

Policy Statement on Prioritising Sugar in the Obesity Epidemic

Proposed by UCL

Summary

There has been little success in combatting the obesity epidemic and this trend is set to continue across all countries worldwide without urgent intervention. Prevention of this epidemic has previously looked at lifestyle choices and individual behaviour instead of examining the causes of obesogenic environments. Evidence is growing to demonstrate a strong link between obesity and high sugar content in food and drinks, especially non-milk extrinsic sugars (NMES). Some small scale projects have resulted in a reduced consumption of these substances and are starting to have an impact on the health of the populations they target.

We, Medsin-UK, aim to prioritise sugar in the obesity epidemic by urging the food and drinks industry to commit to reducing the amount of NMES in manufactured food and drinks. We aim to lobby government to introduce effective means of limiting consumption of high sugar food and drinks, and to raise awareness of the impact that these foods have on health. We call for members of Medsin-UK raise awareness of the health effects of NMES in their local communities and universities and demand for university curricula to teach and reflect the consequences high sugar intake.

Introduction

The role of sugar in the obesity epidemic has been recognised in countless scientific journals, policy papers and by many international organisations^{1,2}. Out of a population of around 7 billion, more than 1.4 billion adults are classed as overweight and half a billion as obese.³ Despite the assumption that obesity is prevalent in high income countries, more and more countries are in fact carrying the double burden of malnutrition paradox, where increasing rates of obesity are being seen in classically undernourished populations.⁴ While this epidemic was first seen in high income countries, projections for the future show that low and middle income countries will be carrying the greatest burden of disease in the years to come.⁵ If this trend continues, by 2030 no country will have reversed their population trends of increasing obesity. The most optimistic forecasts suggest that at most a handful of countries will have steady rates of obesity while the rest of the world's rates still continue to increase.⁶

The need for action is clear. Most current policies blame individual behaviour and lifestyle choices for chronic increase in energy intake.⁷ However, there is increasing evidence to suggest that the focus should instead shift to "the policy and economic systems that enable and promote high growth and consumption".⁶ We advocate shifting the focus to analysis and action on tackling what creates these obesogenic environments.^{8,9}

While the cause of the obesity pandemic is multifactorial, increasingly, literature suggests there is a strong link between NMES and obesity prevalence.^{10,11} There has been already much scrutiny over saturated fat and trans-fat content of foods, with the health effects of these macronutrients being openly acknowledged. This has caused many leading brands to substitute fat with sugar to maintain the taste of food which is now shown to have additional adverse effects on health

The main sugars used as NMES sugars are fructose (also known as high fructose corn syrup,¹³ and sucrose.¹² In moderation, fructose consumption does not have the characteristic insulin peaking that glucose may cause, which is associated with obesity.¹⁴ However, fructose has many other negative effects on body hormones regulating satiety such as leptin, ghrelin and adiponectin, limiting satiety and promoting excessive consumption.¹⁵ In excess, fructose is converted by the liver to fats inducing hyperlipidemia and fatty liver disease, increasing the risk of insulin resistance and reduced insulin

sensitivity, leading to obesity and type 2 diabetes.¹⁶

The poor nutritional content of low-fibre, liquid state of sugar-sweetened beverages (SSBs) is especially harmful. The current literature suggests that when drinking high sugar beverages, it is less likely that individuals will adjust energy and sugar intake over the rest of the day to account for the fructose consumption.¹⁷ It is harder for the body to register drinking SSBs as nutritive and filling product, and is more likely to continue to adopt bingeing patterns to this food.

Much research has focused on how the trend of excess fructose consumption arose, and many point to the rise of increased ease of availability of manufactured foods, rising in the 1970s, at the same time as the obesity epidemic.¹⁸ NMES consumption has become an entrenched and complex problem, and the most effective way of changing our behaviour will involve a multi-level, multi-systems policy intervention approach. This could involve:

- Fiscal measures such as taxation on high sugar foods
- Restrictions on communications, marketing and advertising of high sugar foods especially to children, who as a group consume more NMES than the adult population on average.¹⁹
- More responsible and binding legislation from country governments, rather than allowing industry to self-regulate or making agreements voluntary.
- Universal usage by food and drink producers of clear and easily understood labels to ensure transparent and accurate information on the composition of products.
- Encouraging health bodies to release clearer guideline statements committing the fact that a healthy diet can and should involve 0% NMES, rather than current WHO guidelines which only make strong recommendations of below 10% or conditional guidelines of less than 5%.²⁰
- Regulating the sugar industry to lower sugar content in foods, specifically committing to reformulation of existing products to include less sugar in them.

In an attempt to tackle and regulate the deleterious effect NMES has in our food choices, successful initiatives have started to appear.²¹ A soda tax was passed in Berkeley, California in November 2014 after evidence showed that a “penny per ounce” tax would reduce SSB consumption by 15% in the age range 25-64. *“Over the period 2010-20, the tax was estimated to prevent 2.4 million diabetes person-years, 95,000 coronary heart events, 8,000 strokes, and 26,000 premature deaths, while avoiding more than \$17 billion in medical costs.”*²² This policy has already been successfully used in Mexico, where a survey showed that after 6 months of an 8 cents per litre of SSB tax, carbonated beverage sales for Coca-Cola fell by 6.4%, and the National Institute of Public Health recorded a 10% decrease in SSB consumption.²¹ Such a policy is based on the basic principle of negative own-price elasticity, in which higher prices are associated with a lower demand for SSBs. This may also result in cross-price elasticities: increased demand for alternative beverages, as seen in Mexico with a 7% rise in purchase of plain bottled water and milk which are not taxed.²²⁻²⁴

Main Text:

The poorly regulated use of NMES in manufactured products has had dangerous metabolic effects on the body.^{25, 26} We, Medsin-UK urge members to address the problem in three main ways:

Industry

- Lobby food and drink industry to lower sugar content in foods, with specific commitment to reformulation of existing products to include less sugar in them.
- Lobby food and drink industry to commit to transparent and clear labelling of the dietary composition of products.

Government

Medsin-UK Policy and Guidance Statements, December 2015

- Lobby member governments to adopt responsible, evidence-based, public health policies and interventions to alleviate the obesogenic environment, in the form of:
 - Fiscal measures in the form of high sugar tax
 - Regulating the communications, marketing and advertising of high sugar products which specifically target children and adolescents.
 - Imposing a maximum sugar limit per 100 grams of a food and/or drink product in relation to specific food product types.
 - Creating binding legislation to protect and promote public health, rather than allow industry to rely on voluntary agreements or self-regulate, especially with regards to reformulation of food and drink products to include less sugar in them.

Medsin UK Local Action

- Encourage members to take action in their own universities to raise awareness of the specific dangers of NMES and added sugar foods on metabolic activity, including:
 - The provision of teaching specifically on the main dietary sugars in 21st century diets
 - Up to date, evidence-based knowledge regarding metabolism of these NMES sugars
 - Patterns of consumption of NMES commodities in modern, 21st century diets
 - Consequent health effects of such patterns on the individual and public
- Increase the responsibility and capacity of students, the future leaders in health, to be informed of, and be able to openly discuss, the dangers of NMES as one of several dietary contributors to an obesogenic environment within their own communities, as well as taking this message forward through more widespread and collaborative health promotion activities.

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