The growth of diet-related disease: when, and how, should governments intervene?

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Kate Smith, of the Institute for Fiscal Studies, discusses why the government might want to intervene to reduce obesity, and what policy instruments are available.

The increase in diet-related disease is a particularly topical issue; governments are becoming more concerned about rising obesity, poor nutrition, and the negative health outcomes that arise from these. In 2006 24% of adults (aged 16 or over) in England were classified as obese according to figures from the Department of Health – a significant increase from the 15% of adults classified as obese in 1993. So should the government intervene to reduce obesity? And what policies are likely to be effective?

Why should we care about diet-related disease?

Obesity has been linked to an increase in health conditions such as coronary heart disease, diabetes, cancer, and high blood pressure. For example, in 2008 high blood pressure was recorded in 48% of men and 46% of women classified as obese, compared with just 17% of men and women in the normal weight group. These negative health outcomes require greater spending on healthcare and, more importantly, are generally associated with a lower quality and length of life. In 2004, research by a House of Commons Select Committee, estimated that 34,100 deaths were attributable to obesity – equivalent to 6.8% of all deaths in England. Therefore, when faced with figures indicating a rise in obesity, a natural reaction is to conclude that the government should do something to counter this trend.
Is government action warranted?

However, economic theory is founded on the principle of rationality: individuals weigh up the costs and benefits of a particular action before making a choice. Since rational individuals will choose the best option for them, economics generally opposes the intervention of other bodies that limit or influence individuals’ choices. An exception to this is in cases of market failure, when economic efficiency or welfare may be improved if the state were to intervene. In the case of diet-related disease, there are three potential justifications for such intervention.

The first is that the actions of an individual may have a negative impact on other people which the individual does not take into account when making their choice - known as an externality. In cases where there is an externality it is often optimal for the government to intervene so that the cost faced by the individual also includes the additional cost borne by society, which usually results in a reduction in the activity generating the externality. There are potentially a number of externalities arising from diet-related disease. For example, because we have a national health service, if an individual makes choices which increase his/her risk of needing medical treatment then all taxpayers foot the bill for this treatment, with the individual facing little increased cost to reflect his/her actions. So an individual who chooses a diet high in saturated fat, or consumes too many calories, or does not do enough exercise, does not pay more to reflect the fact that their risk of heart disease (for example) has increased. The prevalence of this externality has risen over time: in 2009, the number of prescription items dispensed for the treatment of obesity was 1.45 million; this is more than eleven times the number in 1999. Alternatively externalities may occur if obesity leads to long-term sickness, or inability to work: in this case the person may be compensated by the state through unemployment and incapacity benefits.

Second, a government may wish to intervene when individuals only have access to imperfect information. For example, consumers may not fully understand or perceive the risks associated with their diet and exercise choices, they may not be aware of the calorie-content of different foods, or they may not understand the link between obesity and poor health. Government intervention to mitigate the problem of imperfect information may then be warranted. This could take the form of direct provision of information, or regulation such as requiring manufacturers to display the nutritional content of their products.

A final reason why a government might wish to try to alter the decisions
made by individuals is because they have time-inconsistent preferences: in other words, individuals make choices today that their future self would prefer not to make. For example, an individual may eat lots of cakes because they taste nice in the short run, but in the longer run, once they have become obese, they would have preferred not to have eaten the cakes. Or an individual may want to be a regular at the gym, but each day they promise themselves that they will start going tomorrow, and end up never going. Essentially the desire for instant gratification might cause an individual to not pay enough attention the future consequence of their actions and so distort their true long run preferences. However, while government intervention to address this problem may be desirable, it would require difficult and subjective judgments on the part of the policymaker as to what is in the best interests of the individual.

What options are available to governments?

If we assume that the government is justified in intervening to reduce the incidence of diet-related diseases then there are a number of policy options available. A much-discussed option is to tax so-called ‘bad’ foods or nutrients. This could mitigate the problem of externalities and the issue of time-inconsistent preferences by increasing the relative price of fatty foods so that people substitute towards healthier alternatives. It could even bypass the problem of imperfect information - it would not necessarily matter if people did not understand the nutritional quality of foods if the prices charged induced them to choose healthy foods anyway. Researchers at the IFS have shown that a tax on saturated fat would indeed decrease the amount that people buy. However, the overall effect on nutrition could be ambiguous: saturated fat is only one component of people’s diets, the amount of salt and sugar that people consume will also be of interest to those concerned about diet-related disease. Increasing the relative price of fatty foods may cause people to substitute away from foods high in saturated fat towards foods that may be lower in saturated fat, but higher in salt or sugar, thereby negating the health benefits.

Another option available to governments is to try to mitigate the problem of imperfect information directly, for instance by running an information campaign. Examples of this include the ‘Change-4-life’ campaign, which aims to encourage people to eat more healthily and do more exercise, and the ‘5-a-day’ campaign, which aimed to increase people’s consumption of fruit and vegetables. At face-value, it may seem that campaigns such as ‘5-a-day’ could only have had
a positive effect on people’s purchases of fruit and vegetables. However, this fails to take into account that supermarkets in the UK are not perfectly competitive. This means that if the ‘5-a-day’ campaign increased demand for fruit and vegetables, supermarkets could increase their prices, which may in turn lead to some people purchasing less fruit and vegetables than they would have done in the absence of the campaign.

One proposed solution to the increase in diet-related disease that has received less attention is the policy of cash transfers to low-income households; for instance, food stamps in the US. This aims to exploit the well-established relationship between lower social economic status and worse health outcomes. However, this correlation between socio-economic class and diet may not be causal. It may be that there are other attributes of high-income households which are the direct causes of better nutrition, rather than the fact that they are wealthier. For instance, high-income households may be better educated, on average, which causes them to both buy and prepare healthier food. This may be driven by the fact that being better educated means that someone is more likely to be aware of the full health implications of poor diet, and also know which foods are more nutritious. Simply giving a low-income household more money (and leaving everything else unchanged) therefore may not cause them to purchase healthier food, and a policy of cash transfers may not be effective at improving nutrition. Even if income was found to causally benefit nutrition, income transfers may not be the best policy with which to achieve the government’s aim of improving diet. Such a policy may be very expensive if a relative big increase in income is needed to effect even a small improvement in the nutritional quality of the food individuals choose to purchase.

So far the policies discussed have attempted to change people’s behaviour by altering prices, giving them more information or more disposable income. Another alternative available to governments is to actually restrict the choices available to individuals. Banning the sale of chocolate in schools is one example of this, as is restricting the amount of salt that manufacturers can put in their products. However, while this may be effective in reducing people’s consumption of ‘bad’ nutrients it could have adverse welfare consequences because it affects everybody, regardless of whether or not they are obese.
Picking the ‘right’ policy

There are various options available to governments who wish to tackle the problem of diet-related disease. Assessing and making explicit the rationale behind government intervention is crucial in determining whether, and in what form, intervention should take place. Any policy which aims to improve people’s nutrition must be comprehensively thought through, taking into account the potential responses of both consumers and supermarkets. As described above, many commonly discussed policies may not be effective, or could actually have unintended and adverse consequences. Failure to recognise that people respond to incentives in often unexpected ways could lead to nutrition and health outcomes actually becoming worse as a result of government policy.