



**FORESIGHT**

Tackling Obesities:  
Future Choices –  
Project Report

2<sup>nd</sup> Edition

**Government Office for Science**



## Executive summary:

key messages and principles for action

## Tackling Obesity: Future Choices – Executive summary

The rapid increase in the number of obese people in the UK is a major challenge. This analysis by the government's Foresight programme shows that over half of the UK adult population could be obese by 2050.<sup>1</sup> The economic implications are substantial. The NHS costs attributable to overweight and obesity are projected to double to £10 billion per year by 2050. The wider costs to society and business are estimated to reach £49.9 billion per year (at today's prices).<sup>1,2</sup>

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 changes have exposed an underlying biological tendency, possessed by many people, to both put on weight and retain it. Being overweight or obese increases the risk of a wide range of chronic diseases, principally type 2 diabetes, hypertension, cardiovascular disease including stroke, as well as cancer.<sup>3</sup> It can also impair a person's well-being, quality of life and ability to earn.

The pace of the technological revolution is outstripping human evolution<sup>4,5,6,7,8,9,10</sup> 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. Although what we identify in this report as 'passive obesity' occurs across all population groups, the socially and economically disadvantaged and some ethnic minorities are more vulnerable.

Being overweight has become a normal condition, and Britain is now becoming an obese society. But this transition has been at least three decades in the making. The research commissioned by Foresight reveals that the causes of obesity are embedded in an extremely complex biological system, set within an equally complex societal framework. It will take several decades to reverse the factors that are driving current obesity trends. Currently, no country in the world has a comprehensive, long-term strategy to deal with the challenges posed by obesity.<sup>11</sup> There is an urgent need for action to halt the rapid current increase and to develop a sustainable response.

The UK Government's Foresight programme in the Government Office for Science was asked to consider how society might deliver a sustainable response to obesity in the UK over the next 40 years. Foresight works across government departments to analyse complex cross-cutting issues. Its projects entail the



rigorous use of science to inform futures thinking in Government. The Tackling Obesities: Future Choices project has involved over 300 experts and stakeholders, has extensively reviewed the evidence base and used a variety of futures techniques to help identify possible solutions.

The project's objectives were to:

- use the scientific evidence base from across a wide range of disciplines in order to **identify the broad range of factors** that influence obesity, looking beyond the obvious
- create a **shared understanding of the relationships** between key factors influencing levels of obesity and their relative importance
- build on this evidence to **identify effective interventions**
- analyse how **future levels of obesity** might change and identify the **most effective future responses**.

This report presents the key messages and implications for the UK. These are based on an extensive analysis of a wide range of evidence, including several commissioned evidence reviews, a systems analysis of the primary determinants of obesity, scenarios of possible futures and a quantitative model of future trends in obesity and associated diseases (these reports are listed in Appendix 2 and are referenced throughout the text).

## Visualising the future

Obesity is already a major issue in some countries, such as the USA, and the rise in obesity is worldwide<sup>11</sup>. However the prevalence of obesity has more than doubled in the last 25 years in the UK. In England, nearly a quarter of adults and about 10% of children are now obese, with a further 20–25% of children overweight (see Section 2).<sup>12</sup> Foresight's extrapolations suggest that we can anticipate some 40% of Britons being obese by 2025.<sup>1</sup> **By 2050, Britain could be a mainly obese society.**<sup>1</sup>

Socioeconomic differences in the prevalence of obesity are predicted to continue<sup>1</sup> as is the greater prevalence in some regions of Britain, including Scotland and the north and east of England. The marked rise in childhood obesity is also predicted to continue (see Section 2).<sup>1</sup> And the proportion of chronic disease including type 2 diabetes, stroke and chronic heart disease that is attributable to obesity will increase substantially.<sup>1,3</sup>

The rate of increase in obesity is susceptible to a number of external drivers of change and to lifestyle and societal factors.<sup>13–16</sup> To help us understand how such critical uncertainties influence the predictions above,<sup>16</sup> four scenarios were developed that are based on differing attitudes to future challenge ('prepare' or

‘mitigate’) and on whether responsibility is held by society to lie first and foremost at the national, community or individual level (see Section 6).

The scenarios strongly suggest that social values and the way society chooses to respond to long-term challenges will be critical in determining the extent to which the possible futures described here might be fulfilled. Indeed, the greatest opportunity to tackle obesity effectively was found in the scenario that is the most ‘socially responsible and prevention focused’.

Expert opinion suggested that, in the absence of additional interventions, the prevalence of obesity would continue to rise in each of the four scenarios. There was no expectation of any spontaneous reversal of obesity trends<sup>16</sup> but a strong feeling that a crisis, for example, a dramatic increase in food or fuel prices precipitated by water shortage or climate change, might be the only way of triggering action.<sup>16</sup>

Attitudes to intervention also emerged as a leading determinant of success.<sup>16</sup> It is clear that efforts to reverse the rising trend and address the prospect of the rising health burden and societal costs will be demanding and will necessitate major changes in behaviour – not only in individuals, but also in families, communities, organisations and economic markets. These behaviour changes will be more acceptable in some social settings than in others.

### Obesity: a complex system

A systems mapping approach was used to gain insight into the biological and social complexity of obesity. An obesity system map was constructed using detailed advice from a large group of experts drawn from several different disciplines. It represents the most comprehensive ‘whole systems’ view of the determinants of energy balance that exists<sup>17,18</sup> (see Section 5).

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<sup>17,18</sup> (see Sections 3, 4 and 5). Altering this complex system to tackle obesity will be far from straightforward. Currently, the evidence for effective preventative measures is weak<sup>19</sup> (see Section 4). There are few international examples of success on which the UK can draw,<sup>11</sup> although a growing number of demonstrator projects offer some promise (see Section 4).

At the heart of the issue of excess weight lies a homeostatic biological system, struggling to cope in a fast-changing world, where the **pace of technological revolution outstrips human evolution**<sup>4-10</sup> (see Section 3). Research clearly indicates how human biology gives many people an underlying propensity to accumulate energy and conserve it because of genetic risk,<sup>4</sup> the influence of early life experiences<sup>9,20</sup> and the sensitivity of the appetite control system



(see Section 3.1).<sup>7,8,21</sup> The concept of a family of 'obesities' is therefore a useful way of reflecting the diverse origins of the condition.

However, except in very rare cases, these factors alone can't explain the rapid increase in the prevalence of obesity in the population over the last three decades. Rather, changes in the external environment have revealed this underlying tendency to gain weight in more of the population. Obesity is linked to broad social developments and shifts in values, such as changes in food production, motorised transport and work/home lifestyle patterns. The technological revolution of the 20th century has left in its wake an '**obesogenic environment**' that serves to expose the biological vulnerability of human beings. An understanding of the causes of obesity is critical to the success of focused treatment and prevention strategies (see Sections 2, 3 and 4).<sup>4-9,14,22</sup>

Obesity takes time to develop and excess weight takes time to be lost. The risks of becoming obese may also start at an early stage. Growth patterns in the first few weeks and months of life affect the risk of later obesity and chronic disease (see Section 3.2).<sup>9,20</sup> There is therefore a **life course component**.

There is also a **generational dimension**. The most significant predictor of childhood obesity is parental obesity (obesity in a parent increases the risk of childhood obesity by 10%).<sup>23</sup> Although this is the result of many biological, social and environmental factors, it is important to break this reinforcing pattern.<sup>12</sup>

But most children are not obese and currently most cases of obesity become apparent in adulthood. Interventions must therefore continue to attempt to avert adult-onset obesity.

### Key determinants of obesity

The scientific evidence and the map of the obesity system commissioned for this project have identified a multitude of influences on energy balance. They can be broadly grouped into physiological factors, eating habits, activity levels and psychosocial influences<sup>17,18</sup> (see Section 5). Within each of these four categories, we identified a key determinant of vulnerability. These are:

- primary appetite control in the brain
- the force of dietary habits, keeping individuals from adopting healthier alternatives
- the level of physical activity
- the psychological ambivalence experienced by individuals in making lifestyle choices.

The central dynamic of the obesity system is a **positive feedback cycle that locks us into a pattern of positive energy balance**<sup>17</sup> as individuals and at a societal level. This 'lock-in' is a powerful force that, when well-intentioned interventions are made, can give rise to unexpected consequences both for individuals – e.g. compensatory changes in eating and activity (see Section 3.1) – and for society – e.g. the drive to make food cheaper, which may increase the amount eaten (see Section 5).

These four determinants, combined with the lock-in to a positive feedback cycle, are driving excess weight gain in an increasing proportion of the UK population. In addition, many of the other determinants in the obesity system map are driven by powerful forces, such as the need for more time or convenience, the desire to reduce stress, the availability of greater choice, and the desire for short-term rewards or compensations (see Section 5).

New insights in neurobiology show how powerfully the wide variety and appeal of modern foods, with their increased palatability and ability to heighten sensory stimulation, drive us to reward ourselves with more food<sup>8,21</sup> (see Section 3.1). This has the effect of overwhelming the efforts of our innate biological system trying to balance energy intake with energy needs. Many unhealthy behaviours that are common today are often the 'easy' option – in some cases, they are the only option. So, while many children who are currently driven to school *could* walk or cycle, a combination of parental fears, a sense that roads are dangerous, long travelling distances and the desire for convenience mean that the numbers who do so remain small.

Taken together, these four determinants point to the development of obesity as a more passive activity than is often assumed (see Sections 3, 4 and 5) and this passivity contributes to the normalisation of obesity. **'Passive obesity' makes healthy behaviours an inherent challenge** and more people need to use active coping strategies to prevent weight gain. This suggests that broadly based societal interventions are needed to combat these drivers. The concept of passive obesity raises important questions over how we respond as a society and where the responsibility for action lies.

Our attitudes and responses are also key drivers of obesity trends. Ambivalence emerges as a key driver of obesity<sup>16–18,22,24–27</sup> (see Section 3). The psychological conflict between what people want (e.g. tasty, high-fat, sweet foods) and their desire to be healthy and/or slim combined with mixed feelings and beliefs about broader lifestyle priorities complicates individual choices. People who are ambivalent about an issue may react to health-related messages in unexpected and counterintuitive ways. In addition, many people do not perceive obesity as an issue that affects them personally and consequently public demand for significant action is relatively weak.<sup>22,24</sup> This reinforces the importance of designing options for healthy behaviour or 'cues' for behavioural change that can become usual



practice and which will influence those not yet ready to make active choices. Behaviour change, we note, is not only the concern of individuals. It is a concern for organisations, communities and families. All of these influence the settings in which individual behaviour occurs.

### What approaches might work?

The complexity and interrelationships of the obesity system described in this report make a compelling case for the futility of isolated initiatives. Focusing heavily on one element of the system is unlikely to successfully bring about the scale of change required.<sup>1,25</sup> There are, as yet, no concerted strategies or policy models that adequately address the problem<sup>11,13</sup> (see Section 4) either in the UK or Europe. There are opportunities for the UK to take a leading role by developing and implementing a cross-cutting, comprehensive, long-term strategy that brings together multiple stakeholders. There is also a strong case for the promising approaches of community-based interventions in other countries to be expanded to one or two regions or cities in the UK as exemplars.

The distinction between prevention and treatment is important. Once gained, weight is difficult to lose. Emphasis on prevention is therefore vital and the focus of this report. However, there are already significant numbers of obese people requiring treatment and the numbers will rise regardless of any short-term measures. Treatments are of limited effectiveness but there have been some successes.<sup>28</sup> Modest weight loss (by 5–10% of initial weight) reduces the risk of developing type 2 diabetes, improves blood pressure and reduces total cholesterol. However, many people find it very difficult to maintain weight loss and there is often a gradual regain.

### Behaviour change

Preventing obesity requires changes in the environment and organisational behaviour, as well as changes in group, family and individual behaviour. Behaviour change is an important component of any response to obesity. However, this is a complex process for individuals that goes beyond education and the provision of information<sup>22</sup> (see Section 4.1). Achieving change is difficult, resource-intensive and time-consuming. Campaigns to encourage reflection, maintained and supported by changes in the environment, can help prevent unhealthy behaviours from resurfacing.<sup>22</sup>

Interventions based on improved nutrition and increased physical activity can be effective for individuals (see Section 4.2). But shifting the *population* distribution of obesity will require interventions that target elements of the obesogenic environment as well. Evidence suggests that current strategies are failing to have sufficient impact because they do not offer the range and depth of interventions needed (see Sections 3, 4, 5, 6 and 7). Interventions need to cover the entire



terrain; otherwise continued drivers acting on one part of the obesity system might undermine positive action elsewhere (see Section 8).

### Changing the environment we live in

Changes to our environment (including both the activity- and food-related environment) are a necessary part of any response to support behaviour change and appropriate behaviour patterns.<sup>29</sup> Solutions to address the obesogenic environment such as changes in transport infrastructure and urban design (in Section 4) can be more difficult and costly than targeting intervention at the group, family or individual. However, they are more likely to affect multiple pathways within the obesity system in a sustainable way.<sup>17,18,29</sup> In the short term, creating demand for such change may rely on aligning the benefits with those arising from broader social and economic goals such as reducing energy consumption, pollution, direct and indirect health costs, traffic congestion and crime rates. In the long term, strengthening action against obesity may not only reduce health and disability costs but also produce a generally healthier and more environmentally sustainable society.

### Changing biology

It is unlikely that our biological predisposition to gain weight in a modern society can itself be modified significantly in the medium term. Nevertheless, it is possible to ensure that physiological development is optimal to reduce our vulnerability to the 'obesogenic environment' and the risk of obesity and associated chronic disease (see Sections 3 and 4). Early life interventions such as breast-feeding, healthy weaning practices and appropriate maternal nutrition have all been linked to reduced obesity later in life.<sup>9,20</sup>

### Will technology provide a solution?

Recent attention by the media reflects an interest and desire for technological solutions to obesity. New drugs that can help regulate appetite control and energy intake may be developed that do not have the side-effects and limited efficacy of current treatments.<sup>7,30</sup> However, the relatively high costs, possible risks and lack of societal acceptability mean the use of medicines alone is not a long-term sustainable solution (see Section 4.2).

Other technology to support healthy behaviours will become available. Devices to monitor and provide feedback on energy intake and energy expenditure, along with biomarkers of health, such as blood pressure, and blood glucose in real time are anticipated.<sup>31</sup> Although these devices may help individuals gain more rapid feedback, research suggests that people may not act on this information<sup>22</sup> (see Section 4.1).



Altering the composition and manufacture of food products could help address obesity by seeking to control the release of macronutrients, by reducing energy-dense ingredients and by structuring food to slow the rate at which the stomach empties<sup>32</sup> (see Section 4.1). Whether such products would be acceptable to consumers, especially in the current climate, which favours a more 'natural' choice, is uncertain<sup>33</sup> (see Section 6.4.1).

To date, technological developments have tended to reduce energy needs, and this trend is likely to continue.<sup>31</sup> The development of active leisure pursuits built around computing technologies is expanding (see Section 6.4.2), but the contribution to physical activity levels is unclear.<sup>31</sup> Currently, technology in the home is increasing the desirability of indoor leisure activities, whereas the incentives for outdoor play have changed little or decreased due to perceptions of safety and reduced opportunities (see Section 3).

### The policy challenge: a paradigm shift

The prevalence of obesity is a major challenge, not just for medicine and public health but for governance and decision making. The deceptively simple issue of encouraging physical activity and modifying dietary habits, in reality, raises complex social and economic questions about the need to reshape public policy in food production, food manufacturing, healthcare, retail, education, culture and trade. In some respects, the objectives of previous eras, for example, improvements in food availability or opportunities for personal travel, now need reassessment in a time when energy-dense food is ubiquitous and transport choices restrict walking or cycling.

Our evidence shows that a **substantial degree of intervention** is required to affect an impact on the rising trend in obesity. A systemic or paradigm shift is needed to disrupt the cycle of accumulation of fat and to restore balance. Achieving this would inevitably require some fundamental choices to be made, raising a range of ethical issues. Developing a mandate for such a shift is a formidable challenge. However, much progress could be made by creating a new framework for delivering an integrated strategy of prevention (see Section 8).

The challenge is to produce a range of solutions that are effective *across* different areas of government policy rather than *within* them to deliver a corrective population-wide shift. But the effectiveness of policies isn't just a matter of what works well – policies also have to work in a way that society finds acceptable.<sup>13,16,25</sup> Therefore the appropriate level for policy intervention and the apportioning of responsibility is more than a question for policy makers – it is **a case for national debate**.

## The wider health agenda

Obesity has much in common with many of the other challenges faced in public health, and many of the wider determinants of health are the same. The social, infrastructural and environmental factors that need to frame the planning and implementation of policies for obesity coincide with many other public health issues, including the management of several chronic diseases, for example:

- acting when the degree of intervention required to achieve a significant impact on obesity prevalence may create tensions with broader societal aspirations
- providing strategic leadership and co-ordinating action when implementation is complex, requires cross-government attention and responsibilities are dispersed
- making choices and policy trade-offs
- managing risks in the context of limited evidence
- stimulating changes in approach when a sense of urgency or policy priority in the wider community is lacking
- managing the risk of unexpected consequences of policy measures.<sup>22,25</sup>

The scale of the challenge to prevent obesity is magnified by the complex nature of the condition. The multiplicity of causes of obesity argues against a dependence on fragmented solutions to address the issue; and too heavy a focus on one part of the obesity system – on one population group, for example – is not likely to bring about the scale of change required.

A long-term comprehensive strategy will need to incorporate a range of policies that will need to act in at least three dimensions, specifically:

- Systemic change is needed across the 'system map' and focusing on initiatives aimed at behaviours and the cues for behaviours relating to food, physical activity and physiological and psychosocial factors.
- Interventions designed to change a single factor may need to be conducted at multiple levels of governance, i.e. at individual, local, national and global levels.
- Different interventions targeting the same process of behaviour change will be needed across the life course.

## The way forward

The issue of obesity challenges the traditional research paradigm for clinical medicine and epidemiology. The collation of diverse data over long periods of time is at variance with the need for urgent action. In addition, as the prevalence of obesity rises, it will become normal to be obese, which may dilute calls to action. Scientists must, where necessary, make do with the best evidence available. This



means placing greater priority on ‘practice-based evidence’. Likewise, policy makers must accept that some well-intentioned interventions may fail.<sup>10,34</sup>

Action through **alignment with other major policy issues is vital** in maximising the engagement of a broad range of stakeholders. Some policies can act indirectly to reduce the prevalence of obesity through actions motivated by other priorities. For example, policies relating to climate change and health inequalities have been identified as particularly critical in developing a strategy to tackle obesity.<sup>12,14,16-18,20,25,35</sup>

There are strong **parallels between climate change and obesity**. In both issues, failure to act early will lead to serious adverse consequences in just a few decades. Delay in agreeing remedies and acting on them raises the real possibility that reversal of the trends may cease to be an option for both. Similarly, disagreement about the causes of a complex issue will marginalise a multiple approach to remedial change.

There is very considerable evidence for identifying synergies and complementarities with other policy goals such as climate change, social inclusion and well-being to strengthen the case for action and provide multiple benefits. There is a fundamental need to actively explore links with a number of policy issues to provide the foundation of a long-term, comprehensive, integrated strategy (see Figure 8.3, p 126).

### Principles for action

Given the serious challenges identified, obesity can and must be tackled. It is beyond the scope of this report to recommend specific policies. However, we have identified five core principles to developing a strategy framework for triggering, and achieving, sustained policy success (Table ES1).

**Table ES1: Core principles for tackling obesity**

1	A system-wide approach, redefining the nation’s health as a societal and economic issue
2	Higher priority for the prevention of health problems, with clearer leadership, accountability, strategy and management structures
3	Engagement of stakeholders within and outside Government
4	Long-term, sustained interventions
5	Ongoing evaluation and a focus on continuous improvement

A strategy to tackle obesity needs a **comprehensive portfolio of interventions** targeting a broad set of variables and different levels within the obesity system (see Section 8). Although, alone, each component part of the strategy may not create significant impact, their complementary and reinforcing action is critical to achieving the significant shift required in population obesity trends if the strategy

is not to fail.<sup>13,17,18,25</sup> The need for short-term action and impact must be balanced against the drive for longer-term sustainable change. Table ES2 outlines criteria for including specific policies in a portfolio.

### Table ES2: Critical dimensions of an obesity policy portfolio

#### **Does the strategy:**

- ... contain interventions that act at different levels with varying but cumulative degrees of impact (amplifiers, enablers, focused initiatives)?
- ... influence a broad set of systems levers (physiological/psychosocial/food-related factors and the physical activity environment)?
- ... obtain a balance between population-level measures and targeted interventions?
- ... act at multiple levels, from the national through the local to the individual?
- ... take time into account (e.g. life-course and generational effects)?
- ... have interim targets and measures, as well as a long-term obesity goal?
- ... actively seek alignment with other policy agendas, recognising synergies and conflicts?
- ... engage a broad range of stakeholders?
- ... consider the balance between cost-effectiveness and achievability?
- ... consider the impact on and implications for health inequalities?

#### **Is the strategy supported by:**

- ... an ongoing strategy development process underpinned by expert analysis, data-gathering processes and a robust evaluation framework?
- ... suitable government management structures to enable clear leadership, strategy formulation and co-ordination of action across Government (UK, devolved administrations, regions and localities) and with other key stakeholders?
- ... underpinning risk analysis (for management of unexpected consequences)?
- ... sufficient resources to enable a scaled-up response?

Greater interaction between scientists and policy makers, building on existing links, will help maximise the potential to develop and execute effective interventions in a virtuous circle of continuous improvement that combines scientific development, policy implementation and joint evaluation.<sup>10</sup> Ongoing surveillance and monitoring is essential for the analysis of policy options and impact. There is scope to refine these procedures to enhance their utility and to improve risk management through rigorous evaluation.<sup>36</sup>



## Engagement of stakeholders within and outside Government

Progress will be enhanced by stimulating multi-sector, multi-level action within and beyond the public health profession, as recognised by the National Institute for Health and Clinical Excellence (NICE) in its recent review of the evidence for action on obesity.<sup>37</sup> Numerous organisations from the public sector, industry, patient and consumer groups, and many others outside Government are already engaged in the efforts to combat obesity. Action to build on this and improve co-ordination would enable maximum benefit to be realised from this significant level of energy and resources. The systems mapping work shows that the majority of the levers of change lie outside the traditional health arena and outside the control of Government (see Sections 5 and 8). Working in partnership with multiple stakeholders to promote the health of the nation is critical to success.

## Long-term, sustained interventions

Interventions will only be effective if they are designed to have in-built sustainability.<sup>10</sup> Just as obesity develops slowly, both within individuals and populations, it will take time to establish new habits and build new structures to support healthy diets and enhanced physical activity. This also implies the need for long-term strategies spanning several generations and beyond traditional planning cycles. The introduction of interim targets and supporting measures will help us evaluate progress, with the expectation that impact will increase over time (see Section 8).

## Changes in priorities

A higher priority for the prevention of health problems is needed, with clearer leadership, accountability, strategy, resource and management structures. To succeed in tackling obesity, it is critical that the health of the population is seen as a priority both by government ministers and society at large. Other goals may be acting counter to this aim. Structural changes in Government may provide a mechanism to ensure the development and continued refinement of an overarching strategy and the co-ordination of activities. Seeing 'health impact' as a criterion for policy impact assessment, along with economic impact and environmental impact, could help reinforce this approach.

## Management and co-ordination of government response

Reducing the prevalence of obesity requires concerted long-term action from numerous stakeholders at multiple levels. The lead, however, must come from Government. We have argued that the infrastructure and environment to deliver a comprehensive long-term obesity strategy and a wide array of specific policies has much in common with other policy goals as well as other public health issues.

There are therefore wide-ranging implications for the strategic management and co-ordination of a complex issue within central government.

Different models for decision making in public health have been debated extensively in recent years. They range from the establishment of a government department dedicated to public health to a cross-cutting agency, office or commission of public health and the introduction of an 'obesity champion' or figurehead. Whatever model is used, it will benefit from a strong symbolic appreciation of the cross-cutting approach required to tackle obesity and similar public health issues, and must be able to:

- offer senior (Cabinet-level) government support
- develop a high-level, long-term comprehensive strategy
- obtain and act on strategic expert advice on an ongoing basis, for example, through the establishment of an expert advisory group
- deliver a sustained long-term view as well as short-term interim measures
- develop synergies with other cross-cutting policy issues
- co-ordinate implementation within and outside Government, including links between local and central government
- further develop relationships and partnerships with multiple stakeholders inside and outside Government
- further develop and resource mechanisms of surveillance and evaluation
- have sufficient resources to meet the rising challenges
- build on existing best practice

## Conclusion

In recent years, Britain has become a nation where being overweight has become usual, rather than unusual. The rate of increase in overweight and obesity, in children and adults, is striking. Obesity threatens the health and well-being of individuals and will place an intolerable burden on the Exchequer in terms of health costs, on employers through lost productivity and on families because of the increasing burden of long-term chronic disability.

Obesity is a consequence of abundance, convenience and underlying biology. It might also be viewed as the perverse outcome of constantly expanding 'choice'. What is certain is that this epidemic of 'passive obesity' is unlikely to come to a natural end, i.e. without intervention. Obesity presents society with a number of tough choices about the relative importance of different goals and aspirations. Obesity, like climate change, is a complex problem but it is not insoluble. At present the best current scientific advice suggests that solutions will not be found



in exhortations for greater individual responsibility, nor in short-term fragmented initiatives.

Tackling obesity is fundamentally an issue about healthy and sustainable living for current and future generations. This is only likely to be achieved if there is a paradigm shift in thinking, not just by Government but by individuals, families, business and society as a whole. There is therefore an urgent need for leadership, vision and above all, sustained commitment. The case for action can be strengthened by identifying potential synergies and complementarities with other policy goals, such as climate change, to provide multiple benefits. Alignment with other issues is crucial if the prospect of 60% of the UK population being obese in less than 50 years, with its attendant costs, is to be prevented from becoming reality. The UK has the opportunity to build on existing action and pioneer a new long-term integrated approach that sets a global standard for success.