

Ultra-Processed Foods and Human Health 3



Towards unified global action on ultra-processed foods: understanding commercial determinants, countering corporate power, and mobilising a public health response

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The rise of ultra-processed foods (UPFs) in human diets is harming global public health. However, policy responses are still emerging—much like tobacco control efforts decades ago—indicating the need to understand root causes and accelerate global action. This paper, the third in a three-part *Lancet* Series, takes several steps to advance knowledge of these causes, and to inform a global public health response. First, we show that the UPF industry is a key driver of the problem, as its leading corporations and co-dependent actors have expanded and restructured food systems almost everywhere, in favour of ultra-processed diets. The higher profitability of UPFs compared with other types of food fuels this growth, by financially incentivising the ultra-processed business model over alternatives, and generating resources for continued expansion. Second, we highlight that the main barrier to advancing policy responses is the industry's corporate political activities, coordinated transnationally through a global network of front groups, multi-stakeholder initiatives, and research partners, to counter opposition and block regulation. These activities include direct lobbying, infiltrating government agencies, and litigation; promoting corporate-friendly governance models, forms of regulation, and civil societies; and framing debate, generating favourable evidence, and manufacturing scientific doubt. Third, we present strategies for reducing the UPF industry's power in food systems and for mobilising a global public health response. Reducing the UPF industry's power involves disrupting the ultra-processed business model and redistributing resources to other types of food producers; protecting food governance from corporate interference; and implementing robust conflict of interest safeguards in policy making, research, and professional practice. Mobilising a global response includes framing UPFs as a priority global health issue; building powerful global and country-level advocacy coalitions; generating legal, research, and communication capacities to empower advocacy and drive policy change; and ensuring a just transition to low-UPF diets. A coordinated, well resourced global response is essential—one that confronts corporate power, reclaims public policy space, and restructures food systems to prioritise health, equity, and sustainability over corporate profit.

Introduction

The rise of ultra-processed foods (UPFs) in human diets is a leading cause of the diet-related chronic disease pandemic. The first paper in this three-part *Lancet* Series on UPFs and human health presents the scientific evidence supporting this claim.¹ The second Series paper outlines evidence-backed policy actions governments can implement to halt the rise and reduce the share of UPFs in diets.² In this third Series paper, we focus on the political dimension of UPFs. We elaborate on the power of corporate actors to shape food systems in ways that generate ultra-processed diets, and outline strategies for mobilising a global public health response. Our framing is broad, as we consider commercial and structural determinants, and the UPF industry's indirect health impacts through social, economic, and environmental pathways.^{3,4}

To mobilise a global response against UPFs, it is crucial to understand the root causes of the problem. We propose that the key driver of the global rise in UPFs is the growing economic and political power of the UPF industry, and its restructuring of food systems for

profitability above all else—especially by the business practices of its leading corporations—in an increasingly financially-driven, capitalist world economy.^{5–7} The industry comprises UPF manufacturers at its core, but also a broader network of co-dependent actors who collectively drive the production, marketing, and consumption of UPFs. These actors include ingredient suppliers, plastic producers, grocery retailers, fast-food chains, advertising firms, lobbyists, industry front groups, and research partners. We label these actors collectively as the UPF industry, and the food systems they generate and control as UPF systems.

Our second proposition is that although some countries have implemented measures to control industry practices and reduce UPF consumption, the global public health response is still nascent, akin to where the tobacco control movement was decades ago. Government policy responses—especially in high-income countries—have done little to attenuate commercial and structural determinants of the problem, having focused largely on limited information provision and consumer responsibility, industry partnerships, and voluntary self-regulation.^{8,9} This

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Key messages

- The rise of ultra-processed foods (UPFs) in human diets is being driven by the growing economic and political power of the UPF industry in food systems nearly everywhere—not by any lack of individual willpower or responsibility.
- The higher profitability of producing UPFs, compared with other types of food, is key to understanding the industry's expansion—in capitalist economies, where resources and investment accumulate in the most profitable firms and sectors, this drives a structural transformation of entire food systems towards ultra-processed diets.
- As the industry's leading corporations have grown and globalised in recent decades, they have actively expanded UPF markets, especially in low-income and middle-income countries. Powerful marketing techniques are used to generate demand and normalise consumption. Political strategies are implemented to block government regulation and suppress opposition, ensuring growth continues.
- This political activity is coordinated transnationally through a global network of corporate interest groups, and involves lobbying, political donations, and litigation (ie, the power of direct corporate action); promoting corporate-friendly governance models, self-regulation, and civil societies (ie, corporate institutions); and framing debate, generating evidence, and manufacturing scientific doubt (ie, corporate ideas).
- Reducing the industry's power in food systems involves strongly disincentivising UPF production, reducing the power of marketing, and redistributing resources to other types of food producers; excluding the UPF industry from food governance; ending reliance on voluntary corporate actions; and reforming policy, health professional, and scientific practice to minimise corporate interference.
- The transition to low-UPF diets should be just and anchored in policies that foster sustainable food systems through participatory governance, economic inclusion, and support for families, ensuring actions promote food security and gender equity, and minimise stigma.
- To accelerate action, UPFs can be prioritised as a global health issue. The global health objectives are to prevent the rise of the ultra-processed dietary pattern in countries where it is just starting; halt the rise everywhere; and accelerate UPF reductions in contexts where such diets already dominate, dovetailing with wider efforts to promote sustainable food systems.
- Strategies for mobilising a global public health response include establishing a global UPF action network to coordinate action and building powerful and well resourced country coalitions to engage in political advocacy, communications, litigation, and research. Recent advocacy and policy wins, especially in Latin America and sub-Saharan Africa, provide key lessons for scaling action elsewhere.

policy inertia reflects the coordinated efforts of the industry to skew decision making, frame policy debates in their interest, and manufacture the appearance of scientific doubt. Understanding these corporate strategies is essential to inform societal responses to UPFs that focus on reducing corporate power in food systems.

Our final proposition is that the continuing rise of UPFs in human diets is not inevitable; rather, this rise can be disrupted and reversed through sustained social mobilisation and collective action. Powerful public health responses are building momentum, especially in Latin America and sub-Saharan Africa, providing lessons for scaling action elsewhere.^{10,11} World-leading countries continue to strengthen comprehensive policy frameworks to both reduce UPFs and promote healthy diets from sustainable food systems. We draw from diverse literature, commissioned studies, workshops, key informant interviews, and case studies (panel 1) to present strategies for countering the UPF industry's power in food systems, and for mobilising a global public health response.

Understanding the power of the ultra-processed food industry

The rise of UPFs reflects the growing power of the UPF industry in food systems nearly everywhere (panel 2). In the late 20th century, the industry began mass-producing and marketing UPFs on a truly global scale to become a

key driver of the nutrition transition and chronic disease pandemic.^{11,22,75} Between 2009 and 2023, global UPF market sales grew from US\$1.5 trillion to \$1.9 trillion (constant 2023 US dollars and prices), led by rapid UPF sales growth in low-income and middle-income countries (although with wide variation in per capita sales and growth trajectories; figure 1).⁷⁶ The eight largest transnational UPF manufacturers, by share of total industry revenue, are headquartered in North America and western Europe: Nestlé (Switzerland), PepsiCo (the USA), Unilever (the UK), Coca-Cola (the USA), Danone (France), Fomento Económico Mexicano (Mexico), Mondelez (the USA), and Kraft Heinz (the USA).⁵ These corporations have consolidated control over global UPF production, accounting for 42% of the sector's \$1.5 trillion in total assets in 2021, including production facilities, distribution networks, marketing systems, and thousands of trademarked brands. They collectively own hundreds of subsidiaries, with a presence in nearly every world market.⁵

The purpose of ultra-processing, according to the Nova classification, is profit maximisation.¹ The UPF industry's core business model depends on using cheap commodity ingredients and industrial manufacturing technologies to minimise cost, and intensive marketing and highly palatable product designs to drive repeat consumption—features that make UPFs “liable to

Panel 1: Research approach and methods

We synthesised data from multiple sources: academic and grey literature from searches of online databases and web sources; four regional workshops in Africa, Asia-Pacific, Latin America, and the Caribbean; 39 interviews with key informants from civil society, government, multilateral organisations, and academia; and several commissioned studies (see appendix pp 1–3 for detailed methods). The workshops and interviews were intended to give voice to those already taking action on ultra-processed foods (UPFs) to ensure our analysis speaks as much as possible for these communities. Participants were identified through purposive snowball sampling. Combining thematic analysis of these data, coauthor dialogue, and expert feedback, we identified key themes that structure this Series paper and its recommendations. Our team spanned diverse country contexts and disciplines including public health, food policy, law, business studies, economics, and political science. Our orientation was critical, recognising that a purely technical interpretation of the problem is insufficient for understanding its root causes, and limits prospects for transformative change.^{12,13}

The Nova food classification differentiates food by the degree and purpose of processing, not only by the nutrient content of food alone. UPFs are branded commercial formulations made from inexpensive ingredients, combined with additives, mostly containing little to no whole food, designed to compete with the other three Nova groups and maximise industry profits.¹ Since 2009, Nova and the UPF concept have been used in diverse applications, including a large body of epidemiological studies, monitoring population diets, government dietary guidelines, and consumer purchasing apps.^{2,14–16} Nova also provides a valuable—but under-appreciated—lens for understanding the political economy of food systems and dietary change. By explicitly recognising profit maximisation as the purpose of ultra-processing, Nova foregrounds the powerful corporations, business practices, and financial imperatives behind the rise of UPFs (ie, Nova group 4), and the dietary displacement of natural and minimally processed foods (Nova group 1), culinary ingredients (Nova group 2), and processed foods (Nova group 3) that have long formed the basis of diverse food cultures, culinary practices, and food economies worldwide.^{17,18}

We adopted a combined political economy and commercial determinants of health approach to understand the causes of

ultra-processed diets.^{12,19} The rise of UPFs is structurally produced and commercially determined, especially by the industry's leading corporations, as they have globalised and reshaped food systems for profit.^{5,7,17,20} Although multiple factors contribute to driving dietary change, including income growth, demographic change, and demand for convenience, corporate actors have a central role and should be investigated.^{21,22,23} We focused on the distribution of power between the UPF industry and governments, other food producers, civil society groups, researchers, professionals, the media, and citizens, and the processes that transform and sustain these distributions over time.²⁴ We considered how these actors influence governance arrangements, policies, regulations, and social norms that structure behaviour (ie, institutions); the knowledge systems, beliefs, and forms of evidence that influence thinking and discourse (ie, ideas); and the economic structures and resource distributions shaping actor capacities (ie, resources), across diverse contexts.^{21,25,26}

In developing recommendations, we were guided by workshop and interview participants, research on countering corporate power and the commercial determinants of health,^{26–30} strategies for driving sustainable and just food system transitions,^{31,32} and generating political commitment for nutrition.^{33–35} Other descriptors preceding Nova (eg, foods high in fat, sugar, and salt) and nutrient-based food profiling models are most often used in government policy. We therefore use the term UPF as defined by Nova, and the term UPF-related when referring to policy actions using these other descriptors.

By conflicts of interest, we mean situations in which financial or vested interests can unduly influence policy, professional, or scientific decision making in ways that diverge from or compromise the public interest.^{36,37} We define a healthy and sustainable diet as one that supports lifelong health, development, and wellbeing, without compromising the food security and nutrition of future generations. Such a diet begins with breastfeeding; comprises diverse minimally processed foods balanced across food groups and is low in UPFs; provides adequate energy and nutrients; has low environmental impact and waste; is safe, culturally appropriate, and affordable; and is provisioned by a food system in which power, opportunity, and resources are distributed equitably.^{16,38}

displace" all other food groups.^{18,77} In capitalist economies, where investments flow to the most profitable firms and industries, this drives the structural transformation of food systems in favour of ultra-processed diets.^{6,78} To test this proposition, we analysed the financial performance of food and agricultural corporations listed on US stock exchanges and found that UPF manufacturers are the most effective at maximising profits and generating shareholder returns. Between 1962 and 2021, of the \$2.9 trillion in shareholder payouts by corporations operating across

the food production, processing, manufacturing, fast-food, and retail sectors, more than half (\$1.5 trillion in 2021 US dollars) was distributed by UPF manufacturers alone.⁵⁷ Such profitability creates a reinforcing feedback loop, incentivising the ultra-processed business model over alternatives, and generating surplus resources for continued corporate expansion.^{9,79}

To maximise profit, UPF corporations implement key market strategies.^{6,22,64} They establish vast global production networks encompassing all UPF supply

For more on the **Coca-Cola System** see <https://www.coca-colacompany.com/about-us/coca-cola-system>

chain sectors, spreading products between and within countries.^{6,20,55} For example, Nestlé expanded from 80 factories in the 1920s,⁴⁸ to 340 factories across 76 countries in 2023, supported by 24 research and development centres serving 188 markets.^{80,81} In 2022, the Coca-Cola System produced 2·2 billion daily beverage servings across 200 markets, supplied by 200 partners operating 950 bottling plants.⁸² This global production model enhances UPF corporations' political power, as lobbyists can influence government policy decisions by threatening to relocate jobs, investments, or input sourcing.^{21,83} Furthermore, the model confers competitive advantages over local food producers, such as low-cost sourcing, economies of scale, and global brand recognition.^{6,22} Ultra-processing technologies lower production and distribution costs by replacing more expensive ingredients with cheaper modified substitutes, reducing product weight for transport, and extending their shelf life.^{22,39,84} These strategies are emulated by local firms, further fuelling market growth.²²

These strategies free up resources for large expenditures on marketing, including branding,

promotion, and product designs, adapted to diverse market contexts.^{6,30} In 2024, Coca-Cola, PepsiCo, and Mondelez spent a combined \$13·2 billion on advertising, almost four times WHO's operating budget.^{85–87} Such marketing is a form of ideological power in food systems, tapping into core values, consumer aspirations, and cultural preferences to generate demand and normalise consumption.^{44,88,89} Coca-Cola's branding and promotion, for example, associate products with happiness, freedom, and youth culture;^{90,91} with vitality and human excellence by sponsoring athletes and events such as the Olympic Games;^{92,93} and with celebration, epitomised by the red and white iconography of Santa Claus.⁵ Products are designed to promote cravings and repeat consumption by optimising their aesthetic, taste, texture, and even sound;^{61,94} to appear as healthier and more environmentally friendly, through fortification, reformulation, and packaging claims;^{21,88} and to mimic traditional foods and popular dishes.^{22,64} Marketing is adapted to ensure growth continues, exemplified by the intensive promotion and rapid rise of toddler milks in children's diets, as infant formula marketing regulations have tightened.^{53,81}

Panel 2: The rise of ultra-processed foods—a brief history

Humans have processed food for millennia. Techniques such as grinding, drying, salting, smoking, and fermenting,^{39,40} have transformed foods into safer, tastier, and more nutritious and durable forms, contributing to food security, employment, convenience, and culture.^{41,42} As recognised by the Nova food classification system, processing is integral to the production of many artisanal and industrial foods, used in diverse dishes and cuisines, combining whole and minimally processed foods with culinary ingredients, and moderate amounts of processed foods. By contrast, many of the industrial ingredients and processes used in ultra-processed food (UPF) manufacturing are, from an evolutionary perspective, entirely new exposures in human diets.^{18,40}

The rise of UPFs coincides with periods of the evolving capitalist world economy, from its early growth during the colonial period, to its highly financialised and globalised form nowadays.^{43,44} In the 1700s, slave-dependent plantation agriculture supplied cheap sugar to burgeoning confectionary and beverage industries, coinciding with the mass sweetening of European diets and rapid declines in oral health.^{45,46} During the industrial revolution of the late 1800s, some of the world's largest UPF manufacturers were founded, as new manufacturing technologies enabled the mass production of products such as soft drinks, confectionary, and commercial milk formulas.⁴⁷ European corporations (eg, Nestlé) began marketing products through colonial trade networks into Africa, Asia, and the Americas.^{5,48} US corporations expanded rapidly during World War 2, as products such as Coca-Cola, Hershey's confectionery, and Spam became military staples and

eventual symbols of American imperialism (or so-called Coca-Colonisation) throughout the Cold War.^{49,50}

After World War 2, an industrial model of US agribusiness spread worldwide that was reliant on fossil-fuel production inputs and large-scale monocultures such as soy, corn, wheat, and sugarcane and, from the 1970s onwards, others including oil palm, sunflower, and canola.⁵¹ Modern food science perfected ways of deconstructing these commodities into diverse UPF ingredients alongside their use as animal feeds, with many being used for meat-based UPFs and fast-food meals.⁵² Baby food marketing intensified, especially through health systems, contributing to precipitous declines in breastfeeding.^{53,54} Companies such as Kraft, Nestlé, and General Mills came to dominate high-income country markets, selling convenience and modernity with television dinners, snacks, and sugared breakfast cereals.^{47,54} Marketing campaigns exploited gender inequities in domestic labour, positioning products as solutions for time-pressured families and reducing the time and effort required to prepare meals and feed hungry children.^{42,54} During the 1990s, UPFs became a leading source of dietary energy in the USA, Canada, the UK, and Australia—the first countries to have ultra-processed national diets.¹

In the 1980s, facing stagnant sales in their home markets in high-income countries, the UPF industry globalised with renewed vigour, pursuing new growth opportunities within markets in low-income and middle-income countries (LMICs), with their large, young, urbanising populations, and rising incomes.^{41,55,56} This growth coincided with financial

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sector deregulation, and corporate executives facing greater pressure from a growing shareholder movement to pursue higher profits and short-term returns.^{57–59} The vision of industry leaders at this time was to capture not just market share, but also human diets and bodies, framed in terms of stomach, throat, and mouth share.^{60,61} In 1986, for example, Roberto Goizueta, then President and Chief Executive Officer of Coca-Cola, outlined his vision to investors: “right now in the [USA], people consume more soft drinks than any other liquid, including ordinary tap water. If we take full advantage of our opportunities...we will see the same wave catching on in market after market until, eventually, the number one beverage on earth will be...soft drinks—our soft drinks”.⁶²

In the 1980s, structural adjustment programmes compelled many LMIC governments to reorientate agricultural production away from nutritionally important traditional crops, towards cash crops supplying global commodity chains, while opening markets to foreign direct investment by highly capitalised transnational food corporations.^{55,63} The establishment of the World Trade Organization in the mid-1990s, and the explosion of free trade agreements that followed, further empowered UPF corporations to globalise^{55,64} while imposing binding rules on how governments regulated their markets, often with a chilling effect on regulators.^{65,66} By this time, corporations such as Archer Daniels Midland, Bunge, Cargill, COFCO, Louise Dreyfus, and Wilmar controlled much of the world’s grain and oilseed

trade, provisioning cheap commodity ingredients to the UPF industry’s expanding global production networks.^{22,67,68} As a Cargill brochure described it, “we are the flour in your bread, the wheat in your noodles, the salt on your fries. We are the corn in your tortillas, the chocolate in your dessert, [and] the sweetener in your soft drink”.^{69,70}

Between 1988 and 2001, the tobacco companies Philip Morris and R.J. Reynolds acquired leading UPF manufacturers, using their expertise to engineer hyper-palatable and habit-forming products.⁷¹ Advertising agencies globalised alongside leading UPF corporations, helping to adapt global brands to emerging markets⁶⁴ and harness powerful new forms of digital marketing to generate demand, often targeting children.^{72,73} From the 1980s, fast-food franchises globalised rapidly, led by McDonalds and Yum! Brands offering ultra-processed meals²² and, from the 1990s, supermarket chains such as Walmart, Carrefour, and 7-Eleven distributing UPFs at scale and low cost.^{56,74} Micro-distribution networks were established to reach consumers on low incomes and in remote locations, as exemplified by Coca-Cola’s ubiquitous branded *tiendas* in Mexico, and Nestlé’s door-to-door salesforce in Brazil’s urban *favelas*.^{20,22} As the UPF industry has generated obesity and diet-related chronic disease, the pharmaceutical, bariatric surgery, and dieting industries have provided market-based solutions, including new glucagon-like peptide-1 agonist drugs, for people able to afford them.

Government policies fuel the UPF industry’s growth and profitability.^{9,59} The USA, EU, and other large agrifood-producing nations often intervene on the industry’s behalf in the World Trade Organization (WTO), and bilaterally through trade diplomats, to oppose UPF-related regulations of other governments.^{66,95} These nations adopt industry-aligned positions on food labelling and other UPF-related standards established by the Codex Alimentarius Commission (Codex), the UN’s food standards-setting body, and challenge the regulations of other governments in the WTO by claiming they exceed Codex standards.^{96–98} Codex and national-level food standards programmes focus narrowly on regulating acute food safety risks, while permitting many additives, processing aids, and marketing claims that enable UPF proliferation, and neglecting chronic disease prevention and sustainability objectives.^{84,99,100} Agricultural subsidies—totalling US\$27.6 billion worldwide for seed oils and sugar in 2017—reduce UPF manufacturing costs,^{101,102} as do fossil fuel subsidies for petrochemical-derived inputs, such as plastic packaging.^{9,103} Weak or poorly enforced competition policies have enabled high levels of market concentration across many UPF supply chain sectors, strengthening the dominance of large firms, and their power to suppress competition, restructure food systems, and influence public policy.^{30,67}

The ultra-processed food industry’s political strategies and networks of influence

To protect corporate profits and ensure growth continues, the UPF industry implements a set of reinforcing political strategies intended to counter opposition and block, weaken, or delay government regulation.^{6,9,81,90} The industry’s corporate political activity is the most important barrier to the implementation of effective public policies to reduce UPF-related harms, mirroring the playbook used by the tobacco, alcohol, and fossil fuel industries.^{61,104–106} Table 1 outlines nine key political strategies, organised under three forms of corporate political power: lobbying, political financing, government infiltration, and litigation (ie, the power of direct corporate action); promoting corporate-friendly governance models, self-regulation, and civil societies (corporate institutions); and framing societal debate, deflecting blame, and manufacturing scientific doubt (corporate ideas).^{21,25,90,107}

As the UPF industry has globalised, its leading corporations have established networks of lobbyists and interest groups to implement these political strategies across a growing number of countries.^{123,160} Threats to corporate profitability are identified and ranked to allocate resources and coordinate political activity accordingly. For example, Coca-Cola Europe executives developed a public policy risk matrix, which evaluated

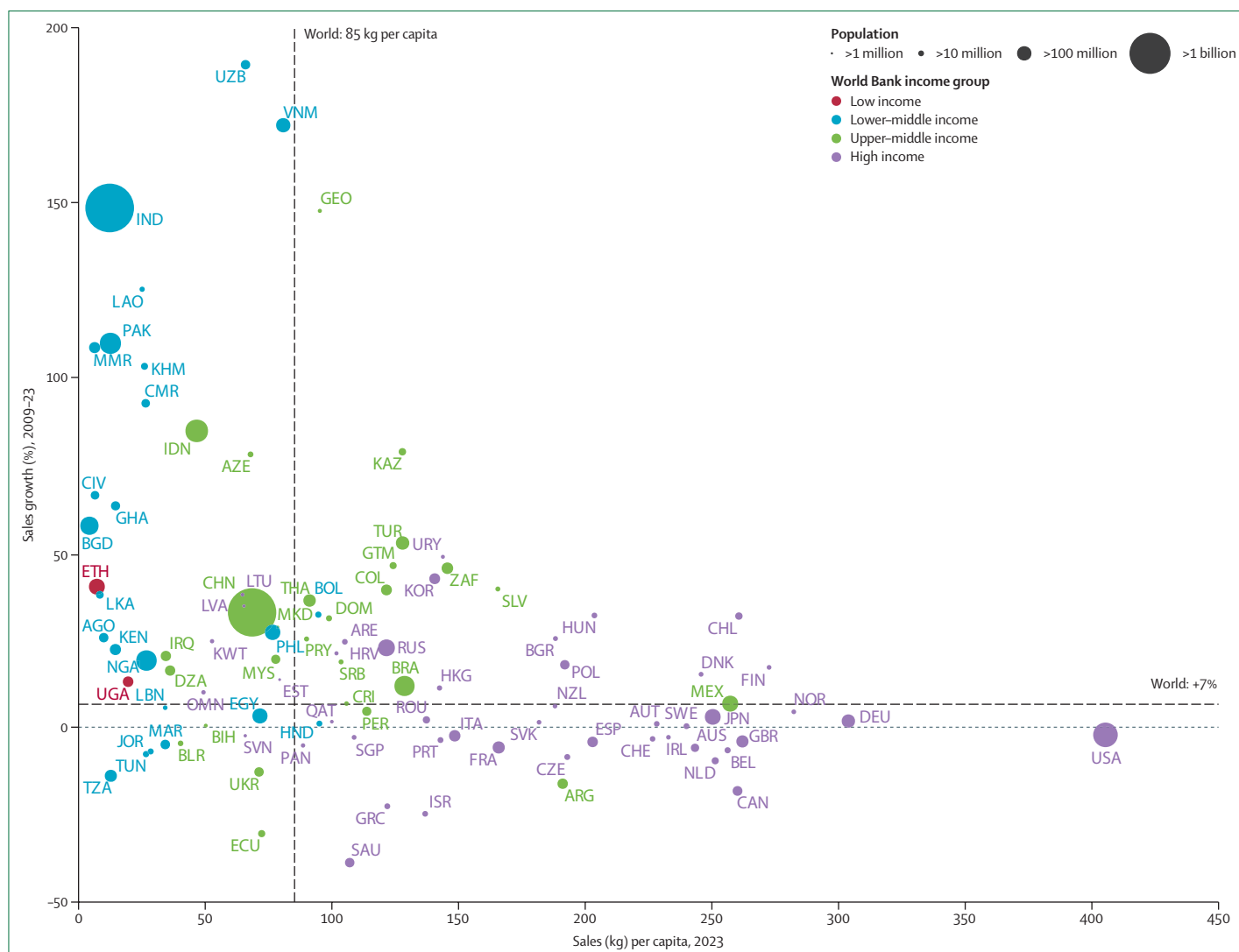


Figure 1: Country-level sales of ultra-processed foods and beverages per capita versus growth, 2009-23

Data sourced from Euromonitor Passport market information database.¹⁶ Data represent sales of ultra-processed foods and beverages combined. The figure shows differences not only in market size and growth, but also in the timing of the UPF industry's expansion in different country contexts, growing first in the industry's high-income country home markets, and then, as sales stagnated in those markets, pushing into middle-income and low-income countries to sustain growth and profitability. Dashed lines represent world average values. UZB=Uzbekistan. VNM=Viet Nam. GEO=Georgia. IND=India. LAO=Laos. PAK=Pakistan. MMR=Myanmar. KHM=Cambodia. CMR=Cameroon. IDN=Indonesia. AZE=Azerbaijan. KAZ=Kazakhstan. CIV=Côte d'Ivoire. GHA=Ghana. BGD=Bangladesh. TUR=Türkiye. URY=Uruguay. GTM=Guatemala. ETH=Ethiopia. LKA=Sri Lanka. CHN=China. LTU=Lithuania. LVA=Latvia. THA=Thailand. BOL=Bolivia. COL=Colombia. KOR=South Korea. ZAF=South Africa. SLV=El Salvador. HUN=Hungary. CHL=Chile. MKD=Republic of North Macedonia. DOM=Dominican Republic. AGO=Angola. KEN=Kenya. IRQ=Iraq. KWT=Kuwait. MYS=Malaysia. PHL=Philippines. PRY=Paraguay. ARE=United Arab Emirates. HRV=Croatia. RUS=Russia. BGR=Bulgaria. POL=Poland. DNK=Denmark. FIN=Finland. NGA=Nigeria. DZA=Algeria. UGA=Uganda. LBN=Lebanon. MAR=Morocco. JOR=Jordan. TUN=Tunisia. BLR=Belarus. TZA=Tanzania. EST=Estonia. QAT=Qatar. OMN=Oman. BIH=Bosnia and Herzegovina. SVN=Slovenia. UKR=UKRAINE. HND=Honduras. PAN=Panama. ECU=Ecuador. SRB=Serbia. BRA=Brazil. HKG=Hong Kong. CRI=Costa Rica. ROU=Romania. PER=Peru. SGP=Singapore. GRC=Greece. SAU=Saudi Arabia. ITA=Italy. PRT=Portugal. ISR=Israel. NZL=New Zealand. SVK=Slovakia. FRA=France. CZE=Czechia. ARG=Argentina. ESP=Spain. CHE=Switzerland. AUT=Austria. MEX=Mexico. SWE=Sweden. JPN=Japan. AUS=Australia. GBR=UK. IRL=Ireland. BEL=Belgium. NLD=Netherlands. CAN=Canada. NOR=Norway. DEU=Germany.

49 regulatory policies on their likelihood to materialise and impact business, and designated new taxes, packaging claims, and recycling laws as their fight-back priorities.¹⁶¹ The corporation's annual reports identify an even wider constellation of threats to profitability, including the health effects of their products; negative publicity on obesity, sustainability, and human rights violations; marketing controls; harms from plastic

packaging; and legal responses to climate change.^{82,162,163}

To amplify political influence, coalitions are formed with co-dependent industries, supportive government agencies, civil society groups, professional organisations, and academics.^{105,108}

Although studies describe the UPF industry's political activities at country level,^{112,135,150,164} and in key international settings,¹⁶⁵⁻¹⁶⁷ few examine its global network structure

and coordination.^{123,160} To address this gap, we mapped the declared-interest group memberships of industry-leading corporations, identifying 207 groups worldwide (figure 2).¹⁶⁰ Eight corporations are central to the network, indicating their coordinating role: Nestlé (n=137 memberships), Coca-Cola (114), Unilever (106), PepsiCo (105), Danone (91), Mars (74), Mondelez (72), and Ferrero (69). Most groups are based in the capital

cities of major markets and are close to powerful decision-makers in governments, with nearly half located in Washington, DC, and Brussels.

UPF corporations also initiate voluntary actions and multi-stakeholder initiatives to project a responsible public image, legitimise themselves as governance partners, and position themselves as solutions to the problems they generate.^{124,130,131} We identified 45 global

Description		Illustrative examples
Direct influence on policy makers (ie, power of direct corporate action)		
Lobbying and political financing	Lobbyists engage policy makers to block, weaken, or delay regulation, and secure tax breaks, subsidies, and other forms of governmental support. ^{61,107} donations are made to political parties, often with greater support for candidates sympathetic to corporate interests; ¹⁰⁸ lobbyists often emphasise corporate social responsibility commitments and voluntary actions, and the effects of regulations on investment decisions, employment, and economies; ^{109,110} policy makers are often engaged directly through elite social networks and participation in policy processes; ¹⁰⁵ lobbyists offer help to draft laws, hold closed-door meetings, and arrange conferences, engagement events, and factory visitations. ^{105,108}	Between 1998 and 2020, the US food and beverage industry spent US\$1.15 billion on lobbying the US Government; Coca-Cola, PepsiCo, Consumer Brands Association, and American Beverages Association were the top spenders; ¹¹¹ before corporate political donations were outlawed in 2015, more than half of Brazil's legislators were elected with industry donations; in 2014, JBS Foods donated \$112 million, Coca-Cola \$6.5 million, and McDonald's \$560 000; ¹¹² between 2014 and 2022, industry lobbyists met with Chilean Government officials 237 times, including 55 times with ministers, under-secretaries, and congress members; 43 meetings were with Nestlé lobbyists alone. ¹¹⁰
Infiltrate regulatory agencies and enrol state allies	Governing bodies and regulatory agencies are infiltrated and influenced to promote outcomes favourable to industry; ^{61,107} industry executives often seek employment within political administrations and regulatory agencies; government officials are, in turn, offered employment as executives or lobbyists to provide access, legitimacy, and insider knowledge—a so-called revolving door; government agencies are enrolled to lobby on the industry's behalf, including to UN agencies, and bilaterally to other governments; when access or influence is denied, industry finds or creates more favourable spaces of influence. ¹¹³	In 2024, of the 326 lobbyists employed by the US food and beverage industry, 211 (64.7%) were former government employees; ¹¹⁴ the former Chief Executive Officer of Coca-Cola Mexico, Vicente Fox, later became the country's president, with industry executives becoming highly influential in the administration, including in health policy decision making; ^{115,116} in Colombia, the Ministries of Commerce and Agriculture, and the National Institute for Food and Drug Surveillance, were enrolled to align with industry positions against a new FOP warning label regulation. ¹¹⁷
Litigation	Litigation—or threat of—is used to weaken, delay, or repeal regulation and impose government capacity burdens, and has a chilling effect on regulators; ^{95,118} corporate litigation has challenged regulatory agency mandates and procedures, claimed intellectual property infringements and trade law violations, and questioned the constitutionality of regulations; ^{119,120} the USA, EU, and aligned governments often intervene in WTO committees to oppose other governments' UPF-related regulations; ^{96,113} they often call for fewer trade-restrictive measures and claim regulations are scientifically unjustified, or more restrictive than Codex standards. ^{96,98}	In Mexico, the industry filed 50 legal injunctions to delay a front-of-pack warning label regulation, claiming violations of advertising freedoms of expression and intellectual property rights; ¹²⁰ Indonesia delayed an FOP warning label regulation after claims of trade law violation were made to the president's office, and 11 interventions by foreign governments were made in WTO Technical Barriers to Trade committee meetings; ¹²¹ since 2020, McDonald's has lodged 14 appeals to UK local councils and overturned five UK planning rejections of new restaurants on health grounds, using a combination of legal threats, medical testimony, and local sponsorship of sports teams as leverage. ¹²²
Promote corporate-friendly governance models, forms of regulation, and civil societies (ie, the power of corporate institutions)		
Promote multi-stakeholder governance	Partnerships and multi-stakeholder initiatives are promoted and initiated, often involving the UPF industry, government, NGOs, and experts; ¹²³ this governance model gives corporations a privileged position in policy dialogue, agenda setting, and design; political legitimacy is fostered by association with governments, UN agencies (ie, so-called blue-washing), prominent NGOs, and academics; ²¹ this depoliticises UPF-related problems by diluting responsibility, enrolling others in negotiations, and generating compromise; ¹²⁴ weaker policy outcomes result, including voluntary over mandatory regulations, and solutions least likely to affect profitability. ^{124,125}	As Colombia's Congress debated a FOP warning label law, the UPF industry formed an Alliance for Child Nutrition, signed a pact with the attorney general, and partnered with the Ministry of Health, Presidential Council for Children and Adolescents, and National Association of Neonatology; ¹¹⁷ Australia's voluntary Health Star Rating FOP labelling system, developed through a public-private partnership with industry, appeared on just 32% of products after 10 years, ¹²⁶ with many UPFs having high ratings, ¹²⁷ indicating co-optation as a marketing tool; the World Food Program, the UN's lead agency on hunger, lists partnerships with PepsiCo, Mars, and Yum! brands, ¹²⁸ the latter having claimed to be its largest corporate donor. ¹²⁹
Self-regulation and policy substitution	Voluntary self-regulation is promoted to pre-empt, delay, or substitute for, binding and less flexible government regulation; ^{130,131} this self-regulation promotes a favourable image of the industry taking proactive steps to improve practices and act responsibly while lobbying and other political activities continue; ¹³¹ self-regulation includes labelling, marketing, and sustainable sourcing, and often pre-empts government policy announcements; commitments are typically much weaker in scope and strength than proposed government regulation; ¹³¹ self-regulation is often poorly implemented, lacks meaningful accountability, and varies widely between corporations and jurisdictions. ¹³²	In Mexico, lobbyists promoted the industry's preferred Guideline Daily Amount label as a substitute for a proposed FOP warning label regulation; ¹³³ in South Africa, industry groups emphasised existing corporate commitments through partnerships and voluntary actions on marketing and labelling, to argue against a tax on SSBs; ¹³⁴ in Australia, industry groups initiated voluntary actions on marketing, labelling, and food reformulation either just before or during government policy announcements. ^{135,136}
Infiltrate, divide, and destabilise civil society	The UPF industry partners with prominent civil society organisations to build public constituencies, enhance legitimacy, and divide opponents; ^{73,105} community and sporting organisations, the media, and health professional bodies are provided with funding, scholarships, and prizes, ⁹³ which divides civil society as divergent positions on industry funding reduces cohesion and impedes formation of public health coalitions; ¹⁰⁵ corporations provide micro-retailing and other opportunities for small businesses, creating widely distributed political constituencies; in some cases, destabilisation has further involved intimidating or discrediting officials, advocates, or experts, affecting careers, projects, or funding. ^{108,137}	Although the tobacco industry's sponsorship of the Olympic Games ended in 1984, Coca-Cola remains a long-standing sponsor; ⁹³ McDonald's runs 260 Ronald McDonald House Charities, with child and family health and wellbeing programmes in 60 countries; ¹³⁸ Coca-Cola funded programmes for the Mexican Federation of Diabetes, which then ended its food policy-related advocacy; ^{116,139} Nestlé sponsored the Africa Food Prize, an initiative of the Alliance for a Green Revolution in Africa, as a commitment to address nutrition, food insecurity, and hunger on the continent. ¹⁴⁰

(Table 1 continues on next page)

Description		Illustrative examples
(Continued from previous page)		
Frame debate, co-opt narratives, and manufacture scientific doubt (ie, the power of corporate ideas)		
Washing product and supply-chain related harms	UPF manufacturers develop novel products and publicise supply chain initiatives to project a healthy and sustainable image; ^{61,141} health-washing involves fortifying, functionalising, or reformulating products to offer solutions to obesity and diet-related diseases; ^{61,142} green-washing positions products as environmentally sustainable (eg, with reduced plastic packaging and sustainable palm oil sourcing); ^{143,144} this washing transforms public health “do not eat” messaging, into “eat our identical, but healthier or greener versions”; ^{61,145} such strategies obfuscate harm and promote a socially responsible image, enhancing the UPF industry’s legitimacy in governance and policy. ⁷²	Between 2000 and 2019, new UPF products (with functional, fortification, and reformulation claims) launched by the industry’s leading corporations grew from 2000 to ~40 000; ⁵ Coca-Cola made 50 calorie and sugar reduction pledges globally, positioning reformulation as a legitimate response to obesity; ¹⁴⁶ in 2022, Nestlé claimed to have delivered 129.2 billion servings of affordable nutrition with micronutrient fortification from its products; ¹⁴⁷ palm oil is excluded from products to assuage the health and environmental concerns of consumers in high-income countries, but is used extensively as an ingredient in the markets of many low-income and middle-income countries. ^{68,148}
Frame, counter, and co-opt societal debate	Public opinion is shaped through CSR marketing reports, media outreach, influencers, and sponsored content; ^{23,105} messaging shifts blame onto individual behaviours and lifestyles, emphasises the complex causes of obesity, and promotes solutions unlikely to affect profitability; ¹⁴⁹ opponents are framed as elitist, misinformed, or as ideologically motivated, and government intervention as over-reach; financial relationships with media outlets are used to block public health advocacy and counter-messaging. ¹⁵⁰	Corporate emails and documents show deliberate emphasis on balanced diets, exercise, complex causes, and education as solutions; ^{151,152} CSR reports emphasise consumer choice and lifestyles by claiming to support active play, mindful snacking, and portion control; ²¹ General Mills employed dietitian influencers to promote anti-stigma messaging, using hashtags such as #derailtheshame, and #nobadfoods; ¹⁵³ in Colombia, the country’s largest bottler of sugar-sweetened beverages used its media ownership and litigation to block advertising by proponents of the SSB tax. ¹⁵⁰
Generate evidence and manufacture scientific doubt	Corporations fund large internal research divisions and external scientific front groups, academics, and research institutions; ¹⁴¹ corporate science supports marketing, denial, and deflection of blame, and helps discredit unfavourable evidence and scientists; ¹⁵⁴ this includes financing research studies, establishing academic partnerships, and hiring scientific influencers to challenge consensus; the industry also sponsors conferences, seminars, and scientific events, shaping discussions, agendas, and accepted methods in the field; this sponsorship generates bias, undermines scientific integrity, and promotes certain products, solutions, or narratives favouring industry. ¹⁴¹	Systematic reviews on SSBs and obesity risk were five times more likely to show no association if industry sponsored compared with those that were not industry sponsored; ¹⁵⁵ Coca-Cola funded the Global Energy Balance Network of scientific influencers to promote industry-friendly messaging, including physical inactivity—and not poor diet—as a major cause of obesity; ¹⁵¹ the industry-backed International Life Sciences Institute influenced the Chinese Government to focus obesity responses on physical activity, helping deflect blame from products; ¹⁵⁶ in the UK, industry-funded clinical guidelines on cow’s milk protein allergy generated substantial over-diagnosis, resulting in rapid growth in specialised milk formula prescriptions. ^{157,158}
We synthesised categories used in the table from theoretical frameworks on corporate power, ^{71,75,81,90} and strategies from literature on corporate political activity of the UPF industry and commercial determinants of health. ^{130,138,159} The categories used in the table are not exhaustive and are elaborated further in the cited literature. We conceptualised these forms of power and strategies as overlapping and reinforcing—for example, lobbyists often use corporate science to provide technical inputs into policy processes or drafting of new regulations; the infiltration of government administrations and regulatory agencies by corporate executives promotes and reinforces preferences for multi-stakeholder governance; and corporate social responsibility campaigns and washing strategies help corporate lobbyists and front groups legitimise their role in governance and policy development. CSR=corporate social responsibility. FOP=front of pack. UPF=ultra-processed food. SSB=sugar-sweetened beverage. WTO=World Trade Organization.		
Table 1: The ultra-processed food industry’s political strategies		

See Online for appendix

multi-stakeholder initiatives involving the UPF industry (indicated by green circles in figure 2), growing from 1 in 1974, to 45 in 2023.¹²³ More than half (n=24) were established by UPF corporations or affiliated interest groups, and the remainder by international organisations (5), civil society organisations (5), and mixed actors (12). Multi-stakeholder initiatives address issues such as nutrition and health, human rights, climate change, regenerative agriculture, biodiversity, and plastic waste, mirroring the corporation’s self-identified threats to profitability. These issues feature in the corporations’ social responsibility reports, which are framed in terms of “creating shared value”¹⁴⁷ (Nestlé), “refreshing the world” (Coca-Cola),¹⁴⁶ and “snacking made right” (Mondelez).¹⁶⁸ In panel 3, we examine the history and purpose of these multi-stakeholder initiatives, question their effectiveness and structural implications for global food governance, and evaluate the social and environmental responsibility claims made by the industry’s leading corporations.

To manufacture doubt and minimise health and other UPF-related concerns, the UPF industry influences knowledge production and scientific debate.^{154,193,194} Lobbyists use industry-sponsored research to frame policy arguments, reinforced by close relationships with

academics, professional associations, government research bodies, and journalists.^{61,107,141} The industry’s global scientific influence network is extensive. We identified approximately 3800 articles published between 2008 and 2023, that disclosed funding or interests naming UPF manufacturers. These studies were authored by more than 14 000 individuals affiliated with corporations, universities, governments, and civil society groups, mostly in the USA and EU (appendix p 2). Of these articles, 33% focused on energy balance or physical activity, a known corporate scientific strategy intended to shift blame away from products and corporate practices.^{151,154} A network of corporate scientific front groups disseminates this research (shown in light blue in figure 2).^{130,141,195} Recent position statements by many of these groups present common arguments that manufacture supposed doubt about the UPF concept, exaggerate scientific uncertainty, conflate processing and ultra-processing, emphasise industry-preferred solutions (eg, reformulation), and push for corporate partnerships (among others; appendix pp 5–6).^{196–198} These arguments should be distinguished from valid scientific criticisms of Nova, its UPF concept, and supporting evidence base (see the first paper¹ of this Series).

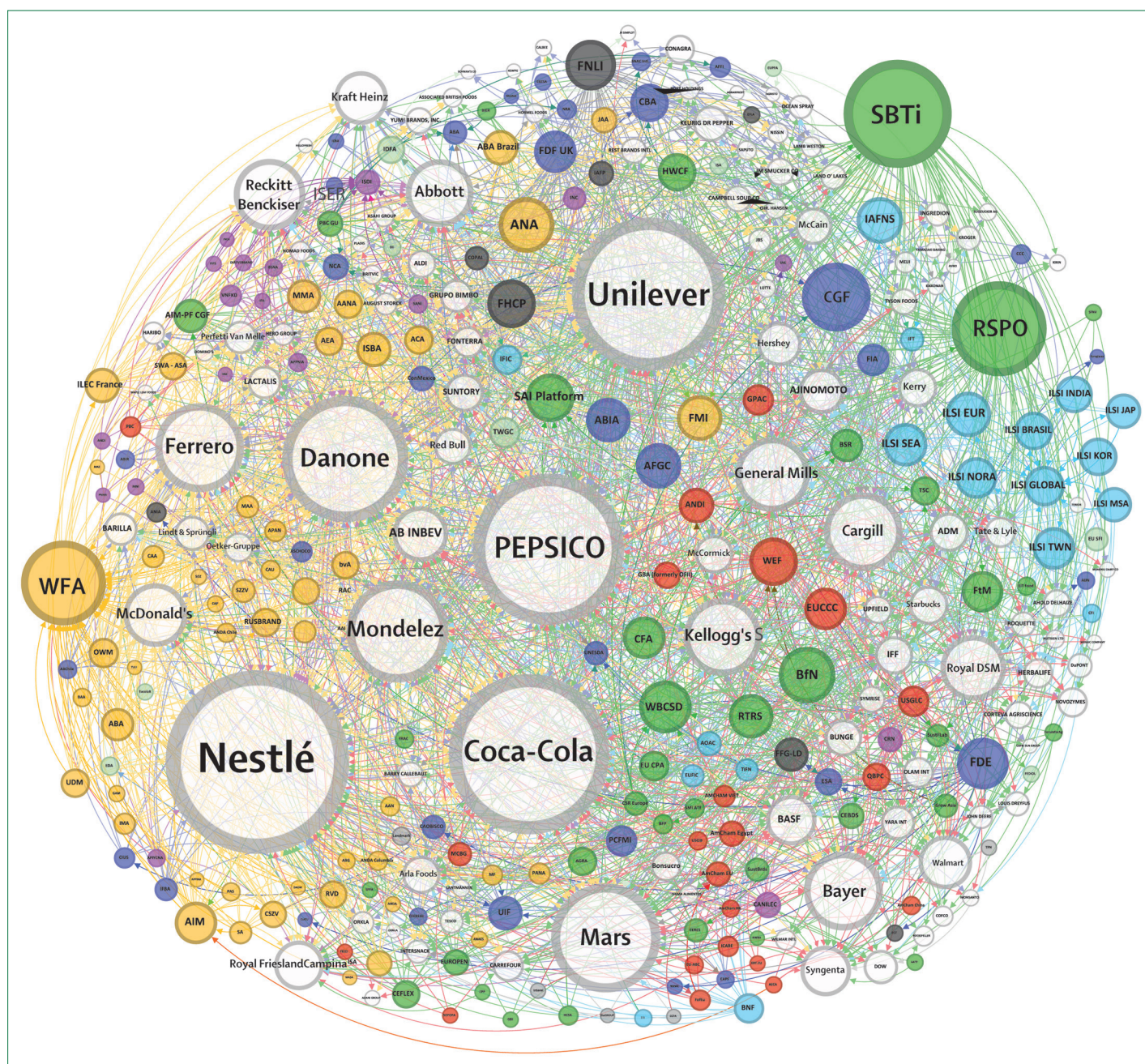


Figure 2: The ultra-processed food industry's global political influence network of corporate interest groups

The size of circles is proportionate to the number of connections with interest groups in the network. Lines represent declared memberships. Initial data were sourced from membership disclosures listed on company websites and additional membership data from interest group websites, further snowballing until no new data were generated. We recorded membership as reported on websites at the time of data collection. White circles represent corporations in the ultra-processed food industry; red circles are general business associations, such as the World Economic Forum and American Chambers of Commerce; yellow circles represent branding and advertising associations, the most prominent being the World Federation of Advertisers and its members; green circles represent corporate social responsibility organisations and multi-stakeholder initiatives, including the Roundtable on Sustainable Palm Oil, Science Based Targets Initiative, and World Business Council on Sustainable Development; dark blue circles are food, beverage, and grocery manufacturers associations, such as the International Food & Beverage Alliance, International Council of Beverages Associations, and Consumer Brands Association; light purple circles are infant nutrition associations representing baby food manufacturers, including the International Special Dietary Foods Industries and its members; light green circles represent agri-business groups including primary industry and processing and ingredient associations, such as the International Dairy Foods Association; blue circles represent industry-funded consumer information and scientific organisations, including the European Food Information Council, British Nutrition Foundation, and International Life Sciences Institute. These groups serve diverse functions: manufacturers' associations (dark blue circles) lobby policy makers and initiate partnerships and public relations initiatives; branding and advertising associations (yellow circles) push for marketing freedom and self-regulation; and agrifood industry groups (light green circles) lobby on behalf of ingredients producers. Not shown are sub-national front groups that appear to represent local public opinion and often oppose local by-laws or soda taxes, as in various US jurisdictions.¹⁰⁸ This graph was generated with Gephi version 0.9.5 (Association Gephi).

Mobilising a global response to ultra-processed foods

UPFs are a politically neglected global health issue. Although the global burden of disease attributable to the ultra-processed dietary pattern is not yet established, government responses are nowhere near proportionate to the estimated 3·9–13·7% of total premature deaths reported recently across eight countries.¹⁹⁹ This section outlines strategies for mobilising a global response to UPFs, focusing on reducing the industry's power in food systems, mobilising collective action, and generating political commitment for policy intervention (table 2). Given that countries differ in their stage of dietary transition and institutional readiness, policy responses should be tailored to local priorities, implementation capacity, and context (see the second paper in this Series).²

Reducing the ultra-processed food industry's power in food systems

The first set of strategies we highlight aim to disrupt and reduce the UPF industry's economic and political power

in food systems. Much like the transition from fossil fuels to renewable energy systems, moving from UPFs to sustainable food systems requires an alternative economic vision that confronts entrenched corporate power structures, redistributes opportunity and resources, and prioritises governance reform.^{9,26,29} Implementing these strategies could trigger divestment in the UPF industry by stranding corporate assets, disrupting shareholder value, and sending strong risk signals to financial markets. Financial analysts should factor in the notable risk exposure of UPF manufacturers, especially those highly dependent on ultra-processing.²⁰⁰

Reducing the ultra-processed food industry's economic power

We affirm policy recommendations made in the second paper in this Series, that disincentivise UPF production, marketing, and consumption; reduce corporate power in food systems; and redistribute resources to other types of food producers and healthy food provisioning systems.^{9,26,90} The current policy emphasis of

Panel 3: An examination of the ultra-processed food industry's multi-stakeholder initiatives, corporate social responsibility claims, and implications for food governance

In the 1980s, after decades of intergovernmental cooperation through the multilateral UN system, a more market-oriented and decentralised approach to global governance emerged, with a much greater role for corporations and other private actors.¹⁶⁹ More recently, powerful business groups, such as the World Economic Forum, promoted a new vision of enlightened global capitalism (named stakeholder capitalism), calling for transnational corporations to prioritise all societal stakeholders—not just shareholders—to have leading roles in sustainable development.¹⁷⁰ The central role of governments and international law in regulating corporate conduct gave way to corporate social responsibility (CSR) and environmental, social, and governance (ESG) reporting; self-regulation, partnerships, and multi-stakeholder initiatives; and scorecard approaches to accountability.^{171,172} These new ways of governing have amplified corporate power in global food governance, posing key barriers to advancing policy responses to ultra-processed foods (UPFs) and other sustainable food systems challenges.

First, the many multi-stakeholder initiatives involving the UPF industry (figure 2) are now a major structural feature of global food governance.¹⁷³ By joining with governments, multilateral organisations, civil society organisations, and academics in these initiatives, corporations enhance their political legitimacy by association, including so-called blue-washing through partnerships with UN agencies. This way of governing depoliticises food problems by enrolling others in negotiations, resulting in weaker solutions with minimal impact on profitability, such as product reformulation instead of marketing restrictions^{124,125} and outcomes such as

those of the UN Food Systems Summit, which was “silent on the problem of corporate power”.^{173–175} Scorecard approaches to corporate accountability reinforce this governance model by shifting focus away from binding regulations, towards reputational incentives and performances on league tables, which UPF corporations have used to claim responsible conduct.^{81,176} As these multi-stakeholder initiatives proliferate, they structurally advantage corporations and other highly resourced private actors to participate in a growing number of governance spaces, beyond the multilateral system.^{26,172}

Second, CSR, as a form of marketing, positions the industry as part of the solution to UPF-related harms, rather than integral to the problem.^{124,130} A core feature of the UPF industry's CSR claims, are product-based solutions to malnutrition, including UPF fortification for micronutrient deficiencies, reformulation for obesity prevention, and specialised products for weight loss and diet-related disease treatment.^{21,142} Environmental solutions are also promoted, such as sourcing forest-positive palm oil, regenerative agriculture, and plastics-reduced packaging.¹⁴³ However, contrary to their stated social and environmental aims, UPF corporations remain driven by financial imperatives that depend on continuous growth in the sales of products that are harmful and socially unnecessary in the first place.^{143,177} Such initiatives distract from the upstream harms of UPF supply chains, including resource diversion from core food production, deforestation to grow commodity ingredient crops, biodiversity losses, and the growing global plastics crisis.^{68,177,178} Such impacts are likely to be extensive given that PepsiCo claims an agricultural footprint of

(Continues on next page)

(Panel 3 continued from previous page)

7 million acres;¹⁷⁹ Nestlé a carbon footprint almost triple that of its home country, Switzerland;¹⁸⁰ and that Nestlé, Coca-Cola, and PepsiCo are leading sources of plastic pollution globally.^{181,182}

Third, these ways of governing further obscure the UPF industry's role in reproducing longstanding colonial relations of wealth and resource extraction, uneven development, and cultural erosion.^{183,184} Household spending on UPFs is diverted from producers of culturally and nutritionally important foods in low-income and middle-income countries, to corporations and investors in high-income countries, undermining the economic viability of local food systems.^{140,185} Corporations claim to boost jobs and national economies, yet the displacement of local food industries and workers' livelihoods is unaccounted for,^{31,68,186} while corporate tax minimisation reduces government capacities to finance food and nutrition policies.¹⁸⁵ The corporate multi-stakeholder governance model reinforces these colonial relations: of the 601 individuals who govern the multi-stakeholder initiatives we identified, 82% were from high-income countries, almost half (49%) from the USA and EU alone, and just 16% and 2% were from middle-income and low-income countries, respectively.¹²³

Fourth, one argument made by proponents of stakeholder capitalism is that because corporations wield so much influence, expertise and resources, substantial progress can only be achieved through their active involvement in governance.¹⁷² However, little evidence supports the effectiveness of these initiatives or self-regulation in attenuating food and nutrition challenges.^{131,187,188} Failures are common due to power imbalances,

poor governance, and mistrust.¹⁸⁷ The costs of doing business, competition, and other market forces negate self-regulation, as reflected in widely varying performance across companies and markets,¹⁸⁹ with some corporate leaders calling for regulation that "levels the playing field".^{190,191} Tellingly, shareholders—especially powerful investors like BlackRock, Vanguard, and State Street—typically oppose corporate ESG initiatives that conflict with short-term profit making: in 2022, just 11% of Coca-Cola shareholders, 13% of McDonald's shareholders, and 14% of PepsiCo shareholders voted for such proposals.⁵⁷

Finally, another argument often made in favour of corporate partnerships and engagement, is that governments and multilateral organisations, including UN food and nutrition agencies, are ineffective in addressing global development challenges. However, such arguments ignore and fail to challenge the role of powerful corporate actors and allied governments in weakening multilateral effectiveness, and do not question the root causes of limited state capacities, including the extractive economic pathways described earlier. Although UN agencies are, in principle, governed democratically by member states, donor countries with large agrifood industries often exert disproportionate influence over decision making. For example, industry lobbying has influenced US Government positions challenging WHO's policies and technical work on sugar, unhealthy diets, marketing of breastmilk substitutes, managing conflicts of interest in nutrition programming, and even the funding of the organisation itself.^{81,166,192}

many governments on consumer responsibility, product reformulation, and industry self-regulation, does little to disrupt the ultra-processed business model.^{8,78} Instead, governments can adopt a rights-based and whole-systems approach—anchored in public policy and law—to regulating UPFs,^{7,201} addressing not only the industry's harms to health, but also to food economies, producer livelihoods, cultures, and the environment (panel 3).^{178,202,203} This approach includes repurposing agricultural subsidies away from commodity ingredients production, introducing tax policies to disincentivise production and ensure corporations pay for the harms they generate, and implementing laws that mandate transparent commodity sourcing and extended producer responsibility plastics recycling, and that greatly reduce the power of corporate marketing.^{7,79,102} Competition policy and anti-trust laws can be used to break up oligopolies in UPF supply chains and prevent further consolidation of corporate power in food systems.^{26,67}

International human rights treaties and instruments can be leveraged to hold states and corporations accountable for UPF-related harms, alongside implementation of new international laws, such as the proposed UN treaties on transnational corporations and

human rights²⁰⁴ and plastics.^{103,205} By asserting food sovereignty, governments can challenge foreign direct investment by UPF corporations as being detrimental to national economies, the rights to food and health, and sustainable development.^{89,185,186,202} Codex and national food standards programmes can be reformed to counter UPF proliferation by broadening regulatory principles to encompass long-term harms to human health and the environment, in addition to acute safety risks.^{84,100} Furthermore, governments can fully implement the International Code of Marketing of Breastmilk Substitutes (the Code) into national law, ensuring coverage for foods marketed for infants and young children, of which many are ultra-processed.^{53,206}

Reducing the UPF industry's political power

Curbing corporate power in food systems begins with governance reform that defines new rules of engagement and conflicts of interest (COI) safeguards. All actors can actively challenge and boycott partnerships, initiatives, and scientific activities involving the UPF industry, and promote the normative position that the industry is core to problem and not part of the solution.^{26,175,207} Governments can enact measures, following the

Recommended actions

Citizens and households	Avoid UPFs if possible, preferencing diverse whole and minimally processed foods, and freshly prepared meals and dishes; support local food producers, markets, and vendors provisioning such foods; vote for political candidates committed to regulating the UPF industry
All actors, through global networks and country coalitions	Prioritise UPFs as a global public health, human rights, and sustainable food systems issue; build a global action network to amplify collective voice, foster learning, and coordinate responses, dovetailing with wider efforts to promote healthy and sustainable diets; end funding from the UPF industry, actively challenge and boycott affiliated partnerships, initiatives, events, and scientific activities, and reframe the industry as core to the problem—rather than part of the solution; establish broad-based national advocacy coalitions to champion responses, comprising civil society organisations and movements, government leaders, researchers, journalists, donors, and UN agencies, ensuring members are free from conflicting interests; leaders unify coalition members by creating opportunities for dialogue, developing manifestos that clearly define goals, responsibilities, and agreed messages, and ensuring that members speak with a common voice; coordinate global and country-level actions, including political advocacy, media communications, legal support, strategic litigation, research, and capacity building to drive policy change forward, especially during political opportunity windows (eg, election cycles)
Political leaders and governments	Disrupt the ultra-processed business model by ending subsidies that support UPF production, adopt comprehensive policy frameworks regulating industry practices, and use multiple policy levers to reduce corporate market power in supply chains; ensure international and national policy processes, including for the development of dietary guidelines, are safeguarded from industry interference, allowing only for transparent public consultation if necessary; enshrine the rights to food and health in law, implement policy frameworks, and repurpose subsidies for sustainable food economies; reform food regulatory systems to address food safety and harms to public health and the environment; expand funding for public health agencies to strengthen UPF reduction and control efforts, and for WHO and other UN agencies to develop and strengthen relevant programmes of work; end interventions in the World Trade Organization, Codex, and other international fora, by the USA, EU, and other large, agrifood-producing nations on behalf of the UPF industry, and stop using trade law to impede governments from regulating their UPF markets
UN agencies and development banks	Develop policy frameworks for UPF reduction and control, establish new global targets and indicators, technical programmes, member state guidance, and support global and country-level advocacy efforts; implement a unified UN approach to UPF industry engagement, end corporate partnerships, ensure multilateral governance spaces are free from industry interference, and strengthen technical work on reducing conflicts of interest in policy and programming
Civil society organisations, professionals, and social movements	Use media campaigns to generate awareness and build support for public health policy measures targeting UPFs, including policy and science briefings aimed at government officials and legislators; build broad-based coalitions to pool resources and amplify power by enrolling support from people and groups with common interests, including those focused on movements pertaining to food, youth, the environment, consumer protection, gender equity, indigenous people, and human rights and degrowth; establish close relationships with and educate media outlets, journalists and other influential voices, nominating trained spokespeople to speak out powerfully when needed, including young people and others affected by UPF-related harms; medical and health professional associations adopt a leadership role by speaking out and ending sponsorships, affiliated training programmes, co-branding, clinical guidelines development, and scientific activities involving the UPF industry
Academics, research funders, and academic journals	Work closely with advocacy coalitions and invest in research that supports UPF reduction and control, tailoring global evidence to country contexts, and actively report on the UPF industry's market and political activities; end industry grants and partnerships, and exclude industry-funded studies or affiliated researchers, or, at a minimum, make conflict of interest disclosures much more prominent on journal websites and article title pages; address research gaps and valid scientific critiques (see paper 1 of this Series), taking care to differentiate these from attempts by the UPF industry to discredit Nova and the evidence linking ultra-processed diets to adverse health outcomes
Lawyers	Strengthen UPF-related legal expertise within UN agencies, governments, civil society organisations, and academia, including to ensure policy measures are well designed, can be effectively implemented, and withstand legal scrutiny; provide legal support to governments facing industry opposition, litigation, and trade challenges; and undertake strategic litigation to support regulatory enforcement, generate compensation for those affected by UPF-related harms, and drive normative change
Communicators, journalists, and media producers	Combine evidence-based messaging on the health impacts of UPFs, economic costs, and intervention benefits, with values-based messaging that emphasises human rights and the best interest of the child, and expose harmful industry practices; actively anticipate and counter industry messaging in public and policy fora; actively question and delegitimise the UPF industry's claimed contributions to nutrition, public health, economies, and sustainable development; create content for popular media platforms, including broadcast and streaming television, to explain the harms of UPFs, expose harmful industry practices, and find creative ways of communicating the solutions presented in this Series
Financiers and donors	Consider the notable risk exposure of the UPF industry's leading firms, divest funds from this industry, and re-invest into firms and sectors producing foods aligned with healthy and sustainable diets; mobilise financial resources for UPF reduction and control at both global and country levels, sustained over long periods to support advocacy coalitions, capacity building, research, and media campaigns, to help drive impactful policy and societal change

These recommendations were synthesised from academic and grey literature, proposals made by study participants in interviews and workshops, and from further co-author discussions and expert feedback. UPF=ultra-processed food.

Table 2: Strategies for mobilising a global public health response to ultra-processed foods

Framework Convention on Tobacco Control Article 5.3, to protect the development of food policies from corporate interference.^{29,207} Mexico's world-leading General Law on Adequate and Sustainable Nutrition establishes such a safeguard, alongside mechanisms for civil society representation and strong social accountability.²⁰⁸ Governments can mandate political donation disclosures and lobbyist transparency registers, and limits, bans, or lengthy stand-down periods to end revolving doors between industry and government.^{27–29} These measures can enable systematic monitoring of the UPF industry's corporate political activity, as shown in Australia, Chile, and the USA.^{110,167,209} The USA, EU, and other governments can end their interventions on the UPF industry's behalf in the WTO and bilaterally through trade diplomats,²⁰⁶ remove

industry lobbyists from their Codex delegations, and instead support participation by health and consumer groups.^{96,98} Evidence-based policy recommendations can be developed by experts without commercial COIs, as illustrated by dietary guideline committees in Brazil and Mexico,^{9,210} avoiding the conflicted approach adopted in the UK and USA.^{211,212}

Building on UNICEF's leadership,²¹³ UN agencies can implement a unified approach to UPF industry engagement, and WHO can strengthen its technical work addressing COIs,^{36,37} aligning with similar initiatives from the World Bank and the Organisation for Economic Co-operation and Development.²⁷ WHO can strengthen its Framework of Engagement of Non-State Actors and ensure new financing initiatives (eg, WHO Foundation) avoid inviting undue corporate influence.^{214,215}

Governments and other members of the Scaling Up Nutrition Movement can implement stronger COI safeguards.²¹⁶ Scorecard accountability initiatives, including the continuing UN Food Systems Summit Stocktakes,²¹⁷ can end the seeking of voluntary commitments from UPF corporations—which legitimise their role in food governance—and call for binding regulation instead. Furthermore, professional associations can end UPF industry sponsorship and co-branding,^{53,218} following the Latin American Society of Nutrition's leadership.²¹⁹ Academics and universities should recognise that COIs and industry partnerships undermine scientific integrity, call for expanded public financing for research, and reject funding from the UPF industry.^{141,218} Academic journals can go beyond their present reliance on interest disclosures, which are often buried deep within papers, to reject industry sponsored advertising, actively exclude industry-affiliated articles, or, at a minimum, make COI disclosures more prominent on article title pages and journal websites.^{61,141}

Ensuring a just transition to diets low in ultra-processed foods

Efforts to reduce UPFs should be grounded in a broader vision of a sustainable and just food system transition—one that acknowledges people's lived realities; ensures the fair distribution of power, opportunity, and resources; and prioritises the needs of those most affected by dietary and economic shifts.

Governments can adopt policy frameworks to proactively build sustainable food economies that are anchored in food sovereignty; agroecological principles, the rights to food, health, and the enjoyment of culture; and the rights of the child.^{183,220,221} They can adopt participatory governance structures to ensure civil society groups, local food producers, and affected communities are central in policy decision-making, and that multisectoral responses are designed and implemented effectively.²⁰⁸ Policies should aim to strengthen territorial food markets that provide jobs and secure livelihoods for diverse local producers, and provision nutritious, culturally appropriate foods and meals through public market places, schools and other institutions, community kitchens, and vendors.^{31,183,221} Initiatives such as Brazil's National School Feeding Program, which mandates 30% procurement from family farmers, illustrate how economic inclusion can generate long-term public support for policies.²²² By working closely with disadvantaged communities who might depend on low-cost UPFs, governments can ensure that dietary transitions do not deepen food insecurity and that affordable alternatives are made widely available.^{2,183} Compensation and retraining for displaced workers and small businesses reliant on UPF production and retail can increase support for dietary transition and dilute corporate attempts to mobilise them in opposition.

Any transition away from UPFs must be gender just. Simply urging a return to home cooking risks exacerbating the unequal distribution of unpaid food and care work that, in many contexts, disproportionately fall on women.^{42,223} Households often rely on convenience foods to balance the competing demands of paid work, with caring for children and other family members.⁴² A just transition requires ensuring their access to affordable, nutritious, and time-saving alternatives to UPFs.² Public investments in collective food provisioning systems, including school meal programmes and community kitchens, can help to alleviate their time and resource pressures.^{31,224} Gender-responsive budgeting and social protections, such as income transfers and paid maternity and parental leave, can help to resource families and redistribute women's care work burdens.^{206,225} Campaigns that frame breastfeeding as a free or costless activity ignore the time, labour, and skill required; policies should therefore focus on protecting, promoting, and supporting breastfeeding women and families, recognising their central role as sustainable food producers.^{205,226} Some UPFs (eg, infant formula) are necessary when breastfeeding or human milk is unavailable, and care is needed to avoid stigma. Responses should focus on curbing exploitative marketing practices and structural forces that drive breastfeeding displacement and milk formula overconsumption, including of nutritionally unnecessary toddler milks.^{53,227}

Mobilising collective action

Countering UPFs demands international cooperation. Isolated, country-level actions are insufficient to overcome the industry's globally organised political, economic, and legal power.^{20,207} A second set of strategies involve defining and positioning UPFs as a priority global health issue, organising a coordinated global response, and mobilising country-level coalitions to generate political commitment, drive policy change, and denormalise UPFs. Now is an opportune time to do so, given the rapid growth in public attention to UPFs worldwide—the number of media articles using the UPF term increased from four in 2010, to over 6850 in 2024, which is more than three-fold the number of articles using other common descriptors of unhealthy food combined (figure 3).

Establish ultra-processed foods as a priority global health issue

How an issue is defined and framed influences the priority it receives in terms of attention, resources, and strength of intervention.^{228,229} Unlike global tobacco control, which focuses explicitly on products and industry practices, existing responses to unhealthy diets are largely positioned within obesity and non-communicable disease prevention frameworks, and prioritise reductions in harmful nutrients (eg, sugar, salt, and saturated and trans fat). The UPF industry has

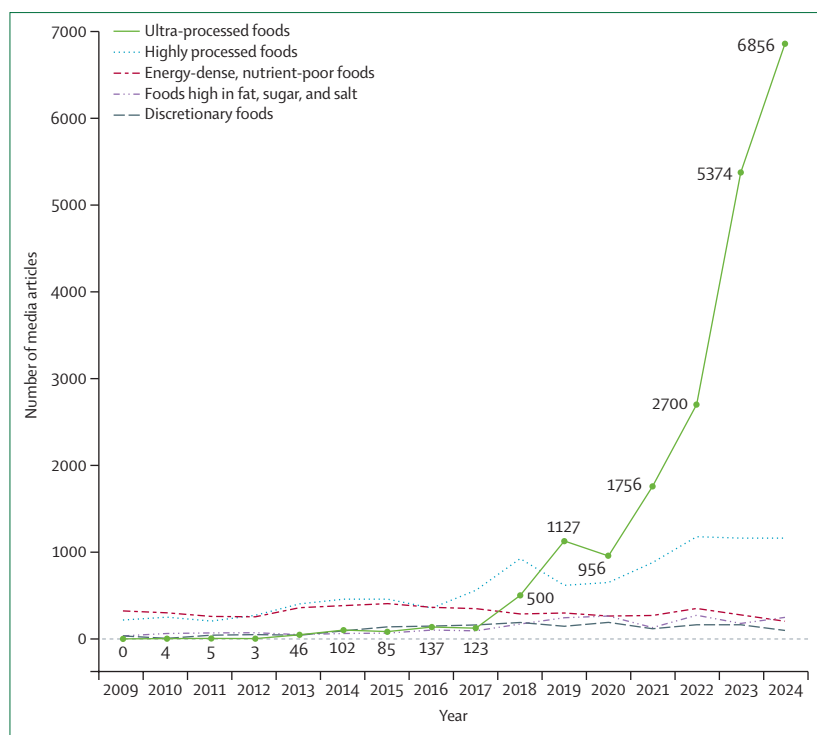


Figure 3: Number of media articles using the UPF term worldwide, relative to other unhealthy food descriptors commonly used in dietary guidelines, 2009–24

Data were sourced from the Factiva media database (ProQuest) on Oct 15, 2024, for all available media sources including national, international, and regional newspapers (eg, *The Times*, *The Washington Post*, *The New York Times*, *The Wall Street Journal*, *The Guardian*, *El País*, and *The Financial Times*); magazines, journals, and trade publications (eg, *The Economist*, *Newsweek*, and *Forbes*); newswires (eg, Reuters, AFP, and Dow Jones); television or radio podcasts (eg, ABC, CBS, NBC, Fox, BBC, and CNN); and major news and business information websites, message boards, and blogs. Search terms were sourced from studies describing common unhealthy food descriptors used in national dietary guidelines.^{14,15} All variations of search terms were used (eg, "high fat, sugar, salt", and "high sugar, fat, salt"). In 2024 (as of October 15), UPFs were mentioned 6856 times versus 1709 times for all other included descriptors combined. UPF=ultra-processed food.

exploited this obesity focus to shift blame away from its products and practices, by emphasising personal responsibility, multifactorial causality, and lifestyle choices such as physical inactivity (table 1).^{145,230} This focus stigmatises people living with obesity, promotes an excessive societal emphasis on body image, and pushes individualised weight-loss interventions that do little to address structural and commercial determinants.^{230,231} UPFs cause harms not captured by nutrient-based or obesity-focused framings, such as replacing nutritious foods in diets, increased energy intake and overconsumption, exposure to xenobiotics and potentially harmful additives and additive mixtures (see the first paper in this Series),^{1,232} and indirect health impacts through social, economic, and environmental pathways (panel 3).^{17,178}

UPFs should therefore be prioritised as a distinct global health issue to focus international responses on achieving absolute reductions in their share in diets. This global health issue can be defined as the diet-related disease pandemic resulting from the corporate-driven displacement of long established dietary patterns

comprising diverse, minimally processed foods, and meals and dishes prepared from these foods, by the ultra-processed dietary pattern—or, in short, the displacement of real food by ultra-processed products.¹ The global health objectives are to prevent this dietary displacement in countries where it is just starting, to halt the rise of the ultra-processed dietary pattern everywhere, and to accelerate UPF reductions in contexts where such diets already dominate (see figure 1). These objectives align with a degrowth model of food systems transition, involving policies that actively reduce unnecessary (or less necessary) forms of production and consumption.^{177,233,234} As with tobacco control, the global health response should directly confront the UPF industry's economic and political power, and regulate business practices that generate ultra-processed diets.^{7,8,28} Unlike tobacco control, UPF consumption grows through the displacement of real food, and the response should therefore align with wider efforts to promote healthy and sustainable diets.^{2,32}

Build a global network for action on ultra-processed foods

Lessons from successful global action on tobacco control, baby food, and maternal health (among others)^{34,235} show that mobilising a transnational advocacy network is essential to advance the global response to UPFs. For example, the International Baby Food Action Network offers key lessons in holding powerful corporations accountable and working with governments and UN agencies to enforce stronger regulatory measures.^{169,235} A global UPF action network could build on existing advocacy and policy responses—especially those in Latin America and Africa—and bring together civil society organisations and movements, experts, UN agencies, government leaders, and donors, to pool resources, advocate for policy change, and stand up to corporate power.^{29,236} Collectively, members of this network can generate political commitment for action at the global level, which, when combined with bottom-up organising of coalitions at regional and country levels, can unify members around common principles, evidence-backed policy positions, and manifestos for action. Network features can include a platform for knowledge exchange, events for convening members, advocacy resources, legal and research support, and capacity-building programmes, adapted to diverse country needs.

The UN food and nutrition agencies can have leading roles in the global response.^{16,77} Member states and donors can support these agencies to develop relevant technical guidance, integrate UPF-based dietary metrics into food and nutrition surveillance systems to track the problem, and establish global and country-level nutrition targets based on reducing the dietary share of UPFs.¹⁶ These actions can initiate momentum towards an international policy framework that empowers national government

regulators. This framework can be in the form of a WHO convention, regulation, or agreement,^{9,53} with the anticipation that its negotiation and implementation will face substantial industry resistance.²⁹ UN human rights bodies, including the Committee on the Rights of the Child; the Committee on Economic, Social and Cultural Rights; and Special Rapporteurs, can interpret treaty provisions in relation to UPF-related harms, and report on member state policies and corporate practices that violate rights.^{89,237} Those involved in the global sustainable food systems movement can give greater priority to addressing the social, economic, and environmental harms generated by the UPF industry, including contributions by its leading corporations to the unfolding biodiversity, plastics, and climate crises.^{238,239}

Mobilise country-level advocacy coalitions

Coalitions have driven successful UPF-related policy change in multiple countries,^{33,108} providing lessons for scaling action elsewhere (see panel 4). Coalitions have enrolled diverse members, including civil society

organisations, UN agencies, community leaders, lawyers, political strategists, health professionals, academic advocates, political leaders, journalists, and philanthropies.^{108,112,150} Three reinforcing sets of strategic activities have enabled their success. The first, political advocacy, involves actor mapping, legal analysis, public-interest lobbying of legislators, and enrolments of high-level political champions. The second, communications, includes grassroots organising, campaigning, and media engagement to counter industry messaging, generate public support, and frame policy debate. Finally, research generates evidence to empower advocacy, support strategic litigation, inform policy design, and highlight policy success through robust evaluation.^{108,150,261} Youth advocates and activist networks are rising powers in the movement against UPFs and bring leadership, lived experience, and moral authority to amplify campaigns for healthy food policy.²⁶²

Advocacy coalitions have been the most influential during political opportunity windows, such as tax proposals during pre-election periods and fiscal policy

Panel 4: Case studies on generating political commitment for UPF-related policies

Mexico

The Mexican Government adopted a tax on sugar-sweetened beverages and non-essential, energy-dense foods in 2014 and a front-of-pack warning label law in 2020; expanded marketing regulations in 2022; a ban on school sales and promotions in 2023; and implemented a comprehensive general law enshrining the right to adequate and sustainable nutrition in 2024.^{133,240} These successes were achieved by coalitions made up of civil society organisations, political champions in the Congress and Senate, academic advocates, food movements, and UN agencies, namely the Pan American Health Organization and UNICEF.^{133,240,241} An organisational alliance, the Alianza por la Salud Alimentaria, was formed to amplify political influence, with members spanning the public health, consumer protection, child rights, environmental, and food movements, guided by a manifesto that outlined key issues, helped align priorities, and ensured common messaging.^{115,150} Successes resulted from strongly unified actions, including public interest lobbying informed by professional political strategists and legal analysts to build support from legislators; citizen-led organising and campaigning, and media communications to generate public support; and generating scientific evidence to support advocacy.^{115,242} The civil society organisation El Poder del Consumidor, and its coalition partners, initiated counter-marketing campaigns, generated creative media, ran full-page newspaper advertisements dispelling industry arguments, and organised protests outside government buildings.²⁴² Extensive scientific evidence was generated to evaluate the acceptability of the measures among diverse groups, as well as feasibility and policy impact modelling studies. National expert committees and high-profile events involving international academics and

UN agency officials helped communicate this evidence and discuss strategies to overcome political and industry opposition.²⁴³ Industry interference was present at every stage, in the form of lobbying of the president and legislators, blocking of pro-tax advertisements in national media, refuting scientific evidence, mobilising opposition from micro-retailers, claims of trade law violations, and at least 50 legal injunctions intended to delay or repeal regulations.^{120,244,245} Opposition also came from those with ties to the ultra-processed food (UPF) industry, including key government ministers and senators, academics, and the Mexican Diabetes Federation.^{116,242} Leading advocates faced intimidation with text messages containing links to spyware, fake news, and threats.²⁴⁶ Evaluation studies show that policy measures have succeeded in reducing consumption of taxed sugar-sweetened beverages and food products, and purchasing of products carrying warning labels.²⁴⁷

Chile

The Chilean Labelling and Marketing Law (established in 2016) is a world-leading UPF-related policy, with three reinforcing components: black octagon front-of-pack warning labels, restrictions on marketing to children, and a ban on sales and promotion in schools.²⁴⁸ Negotiating the law took almost a decade.^{249,250} The initial bill was proposed in 2007 by the Health Committee of the Chilean Senate, but was strongly challenged by industry groups and their allies in government. To generate support, the Senate convened two international summits with national and international experts, researchers, and civil society leaders, during key moments of parliamentary debate. The law was finally approved in the Senate in 2012, and negotiations on regulatory design proceeded over the following 2 years. The

(Continues on next page)

(Panel 4 continued from previous page)

Ministry of Health enrolled experts to inform evidence-based decisions and worked with advocacy groups to sustain political support.²⁵⁰ The proposed design was heavily criticised by national and international industry groups, especially the nutrient profiling model and front-of-pack label design. Chile's lobbying and transparency laws, which mandate disclosure of meetings between industry and government, helped to monitor corporate activities. Chile's regulatory agency received 92 industry and six foreign government submissions opposing the bill, including 39 alleged violations of World Trade Organization law.²⁵¹ The draft bill was initially weakened but then intensely challenged by academic activists, consumer organisations, and members of the Senate, for failing to consider expert recommendations. Three key leaders—a senator, academic, and advocate—worked closely to deliver coherent messages and get the law approved. The nutrition department of the Ministry of Health engaged and negotiated with other sectoral and finance ministries, some of whom interceded on the industry's behalf, including to delay implementation of the law.²⁵¹ Coalition efforts were successful, with the final regulation being based on expert evidence. The regulation was approved in 2015, implemented the following year with a supporting public education campaign, and then extended over a 4-year period, with its limits becoming increasingly stricter. Evaluations show strong public support for the law,²⁵² and notable reductions in marketing exposure,^{253,254} consumer purchasing, and consumption among children.^{255,256}

Ghana

Since gaining independence in 1957, Ghana has shown political commitment to address malnutrition, particularly food insecurity and undernutrition,²⁵⁷ but less so for unhealthy food

environments and diet-related chronic disease.²⁵⁸ To generate commitment to address these rising challenges, a public interest coalition of researchers, advocates, and scholar activists was formed, unified by shared beliefs, values, and commitment to improving nutrition.²⁵⁹ The coalition generated evidence to engage policy makers and empower advocacy to build public support and demand for UPF-related policy measures. The coalition played instrumental roles in the development of Ghana's food-based dietary guidelines, and the enactment of the Excise Duty Amendment Bill, which levies an excise duty of 20% on the ex-factory price of sugar-sweetened beverages and other health-harming products. Strategies were developed with support of the Global Health Advocacy Incubator, and guided by a strategic advocacy framework.²⁶⁰ Strategies included coalition and capacity building; evidence synthesis, including for legal feasibility, corporate political activity scanning, policy coherence analysis, and economic modelling; developing an advocacy communications plan; meetings with key actors and providing position statements; and media releases, press conferences, social media posts, and opinion pieces in newspapers. Informed by experiences in Morocco—which repealed its sugar-sweetened beverage tax in 2018 due to industry interference—and by those in South Africa and Nigeria, where tax designs were weakened, the coalition developed strategies to monitor and confront industry interference, ensured coalition members were free from conflicts of interest, and prepared evidence-backed rebuttals to industry arguments. The coalition is now supporting the Ghanaian Government to deliver a nutrient profiling model and an integrated policy comprising a front-of-pack warning label, marketing restrictions, public food procurement, and expanded taxation.²⁵⁹

reforms.^{33,108} Enrolling political champions and legislator coalitions has helped overcome resistance from powerful trade and industry sectors within government, and sustain political support across election cycles.¹⁰⁸ Coalitions have amplified influence through alliances with diverse groups and movements, including those focused on health, youth, farming, environment, consumer protection, breastfeeding, human rights, corporate accountability, and tax justice, among others. Opportunities exist for even greater collective power through alliances with food sovereignty, agroecological, and Indigenous peoples' movements, to connect with food producers, community leaders, and organisations safeguarding agrobiodiversity, traditional knowledge, and gastronomy. Building capacity for citizen-led movements and advocating across local-level jurisdictions can help move policy change forward when facing concentrated opposition at the national level,²⁶³ as shown by the successful passage of soda taxes in multiple US cities and counties²⁶⁴ and city council bylaws prohibiting UPFs in Brazilian schools.²⁶⁵

Empowering advocacy coalitions to generate change

A third set of strategies involves mobilising resources and building key capacities essential to countering the UPF industry's power, mobilising advocacy coalitions, and generating political commitment for policy change, while ensuring efforts are tailored to country-specific priorities and needs.^{33,108}

Resources and funding

Across multiple countries, donor funding has been crucial for supporting dedicated staff and coalition leadership, unifying members, and paying for key advocacy services (eg, political lobbying, media campaigns, and research).^{33,108} However, with key exceptions, few donors currently fund healthy food advocacy. Donor funding has often prioritised short-term technical projects over the sustained capacity-building and advocacy needed to generate and defend long-term policy change across successive governments. Mobilising sustained donor funding for action on UPFs is therefore imperative. Following the model established by

the Thai Health Promotion Foundation, governments can also expand budgets for this purpose by hypothecating revenues from taxes on tobacco, alcohol, sugar-sweetened beverages, and UPFs.²⁶⁶ Donors can also support the UN's food and nutrition agencies to build and strengthen UPF-related technical work, normative guidance, and country-level support.

Legal capacities

Lawyers have a crucial role in ensuring UPF-related policy measures are designed to withstand legal scrutiny; litigating to secure compensation for those harmed by corporate practices; supporting governments facing corporate litigation and trade law challenges; advancing legal cases to uphold policy implementation and enforcement; and generating public attention to corporate wrong-doing.^{29,161,267} Lessons can be drawn from successful litigation against Nestlé on deceptive toddler milk marketing in Brazil,²⁶⁸ Bayer-Monsanto on glyphosate-linked cancer,²⁶⁹ and civil litigation against US-based UPF manufacturers.²⁷⁰ Building legal capacities includes training lawyers and strengthening legal expertise within UN agencies, government bodies, civil society organisations, and academia; legal training to upskill advocates and policy makers on legal, policy design, and governance issues; and resourcing legal research networks for knowledge exchange.²⁷¹

Research capacities

Evidence helps to make the case for policy action, design effective policies, counter industry opposition, and monitor progress.^{108,150,272} Robust evaluation studies have been especially important in highlighting the effectiveness of UPF-related policies and sustaining long-term political support. Case studies from leading countries can inspire others to follow (as seen in Latin America).^{273,274} Studies that monitor and expose the industry's harmful business practices have helped to generate public attention and support for intervention. UN agencies, governments, donors, and academics can build research capacity by strengthening research collaborations, establishing expert bodies to generate international evidence, and adapting such evidence to local contexts where possible. The Nova classification system and the concept of UPFs can open new avenues of epidemiological, policy, and food systems research that should be viewed as complementing—rather than competing with—the nutrient-centred paradigm that currently dominates nutrition science.^{178,203}

Communication capacities

Strategic communication is crucial to raising awareness, countering industry messaging, generating public support for policy change, and preventing or reversing the normalisation of UPFs.^{33,108} Studies highlight the importance of coalitions speaking with a unified voice, having trained spokespeople, using structured actor mapping to identify and enrol influential voices, and

providing journalists with training and resources.^{33,108,275}

Advocacy coalitions have used large-scale media campaigns to generate public awareness and pressure for policy change, policy and science briefings to engage legislators, and counter-marketing techniques that reconfigure corporate brands and initiatives to reveal hidden harms.²⁷⁶ Evidence-backed messaging has emphasised the growing UPF problem and associated harms; the importance of upholding human rights and the best interests of the child; the need to expose misleading industry practices; and the health, economic, and environmental benefits of policy intervention.^{33,108}

Leadership capacities

Coalition building and impactful advocacy requires skilled leadership. For individuals, this means interpersonal and diplomacy skills are needed to inspire action and unify members, enrol supporters and government champions, communicate strategically, and leverage political opportunity windows.^{20,33,263} For organisations and coalitions, leadership means creating opportunities for member dialogue, defining a shared vision, policy goals, and agreed messages. For both, ensuring coalitions exclude members with COIs is essential, as member conflict is a common challenge impeding coalition formation and success, resulting from divergent positions on industry funding and engagement.^{33,108} Leadership capacity can be actively fostered through resourcing full-time leadership positions, establishing training and mentoring programmes, and integrating advocacy, political science, and strategic communications into education curricula to upskill the next generation of professionals.^{20,207}

A call to unified global action on ultra-processed foods

In this Series paper, we show how the global rise of UPFs in human diets is structurally and commercially driven, reflecting the growing economic and political power of the UPF industry in food systems. The high profitability of UPFs—achieved through cheap commodity inputs, processing technologies, and powerful marketing—fuels the industry's growth, restructuring food systems in ways that displace other types of foods and promoting dietary patterns linked with chronic disease. The industry's political activity is the main barrier to effective government policy responses. Such activity is coordinated through a global network of lobbyists and front groups to counter opponents, block regulation, and shape food governance in favour of corporate interests.

The continued proliferation of UPFs is not inevitable. A just and effective transition away from ultra-processed diets is possible, but requires bold, coordinated, and sustained global action. The recommendations outlined in this Series paper are a starting point for guiding action but require further consultation and consensus-building. As with tobacco control, a unified global response to UPFs

should directly confront corporate power—including efforts to systematically regulate the industry's business practices—and disrupt the ultra-processed business model. Public health actors and allies across diverse sectors and movements can unite in their call for UPFs to be prioritised as a distinct and urgent global health issue. The objectives are to prevent the rise of the ultra-processed dietary pattern, halt its further growth, and reduce it where it already dominates.

Now is an opportune time to initiate a coordinated global response to UPFs. Public awareness of the harms associated with UPFs is growing rapidly, and policy momentum is building. A global UPF action network can support a coordinated and unified public health response. Diverse actors worldwide are already forging new alliances and building advocacy and research capacity to challenge the commercial and structural determinants of ultra-processed diets. Successes in Latin America and sub-Saharan Africa show that effectively regulating UPF production, marketing, and consumption is possible through multi-component policies, even in the face of strong industry resistance. These experiences offer crucial lessons for scaling action globally.

Above all, this generational opportunity to reclaim food systems for health, equity, and sustainability must be taken. Confronting the power of the UPF industry is essential, but food economies that are grounded in human rights, food sovereignty, agroecology, and justice are also needed. By supporting communities, farmers, and families to produce and access diverse, culturally appropriate, and minimally processed foods, and by embedding food policy in inclusive and participatory governance, we can transition away from extractive, profit-driven food systems, and move towards those that nourish people and planet.

Contributors

All authors contributed to the design, data collection, writing, and revision of the final version of the manuscript. PB, SS, and MW coordinated the overall programme of work. KH, AL, PK, MeM, SN, MiM, SS, and PB coordinated the Africa region workshop. MW, SB, SS, and PB coordinated the Latin America and Caribbean region workshops. AG, SP, SS, and PB coordinated the Asia-Pacific region workshop. PB and SS conducted all interviews. BW led the cited analysis of UPF corporations' profitability. SS led the cited analyses of the UPF industry's corporate influence networks, multi-stakeholder initiatives, and framing strategies. PS led the analysis of the UPF industry's scientific influence network. PB was responsible for funding acquisition, administration of the commissioned studies, drafting the initial manuscript, and co-leadership of the *Lancet* Series on Ultra-Processed Foods and Human Health.

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References

- Monteiro CA, Louzada ML, Steele-Martinez E, et al. Ultra-processed foods and human health: the main thesis and the evidence. *Lancet* 2025; published online Nov 18. [https://doi.org/10.1016/S0140-6736\(25\)01565-X](https://doi.org/10.1016/S0140-6736(25)01565-X).
- Scrinis G, Popkin B, Corvalan C, et al. Policies to halt and reverse the rise in ultra-processed food production, marketing, and consumption. *Lancet* 2025; published online Nov 18. [https://doi.org/10.1016/S0140-6736\(25\)01566-1](https://doi.org/10.1016/S0140-6736(25)01566-1).
- Gilmore AB, Fabbri A, Baum F, et al. Defining and conceptualising the commercial determinants of health. *Lancet* 2023; **401**: 1194–213.
- IPES Food. The new science of sustainable food systems: overcoming barriers to food systems reform. https://www.ipes-food.org/_img/upload/files/NewScienceofSusFood.pdf (accessed June 14, 2023).
- Wood B, Williams O, Baker P, Sacks G. Behind the "creative destruction" of human diets: an analysis of the structure and market dynamics of the ultra-processed food manufacturing industry and implications for public health. *J Agrar Change* 2023; **23**: 811–43.
- Wood B, Williams O, Nagarajan V, Sacks G. Market strategies used by processed food manufacturers to increase and consolidate their power: a systematic review and document analysis. *Global Health* 2021; **17**: 17.
- Northcott T, Lawrence M, Parker C, Baker P. Ecological regulation for healthy and sustainable food systems: responding to the global rise of ultra-processed foods. *Agric Human Values* 2023; **40**: 1333–58.
- Northcott T, Lawrence M, Parker C, Reeve B, Baker P. Regulatory responses to ultra-processed foods are skewed towards behaviour change and not food system transformation. *Nat Food* 2025; **6**: 273–82.
- Swinburn BA, Kraak VI, Allender S, et al. The global syndemic of obesity, undernutrition, and climate change: the *Lancet* Commission report. *Lancet* 2019; **393**: 791–846.
- Popkin BM, Barquera S, Corvalan C, et al. Towards unified and impactful policies to reduce ultra-processed food consumption and promote healthier eating. *Lancet Diabetes Endocrinol* 2021; **9**: 462–70.
- Popkin BM, Ng SW. The nutrition transition to a stage of high obesity and noncommunicable disease prevalence dominated by ultra-processed foods is not inevitable. *Obes Rev* 2022; **23**: e13366.
- Walls H, Nisbett N, Laar A, Drimie S, Zaidi S, Harris J. Addressing malnutrition: the importance of political economy analysis of power. *Int J Health Policy Manag* 2021; **10**: 809–16.
- Cox RW. Social forces, states and world orders: beyond international relations theory. *Millennium* 1981; **10**: 126–55.
- Anastasiou K, Ribeiro De Melo P, Slater S, et al. From harmful nutrients to ultra-processed foods: exploring shifts in "foods to limit" terminology used in national food-based dietary guidelines. *Public Health Nutr* 2023; **26**: 2539–50.

- 15 Koios D, Machado P, Lacy-Nichols J. Representations of ultra-processed foods: a global analysis of how dietary guidelines refer to levels of food processing. *Int J Health Policy Manag* 2022; 11: 2588–99.
- 16 WHO, FAO, UNICEF. Guidance for monitoring healthy diets globally. <https://www.who.int/publications/i/item/9789240094383> (accessed July 28, 2024).
- 17 Monteiro CA, Cannon G. The impact of transnational “big food” companies on the South: a view from Brazil. *PLoS Med* 2012; 9: e1001252.
- 18 Monteiro CA, Levy RB, Claro RM, Castro IR, Cannon G. A new classification of foods based on the extent and purpose of their processing. *Cad Saude Publica* 2010; 26: 2039–49.
- 19 Nisbett N, Gillespie S, Haddad L, Harris J. Why worry about the politics of childhood undernutrition? *World Dev* 2014; 64: 420–33.
- 20 Moodie R, Bennett E, Kwong E, et al. Ultra-processed profits: the political economy of countering the global spread of ultra-processed foods—a synthesis review on the market and political practices of transnational food corporations and strategic public health responses. *Int J Health Policy Manag* 2021; 10: 968–82.
- 21 Clapp J, Scrinis G. Big food, nutritionism, and corporate power. *Globalizations* 2017; 14: 578–95.
- 22 Baker P, Machado P, Santos T, et al. Ultra-processed foods and the nutrition transition: global, regional and national trends, food systems transformations and political economy drivers. *Obes Rev* 2020; 21: e13126.
- 23 Moodie R, Stuckler D, Monteiro C, et al, and the Lancet NCD Action Group. Profits and pandemics: prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries. *Lancet* 2013; 381: 670–79.
- 24 Baker P, Lacy-Nichols J, Williams O, Labonté R. The political economy of healthy and sustainable food systems: an introduction to a special issue. *Int J Health Policy Manag* 2021; 10: 734–44.
- 25 Fuchs D. Exploring the role of business in global governance. business power in global governance. Lynne Rienner Publishers, 2007.
- 26 IPES Food. Who’s tipping the scales? The growing influence of corporations on the governance of food systems, and how to counter it. https://www.ipes-food.org/_img/upload/files/tippingthescales.pdf (accessed Sept 17, 2023).
- 27 Mialon M, Vandevijvere S, Carriedo-Lutzenkirchen A, et al. Mechanisms for addressing and managing the influence of corporations on public health policy, research and practice: a scoping review. *BMJ Open* 2020; 10: e034082.
- 28 Wood B, Lacy-Nichols J, Sacks G. Taking on the corporate determinants of ill-health and health inequity: a scoping review of actions to address excessive corporate power to protect and promote the public’s health. *Int J Health Policy Manag* 2023; 12: 7304.
- 29 Friel S, Collin J, Daube M, et al. Commercial determinants of health: future directions. *Lancet* 2023; 401: 1229–40.
- 30 Clapp J. The problem with growing corporate concentration and power in the global food system. *Nat Food* 2021; 2: 404–08.
- 31 IPES Food. Food from somewhere: building food security and resilience through territorial markets. <https://ipes-food.org/report/food-from-somewhere/> (accessed July 10, 2024).
- 32 IPES Food. A long food movement: transforming food systems by 2045. https://www.ipes-food.org/_img/upload/files/LongFoodMovementEN.pdf (accessed April 22, 2025).
- 33 Baker P, Hawkes C, Wingrove K, et al. What drives political commitment for nutrition? A review and framework synthesis to inform the United Nations Decade of Action on Nutrition. *BMJ Glob Health* 2018; 3: e000485.
- 34 Shiffman J, Schmitz HP, Berlan D, et al. The emergence and effectiveness of global health networks: findings and future research. *Health Policy Plan* 2016; 31 (suppl 1): i110–23.
- 35 Gordon J, Nisbett N, Butterworth E, et al. Development and piloting of a tool for conducting political economy analysis of agrifood systems and food security and nutrition policies and programmes, technical report. <https://doi.org/10.19088/IDS.2024.040> (accessed Feb 6, 2025).
- 36 PAHO. Preventing and managing conflicts of interest in country-level nutrition programs: a roadmap for implementing the World Health Organization’s draft approach in the Americas. <https://iris.paho.org/handle/10665.2/55055> (accessed Aug 20, 2023).
- 37 WHO. Addressing and managing conflicts of interest in the planning and delivery of nutrition programmes at country level: report of a technical consultation convened in Geneva, Switzerland, on 8–9 October 2015. <https://www.who.int/publications/i/item/9789241516105> (accessed Aug 20, 2023).
- 38 WHO, FAO. What are healthy diets? Joint statement by the Food and Agriculture Organization of the United Nations and the World Health Organization. <https://www.who.int/publications/i/item/9789240101876> (accessed Aug 22, 2024).
- 39 Van Tulleken C. Ultra-processed people: the science behind food that isn’t food. W. W. Norton & Company, 2023.
- 40 Monteiro CA, Moubarac JC, Cannon G, Ng SW, Popkin B. Ultra-processed products are becoming dominant in the global food system. *Obes Rev* 2013; 14 (suppl 2): 21–28.
- 41 Reardon T, Tschirley D, Liverpool-Tasie LSO, et al. The processed food revolution in African food systems and the double burden of malnutrition. *Glob Food Secur* 2021; 28: 100466.
- 42 Stevano S. Ultra-processed food, depletion, and social reproduction: a conceptual intervention. *Antipode* 2024; 57: 515–35.
- 43 McMichael P. The power of food. *Agric Human Values* 2000; 17: 21–33.
- 44 Oteo G. The neoliberal diet: healthy profits unhealthy people. University of Texas Press, 2018.
- 45 Mintz SW. Sweetness and power: the place of sugar in modern history. Penguin, 1986.
- 46 Buttery N. A dark history of sugar. Pen & Sword History, 2022.
- 47 Smith AF. Encyclopedia of junk food and fast food. Greenwood, 2012.
- 48 Koese Y. Nestlé in the Ottoman Empire: global marketing with local flavor 1870–1927. *Enterprise Soc* 2008; 9: 724–61.
- 49 Zimmet P. Globalization, coca-colonization and the chronic disease epidemic: can the Domsday scenario be averted? *J Intern Med* 2001; 249: 17–26.
- 50 Wagnleitner R. Coca-colonization and the Cold War: the cultural mission of the United States in Austria after the Second World War. University of North Carolina Press, 2000.
- 51 Drewnowski A, Popkin BM. The nutrition transition: new trends in the global diet. *Nutr Rev* 1997; 55: 31–43.
- 52 Lang T, Heasman M. Food wars: the global battle for mouths, minds and markets. Routledge, 2015.
- 53 Rollins N, Piwoz E, Baker P, et al, and the 2023 Lancet Breastfeeding Series Group. Marketing of commercial milk formula: a system to capture parents, communities, science, and policy. *Lancet* 2023; 401: 486–502.
- 54 Bentley A. Inventing baby food: taste, health, and the industrialization of the American diet. University of California Press, 2014.
- 55 Hawkes C. The role of foreign direct investment in the nutrition transition. *Public Health Nutr* 2005; 8: 357–65.
- 56 Popkin BM, Reardon T. Obesity and the food system transformation in Latin America. *Obes Rev* 2018; 19: 1028–64.
- 57 Wood B, Robinson E, Baker P, et al. What is the purpose of ultra-processed food? An exploratory analysis of the financialisation of ultra-processed food corporations and implications for public health. *Global Health* 2023; 19: 85.
- 58 Clapp J, Isakson SR. Risky returns: the implications of financialization in the food system. *Dev Change* 2018; 49: 437–60.
- 59 Nestle M. Regulating the food industry: an aspirational agenda. *Am J Public Health* 2022; 112: 853–58.
- 60 Moss M. Sugar, salt, fat: how the food giants hooked us. Signal, 2013.
- 61 Nestle M. Food politics: how the food industry influences nutrition and health. University of California Press, 2007.
- 62 TV Choice UK. Cola conquest II: how Coca Cola took over the world. https://www.youtube.com/watch?v=tpF_-BbaV1g (accessed April 4, 2023).
- 63 Reardon T, Timmer CP. The economics of the food system revolution. *Annu Rev Resour Econ* 2012; 4: 225–64.
- 64 Hawkes C. Uneven dietary development: linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases. *Global Health* 2006; 2: 4.

- 65 Baker P, Kay A, Walls H. Trade and investment liberalization and Asia's noncommunicable disease epidemic: a synthesis of data and existing literature. *Global Health* 2014; **10**: 66.
- 66 Garton K, Thow AM, Swinburn B. International trade and investment agreements as barriers to food environment regulation for public health nutrition: a realist review. *Int J Health Policy Manag* 2021; **10**: 745–65.
- 67 IPES Food. Too big to feed: exploring the impacts of mega-mergers, consolidation and concentration of power in the agri-food sector. https://www.ipes-food.org/_img/upload/files/Concentration_FullReport.pdf (accessed June 14, 2023).
- 68 Zuckerman JC. Planet palm: how palm oil ended up in everything—and endangered the world. The New Press, 2021.
- 69 Kneen B. Invisible giant: Cargill and its transnational strategies. Pluto Press, 2002.
- 70 Salerno T. Cargill's corporate growth in times of crises: how agro-commodity traders are increasing profits in the midst of volatility. *Agric Human Values* 2017; **34**: 211–22.
- 71 Fazzino TL, Jun D, Chollet-Hinton L, Bjorlie K. US tobacco companies selectively disseminated hyper-palatable foods into the US food system: empirical evidence and current implications. *Addiction* 2024; **119**: 62–71.
- 72 Cassidy O, Shin HW, Song E, et al. Comparing McDonald's food marketing practices on official Instagram accounts across 15 countries. *BMJ Nutr Prev Health* 2021; **4**: 510–18.
- 73 Bankole E, Harris N, Rutherford S, Wiseman N. A systematic review of the adolescent-directed marketing strategies of transnational fast-food companies in low- and middle-income countries. *Obes Sci Pract* 2023; **9**: 670–80.
- 74 Reardon T, Hopkins R. The supermarket revolution in developing countries: policies to address emerging tensions among supermarkets, suppliers and traditional retailers. *Eur J Dev Res* 2006; **18**: 522–45.
- 75 Miranda JJ, Barrientos-Gutiérrez T, Corvalan C, et al. Understanding the rise of cardiometabolic diseases in low- and middle-income countries. *Nat Med* 2019; **25**: 1667–79.
- 76 Euromonitor International. Passport. <https://www.portal.euromonitor.com/> (accessed April 4, 2024).
- 77 FAO. Ultra-processed foods, diet quality, and health using the NOVA classification system. <https://openknowledge.fao.org/server/api/core/bitstreams/5277b379-0acb-4d97-a6a3-602774104629/content> (accessed April 12, 2023).
- 78 White M. Challenges for regulatory responses to ultra-processed foods. *Nat Food* 2025; **6**: 230–31.
- 79 Wood B, Garton K, Milsom P, et al. Using a systems thinking approach to map the global rise of ultra-processed foods in population diets. *Obes Rev* 2025; **26**: e13877.
- 80 Nestlé SA. Annual review 2023. <https://www.nestle.com/sites/default/files/2024-02/2023-annual-review-en.pdf> (accessed July 17, 2024).
- 81 Baker P, Russ K, Kang M, et al. Globalization, first-foods systems transformations and corporate power: a synthesis of literature and data on the market and political practices of the transnational baby food industry. *Global Health* 2021; **17**: 58.
- 82 The Coca-Cola Company. Form 10-K, annual report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2022. <https://investors.coca-colacompany.com/filings-reports/all-sec-filings/content/0000021344-23-000011/0000021344-23-000011.pdf> (accessed April 20, 2023).
- 83 Clapp J, Fuchs DA. Corporate power in global agrifood governance. MIT Press, 2009.
- 84 Zokaityte A. EU food law and ultra-processed food markets: safety from what and for whom? *J Consum Policy (Dordr)* 2025; **48**: 51–74.
- 85 Mondelez International Inc. Form 10-K, annual report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2024. <https://ir.mondelezinternational.com/static-files/bb83f667-887e-4ed8-bb7f-a15b6b27a604> (accessed April 30, 2025).
- 86 PepsiCo. Form 10-K, annual report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 28, 2024. https://investors.pepsico.com/docs/default-source/investors/q4-2024-form-10k_kgcva0jf89d2927o.pdf (accessed April 30, 2025).
- 87 The Coca-Cola Company. Form 10-K, annual report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2024. <https://investors.coca-colacompany.com/filings-reports/all-sec-filings/content/0000021344-25-000011/0000021344-25-000011.pdf> (accessed April 30, 2025).
- 88 Scrininis G. On the ideology of nutritionism. *Gastronomica* 2008; **8**: 39–48.
- 89 Garde A, Byrne A, Gokani N, Murphy B. A child rights-based approach to food marketing: a guide for policy-makers. <https://repository.essex.ac.uk/23682/1/Gokani,%20UNICEF%20A%20Child%20Rights-Based%20Approach%20to%20Food%20Marketing%20A%20Guide%20for%20Policy%20Makers.pdf> (accessed Oct 10, 2023).
- 90 Wood B, Baker P, Sacks G. Conceptualising the commercial determinants of health using a power lens: a review and synthesis of existing frameworks. *Int J Health Policy Manag* 2022; **11**: 1251–61.
- 91 Knai C, Petticrew M, Mays N, et al. Systems thinking as a framework for analyzing commercial determinants of health. *Milbank Q* 2018; **96**: 472–98.
- 92 Nestlé M. Soda politics: taking on big soda (and winning). Oxford University Press, 2015.
- 93 Ireland R. Sport, sponsorship and public health. Routledge, 2023.
- 94 Moss M. Hooked: how processed food became addictive. Random House, 2021.
- 95 Milsom P, Smith R, Baker P, Walls H. Corporate power and the international trade regime preventing progressive policy action on non-communicable diseases: a realist review. *Health Policy Plan* 2021; **36**: 493–508.
- 96 Russ K, Baker P, Byrd M, et al. What you don't know about the Codex can hurt you: how trade policy trumps global health governance in infant and young child nutrition. *Int J Health Policy Manag* 2021; **10**: 983–97.
- 97 Thow AM, Jones A, Schneider CH, Labonté R. Global governance of front-of-pack nutrition labelling: a qualitative analysis. *Nutrients* 2019; **11**: 1–14.
- 98 Boatwright M, Lawrence M, Carriedo A, et al. Understanding the politics of food regulation and public health: an analysis of Codex standard-setting processes on food labelling. *Int J Health Policy Manag* 2024; **13**: 8310.
- 99 Lawrence MA, Pollard CM, Weeramanthri TS. Positioning food standards programmes to protect public health: current performance, future opportunities and necessary reforms. *Public Health Nutr* 2019; **22**: 912–26.
- 100 Lawrence M, Parker C, Johnson H, et al. An ecological reorientation of the Codex Alimentarius Commission could help transform food systems. *Nat Food* 2024; **5**: 557–62.
- 101 Springmann M, Freund F. Options for reforming agricultural subsidies from health, climate, and economic perspectives. *Nat Commun* 2022; **13**: 82.
- 102 FAO. The state of food security and nutrition in the world 2022: repurposing food and agricultural policies to make healthy diets more affordable. <https://www.fao.org/documents/card/en/c/cc0639en> (accessed Aug 4, 2023).
- 103 Yates J, Kadiyala S, Deeney M, et al. A toxic relationship: ultra-processed foods & plastics. *Global Health* 2024; **20**: 74.
- 104 Sing F, Backholer K, Shats K. Key barriers to food marketing regulation: global survey results of 24 countries. https://www.unicef.org/media/134731/file/Global_Food_Marketing_Survey_Report.pdf (accessed July 7, 2024).
- 105 Gómez EJ. Junk food politics: how beverage and fast food industries are reshaping emerging economies. JHU Press, 2023.
- 106 World Bank Group. Taxes on sugar-sweetened beverages: international evidence and experiences. <https://thedocs.worldbank.org/en/doc/d9612c480991c5408edca33d54e2028a-0390062021/original/World-Bank-2020-SSB-Taxes-Evidence-and-Experiences.pdf> (accessed Nov 22, 2023).
- 107 Mialon M, Swinburn B, Sacks G. A proposed approach to systematically identify and monitor the corporate political activity of the food industry with respect to public health using publicly available information. *Obes Rev* 2015; **16**: 519–30.
- 108 Pereira TN, Bortolini GA, Campos RF, Campos RdF. Barriers and facilitators related to the adoption of policies to reduce ultra-processed foods consumption: a scoping review. *Int J Environ Res Public Health* 2023; **20**: 1–27.

- 109 Lauber K, Rippin H, Wickramasinghe K, Gilmore AB. Corporate political activity in the context of sugar-sweetened beverage tax policy in the WHO European Region. *Eur J Public Health* 2022; 32: 786–93.
- 110 Aravena-Rivas Y, Heilmann A, Watt RG, Broomhead T, Tsakos G. Analysis of public records of lobbying practices of the ultra-processed sugary food and drink industries in Chile: a qualitative study. *Lancet Reg Health Am* 2024; 35: 100794.
- 111 Chung H, Cullerton K, Lacy-Nichols J. Mapping the lobbying footprint of harmful industries: 23 years of data from OpenSecrets. *Milbank Q* 2024; 102: 212–32.
- 112 Gómez EJ. The politics of ultra-processed foods and beverages regulatory policy in upper-middle-income countries: industry and civil society in Mexico and Brazil. *Glob Public Health* 2022; 17: 1883–901.
- 113 Suzuki M, Webb D, Small R. Competing frames in global health governance: an analysis of stakeholder influence on the political declaration on non-communicable diseases. *Int J Health Policy Manag* 2022; 11: 1078–89.
- 114 OpenSecrets. Food & beverage lobbying. <https://www.opensecrets.org/industries/lobbying?cycle=2024&ind=N01> (accessed April 30, 2025).
- 115 James E, Lajous M, Reich MR. The politics of taxes for health: an analysis of the passage of the sugar-sweetened beverage tax in Mexico. *Health Syst Reform* 2020; 6: e1669122.
- 116 Gómez EJ. Coca-Cola's political and policy influence in Mexico: understanding the role of institutions, interests and divided society. *Health Policy Plan* 2019; 34: 520–28.
- 117 Mialon M, Gaitan Charry DA, Cediel G, Crosbie E, Scagliusi FB, Perez Tamayo EM. "I had never seen so many lobbyists": food industry political practices during the development of a new nutrition front-of-pack labelling system in Colombia. *Public Health Nutr* 2021; 24: 2737–45.
- 118 Milsom P, Smith R, Modisenyane SM, Walls H. Does international trade and investment liberalization facilitate corporate power in nutrition and alcohol policymaking? Applying an integrated political economy and power analysis approach to a case study of South Africa. *Global Health* 2022; 18: 32.
- 119 Pereira TN, Gomes FdS, Carvalho CMPd, et al. Medidas regulatórias de proteção da alimentação adequada e saudável no Brasil: uma análise de 20 anos. *Cad Saúde Pública* 2022; 37 (suppl 1): e00153120.
- 120 Crosbie E, Otero Alvarez MG, Cao M, et al. Implementing front-of-pack nutrition warning labels in Mexico: important lessons for low- and middle-income countries. *Public Health Nutr* 2023; 26: 2149–61.
- 121 Dörlach T, Mertenskötter P. Interpreters of international economic law: corporations and bureaucrats in contest over Chile's nutrition label. *Law Soc Rev* 2020; 54: 571–606.
- 122 Borland S. McDonald's triumphs over councils' rejections of new branches-by claiming it promotes "healthier lifestyles". *BMJ* 2025; 388: r163.
- 123 Slater S, Lawrence M, Wood B, Serodio P, Van Den Akker A, Baker P. The rise of multi-stakeholderism, the power of ultra-processed food corporations, and the implications for global food governance: a network analysis. *Agric Human Values* 2024; 42: 177–92.
- 124 Marks JH. The perils of partnership: industry influence, institutional integrity, and public health. Oxford University Press, 2019.
- 125 Challies E. The limits to voluntary private social standards in global agri-food system governance. *Int J Sociol Agric Food* 2013; 20: 175–95.
- 126 Food Standards Australia New Zealand. Uptake of the Health Star Rating system as at November 2023: a report on progress against the first interim target of the Health Star Rating system. <https://www.healthstarrating.gov.au/sites/default/files/2024-12/Uptake%20of%20the%20Health%20Star%20Rating%20system.pdf> (accessed April 30, 2025).
- 127 Dickie S, Woods JL, Lawrence M. Analysing the use of the Australian Health Star Rating system by level of food processing. *Int J Behav Nutr Phys Act* 2018; 15: 128.
- 128 World Food Programme. Our private sector partners. <https://www.wfp.org/partners/private-sector> (accessed April 30, 2025).
- 129 Yum! Brands. Yum! Brands 2015 corporate social responsibility report—world hunger relief. <https://web.archive.org/web/20190913200447/http://www.yumcsr.com/community/world-hunger-relief.asp> (accessed June 6, 2023).
- 130 Lacy-Nichols J, Williams O. "Part of the solution": food corporation strategies for regulatory capture and legitimacy. *Int J Health Policy Manag* 2021; 10: 845–56.
- 131 Erzse A, Karim SA, Foley L, Hofman KJ. A realist review of voluntary actions by the food and beverage industry and implications for public health and policy in low- and middle-income countries. *Nat Food* 2022; 3: 650–63.
- 132 Ronit K, Jensen JD. Obesity and industry self-regulation of food and beverage marketing: a literature review. *Eur J Clin Nutr* 2014; 68: 753–59.
- 133 White M, Barquera S. Mexico adopts food warning labels, why now? *Health Syst Reform* 2020; 6: e1752063.
- 134 Abdool Karim S, Kruger P, Hofman K. Industry strategies in the parliamentary process of adopting a sugar-sweetened beverage tax in South Africa: a systematic mapping. *Global Health* 2020; 16: 116.
- 135 Lacy-Nichols J, Scrinis G, Carey R. The politics of voluntary self-regulation: insights from the development and promotion of the Australian Beverages Council's commitment. *Public Health Nutr* 2020; 23: 564–75.
- 136 Baker P, Gill T, Friel S, Carey G, Kay A. Generating political priority for regulatory interventions targeting obesity prevention: an Australian case study. *Soc Sci Med* 2017; 177: 141–49.
- 137 Evans-Reeves KA, Matthes BK, Chamberlain P, Paichadze N, Gilmore AB, Mialon M. Intimidation against advocates and researchers in the tobacco, alcohol and ultra-processed food spaces: a review. *Health Promot Int* 2024; 39: daae153.
- 138 McDonald's. Ronald McDonald House Charities. <https://corporate.mcdonalds.com/corpmcd/our-purpose-and-impact/community-connection/rmh.html> (accessed Oct 11, 2023).
- 139 Ojeda E, Torres C, Carriedo A, Mialon M, Parekh N, Orozco E. The influence of the sugar-sweetened beverage industry on public policies in Mexico. *Int J Public Health* 2020; 65: 1037–44.
- 140 Kruger P, Wynberg R, Mafuyeka M, et al. The ultra-processed food industry in Africa. *Nat Food* 2023; 4: 534–36.
- 141 Nestle M. Unsavory truth: how food companies skew the science of what we eat. Basic Books, 2018.
- 142 Scrinis G. Reformulation, fortification and functionalization: Big Food corporations' nutritional engineering and marketing strategies. *J Peasant Stud* 2016; 43: 17–37.
- 143 Scott C. Sustainably sourced junk food? big food and the challenge of sustainable diets. *Glob Environ Polit* 2018; 18: 93–113.
- 144 Changing Markets Foundation. Feeding us greenwash: an analysis of misleading claims in the food sector. <https://changingmarkets.org/report/feeding-us-greenwash-an-analysis-of-misleading-claims-in-the-food-sector/> (accessed Dec 1, 2023).
- 145 Herrick C. Shifting blame/selling health: corporate social responsibility in the age of obesity. *Sociol Health Illn* 2009; 31: 51–65.
- 146 The Coca Cola Company. Refresh the world. Make a difference. <https://www.coca-colacompany.com/content/dam/company/us/en/reports/coca-cola-business-sustainability-report-2022.pdf> (accessed Oct 6, 2023).
- 147 Nestlé SA. Creating shared value and sustainability report 2022: advancing regenerative food systems at scale. <https://www.nestle.com/sites/default/files/2023-03/creating-shared-value-sustainability-report-2022-en.pdf> (accessed April 20, 2023).
- 148 Pye O. Commodifying sustainability: development, nature and politics in the palm oil industry. *World Dev* 2019; 121: 218–28.
- 149 Ennis G. Dark PR: how corporate disinformation harms our health and the environment. Daraja Press, 2023.
- 150 Carriedo A, Koon AD, Encarnación LM, Lee K, Smith R, Walls H. The political economy of sugar-sweetened beverage taxation in Latin America: lessons from Mexico, Chile and Colombia. *Global Health* 2021; 17: 5.
- 151 Serodio P, Ruskin G, McKee M, Stuckler D. Evaluating Coca-Cola's attempts to influence public health 'in their own words': analysis of Coca-Cola emails with public health academics leading the Global Energy Balance Network. *Public Health Nutr* 2020; 23: 2647–53.
- 152 Petticrew M, Katikireddi SV, Knai C, et al. "Nothing can be done until everything is done": the use of complexity arguments by food, beverage, alcohol and gambling industries. *J Epidemiol Community Health* 2017; 71: 1078–83.

- 153 Chavkin S, Gilbert C, Tsui A, O'Connor A. As obesity rises, Big Food and dietitians push "anti-diet" advice. *The Washington Post*, April 3, 2024. <https://www.washingtonpost.com/wellness/2024/04/03/diet-culture-nutrition-influencers-general-mills-processed-food/> (accessed Aug 12, 2024).
- 154 Fabbri A, Holland TJ, Bero LA. Food industry sponsorship of academic research: investigating commercial bias in the research agenda. *Public Health Nutr* 2018; **21**: 3422–30.
- 155 Bes-Rastrollo M, Schulze MB, Ruiz-Canela M, Martinez-Gonzalez MA. Financial conflicts of interest and reporting bias regarding the association between sugar-sweetened beverages and weight gain: a systematic review of systematic reviews. *PLoS Med* 2013; **10**: e1001578, e1001578.
- 156 Greenhalgh S. Inside ILSI: How Coca-Cola, working through its scientific nonprofit, created a global science of exercise for obesity and got it embedded in Chinese policy (1995–2015). *J Health Polit Policy Law* 2021; **46**: 235–76.
- 157 Van Tulleken C. Overdiagnosis and industry influence: how cow's milk protein allergy is extending the reach of infant formula manufacturers. *BMJ* 2018; **363**: k5056.
- 158 Smith TDH, Townsend R, Hussain HS, Santer M, Boyle RJ. Milk allergy guidelines for infants in England promote overdiagnosis: a cross-sectional survey. *Clin Exp Allergy* 2022; **52**: 188–91.
- 159 Ulucanlar S, Lauber K, Fabbri A, et al. Corporate political activity: taxonomies and model of corporate influence on public policy. *Int J Health Policy Manag* 2023; **12**: 7292.
- 160 Slater S, Lawrence M, Wood B, Serodio P, Baker P. Corporate interest groups and their implications for global food governance: mapping and analysing the global corporate influence network of the transnational ultra-processed food industry. *Global Health* 2024; **20**: 16.
- 161 Pedroza-Tobias A, Crosbie E, Mialon M, Carriedo A, Schmidt LA. Food and beverage industry interference in science and policy: efforts to block soda tax implementation in Mexico and prevent international diffusion. *BMJ Glob Health* 2021; **6**: e005662.
- 162 Nestlé SA. Annual review 2022. <https://www.nestle.com/sites/default/files/2023-03/2022-annual-review-en.pdf> (accessed April 20, 2023).
- 163 McDonald's. Annual report 2022. https://corporate.mcdonalds.com/content/dam/sites/corp/nfl/pdf/MCD_2023_Annual_Report.pdf (accessed April 20, 2023).
- 164 Mialon M, Corvalan C, Cediel G, Scagliusi FB, Reyes M. Food industry political practices in Chile: "the economy has always been the main concern". *Global Health* 2020; **16**: 107.
- 165 Carriedo A, Pinsky I, Crosbie E, Ruskin G, Mialon M. The corporate capture of the nutrition profession in the USA: the case of the Academy of Nutrition and Dietetics. *Public Health Nutr* 2022; **25**: 1–15.
- 166 Lauber K, Rutter H, Gilmore AB. Big food and the World Health Organization: a qualitative study of industry attempts to influence global-level non-communicable disease policy. *BMJ Glob Health* 2021; **6**: e005216.
- 167 Russ KN, Baker P, Kang M, McCoy D. Corporate lobbying on US positions toward the World Health Organization: evidence of intensification and cross-industry coordination. *Glob Health Gov* 2022; **17**: 37–83.
- 168 Mondelez International. Snacking made right: 2023 ESG report. <https://www.mondelezinternational.com/assets/Snacking-Made-Right/SMR-Report/2023/2023-MDLZ-Snacking-Made-Right-ESG-Report.pdf> (accessed Dec 18, 2023).
- 169 Richter J. Holding corporations accountable: corporate conduct, international codes, and citizen action. Palgrave Macmillan, 2001.
- 170 Schwab K. Stakeholder capitalism: A global economy that works for progress, people and planet. John Wiley & Sons, 2021.
- 171 Hawkes C, Buse K. Public health sector and food industry interaction: it's time to clarify the term "partnership" and be honest about underlying interests. *Eur J Public Health* 2011; **21**: 400–01.
- 172 High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. Multi-stakeholder partnerships to finance and improve food security and nutrition in the framework of the 2030 Agenda. <https://www.fao.org/3/CA0156EN/ca0156en.pdf> (accessed July 4, 2023).
- 173 Clapp J, Noyes I, Grant Z. The food systems summit's failure to address corporate power. *Development* 2021; **64**: 192–98.
- 174 Canfield M, Anderson MD, McMichael P. UN Food Systems Summit 2021: dismantling democracy and resetting corporate control of food systems. *Front Sustain Food Syst* 2021; **5**: 661552.
- 175 Yates J, Gillespie S, Savona N, Deeney M, Kadiyala S. Trust and responsibility in food systems transformation. Engaging with Big Food: marriage or mirage? *BMJ Glob Health* 2021; **6**: e007350.
- 176 Danone. Danone ranked #1 in the global Access to Nutrition index 2024. <https://www.danone.com/newsroom/stories/atni-leading-access-to-nutrition.html> (accessed May 8, 2025).
- 177 Anastasiou K, Baker P, Hadjikakou M, Hendrie G, Lawrence M. A conceptual framework for understanding the environmental impacts of ultra-processed foods and implications for sustainable food systems. *J Clean Prod* 2022; **368**: 133155.
- 178 Fardet A, Rock E. Ultra-processed foods and food system sustainability: what are the links? *Sustainability (Basel)* 2020; **12**: 6280.
- 179 PepsiCo. 2022 ESG performance metrics. https://www.pepsico.com/docs/default-source/sustainability-and-esg-topics/2022-esg-summary/2022-esg-summary-performance-metrics.pdf?sfvrsn=72c2c782_10 (accessed June 26, 2023).
- 180 Changing Markets Foundation. Mighty Earth. Net-zero integrity: Nestlé's methane blindspot. <https://changingmarkets.org/wp-content/uploads/2023/04/CM-Report-layout-Net-Zero-Integrity-Web-light.pdf> (accessed Nov 15, 2023).
- 181 Tangpuori AD, Harding-Rolls G, Urbancic N, Purita Banegas Zallio X. Talking trash: the corporate playbook of false solutions to the plastics crisis. http://changingmarkets.org/wp-content/uploads/2021/01/TalkingTrash_FullVersion.pdf (accessed June 5, 2023).
- 182 Cowger W, Willis KA, Bullock S, et al. Global producer responsibility for plastic pollution. *Sci Adv* 2024; **10**: ead8275.
- 183 Marrero A, Nicoson C, Kelahan H, et al. Equity as a priority in EAT–Lancet-aligned food system transformations. *Nat Food* 2024; **5**: 811–17.
- 184 Goyal M, Hickel J, Jha P. Increasing inequality in agri-food value chains: global trends from 1995–2020. *Glob Food Secur* 2025; **46**: 100883.
- 185 Wood B, McCoy D, Baker P, Williams O, Sacks G. The double burden of maldistribution: a descriptive analysis of corporate wealth and income distribution in four unhealthy commodity industries. *Crit Public Health* 2021; **33**: 135–47.
- 186 FAO, International Fund for Agricultural Development, UNICEF, World Food Programme, WHO. The state of food security and nutrition in the world 2024—financing to end hunger, food insecurity and malnutrition in all its forms. <https://doi.org/10.4060/cd1254en> (accessed July 28, 2024).
- 187 Fanzo J, Shawar YR, Shyam T, Das S, Shiffman J. Challenges to establish effective public-private partnerships to address malnutrition in all its forms. *Int J Health Policy Manag* 2021; **10**: 934–45.
- 188 Ngqangashe Y, Goldman S, Schram A, Friel S. A narrative review of regulatory governance factors that shape food and nutrition policies. *Nutr Rev* 2022; **80**: 200–14.
- 189 Robinson E, Blake MR, Sacks G. Benchmarking food and beverage companies on obesity prevention and nutrition policies: evaluation of the BIA–Obesity Australia Initiative, 2017–2019. *Int J Health Policy Manag* 2021; **10**: 857–70.
- 190 Hooker L. Danone's UK boss calls for higher taxes on unhealthy food. <https://www.bbc.com/news/business-65872962> (accessed Oct 2, 2023).
- 191 The Food Foundation. Lobbying for good: why we need regulation to level the playing field for the food industry. <https://foodfoundation.org.uk/news/lobbying-good-why-we-need-regulation-level-playing-field-food-industry> (accessed Nov 2, 2025).
- 192 Lauber K, Ralston R, Mialon M, Carriedo A, Gilmore AB. Non-communicable disease governance in the era of the sustainable development goals: a qualitative analysis of food industry framing in WHO consultations. *Global Health* 2020; **16**: 76.
- 193 Serôdio PM, McKee M, Stuckler D. Coca-Cola: a model of transparency in research partnerships? A network analysis of Coca-Cola's research funding (2008–2016). *Public Health Nutr* 2018; **21**: 1594–607.
- 194 Logan AC, D'Adamo CR, Pizzorno JE, Prescott SL. "Food faddists and pseudoscientists!": reflections on the history of resistance to ultra-processed foods. *Explore (NY)* 2024; **20**: 470–76.

- 195 Steele S, Ruskin G, Stuckler D. Pushing partnerships: corporate influence on research and policy via the International Life Sciences Institute. *Public Health Nutr* 2020; **23**: 2032–40.
- 196 British Nutrition Foundation. The concept of ultra-processed foods (UPF): position statement 2023. https://www.nutrition.org.uk/media/3ylbwf3s/british-nutrition-foundation-upf-position-statement_updated-may-2024.pdf (accessed Oct 12, 2023).
- 197 Food Drink Europe. Ultra-processed foods. Position paper 2023. <https://www.fooddrinkeurope.eu/wp-content/uploads/2023/01/FoodDrinkEurope-position-paper-ultra-processed-foods.pdf> (accessed Oct 12, 2023).
- 198 Lauber K, Barry R, van den Akker A, Collin J. Problematising ultra-processing: opposition strategy mobility and an emergent challenge to food systems governance. *Crit Policy Stud* 2025; published online Oct 9. <https://doi.org/10.1080/19460171.2025.2565323>.
- 199 Nilson EAF, Delpino FM, Batis C, et al. Premature mortality attributable to ultraprocessed food consumption in 8 countries. *Am J Prev Med* 2025; **68**: 1091–99.
- 200 Walton S, Mehrabi Z, Fanzo J, Caldecott B. Asset stranding could open new pathways to food systems transformation. *Nat Food* 2025; **6**: 440–45.
- 201 Parker C, Johnson H. From food chains to food webs: regulating capitalist production and consumption in the food system. *Annu Rev Law Soc Sci* 2019; **15**: 205–25.
- 202 Wood B, Baker P, Scrinis G, McCoy D, Williams O, Sacks G. Maximising the wealth of few at the expense of the health of many: a public health analysis of market power and corporate wealth and income distribution in the global soft drink market. *Global Health* 2021; **17**: 138.
- 203 Fardet A. Ultra-processing should be understood as a holistic issue, from food matrix, to dietary patterns, food scoring, and food systems. *J Food Sci* 2024; **89**: 4563–73.
- 204 Dorado D, Monsalve S, Naik A, Suárez AM. Towards building comprehensive legal frameworks for corporate accountability in food governance. *Development* 2021; **64**: 236–44.
- 205 Deeney M, Yates J, Green R, Kadiyala S. Centring human health in the global plastics treaty: a call to action. *BMJ Glob Health* 2022; **7**: e011040.
- 206 Baker P, Smith JP, Garde A, et al, and the 2023 *Lancet* Breastfeeding Series Group. The political economy of infant and young child feeding: confronting corporate power, overcoming structural barriers, and accelerating progress. *Lancet* 2023; **401**: 503–24.
- 207 Lacy-Nichols J, Marten R, Crosbie E, Moodie R. The public health playbook: ideas for challenging the corporate playbook. *Lancet Glob Health* 2022; **10**: e1067–72.
- 208 Pineda E, Hernández-F M, Ortega-Avila AG, Jones A, Rivera JA. Mexico's bold new law on adequate and sustainable nutrition. *Lancet* 2025; **405**: 764–67.
- 209 Russell C, Hussain NAB, Sievert K, Cullerton K. Who is donating to political parties in Queensland, Australia? An analysis of political donations from the food industry. *Public Health Nutr* 2023; **26**: 1501–12.
- 210 Monteiro CA, Cannon G, Moubarac J-C, et al. Dietary guidelines to nourish humanity and the planet in the twenty-first century. A blueprint from Brazil. *Public Health Nutr* 2015; **18**: 2311–22.
- 211 Millstone E, Lang T. An approach to conflicts of interest in UK food regulatory institutions. *Nat Food* 2023; **4**: 17–21.
- 212 Mialon M, Serodio PM, Crosbie E, Teicholz N, Naik A, Carriedo A. Conflicts of interest for members of the US 2020 dietary guidelines advisory committee. *Public Health Nutr* 2022; **27**: e69.
- 213 UNICEF. Engaging with the food and beverage industry: UNICEF programme guidance. <https://www.unicef.org/media/142056/file/Programme%20Guidance%20on%20Engagement%20with%20the%20Food%20and%20Beverage%20Industry.pdf> (accessed Sept 15, 2023).
- 214 Maani N, Van Schalkwyk MC, Petticrew M, Ralston R, Collin J. The new WHO Foundation—global health deserves better. *BMJ Glob Health* 2021; **6**: e004950.
- 215 Coombes R. Formula milk: WHO Foundation refuses to take further financial donations from Nestlé. *BMJ* 2022; **379**: o2468.
- 216 Harris J, Nisbett N, Gillespie S. Conflict of interest in nutrition: where's the power? Comment on “Towards preventing and managing conflict of interest in nutrition policy? An analysis of submissions to a consultation on a draft who tool”. *Int J Health Policy Manag* 2022; **11**: 391–93.
- 217 United Nations Food Systems Coordination Hub. Corporate accountability for food systems transformation: a roadmap and guidance towards UNFSS+4 and beyond. <https://www.unfoodsystemshub.org/docs/unfoodsystemslibraries/corporate-accountability-for-food-systems-transformation/roadmap-and-guidance.pdf> (accessed Aug 7, 2024).
- 218 Nestle M. Food company sponsorship of nutrition research and professional activities: a conflict of interest? *Public Health Nutr* 2001; **4**: 1015–22.
- 219 Barquera S, García-Chávez CG, Navarro-Rosenblatt D, et al. Position of the Latin American Society of Nutrition (SLAN) on the management of conflict of interest. *Salud Publica Mex* 2018; **60**: 592–97.
- 220 Garde A, Curtis J, De Schutter O. Ending childhood obesity: introducing the issues and the legal challenge. Edward Elgar Publishing, 2020.
- 221 Thiemann L, Roman-Alcalá A. Fast food sovereignty: contradiction in terms or logical next step? *J Agric Environ Ethics* 2019; **32**: 813–34.
- 222 Hawkes C, Brazil BG, Castro IRR, Jaime PC. How to engage across sectors: lessons from agriculture and nutrition in the Brazilian School Feeding Program. *Rev Saude Publica* 2016; **50**: 1–13.
- 223 Hawkes C, Gallagher-Squires C, Spires M, et al. The full picture of people's realities must be considered to deliver better diets for all. *Nat Food* 2024; **5**: 894–900.
- 224 Fagundes A, de Cássia Lisboa Ribeiro R, de Brito ERB, Recine E, Rocha C. Public infrastructure for food and nutrition security in Brazil: fulfilling the constitutional commitment to the human right to adequate food. *Food Secur* 2022; **14**: 897–905.
- 225 Women UN. Promoting women's economic empowerment: recognizing and investing in the care economy. <https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2018/Issue-paper-Recognizing-and-investing-in-the-care-economy-en.pdf> (accessed June 7, 2024).
- 226 Smith JP, Iellamo A, Nguyen TT, Mathisen R. The volume and monetary value of human milk produced by the world's breastfeeding mothers: results from a new tool. *Front Public Health* 2023; **11**: 1152659.
- 227 Pérez-Escamilla R, Tomori C, Hernández-Cordero S, et al, and the 2023 *Lancet* Breastfeeding Series Group. Breastfeeding: crucially important, but increasingly challenged in a market-driven world. *Lancet* 2023; **401**: 472–85.
- 228 Shiffman J, Shawar YR. Framing and the formation of global health priorities. *Lancet* 2022; **399**: 1977–90.
- 229 Rushton S, Williams OD. Frames, paradigms and power: global health policy-making under neoliberalism. *Glob Soc* 2012; **26**: 147–67.
- 230 Walls HL, Peeters A, Proietto J, McNeil JJ. Public health campaigns and obesity—a critique. *BMC Public Health* 2011; **11**: 136.
- 231 Westbury S, Oyebo O, van Rens T, Barber TM. Obesity stigma: causes, consequences, and potential solutions. *Curr Obes Rep* 2023; **12**: 10–23.
- 232 Lane MM, Gamage E, Du S, et al. Ultra-processed food exposure and adverse health outcomes: umbrella review of epidemiological meta-analyses. *BMJ* 2024; **384**: e077310.
- 233 Gibson M, Mason-D'Croz D, Norberg A, Conti C, Boa Alvarado M, Herrero M. Degrowth as a plausible pathway for food systems transformation. *Nat Food* 2025; **6**: 19–24.
- 234 Hickel J. Less is more: how degrowth will save the world. Penguin Random House, 2020.
- 235 Keck ME, Sikkink K. Transnational advocacy networks in international and regional politics. *Int Soc Sci J* 1999; **51**: 89–101.
- 236 Ralston R, Townsend B, Arnanz L, et al. NGOs and global business regulation of transnational alcohol and ultra-processed food industries. *Policy Soc* 2024; **43**: 54–69.
- 237 Garde A, Abdool-Karim S. Human rights and healthy diet research support initiative: scoping review. <https://idl-bnc-idrc.dspacedirect.org/server/api/core/bitstreams/5bba7bde-8aeb-455c-ab57-c78ef7ffafff/content> (accessed Oct 10, 2023).
- 238 Monteiro CA, Lawrence M, Millett C, et al. The need to reshape global food processing: a call to the United Nations Food Systems Summit. *BMJ Glob Health* 2021; **6**: e006885.
- 239 Leite FHM, Khandpur N, Andrade GC, et al. Ultra-processed foods should be central to global food systems dialogue and action on biodiversity. *BMJ Glob Health* 2022; **7**: e008269.

- 240 Barquera S, Rivera JA. Obesity in Mexico: rapid epidemiological transition and food industry interference in health policies. *Lancet Diabetes Endocrinol* 2020; 8: 746–47.
- 241 Guarnizo Peralta D, Uruña Hernández R, Martín Carballo J. Derecho, comercio y etiquetado nutricional: reflexiones y experiencias desde América Latina. https://www.dejusticia.org/wp-content/uploads/2022/09/Derecho-comercio-y-etiquetado_web.pdf (accessed Oct 18, 2023).
- 242 Donaldson E. Advocating for sugar-sweetened beverage taxation: a case study of Mexico. https://ncdalliance.org/sites/default/files/resource_files/Advocating_For_Sugar_Sweetened_Beverage_Taxation_0.pdf (accessed Nov 15, 2023).
- 243 Kaufer-Horwitz M, Tolentino-Mayo L, Jáuregui A, et al. Sistema de etiquetado frontal de alimentos y bebidas para México: una estrategia para la toma de decisiones saludables. *Salud Pública Mex* 2018; 60: 479–86.
- 244 World Cancer Research Fund International. Building momentum: lessons on implementing a robust front-of-pack food label. <https://www.wcrf.org/wp-content/uploads/2024/11/PPA-Building-Momentum-2.pdf> (accessed Oct 25, 2023).
- 245 Crosbie E, Carriedo A, Schmidt L. Hollow threats: transnational food and beverage companies' use of international agreements to fight front-of-pack nutrition labeling in Mexico and beyond. *Int J Health Policy Manag* 2022; 11: 722–25.
- 246 Scott-Railton J, Marczak B, Guarnieri C, Crete-Nishihata M. Bitter sweet: supporters of Mexico's soda tax targeted with NSO exploit links. <https://citizenlab.ca/2017/02/bittersweet-nso-mexico-spyware/> (accessed Aug 8, 2023).
- 247 Batis C, Castellanos-Gutiérrez A, Sánchez-Pimienta TG, et al. Comparison of dietary intake before vs after taxes on sugar-sweetened beverages and nonessential energy-dense foods in Mexico, 2012 to 2018. *JAMA Netw Open* 2023; 6: e2325191.
- 248 Corvalán C, Reyes M, Garmendia ML, Uauy R. Structural responses to the obesity and non-communicable diseases epidemic: the Chilean Law of Food Labeling and Advertising. *Obes Rev* 2013; 14 (suppl 2): 79–87.
- 249 Mialon M, Corvalán C, Cediel G, Scagliusi FB, Reyes M. Food industry political practices in Chile: “the economy has always been the main concern”. *Global Health* 2020; 16: 107.
- 250 Pérez-Escamilla R, Lutter CK, Rabadan-Diehl C, et al. Prevention of childhood obesity and food policies in Latin America: from research to practice. *Obes Rev* 2017; 18 (suppl 2): 28–38.
- 251 Mediano F, Fierro C, Corvalán C, Reyes M, Correa T. Framing a new nutrition policy: changes on key stakeholder's discourses throughout the implementation of the Chilean Food Labelling Law. *Int J Environ Res Public Health* 2023; 20: 5700.
- 252 Correa T, Fierro C, Reyes M, Dillman Carpentier FR, Taillie LS, Corvalán C. Responses to the Chilean law of food labeling and advertising: exploring knowledge, perceptions and behaviors of mothers of young children. *Int J Behav Nutr Phys Act* 2019; 16: 21.
- 253 Mediano Stoltze F, Reyes M, Smith TL, Correa T, Corvalán C, Carpentier FRD. Prevalence of child-directed marketing on breakfast cereal packages before and after Chile's Food Marketing Law: a pre-and post-quantitative content analysis. *Int J Environ Res Public Health* 2019; 16: 1–15.
- 254 Dillman Carpentier FR, Mediano Stoltze F, Reyes M, Taillie LS, Corvalán C, Correa T. Restricting child-directed ads is effective, but adding a time-based ban is better: evaluating a multi-phase regulation to protect children from unhealthy food marketing on television. *Int J Behav Nutr Phys Act* 2023; 20: 62.
- 255 Taillie LS, Bercholz M, Popkin B, Reyes M, Colchero MA, Corvalán C. Changes in food purchases after the Chilean policies on food labelling, marketing, and sales in schools: a before and after study. *Lancet Planet Health* 2021; 5: e526–33.
- 256 Fretes G, Corvalán C, Reyes M, et al. Changes in children's and adolescents' dietary intake after the implementation of Chile's law of food labeling, advertising and sales in schools: a longitudinal study. *Int J Behav Nutr Phys Act* 2023; 20: 40.
- 257 Gharthey AB. Nutrition policy and programs in Ghana: the limitation of a single sector approach. <https://openknowledge.worldbank.org/handle/10986/27590?show=full> (accessed Nov 17, 2023).
- 258 Laar A, Barnes A, Aryeetey R, et al. Implementation of healthy food environment policies to prevent nutrition-related non-communicable diseases in Ghana: national experts' assessment of government action. *Food Policy* 2020; 93: 101907.
- 259 Laar A, Amoah JM, Massawudu LM, et al, and the Advocating for Health Coalition. Making food-related health taxes palatable in sub-Saharan Africa: lessons from Ghana. *BMJ Glob Health* 2023; 8 (suppl 8): e012154.
- 260 The Global Health Advocacy Incubator. The global health advocacy Incubator's advocacy approach. <https://www.advocacyincubator.org/what-we-do/our-advocacy-approach> (accessed Oct 16, 2023).
- 261 Gómez EJ. Getting to the root of the problem: the international and domestic politics of junk food industry regulation in Latin America. *Health Policy Plan* 2021; 36: 1521–33.
- 262 Global Health Advocacy Incubator. Youth voices and engagement are key to successful advocacy campaigns around the world. <https://www.advocacyincubator.org/news/2021-09-20-youth-voices-and-engagement-are-key-to-successful-advocacy-campaigns-around-the-world> (accessed Oct 22, 2024).
- 263 Cullerton K, Donnet T, Lee A, Gallegos D. Playing the policy game: a review of the barriers to and enablers of nutrition policy change. *Public Health Nutr* 2016; 19: 2643–53.
- 264 Gostin LO. 2016: the year of the soda tax. *Milbank Q* 2017; 95: 19–23.
- 265 Global Health Advocacy Incubator. Breaking the cycle of unhealthy eating: Rio de Janeiro newest Brazilian city to ban ultra-processed products in schools. <https://www.advocacyincubator.org/news/2023-08-09-breaking-the-cycle-of-unhealthy-eating-rio-de-janeiro-newest-brazilian-city-to-ban-ultra-processed-products-in-schools> (accessed Oct 3, 2023).
- 266 Pongutta S, Suphanchaimat R, Patcharanarumol W, Tangcharoensathien V. Lessons from the Thai health promotion Foundation. *Bull World Health Organ* 2019; 97: 213–20.
- 267 Gostin LO, Monahan JT, Kaldor J, et al. The legal determinants of health: harnessing the power of law for global health and sustainable development. *Lancet* 2019; 393: 1857–910.
- 268 Global Health Advocacy Incubator. Brazilian courts protect vulnerable children and youth in decision against Nestlé Brazil. <https://www.advocacyincubator.org/news/2022-07-13-brazilian-courts-protect-vulnerable-children-and-youth-in-decision-against-nestle-brazil> (accessed Oct 22, 2024).
- 269 Watnick VJ. The “roundup” controversy: glyphosate litigation, non-Hodgkin's lymphoma, and lessons for toxics regulation going forward. *N Y Univ Environ Law J* 2022; 30: 1–64.
- 270 Morgan & Morgan. Civil action complaint. <https://www.forthethepeople.com/sites/default/files/2024-12/Filed%20UPF%20Complaint.pdf> (accessed Dec 15, 2024).
- 271 Magnusson RS, McGrady B, Gostin L, Patterson D, Abou Taleb H. Legal capacities required for prevention and control of noncommunicable diseases. *Bull World Health Organ* 2019; 97: 108–17.
- 272 UK Health Forum. Public health and the food and drinks industry: the governance and ethics of interaction. Lessons from research, policy and practice. <https://idrc-crdi.ca/sites/default/files/sp/Documents%20EN/ukhf-casebook-jan18.pdf> (accessed Oct 24, 2024).
- 273 Mulcahy G, Boelsen-Robinson T, Hart AC, et al. A comparative policy analysis of the adoption and implementation of sugar-sweetened beverage taxes (2016–19) in 16 countries. *Health Policy Plan* 2022; 37: 543–64.
- 274 Thow AM, Abdool Karim S, Mukanu MM, et al. The political economy of sugar-sweetened beverage taxation: an analysis from seven countries in sub-Saharan Africa. *Glob Health Action* 2021; 14: 1909267.
- 275 Koon AD, Marten R. Framing health taxes: a scoping review. *BMJ Glob Health* 2023; 8 (suppl 8): e012055.
- 276 Palmedo PC, Dorfman L, Garza S, Murphy E, Freudenberg N. Countermarketing alcohol and unhealthy food: an effective strategy for preventing noncommunicable diseases? Lessons from tobacco. *Annu Rev Public Health* 2017; 38: 119–44.

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