in part, as an individual medical problem. There may also be a reluctance to see those who are overweight presented as models on a public stage. There also appears to be a widespread belief that in practice, being obese can be a distinct disadvantage when trying to gain employment.

Conclusions

This research suggests that a considerable challenge faces those who seek to reduce the prevalence of obesity in Britain. Although there is a widespread recognition that obesity is bad for health, many people fail to appreciate the full range of the risks it poses. Equally, people are not necessarily good at spotting obesity either in themselves or in others, while being somewhat overweight at least is something that many (and especially men) appear inclined to tolerate. Meanwhile, most appear to regard obesity, at least in part, as an individual medical problem, while there is new and substantial evidence that obese people themselves are stigmatised, not least through a widespread belief that people who are overweight could lose weight if they wanted to. Furthermore the general public seem to take it as read that prejudice against obese people is highly prevalent in terms of employment prospects.

Yet this does not mean that people are wholly unaware of the collective social circumstances that can lead to a poor diet and/or a lack of exercise; indeed, people's answers on this issue exhibit considerable sensitivity to the way in which their own particular circumstances have an impact on them. People do not seem to object to collective action designed to reduce obesity, especially if that action is seemingly targeted at food manufacturers, who prove to be second only to medical professionals and obese people themselves in being perceived to have a responsibility to try to reduce obesity. Actions designed to reduce the promotion of sugary drinks and to make them more expensive seem to be particularly popular, with well over half in favour. Reluctant though many of us may be to acknowledge our weight, it seems that we accept that we might usefully be nudged to live healthier lives.

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