The case against sugar gets stronger

Editor’s note
In this section of Update, we continue to summarise news about added sugars and syrups. On 4 May the UK chief medical officer of health told a parliamentary committee that sugar is likely to be identified as addictive, and warned that a UK sugar tax is a possible outcome. On 5 May the World Health Organization expert NUGAG report on sugar with tough new targets was published on the WHO website for consultation. New findings from the US Centers for Disease Control suggest a causal link between diets high in added sugars and syrups and heart disease, And the new official US nutrition labels are giving more prominence to sugar.

We also continue to publish our own research and investigation. In two boxed texts, we first note the pioneer investigators who saw causal connections between diets high in added sugars and systemic disease; and second summarise some curious connections between members of an official UK expert committee investigating sugar, and conflicted industry.

The Update team reports:
Access September 2012 Editorial on addiction here
Access April 2013 Update Michael Moss on addiction here
Access January 2014 Update on sugar here
Access February 2014 Update on sugar here

Sugar addictive, warns UK health chief

A very senior UK official has broken ranks and made statements in the public interest that go against current UK government attitude and policies. ‘Research will find that sugar is addictive’. This statement was made by Sally Davies, the most senior UK government’s public health advisor, on 4 March. She made it in evidence presented to a UK select committee of members of parliament. She based the statement on existing research on humans and on animals carried out in the US by
the team led by official US addiction investigator Nora Volkow, already outlined in IFN. She added that it may be necessary to introduce a tax on sugar as one way to control and reduce rates of obesity. She also said that today’s children may on average not live as long as their parents. She does not believe that food and drink manufacturers will re-size their products, to offer smaller portions of food products containing high levels of sugar, salt and fat, without strong government action.

**WHO sets more explicit limits for sugars**

The World Health Organization proposes to get tougher on sugars. In January we reported news concerning the World Health Organization expert advisory NUGAG group, whose report on sugar has now been completed. On 5 March the report in a completed form was released for consultation until 31 March. This consultative period will be followed by further examination by a ‘guidelines review committee’ the names of whose members have not been released. At this stage the report includes a quantified guideline for sugar consumption, or to be more precise intake of added sugars and syrups, expressed as ‘less than’ 10 per cent of total dietary energy. This reinforces previous WHO reports published in 1990 and then 2003 that also set a figure of less than 10 per cent, largely because of conclusive evidence on dental caries, and also sugar’s contribution to obesity. But the document now out for consultation also goes further. To quote:

*WHO’s current recommendation… is that sugars should make up less than 10% of total energy intake per day. The new draft guideline also proposes that sugars should be less than 10% of total energy intake per day. It further suggests that a reduction to below 5% of total energy intake per day would have additional benefits. Five per cent of total energy intake is equivalent to around 25 grams (around 6 teaspoons) of sugar per day for an adult of normal Body Mass Index (BMI).*

Curiously though, the much tougher figure of less than 5 per cent, while taking into account the contribution of sugared ultra-processed products to what is now an uncontrolled pandemic of obesity, still stresses only the impact of added sugars on weight gain and on dental caries, despite what is now impressive evidence on the impact of high consumption of added sugars and syrups on diabetes, mounting evidence on diabetes and cardiovascular disease, and the consistent evidence that sugared ultra-processed foods and drinks are addictive, as indicated by the English chief medical officer of health (see story above), and the metabolic syndrome.

WHO director-general Margaret Chan is known to be appalled by the obesity pandemic, and has condemned the methods of Big Food and Big Soda, that as she says ‘include front groups, lobbies, promises of self-regulation, lawsuits, and industry-funded research that confuses the evidence and keeps the public in doubt’.
Sugar: some of the attackers

Attacks on sugar (top row) are led in the US by Gary Taubes, Robert Lustig, Michael Moss, drawing on (bottom row) Weston Price, TL Cleave, John Yudkin, at the time largely ignored.

The charge against sugar is most vehement in the US. Three current advocates are shown above. In his book *Good Calories, Bad Calories*, Gary Taubes (top row left) includes accounts of suppression of evidence against sugar, and he has developed his themes in journalism with provocative headlines (next picture). Robert Lustig (top, middle) is an endocrinologist who attacks sugar relentlessly. The 90 minute video of his University of California talk on *Sugar: the Bitter Truth*, first released in 2009, by late February 2014 had been accessed over 4.4 million times. Michael Moss (top, right), a Pulitzer Prize-winning New York Times journalist, spent three years on his book *Salt, Sugar Fat*. This reveals that food manufacturing industry executives have for many years known of the dangers of sugar and have known that sugars and syrups added to ultra-processed products are addictive.

Such revelations have brought to light work published last century that warned against sugar. Three examples follow. The US dentist Weston Price (1870-1948, bottom row, left) after travelling the world, concluded in *Nutrition and Physical Degeneration* (1939), that when whole food is replaced by industrial food supplies containing a lot of sugar, various diseases, including malformations of facial structure, become rampant. Based in part on experience as a British wartime surgeon-captain, TL Cleave (1906-1983), (bottom, middle) concluded that many conditions including coronary heart disease are aspects of a general ‘master’ disease, in *The Saccharine Disease* (1974). The British physiologist John Yudkin (1910-1995, bottom right), was one of the first two UK professors of nutrition. On publication of his *Pure, White and Deadly* (1972, republished in 2012), which sees sugar as driving diabetes, coronary heart disease and other conditions, his reputation was shredded by the sugar industry and also by nutrition scientists determined to establish fat and saturated fat as the dietary ‘villains’.

Books and other work that indict sugar have become part of the ‘wholefood’ movement. They have impressed influential people already inclined to believe as a matter of common sense that sugars and syrups, as conspicuously contained in ultra-processed products like breakfast cereals and soft drinks, are a key cause of obesity starting in childhood. Currently no leading public health nutritionist publicly backs the views of Robert Lustig. This may now change. Any general shift of view will not be based on systematic reviews of investigations into sugar, a relatively neglected area defended by studies funded for half a century by the sugar industry. The tide is being turned by revulsion against the appalling and scandalous rates of obesity and diabetes including among children, and frustration with existing official explanations, policies and actions that are implausible and ineffective.
Evidence continues to accumulate on sugars and a cluster of diseases. The mood of senior scientists and policy-makers is changing. This, according to the Journal of the American Medical Association (JAMA), is a paradigm shift. ‘Overconsumption of added sugars has long been associated with an increased risk of cardiovascular disease. However, under the old paradigm, it was assumed to be a marker for unhealthy diet or obesity. The new paradigm views sugar overconsumption as an independent risk factor in cardiovascular disease, as well as many other chronic diseases, including diabetes mellitus, liver cirrhosis, and dementia – all linked to metabolic perturbations involving dyslipidemia, hypertension, and insulin resistance’.

The editorial accompanies a study from the US Centers for Disease Control and Prevention. This presents new epidemiological and biological evidence that high intakes of sugars and syrups increase the risk of cardiovascular disease. It concludes: ‘Our results support current recommendations to limit the intake of calories from added sugars in US diets’. Doubtless in other diets also.

On 27 February Michelle Obama launched proposals for a new official US nutrition label. The current label, basically unchanged for 20 years, is on the left. The proposed label is centre. This emphasises realistic servings-portions and calories, and also includes added sugars. The alternative on the right indicates what to consume less of and more of. Sharp eyes will notice that there is no percentage of so called ‘daily value’ for sugars. This is because the US does not recognize World Health Organization limits (see story above) and has none of its own. The new labels will take about 3 years to introduce and will cost industry around $US 2 billion.
Box 2
The curious case of the carbohydrate committee

In the UK, official recommendations on nutrition and health are prepared and endorsed by expert committees whose members, appointed by civil servants, are collectively ‘safe’.

The WHO NUGAG group has completed its report on sugar (see above). Meanwhile a UK government advisory expert panel is labouring on a similar report. But there is trouble. The Sunday Times (3) has revealed that Ian Macdonald (centre above), chair of the panel whose recommendations on sugar have not yet been agreed after 6 years and 20 meetings, is personally paid as an advisor to Coca-Cola. He also receives research funding from Mars, and leads his university’s ‘strategic relationship’ with ice-cream maker Unilever. Quizzed on television (4) he said ‘I understand people saying “You are so close to those companies you should not have anything to do with gathering the evidence for UK policy”. I just disagree’.

Ian Macdonald, a distinguished scientist and a former president of the UK Nutrition Society, should not be singled out. There is a context. All governments since the 1939-45 war have supported current food manufacturing policies and practices. Civil servants are expected to work with industry associates and collaborative scientists, The chances of any official advisory committee taking a position that unpleasingly surprises affected industry, are meant to be nil. With sugar, a hot topic, Ian Macdonald’s eight-person panel is examining carbohydrates, so the dice are loaded against clear specific findings on sugar, and the panel is judging evidence some of which is from studies funded by the sugar industry.

The panel reports to the overall Scientific Advisory Committee on Nutrition, seven of whose members are shown above. From left to right these are a former Nutrition Society president Ann Prentice (chair) whose research has been funded by Coca-Cola, Kellogg, and Nestlé; Gill Fine, vice-chair of the industry-controlled British Nutrition Foundation (5); Ian Macdonald; David Mela of Unilever, also on the carbohydrate panel; Monique Raats, whose has had some funding from the industry-controlled European Food Information Council; and Ian Young and Julie Lovegrove, also on the carbohydrate committee, who have been funded by Sugar Nutrition UK.

Identifying individuals masks the main point. Most food or nutrition scientists in the UK probably have links of some sort with conflicted industry, and the system by which research science is funded and careers advanced makes this close to inevitable (4). As in the US, in the UK scientists are judged by their ability to bring in external and private funding, which often comes from commercially interested parties. It is also normal for civil servants to appoint scientists who collaborate with industry, to advisory committees. Harry Keen and John Durnin, the chair and vice-chair of the government’s previous panel on sugars, which reported in 1989, were both funded by the sugar industry and spoke at sugar industry events in defence of sugar. They were ‘known quantities’.

Those who thrive in this system and do the state some service on official committees, may eventually become appointed as Officer or Commander of the Most Excellent Order of the British Empire (OBE or CBE) or in special cases become a knight or dame, honours bestowed by the monarch. This all helps to explain the state of public health in the UK.
References


