

Is the Increasing Availability of Ultra-Processed Foods a Threat to Public Health?

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Is the Increasing Availability of Ultra Processed Foods (UPFs) a Threat to Public Health?

In recent years, the notable increasing consumption of ultra-processed foods (UPFs) amongst medium (MICs) and low-income countries (LICs), with a strong but stagnant influence in high-income countries (HICs), is raising concerns for public health. There is a measurable dietary transition occurring where the estimated sales volume of UPFs in MICs/LICs will surpass the levels seen in HICs by 2024 (Moodie, et al. 2021). UPFs are increasingly popular due to their “typically durable, ready to consume, low-cost and hyper-palatable” design (Chen, et al. 2020). This popular design; however, is claimed to be significantly inadequate in nutritional value (Steele, et al. 2017). Fortuitously, unhealthy diets are identified as a significant contributor to Noncommunicable diseases (NCDs), obesity, and all-cause mortality. Some NCDs include cardiovascular diseases, type 2 diabetes, and certain cancers, which, are collectively accountable for roughly 70% of worldwide mortality (Chen, et al. 2020). Certain risk factors of NCDs are traceable to UPF exposure, proved by vast epidemiological studies hosted with strict eligibility criteria and resolved bias exposures (Chen, et al. 2020).

The financialization of transnational providers of UPFs has integrated market dynamics into a major component of Global Food Consumption. Most of the world’s population is gravitating toward a diet dominated by UPFs, and deviating from unprocessed, whole foods. If large food organizations supplying these products go unregulated, public health welfare will be at the mercy of the subordinated interests of powerful, for-profit business corporations (Wood, et al. 2023). Moreover, the churning capitalist engine of transnational corporations pushing “convenience, branding, and aggressive marketing” (Chen, et al. 2020) of UPFs will unequivocally lead to a public health crisis.

Determining whether the increased availability of UPFs is directly or indirectly affecting public health is a complex problem involving multiple disciplinary insights. To assess, one must examine the dietary patterns of UPF consumption, the marketing edge UPFs have on other food groups, the complications of a UPF-rich diet, and whether sensible policies and measures can be implemented to protect and inform consumers. An analysis particular to this concern is in requisition of psychological, biological, economic, sociological, nutritional, political, and educational discernment; however, the focus of this report confines the parameters to nutritional, economic, and political perspectives to best concentrate the direction of research amongst optimal literature. Foundational in this analysis, UPF and public health must be defined.

Background

Ultra-processed food products are identifiable by their convenience, palatability, profitability, and industrial/non-whole food construct. Such products, necessary to this discussion, are defined and characterized as follows (Moodie, Rob, et al. 2013):

Ultra-processed products are made from processed substances extracted or refined from whole foods – e.g. oils, hydrogenated oils and fats, flours and starches, variants of sugar, and cheap parts or remnants of animal foods – with little or no whole foods. Products include burgers, frozen pasta, pizza and pasta dishes, nuggets and sticks, crisps, biscuits, confectionery, cereal bars, carbonated and other sugared drinks, and various snack products. Most are made, advertised, and sold by large or transnational corporations and are very durable, palatable, and ready to consume, which is an enormous commercial advantage over fresh and perishable whole or minimally processed foods ... [They] are typically energy dense; have a high glycaemic load; are low in dietary fiber,

micronutrients, and phytochemicals; and are high in unhealthy types of dietary fat, free sugars, and sodium.

To form an argument that UPFs are potentially threatening to public health, a clear and concise definition of public health is imperative to supporting adequacy. According to the CDC Foundation, n.d., “Public health is the science of protecting and improving the health of people and their communities. This work is achieved by promoting healthy lifestyles, researching disease and injury prevention, and detecting, preventing, and responding to infectious diseases.” With the overwhelming evidence defined in the purpose of UPFs, there is reason to believe a public health threat is imminent or already present, validated by multiple disciplinary insights.

Literature Review

Within the discipline of nutritional science, a conclusive link between the consumption of UPFs and various negative health outcomes is proportionally proved factual. Epidemiological research indicates an excessive consumption of ultra-processed foods is transparently associated with a higher “risk of all-cause mortality, overall cardiovascular diseases, coronary heart diseases, cerebrovascular diseases, hypertension, metabolic syndrome, overweight and obesity, depression, irritable bowel syndrome, overall cancer, postmenopausal breast cancer, gestational obesity, adolescent asthma and wheezing, and frailty” (Chen, Zhang, et al. 2020). This correlation offers justification that UPF corporations increase priority amongst shareholder profits rather than the population’s health. An illustrative example of this economic assumption is offered by (Wood, et al. 2023):

In 2011, then-CEO of PepsiCo Indra Nooyi reportedly increased the company's strategic focus on so-called ‘better for you’ products, in doing so taking support and focus away

from the company's core products, especially Pepsi Cola (Warner, [2013](#)). Shortly afterwards, Pepsi Cola's sales declined, which prompted several powerful investors to pressure management into rethinking its 'better for you' strategy. In response, Nooyi redistributed large sums of money and resources back into strengthening marketing for the company's flagship brands (Warner, [2013](#)).

Wood, et al. 2023 discuss how this is not a unique scenario but a common occurrence, especially among industries with large institutional investors.

Conflicts in the economic discipline involve theories and insights concerning industry structure, corporate strategy, and financial performance. In literature about the economic functions of the UPF industry, insights are separated into two theoretical approaches: Monopoly profits and creative destruction. Primarily, Wood, et al. 2023 describe monopoly profits as a core route in which large companies generate significant profits by leveraging their ability to create and influence the markets they operate in. They maintain profitability by tactically reinforcing the barriers to enter the market. For example, the larger UPF industries use “brand power, economies of scale, and supply chain control” to prevent new UPF competitors from entering the market (Wood, et al. 2023). Artifacts of this proposition include obtaining capital at lower rates than smaller companies through tax havens and governmental subsidies and leveraging brand power to capture retail shelf space through low-risk, must-stock branding and slotting fee payments (Wood, et al. 2023).

The assumption Involved In monopoly profits proposes UPF companies are following a version of “Porter’s Five Forces Framework” of ostensibly called marketing strategies but are also implementing non-market strategies “(i.e., concerted pattern[s] of action [] designed to

influence the interconnected policy, regulatory, institutional, and ideological structures that shape market environments)” to achieve profit generating objectives (Wood, et al. 2023). A Supporting artifact offering political science evidence includes the following qualitative case study’s conclusion (Gómez, 2019):

Despite the recent introduction of NCD prevention programmes in Mexico, Coca-Cola continues to succeed in negatively influencing NCD policies, as well as scientific research linking their foods to NCDs. In Mexico, and as the IPIC framework has helped to illustrate, Coca-Cola remains successful because of the ease with which industry leaders have access to congressional and bureaucratic institutions, supportive presidents, while hampering civic mobilization.

In contrast, creative destruction conversely claims, “capitalism is ‘by nature a form or method of economic change’ that ‘never can be stationary’; what keeps the ‘capitalist engine’ in motion are ‘new methods of production and transportation’, ‘new markets’ and ‘new forms of industrial organization” (Wood, et al. 2023). The underlying assumption of creative destruction is that the function of UPF globalization drives a propelled capitalist engine that is constantly evolving, expanding, and reaching methods of innovation that will eliminate second-rate commodities (whole/unprocessed or minimally processed foods). Corporations can force change by creating a product backed by technology, market strategies, and enormous profits. The destruction of the traditional diet is a product of the industrialization and economic change of the UPF industry. Therefore, creative destruction theory fosters a detached motive to a public health concern, rather it perpetuates a mission of evolution by discovering new markets and new profit-making opportunities for the benefit of the interest body. Public health must be held in

consideration for which product should be deemed a secondary commodity, for the decision can be a matter of life and death.

Rico-Campà et al. conducted a cohort study to assess the relationship between ultra-processed food consumption and all-cause mortality. To their conclusion, a greater intake of ultra-processed foods “(>4 servings daily)” was autonomously connected to a 62% higher relative risk of all-cause mortality. In addition, each further serving of ultra-processed food increases all-cause mortality by 18% (Rico-Campà, et al. 2019). Opponents of UPF’s threat to public health would claim when eaten in moderation and alongside other nutritional caloric sources, ultra-processed products pose little harm. If people follow dietary guidelines and consume more unprocessed or minimally processed foods, NCD occurrences won’t be as prevalent. While a claim in this regard could be considered factual and an answer to the problem, an understanding of environmental actuality must be formed. The central issue is that people are consuming ample amounts of UPFs. They are doing so because Moodie, Rob, et al. 2013 assert that the “intense palatability (achieved by a high content of fat, sugar, salt, and cosmetic and other additives), omnipresence, and sophisticated and aggressive marketing strategies (such as reduced price for super-size servings), all make modest consumption of ultra-processed products unlikely” (Moodie, Rob, et al. 2013). Economical market strategies, also make the “displacement of fresh or minimally processed foods” highly likely (Moodie, Rob, et al. 2013). Political influence allows UPFs to be the cheapest commodity, and their common ownership enables powerful institutional investors and lobbyists to avoid industry-wide public health regulations.

Common Ground

The evidence suggests that the leading ultra-processed food industries are heavily integrated economically and politically into the Global Food System which makes their provided commodities subjective to their profitability and popularity. Nutritional Science argues that the avoidance and management of NCDs are becoming a rising concern with the prevalence of new data associating UPFs with emerging health threats. While only one discipline has expressed its concern with the increasing availability of UPFs, newly elected officials may impact whether sensible policies and measures can be implemented. Newly elected Robert F. Kennedy Jr. publicly announced, “FDA’s war on public health is about to end.” RFK Jr. hopes to create an environment that can encourage a switch back to healthy, nutritious diets, and can culturally or legislatively impose the minimalization of harmful additives while compelling proper dietary guidance. Bernie Sanders, chairholder of the Senate’s health committee, said: “I think what he’s [Robert F. Kennedy] saying about the food industry is exactly correct. I think you have a food industry concerned about their profits, could care less about the health of the American people.”

For the “churning capitalist engine,” if regulations become enforced upon the UPF industries to create healthier commodities, the creative destruction theory implies that economics will inevitably find new methods of production to fill the new market demands. Then, displacing unhealthy UPFs as second-rate commodities, restoring healthier alternatives.

As for monopoly profits theory, UPF industries can remain at large, by legal or illegal means, but must switch their targeted audience with new dietary regulations. A “concerted pattern of actions designed to influence the interconnected policy, regulatory, institutional, and ideological structures that shape market environments” (Wood, et al. 2023) must be in a form that benefits public health. This can be made possible through either the elimination of

government subsidies on unhealthy products or applying government subsidies on healthy alternatives.

Nutritional science perspectives encourage a reduction in the consumption of ultra-processed foods (UPFs) and a rise in the intake of unprocessed or minimally processed foods, like fruits and vegetables. Studies suggest that reducing the proportion of UPFs in diets is a logical and effective approach to significantly enhancing dietary quality in the US (Steele, et al. 2017). From dramatically increasing the quality of the public's diet, NCDs will relinquish in ubiquity, fostering a succession of the public health threat.

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