

The Dilemma of Sugar-Sweetened Beverages

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Much recent evidence has shown that sugar-sweetened beverages (SSBs) are of serious concern in the etiology of obesity [1–3], type 2 diabetes [4–6], and possibly cardiovascular diseases [7–9]. While the great bulk of the evidence comes from highly developed countries, the problem may be even greater in low-income and middle-income countries (LIC and MIC) where urbanization is having dramatic effects on changing the diet towards a fast-food culture [10, 11].

It is predictable, therefore, that the producers of SSBs will view such countries as emerging markets and target them with advertising in order to expand sales. Indeed, this is already happening. SSBs are now being heavily marketed in many LIC and MIC by varied means including television (TV), radio, billboards, and cinema. Both children and adults are exposed to advertising, often on a daily basis. Health educators cannot compete with this carefully orchestrated barrage of costly messages, of which TV is probably the most powerful.

In dealing with the issue of SSBs one first has to unpick the sequence of events that brings SSBs to the lips of consumers. Much evidence from developed countries has shown that TV is a powerful marketing tool [12, 13]. Longer hours of watching TV are associated with increased consumption of SSBs and fast

foods, and decreased consumption of fruit and vegetables [14, 15]. In addition, greater exposure to advertising for fast-food products is associated with a higher BMI among children [14]. A study undertaken on five continents, including Asia, showed that up to 87 % of advertising of food products was for those high in energy and undesirable nutrients [16]. A study that evaluated food marketing in 20 European Union countries found that confectionary and savoury snacks were the most commonly marketed products to children across all countries [17]. Furthermore, TV was found to be the prime promotional medium, followed by in-school and internet marketing.

Using data from National Health and Nutrition Examination Survey (NHANES) 2003–04 and a mathematical simulation model, Veerman et al. [18] concluded that when TV advertising was reduced to zero, the average BMI of 6–12-year-olds would decrease by 0.38 kg/m², and the prevalence of obesity would decrease from 17.8 to 15.2 % for boys and from 15.9 to 13.5 % for girls. Magnus et al. [19] showed that restricting TV food advertising to children is the most cost-effective population-based intervention strategy available to government. The withdrawal of advertisements for non-core foods and beverages to Australian children had a gross incremental cost-effectiveness ratio of US\$3.70 per disability-adjusted life year (DALY). This saved a total of 37,000 DALYs. When the present value of potential savings in future health-care costs was considered (US\$301 million), the intervention was regarded as being ideal, since it resulted in both a cost offset compared with current practice and also a health gain [19].

Clearly, TV advertising, particularly that aimed at children, needs to be addressed since it is one of the most powerful marketing tools used to boost sales of SSBs. One policy option for dealing with SSB consumption is to reduce (or ban) advertising of SSBs. The great potential of this strategy is shown by the ban of cigarette advertising by many governments, which proved a great success as part of efforts to reduce the prevalence smoking [20]. However, while most health consumer groups and public interest groups (in Europe) have for some years supported food marketing restrictions,

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industry and media groups oppose this; instead, they have advocated self-regulation. Experience with both the tobacco and food industry shows that self-regulation usually means vague promises followed by minimal action.

Another way of dealing with high SSB consumption is by implementing policies that limit SSB availability and improve food offerings in school lunches. Such policies have generally been associated with reduced SSB consumption [21]. Studies that have evaluated restriction of SSBs in middle schools in the USA have found that this intervention reduces the numbers of students consuming SSBs by one quarter [22]. In high schools, policies which reduce access to SSBs from vending machines and snack bars result in decreased consumption of SSBs [21, 23].

Another option for government to reduce intake of SSBs (and to generate additional revenue) is to levy a tax on SSBs. Past studies have generally applied to a limited set of SSBs, thus providing only weak evidence on their relationship to weight [21]. A substantial tax increase is probably required in order to have a significant impact [24]. According to one estimate, a tax of 20 % of current prices would reduce consumption of SSBs by 16–20 % [25].

The dilemma is that many LIC and MIC have their own health priorities, and the issue of the health impact of SSBs may appear to be quite minor when compared with, for example, HIV. But it would be short-sighted to ignore this issue, as SSBs are strongly linked to several major manifestations of non-communicable diseases (NCDs) while serving no useful nutritional purpose. Conditions such as obesity take many years to develop. The best time to stop an epidemic is before it starts. People can have their cake and eat it—or their SSB and drink it—but only in small amounts.

Compliance with Ethics Guidelines

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