The sugar industry is increasingly making efforts to buy into the science on nutrition, reports Jonathan Gornall

Industry funding of research that shows sugar in a good light is nothing new. In 2009, US dental administrator Cristin Couzens unearthed the files of a bankrupt sugar company and discovered a cache of revelatory documents spanning decades.

Couzens found that back in the 1960s, when diet drinks were seen as a threat to manufacturers of sugary drinks, the industry had funded research in an attempt to show that cyclamate sweeteners were bad for health. In the 1970s, efforts were made to distance sugar from diabetes, and between 1975 and 1980 the Sugar Association in the US had funded 17 studies “to maintain research as a main prop of the industry’s defense.”

As recently as 2003, a Sugar Association newsletter showed it was trying to secure seats for “unbiased” experts on the US Department of Agriculture’s dietary guidelines advisory panel and made this pledge to its members: the association was “committed to the protection and promotion of sucrose consumption. Any disparagement of sugar will be met with forceful, strategic public comments and the supporting science.”

This document, Couzens said in a 2013 interview, showed the sugar industry was “still very active in nominating scientists to serve on the dietary guidelines advisory committee, and it is still publishing research through connections with the World Sugar Research Organisation, based in London.”

The World Sugar Research Organisation (WSRO) did not respond to several attempts to contact it. However, according to its website, it is “an international scientific research organisation globally supported by the sugar industry,” dedicated to “encouraging a better appreciation of the direct and indirect contribution made by sugar to the nutrition, health and wellbeing of all the populations of the world.”
The evidence, it says, suggests that “a high-fat, high-energy diet, combined with inactive sedentary lifestyles, are the two principle [sic] factors increasing the risk of obesity.” Furthermore, “A combination of high-carbohydrate diets and regular physical activity can assist in the maintenance of an ideal body weight.”

In 1979, after publication of John Yudkin’s book Pure, White and Deadly, which was highly critical of sugar and the sugar industry, the organisation published a critique in its members’ bulletin under the headline “For your dustbin.” Yudkin took exception to the description of his work as “science fiction” and began a four year libel action which, according to the account in the updated version of his book, ended in a published apology and WRSO paying costs.

WSRO’s supporters today still include British Sugar and Tate and Lyle in the UK, and Coca-Cola and the Sugar Association in the US. The organisation is headed by Richard Cottrell, a biochemist who is a former director of the Sugar Bureau (which changed its name to Sugar Nutrition UK in 2012).

Among other contentious claims on the WRSO’s website are that “high sugar consumers are more likely to be slim,” “sugar can make it easier to follow a low fat diet,” and “sugar may be more satiating [than fat].” The site lists several published papers to support these claims but does not say whether the studies were funded by the organisation.

Influence of sponsored research
It is, of course, difficult to judge whether individual pieces of published research funded by organisations such as WSRO, or companies such as Mars and Coca-Cola, influence public opinion or the decisions of those in power.

However, a paper published on PLoS Medicine last year reported evidence that systematic reviews examining the relation of sugar sweetened beverages with weight gain or obesity were “five times more likely to present a conclusion of no positive association” if the research had been funded by industry.

An earlier study that examined 206 papers on the health effects of milk, soft drinks, and fruit juices had also concluded that “Industry funding of nutrition-related scientific articles may bias conclusions in favour of sponsors’ products, with potentially significant implications for public health.”

The sugar industry, says David Stuckler, professor of political economy and sociology at Oxford University, is increasingly making efforts “to buy into the science on nutrition,” echoing tactics used by the tobacco industry: “Diverting the agenda and biasing science are two industry tactics that we see at play.”
Sugar Nutrition UK, an industry funded body devoted to “researching the science of sugar,” is one organisation that funds sugar related research. A spokesperson said the organisation was “completely transparent about the nature of our research programme” and that all the research projects it funded were registered on ClinicalTrials.gov, the global registry and results database of clinical studies. However, only two trials supported by Sugar Nutrition UK are listed on the website because the organisation did not sign up to the initiative until last year.

It was, added the spokesperson, nevertheless “a policy of Sugar Nutrition UK to publish the results of all funded projects, regardless of the outcome.” However, despite several requests to do so, the organisation did not provide a list or give any details of all the research work it had funded.

Sugar Nutrition UK also monitors more than 90 journals and maintains on its website a selection of summaries of recent papers “on the subject of carbohydrates and health.”

This year the Union of Concerned Scientists in the US published a report highlighting how food and beverage manufacturers along with industry supported organisations such as trade associations, front groups, and public relations firms “have actively sought to deceive the public and ensure that Americans continue to consume high amounts of sugar.”

One tactic was to “exert . . . influence in academic spaces” by supporting “seemingly independent scientists and through participation in scientific meetings.”

“Although industry funding does not necessarily lead to biased results in a given study,” the report concluded, “industry-funded studies are as a group biased toward results favourable to industry and, as such, do raise serious concerns about impact of industry funding on the objectivity of scientific literature.” This funding effect “could produce systematic biases in nutrition research, including studies on sugar, and ultimately affect public health.”

Evidence of industry funding does not, of course, amount to evidence of research malpractice by funded researchers, but examples of industry funded research that favours industry are not hard to find.

A 2013 paper published in Nutrition Journal reached the potentially controversial conclusion that “increased frequency of candy consumption among adults in the United States was not associated with objective measures of adiposity or select cardiovascular risk factors, despite associated dietary differences.”

The research was funded by the National Confectioners Association, which, according to an acknowledgment at the end of the paper, “developed the research question, though did not contribute to the design of the study, analysis, interpretation of data, or drafting of the manuscript.” It had, however, “reviewed the manuscript prior to submission and
provided minor editorial suggestions for consideration by the authors who retained the authority to accept or reject them.9

Corresponding author, Mary Murphy, a registered dietitian and senior scientist with the US based scientific consulting company Exponent, told The BMJ she believed it was possible to produce unbiased findings “despite the financial support of an organisation with a clear interest in the outcomes, and we believe those findings are credible.” She and her colleagues had been engaged by the National Confectioners Association to conduct this work “because there is limited research on the relationship of candy consumption on diet and health.” As part of the acceptance process, “the manuscript underwent an objective, open peer review. Disclosure of the funding source was provided to reviewers in the submission.”

Sponsorship defended
In April last year an article in Diabetes Care contested a claim elsewhere in the journal that “we need to reconsider consumption of dietary sugar based on the growing concern of obesity and type 2 diabetes.”10

Not so, wrote Richard Khan of the University of North Carolina School of Medicine and John Sievenpiper of the Clinical Nutrition and Risk Factor Modification Centre at St Michael’s Hospital, Toronto. The “pox on sugar” was “overwrought and overworked.” At the foot of the article Sievenpiper disclosed he received funding from Coca-Cola and speaker’s fees and honoraria from Coca-Cola and the Dr Pepper Snapple Group.11

Sievenpiper told The BMJ that his department’s sugar related research programme was funded by the Canadian Institutes of Health Research and the Calorie Control Council, which represents the low and reduced calorie food and beverage industry. They had applied to Coca-Cola and Dr Pepper Snapple Group for educational grants “after the research had been designed and conducted” and had used the money only for “knowledge translation.”

Nevertheless, he believed it was wrong automatically to dismiss research funded by industry. Although he recognised that direct industry funding could be perceived by some as harming credibility, “I do not think this view is shared by all, especially critical thinkers. It is a very easy way to dismiss research one does not like without having to look carefully at it.”

A crucial question when considering financial conflicts of interest was “do they matter?” “Where industry decides on the research questions then industry funding may lead to a distortion of the research question, [making] it more likely that a result will favour the product or position of the sponsor,” he said. But while industry funding could influence conclusions drawn from research, “that does not necessarily mean that it affects the actual results.” The issue was “easily overcome by systematic reviews and
meta-analyses that pool the totality of the evidence . . . as these are based on the data and not the authors’ conclusions.”

Intellectual conflicts, such as how long investigators had been wedded to a hypothesis or whether they had developed a personal “brand” around a position, could represent “a more relevant conflict of interest.”

“Many of the strongest voices in the anti-sugar movement have popular books from which they profit directly,” he said. “It is hard to imagine that they might readily change their views when presented with evidence that refutes their position.”

Funding research isn’t the only way the sugar industry might seek to influence policymakers. UK based AB Sugar, one of the largest sugar producers in the world, recently funded a report by the think tank 2020Health called Careless Eating Costs Lives. The report reached a conclusion that echoed the message at the heart of industry’s rejection of claims that sugar is a key cause of obesity. Despite attempts to tackle obesity by “focusing on the population’s intake of energy dense, high calorie ingredients such as fat, sugar and alcohol … the problem really lies with people consuming too much of everything, and . . . there is no single cause for the observed rise in obesity.”

References

5. Yudkin J. Pure, white and deadly: how sugar is killing us and what we can do to stop it. Penguin, 2012.

