#### Should Sugar be Regulated Like Tobacco?

Excessive sugar consumption is linked to over 184,000 deaths annually worldwide, primarily due to its role in obesity and related diseases (Alcaraz et al., 2021). Sugar is ubiquitous in modern diets, hidden in a vast array of processed foods and beverages. Despite its sweet appeal, the health impacts of sugar are alarming, contributing to a surge in chronic diseases such as diabetes, heart disease, and liver disorders (Gillespie et al., 2023). As these health issues escalate, the economic burden on healthcare systems grows. Given these significant health risks and the parallels to tobacco's detrimental effects, it is imperative that sugar be regulated in a manner similar to tobacco.

Excessive sugar consumption poses severe health risks similar to those of tobacco. High sugar intake is a major contributor to obesity, with over 650 million adults worldwide classified as obese (Gillespie et al., 2023). Furthermore, sugar is directly linked to the rise in Type 2 diabetes, which affects approximately 422 million people globally. Heart disease, the leading cause of death worldwide, is also exacerbated by high sugar consumption. Both sugar and tobacco share addictive properties, stimulating the brain's reward system in similar ways, leading to compulsive consumption despite harmful effects (Wiss et al., 2021). Critics argue that sugar is not as harmful as tobacco; however, mounting scientific evidence shows that sugar's role in chronic diseases is comparable to tobacco's impact on lung and cardiovascular health. Regulating sugar, like tobacco, could significantly reduce these public health risks and save lives.

Sugar significantly contributes to chronic diseases that are major public health concerns. Numerous studies have linked high sugar intake to the development of Type 2 diabetes, with one study showing that drinking one sugary beverage a day increases the risk of diabetes by 13%. Additionally, excessive sugar consumption is a key factor in heart disease, contributing to high

blood pressure and inflammation (Gillespie et al., 2023). Liver disease, particularly non-alcoholic fatty liver disease (NAFLD), is also exacerbated by sugar (Alcaraz et al., 2021). Regulating sugar could reduce the prevalence of these chronic diseases, leading to improved public health outcomes and reduced healthcare costs. Critics argue that personal responsibility should prevail over-regulation, but the pervasive presence of sugar in processed foods makes it difficult for individuals to avoid excessive consumption. Regulation is necessary to protect public health, similar to measures taken with tobacco, ensuring healthier choices are more accessible and reducing the burden of chronic diseases.

The high consumption of sugar places a significant economic burden on healthcare systems. Treating diseases linked to excessive sugar intake, such as diabetes, heart disease, and liver conditions, costs billions annually. For instance, the U.S. spends over \$327 billion a year on diabetes management alone (Powers et al., 2020). Regulating sugar could lead to long-term savings in healthcare expenditures by reducing the prevalence of these costly chronic diseases, thereby improving economic efficiency. Critics argue that regulation could negatively impact the food industry, but the industry can adapt by reformulating products to contain less sugar and promoting healthier options. This shift could also create new market opportunities for health-conscious consumers, ultimately benefiting both public health and the economy.

Lessons from tobacco regulation demonstrate the potential benefits of regulating sugar. Tobacco regulation has successfully reduced smoking rates and improved public health; for example, smoking rates in the U.S. have dropped from 42% in the 1960s to 14% today (Cummings & Proctor, 2014). These measures, including advertising restrictions, warning labels, and taxation, have been effective in curbing tobacco use (Cummings & Proctor, 2014). Similar strategies could be applied to sugar regulation, such as clear labelling, public awareness campaigns, and taxes on

sugary products. Critics may be skeptical about the feasibility of regulating sugar in the same way as tobacco, arguing that sugar is more ingrained in daily diets. However, gradual implementation and consumer education can ease the transition. By learning from tobacco regulation, we can develop effective policies to reduce sugar consumption, improve public health, and alleviate the burden on healthcare systems.

Sugar should be regulated like tobacco due to its significant health risks, contribution to chronic diseases, and economic burden on healthcare systems. Throughout this essay, we have highlighted how excessive sugar consumption leads to severe health issues, including obesity, diabetes, and heart disease, and places a substantial economic strain on healthcare resources. By drawing parallels with successful tobacco regulations, we have shown that similar strategies can be effective in reducing sugar consumption and improving public health outcomes. Policymakers, public health officials, and the general public must support sugar regulation efforts to protect public health and reduce healthcare costs. Implementing these measures can create a healthier future and alleviate the long-term economic burden on society.

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