

## WN *Editorial*

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### *Sugar*

## **The tide turns**

Beginning in this issue, *WN* examines sugar. For over 50 years, sugar has been on the nutrition science sidelines. Until the middle of the last century it was seen as a vital source of energy for under-nourished populations. It still retains this reputation, for example as ‘energy’ bars and drinks, promoted as boosts for sport and active life.

As from the 1960s new realities emerged. Cardiovascular disease displaced nutrient deficiencies as the main public health nutrition crisis, firstly in high-income countries. Dietary fat and saturated fat, and also salt, became the ‘villains’. Scientists and policy-makers agreed that the most important nutritional causes of heart disease and related conditions were diets high in saturated fats, and in calories from fatty foods and products, whole or processed, meat or pizza, milk or chips. This consensus has been adopted by all concerned. It remains central in official dietary guidelines, and has shaped food supplies, which have become somewhat lower in fat and saturated fats. This policy seemed to work. Rates of death from heart disease in North America and Western and Northern Europe fell rapidly since the 1970s.

At the same time, some public health professionals and many personal health advocates have condemned sugar, as ‘empty calories’, or the antithesis of healthy diets, or the key cause of various ailments. The ‘wholefood’ movement and ‘low-carb’ dieting advocates abominate sugar. But general indictments of sugar have in effect been outlawed by the mainstream nutrition profession. Scientists believing that sugar is a main driving force of obesity and various chronic diseases have been underfunded and overlooked, and have kept quiet or been dismissed as eccentrics.

The case against sugar has been obscured. It is grouped as a carbohydrate together with foods such as wholegrains and starchy plants and products. Regulatory agencies have allowed sugar often not to be identified as such on food product nutrition labels. For half a century the sugar industry and its associates have systematically

*Sugar. The tide turns. [Editorial]*

*World Nutrition* February 2014, 5. 2, 108-109

funded research which tends to exonerate sugar. Also, nutrition and medical professions have mostly remained prisoners of the paradigm used to address cardiovascular disease, which obviously does not work with obesity and diabetes, both of which are now uncontrolled pandemics.

Circumstances have changed. The biggest disease issue now is not just cardiovascular but obesity and associated diseases: diabetes, metabolic syndrome, some cancers – and cardiovascular disease. Correspondingly, the focus of attention needs to shift. The lesson of evolution, history, technology and now also epidemiology and biochemistry, is that the issue of sugar is not so much the substance itself, as the form in which it is manufactured and consumed. Traditionally most sugar has been consumed as part of dishes and meals prepared at home. Now it is mostly contained in sweet snacks, products such as sugared breakfast cereals, and sugary or syrupy soft drinks, all of which are advertised relentlessly to children and young people.

A new professional generation has decided that sugar is dangerous. In the US these include endocrinologist Robert Lustig, paediatrician David Ludwig, gastronome Mark Bittman, author Gary Taubes, researcher Nora Volkow, and others convinced that sugar causes obesity, or deranges appetite, or explains the metabolic syndrome, or is addictive, or all of these and more. Last month Action on Sugar (AoS), a pressure group led by cerebrovascular disease specialist Graham MacGregor, was launched in the UK, with a large group of expert advisors. Its science director, Aseem Malhotra, is a cardiologist who is sure that ‘sugar is the new tobacco’.

Two reasons are enough to justify this shocking statement. One is the outrageous policy of the sugar and associated industries to confuse and distort the science on sugar. Two is the evidence from human as well as animal studies that sugary ultra-processed food and drink products are addictive, coupled with testimonies of industry executives that their products have been deliberately formulated to be habit-forming.

Great care is needed in shaping policies designed as the basis for effective actions. Here there is a lesson from the ‘tobacco wars’. The way forward is not reformulation of sugary (or fatty or salty) food products. This attracts industry, as a damage-limitation exercise like that which created tipped and then ‘low-tar’ cigarettes, advertised as harmless. The reduction needed is in all ready-to-consume fatty, salty or sugary ultra-processed products. Laws and regulations are needed to make healthy plant-based diets more accessible and affordable, and to promote, protect and develop food systems based on freshly prepared meals. Finally, the great economist Adam Smith declared that tobacco, liquor and sugar were ‘fit objects for taxation’. Until recently in history sugar has been taxed. This sensible practice should be revived.

***The editors***

*Sugar. The tide turns. [Editorial]*

*World Nutrition* February 2014, 5. 2, 108-109

109