

# Obesity: Trimming the fat through a “nanny state” tax

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## Article points

1. The world is in the grip of an obesity epidemic. While middle- and low-income countries are now being affected, obesity varies according to socioeconomic status, educational attainment, and race and ethnic group.
2. A number of public health interventions have been proposed to reduce the incidence of obesity. These have included food taxation, the implications of which need to be considered carefully.
3. When dealing with weight management, healthcare professionals should consider using motivational interviewing as a strategy to effect behavioural change.

## Key words

- Chronic condition
- Fat tax
- Motivational interviewing
- Obesity

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**There is increasing consensus among public health researchers that over-eating, smoking, sedentary lives and excessive alcohol drinking are currently the four big killers in Western countries. These behavioural risk factors are, in fact, known causes of a number of chronic health conditions, namely ischaemic heart disease, stroke, some types of cancer and type 2 diabetes, which, in turn, are primary drivers of premature death and healthcare spending. Although a variety of approaches to weight management are in place, their impact has yet to be fully evaluated as the incidence of obesity continues to rise in an uncontrollable manner. Accordingly, economists contend that paternalistic intervention in the form of “fat tax” on certain items can be justified to correct problems of self-control. This article discusses the concept of “fat tax” and the need to consider a multilevel approach, including motivational interviewing, to empower people to lose weight.**

A quote by William F Shughart provided an appropriate reflective point of departure for this article when he stated that:

*“I hope my two sons never smoke. I also hope they never ride motorcycles, skydive, bungee jump, or become Democrats. But more than anything else, I hope they do not grow up thinking that choices such as these should be made by anyone but themselves.”*

*William F Shughart II (1997)*

Chronic food shortages and malnutrition have been the scourge of humankind since the dawn of history (Caballero, 2007). During the course of evolution, however, humans have struggled to overcome food scarcity, disease and hostile climates. Further technological and economic developments in the industrial world have now produced an energy abundance as well as the modern obesogenic environment. The outcome is an alarming obesity epidemic that has gripped the industrial nations and is now rapidly spreading to the rest of the world (Popkin et al, 2006). The “globesity” epidemic predicted by the World

Health Organization (Hansen, 2010) continues to hold true today as a global concern and represents this century’s major health threat (WHO, 2000). After providing an overview of obesity, this article will provide a general discussion relating to the concept of “fat tax” as a proposed interventional approach to weight loss. Finally, the principle of motivational interviews will be outlined as a possible strategy for implementation by healthcare professionals (HCPs) when advising people about weight management.

## Overview of obesity

The world is currently in the grip of an obesity epidemic. For example, in 2008 more than 1.46 billion adults aged 20 years and older worldwide were overweight (Finucane et al, 2011; WHO, 2012). Of these, 200 million men and almost 300 million women were obese. The rising prevalence of this condition has become a global health concern (WHO, 2012). While the complexity of the obesity epidemic is graphically illustrated by the web of interacting variables in the Foresight obesity map (Butland et al, 2007), at the

central core of the system map lies a fundamental principle of nutrition and metabolism: body weight change is associated with an imbalance between the energy content of food eaten and the energy expended by the body to maintain life and perform physical work (Meetoo, 2010).

Obesity is defined as abnormal or excessive fat accumulation that may impair health (WHO, 2012). Obesity has been found to decrease health-related quality of life (Fontaine and Barofsky, 2001) and overall life expectancy (Peeters et al, 2003). Furthermore, obese people are at an increased risk of developing type 2 diabetes, cardiovascular disease (CVD) and many forms of cancer (World Cancer Research Fund and American Institute for Cancer Research, 2007).

These and other similar non-communicable diseases (NCDs) are now the dominant causes of preventable disease burden even in many low-income countries (Lopez et al, 2006). Obesity is considered by some to have overtaken tobacco as the largest preventable cause of disease in some regions (Hoad et al, 2010). While the recent reduction in premature mortality and morbidity from CVD in high-income countries has been substantial, there is nevertheless serious concern that the rise of obesity and type 2 diabetes is likely to slow or even reverse this trend (Ford et al, 2007). Consequently, establishing an effective obesity surveillance system could be justified in order to monitor the global NCD epidemic, and for lessons to be learned from the experiences of different countries and their population groups.

### Trends and prevalence

The rise in the obesity epidemic seems to have made a transition from affecting most high-income countries in the 1970s and 1980s to also now occurring in the present middle-income and many low-income countries, among both adults and children (Finucane et al, 2011). By 2008, 1.46 billion adults worldwide were categorised as being overweight (BMI >25 kg/m<sup>2</sup>) and a further 502 million were classed as being obese (BMI >30 kg/m<sup>2</sup>; Finucane et al, 2011). Furthermore, an estimated 176 million children globally (aged <18 years) were classified as overweight or obese in 2004 (Lobstein et al, 2004). This prevalence includes more than 25%

of all children in some countries, such as the USA and the UK, and represents more than double the proportions recorded at the start of the epidemic, considered to be at the beginning of the 21<sup>st</sup> century (Sassi, 2010).

Since the 1970s, the USA and the UK have witnessed a striking increase in the proportion of their populations with a BMI in the overweight (BMI 25–29.9 kg/m<sup>2</sup>) and obese (BMI ≥30 kg/m<sup>2</sup>) ranges. If this trend continues unabated, it has been estimated that about three out of four Americans and seven out of 10 British people will be overweight or obese by 2020 (Figure 1; Sassi, 2010).

Furthermore, it would appear that the prevalence of obesity and overweight clusters differently according to socioeconomic status, educational attainment, and race and ethnic group (Gatineau and Mathrani, 2011). Evidence from the Organisation for Economic Co-operation and Development (OECD, 2010) suggests that 22% of UK adults were obese in the early 2000s, and projected an overall figure of around one third of the adult population by 2012. The annual number of deaths attributed to obesity is around 320 000 in Europe (Butland et al, 2007) and 30 000 in the UK (House of Commons Health Committee, 2004). The annual direct costs

### Page points

1. Obesity decreases health-related quality of life and overall life expectancy. Obese people are at an increased risk of developing type 2 diabetes, cardiovascular disease (CVD) and many forms of cancer.
2. There is serious concern that the rise of obesity and type 2 diabetes will reverse the trend of reduced premature mortality and morbidity from CVD and morbidity from CVD in high-income countries.
3. Obesity is now affecting adults and children in middle-income and low-income countries. Furthermore, it clusters differently according to socioeconomic status, educational attainment, and race and ethnic group.

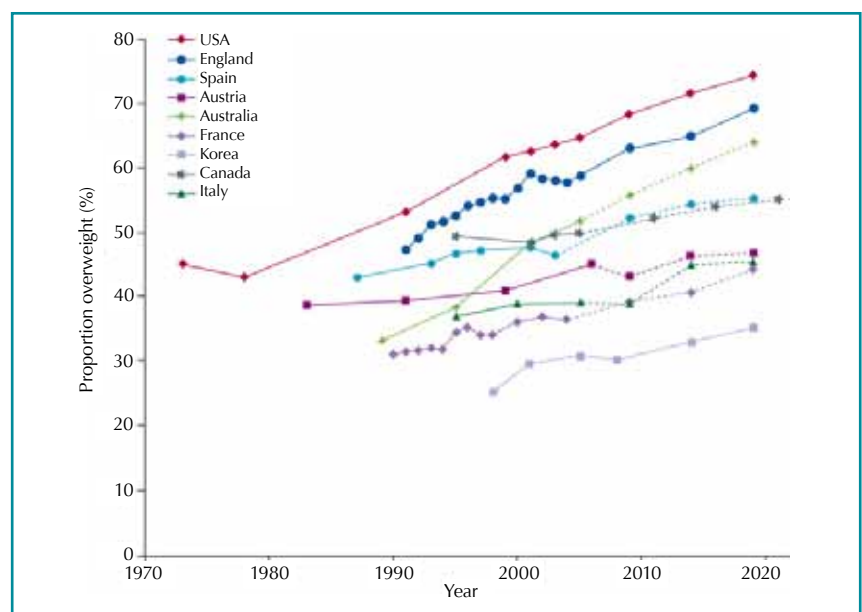


Figure 1. Past prevalence (solid lines) and projected prevalence (dashed lines) of overweight (BMI >25 kg/m<sup>2</sup>) in selected countries (from Sassi, 2010).

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1. Health policy makers in the West have addressed obesity, smoking, sedentary lifestyle and excessive alcohol consumption by using a three-strand approach.
2. The release of information on health risks associated with behaviour is based on the premise that consumers are rational decision-makers.
3. The introduction of financial incentives to shift behaviours has been proposed by behavioural economists.
4. In order to modify food consumption and body weight, a number of countries have advocated altering the price of foods through a tax system.

(treating obesity and its consequences) and indirect costs (lost earnings due to premature mortality and attributable sickness) related to obesity are estimated at £3.3–3.7 billion in the UK alone (Morgan and Dent, 2010).

### Interventional reaction

There is increasing consensus among public health researchers in Western countries that the four main behavioural risk factors – namely obesity, smoking, sedentary lifestyle and excessive alcohol consumption – are the primary drivers of premature death and healthcare spending (WHO, 2002). In dealing with the dramatic figures from rising global epidemics of these four big killers, health policymakers in the West have intervened using a three-strand approach of varying intrusiveness. These strands include:

- Release of information on health risks.
- Introduction of incentives.
- Food taxation.

### Health information

A less intrusive policy relates to the release of interventional information depicting the health risk associated with risky behaviours. This approach is based on the premise that consumers are rational decision-makers in planning their future following due processing of all available information. However, there appears to be insufficiently compelling scientific evidence to suggest that health information alone is effective in reducing risky behaviours. For example, evaluative studies of the “5 a day” campaign currently underway in the UK shows that poorer families consume 50% less fruit and vegetables than the more affluent families (Halpern et al, 2004). Indeed, a review of the scientific assessments of its effects found that while the “5 a day” information campaign raised awareness of the need to consume more fruit and vegetables, it was not associated with significant changes in behaviour (Mazzocchi et al, 2009).

Equally noteworthy is the mixed nature of evidence relating specifically to the effectiveness of nutritional labelling on foods, such as guidelines for daily amounts (GDA) and the traffic light systems. A systematic review (Grunert and Wills, 2007) has found that neither system leads consumers to avoid unhealthy foods, but only to moderate their

consumption. Furthermore, both labels trigger a local substitution effect where consumers switch to healthier options within the same categories without radically altering the structure of their diet. Essentially, the general message seems to be that while people are fully aware of risks, they still struggle to change their daily habits.

### Financial incentives

Recently, behavioural economists have proposed the introduction of incentives and nudges rather than information to support people with their approach to risky behaviours, otherwise referred to as asymmetric paternalism (Camerer et al, 2003) or libertarian paternalism (Thaler and Sunstein, 2008). Asymmetric paternalism aims to only help people who behave in a self-destructive way while, in the latter instance, behaviour is shifted in self-interested directions without questioning the individuals’ ultimate freedom of choice.

Incentives, be they monetary or non-monetary payments (goods, vouchers or prizes), are conditional on observed changes in behaviours. However, whether incentives in health will impact on intrinsic motivation needs to be considered. This is clearly illustrated by the work undertaken by Titmuss (1970) about blood donations. According to Titmuss, the act of attaching a payment to something that was previously done for free may attract some more new people to donate blood, but the donors who were already giving blood may react by stopping doing it. They may, in fact, prefer to avoid being seen as donating blood just for money, thus making blood donations no longer a pro-social activity and becoming just a market exchange.

Literature on incentives in health also discusses the theoretical possibility that if one pays people to stop smoking or lose weight, they may react by not doing what was originally intended, as they may not want to be seen as doing it just for the money (Marteau et al, 2009).

### Fat tax

The current unprecedented rate of global obesity and the resulting economic externalities have led a number of countries (*Table 1*) to advocate and implement interventional strategies, such as altering the price of foods through a tax system, in order to

modify food consumption and, consequently, body weight (WHO, 2003). Although the traditional aim of taxation has been to acquire revenue for financing public sector expenditures, increasingly governments have been seeking to tax and regulate the individual choices of their citizens through a process referred to as nanny state.

The term “nanny state” encapsulates the broader societal trend of increased government interference into the lives of individuals. While the incremental efforts of governments to consolidate the nanny state in terms of the economy and people’s social lives are subtle, the overall trend is unambiguous. As Harsanyi (2007) has written, the nanny state is “a place where government takes a hyper-interest in micro-managing the welfare of its citizens, shielding us from our own injurious and irrational behaviour.”

Recently, a number of countries around the world have introduced food taxes using different labels. For example, Denmark implemented what is known as a fat tax, which was repealed by the Danish Parliament one year after its introduction (Stafford, 2012); Hungary brought in a “junk food tax”; France enforced a tax on sweetened drinks (Holt, 2011); Peru announced plans to tax junk food; and Ireland has considered a tax on junk food.

In the UK, there have been calls for taxation on food to improve people’s health (Caraher and Cowburn, 2005). However, a report from the House of Commons Health Committee (2004) recommended that “the Government should keep an open mind on this issue.” At a European level, the European Heart Network has called for a comprehensive and integrated food policy, which includes a pricing strategy (European Heart Network, 2002).

The phrase fat tax is not favoured by some people because it is perceived to refer to a tax on fat, saturated fat or merely the dietary cause of obesity. Instead, the term health-related food taxes has been proposed to include any tax levied at a higher rate on food items considered to be unhealthy (Mytton et al, 2012).

### Rationale

There is an argument that price is a strong determinant of consumption choices (WHO, 2004). Economic theory, therefore, proposes that as the price of an item rises then the consumption of that particular item will typically fall, something otherwise known as price elasticity. Consequently, increasing the price of unhealthy foods through

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1. The term “nanny state” encapsulates the broader societal trend of increased government interference into the lives of individuals.
2. A number of countries have implemented food taxes recently.
3. Increasing the price of an unhealthy food should, in theory, reduce its consumption. Evidence suggests, however, that food consumption is often insensitive to price changes.

**Table 1. Examples of health related food taxes.**

Country	Date introduced	Foods taxed	Tax rate
USA	Various	Sugar-sweetened drinks (in 23 states)	1–8%
Norway	1981	Sugar, chocolate and sugary drinks	Variable
Samoa	1984	Soft drinks	0.40 tala/L (£0.11; □0.14; \$0.18)
Australia	2000	Soft drinks, confectionery, biscuits and bakery products	10%
French Polynesia	2002	Sweetened drinks, confectionery and ice cream	60 franc/L (£0.41; □0.55; \$0.66) for imported drinks
Fiji	2006	Soft drinks	5% on imported drinks
Nauru	2007	Sugar, confectionery, carbonated drinks, cordials and flavoured milks	30% import levy
Finland	2011	Soft drinks and confectionery	Soft drinks □0.075/L (£0.06; \$0.10); confectionery □0.75/kg (£0.61; \$0.99)
Hungary	2011	Foods high in sugar, fat or salt, and sugary drinks	10 forint (£0.03; □0.04; \$0.05) per item
Denmark	2011	Products with more than 2.3% of saturated fat: meat, dairy products	Kr16/kg (£1.76; □2.15; \$2.84) of saturated fat, animal fats and oils
France	2012	Drinks containing added sugar or sweetener	□0.72/L (£0.59; \$0.95)

### Page points

1. The limited number of studies carried out have not yielded compelling or significant evidence favouring the need to implement a less than 20% consumption taxation to minimise the incidence of obesity and its comorbidities.
2. There are problems associated with the concept of taxing specific commodities, which could be seen as being unfair and ineffective.
3. Opposition to the implementation of consumable taxes is likely if they are perceived as an attempt to manipulate large groups of people.

taxation should, in theory at least, reduce the consumption of that specific category of taxed foods. However, observational evidence would suggest that food consumption is often insensitive to price changes (Andreyeva et al, 2010), for when the price of one good rises, the consumption of some goods that are co-consumed will drop and the consumption of other goods (substitutes) will rise. For example, if the price of soft drinks rises, then demand for them will fall (price elasticity), as consumers will seek out substitute drinks such as fruit juices. Balancing these effects, as well as the overall health benefit of food items, will determine the health outcome of any health-related food tax.

The incessant rise in obesity would suggest that risky behaviour is on the increase. This results in what has been referred to as externalities (Whitman, 2006), which, in the context of food, relates to the prices people pay for unhealthy food without taking into account the true direct and indirect costs to society. Consequently, there is consensus among economists that the government intervention on food taxation, an argument applied to tobacco and alcohol, is justified since the market fails in its contribution to society’s wellbeing (Brownell et al, 2009). However, it needs to be stressed very strongly that the limited number of studies, such as natural experiments (Powell and Chaloupka, 2009), controlled trials (Block et al, 2010; Epstein et al, 2012) and modelling studies (Hall et al, 2011; Tiffin and Arnoult, 2011) have not yielded compelling or significant evidence favouring the need to implement a less than 20% consumption taxation to minimise the incidence of obesity and related comorbidities.

### Potential implication of food taxes

It would seem that governments around the world tend to view consumers of specific commodities, such as alcohol, tobacco or fast foods, as being ripe for taxation. There are, however, several problems associated with such a concept, some of which are outlined here. It has been estimated that the soft drink tax imposed in many American states did lead to a moderate reduction in the number of soft drinks being consumed by young people. However, this reduction was completely offset by the consumption of substitute high-calorie beverages (Chaufan et al, 2009).

Consumable taxes fare poorly on equity grounds in that people of low socioeconomic status pay a greater proportion of their income in tax than their rich counterparts. Consequently, health gains are likely to be progressive because of the assumption that poor people will consume less of the food subjected to increased taxation, thus resulting in an absolute reduction in disease incidence among this category of people (Smed et al, 2007). The perspective of the food industry is that imposing such a tax not only is unfair and ineffective, but it would also lead to job losses within industry (Colombini, 2011).

Another consequence of a nanny state taxation is the emergence of a lucrative “black market” involved in production, distribution and sale of cheaper, illegal products that are not subject to taxation. The findings from a recent UK study (The Taxpayers’ Alliance, 2012) demonstrated that high taxes contributed to illicit market activities in cigarettes, hand-rolling tobacco, beer and spirits, resulting in approximately £28.5 billion of foregone government revenue between 2005–6 and 2009–10. The resulting tax imposed on goods, and the inevitable growth of the black market, thus leads to loss of income sources for retailers selling legal goods.

### The future

The efficacy of government interventions that serve to stifle freedom of consumptive choices is only possible when legislation produces a sustainable mechanism of introducing and enforcing such taxes. For example, it needs to be carefully investigated whether tax should be levied on the raw ingredients or the final product; whether all sweetened drinks should be taxed or just sugar-sweetened ones; and, finally, whether a drink should be taxed only if the amount of sugar it contains exceeds the prescribed level. Consideration needs also to be directed towards reviewing minimising the extent of mass-produced processed foods that are constantly on offer in supermarkets. Similarly, budget allocation for sports facilities and the safeguarding of playing fields to promote physical activity need to be reviewed.

The implementation of consumable tax is likely if people have an affinity for the dystopian Oceania described in George Orwell’s *1984*. However, opposition is inevitable if the proposed initial plans



are later perceived as a form of what Foucault (1977) called “social control”, to manipulate large groups of people in an attempt to indirectly control their bodies. This “bio-power” (Foucault, 1998) was evident in the 18<sup>th</sup> and 19<sup>th</sup> centuries when “mad” people were confined to asylums. In the context of weight management, the state attempts to control the body by forcing obese people to participate in exercise classes where their attendance and progress will be monitored. The threat of discontinuing the income of those perceived to be deviant is also a form of controlling what people can or cannot do with their lives.

### Interventional role

HCPs have a key role in implementing the most effective and cost-effective strategy in supporting people with chronic conditions to alter their behaviour. When dealing with weight management, this would imply the need for HCPs to dissociate themselves from styles comprising highly directive, multi-component strategies that are not conducive to behaviour change (Moran et al, 2008) and move to those that effect behavioural change, such as motivational interviewing (MI).

MI has a large evidence base for improving adult outcomes in behavioural, health-related disorders (Miller and Rollnick, 2012). This intervention emphasises the carer’s need to establish a secure empathic bond with a client, a process that is thought to be central to achieving positive treatment outcomes (Angus and Kagen, 2009). In MI, the provider guides the client through his or her ambivalence regarding change with careful attention to the client’s statements indicating the need or desire to change.

By repeating, reinforcing and encouraging “change talk”, the client’s intrinsic motivation is strengthened (Miller and Rollnick, 2012). Since HCPs and, in particular, nurses are extremely competent at creating an empathetic environment, MI could well be the tool that promises to provide an efficient therapeutic approach for supporting behavioural change among people who are obese.

### Discussion

There is, perhaps, a seductive simplicity to the conceptualisation of obesity as a straightforward

problem of energy balance – “calories in” versus “calories out”. However, when supporting people with obesity, HCPs need to be aware that the physiological, behavioural and environmental influences on this equation are asymmetrical. While the basic principle holds true, in reality it is much easier for people to gain weight than to lose it. Therefore, empowering people to manage and sustain their weight loss needs to be approached with strategies that embrace motivation, understanding, empathy and sensitivity to gain commitment.

Research is needed to determine if, indeed, a humanistic approach is more effective in managing and sustaining weight reduction than a nanny state approach to taxation on consumables to control people’s bodies. Before committing to a system, we need to remind ourselves of John Maynard Keynes’ publication in 1919 on his attack of the Carthaginian terms imposed on the Axis powers by the Treaty of Versailles at the end of World War I. *The Economic Consequences of the Peace* (Keynes, 1919) argued that punitive reparations would further bankrupt the vanquished, deepen their economic misery and sow seeds of resentment to be exploited by political extremists. Sadly, Keynes was right, showing that economists can accurately forecast the costs, if not the full effect, of social dysfunction resulting from bad choices and lost opportunities. While obesity is unlikely to cause a depression or war, one of its most devastating outcomes is, nevertheless, the increased incidence of diabetes, of which 60% can be attributed to weight gain (James et al, 2003). The commentary by Yach et al (2006) where they noted that “overweight and obesity have become to diabetes what tobacco is to lung cancer” provides a suitable juncture at which to end this article. An effective strategy conducive to behavioural change reflective of a non-threatening and caring approach is, therefore, desperately needed if the tide of the obesity epidemic is to be halted.

### Conclusion

It is well recognised that the world is facing an obesity epidemic that needs to be managed. Public health researchers in Western countries attribute this trend to behavioural risk factors. Health policymakers in the West have responded

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1. Healthcare professionals have a key role in implementing the most effective and cost-effective strategy in supporting people with chronic conditions to alter their behaviour.
2. Motivational interviewing has a large evidence base for improving adult outcomes in behavioural, health-related disorders.
3. Empowering people to manage and sustain their weight loss needs to be approached with strategies that embrace motivation, understanding, empathy and sensitivity.

**“An effective strategy conducive to behavioural change reflective of a non-threatening and caring approach is desperately needed if the tide of the obesity epidemic is to be halted.”**

by releasing risk factor information, providing incentives and taxing food purchase. The potential benefits of food taxation, however, are little supported by evidence and are accompanied by important negative implications, such as the growth of a black market in unhealthy foods with consequent job and profit loss in legal retailers. HCPs are implementing new promising strategies to influence behaviour such as MI. ■

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**“The potential benefits of food taxation are little supported by evidence and are accompanied by important negative implications.”**