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Corporate political activity of the food industry in the development of food policies in Latin America and the Caribbean: a narrative review of the current literature

Vania Lara-Mejía^{1,2}, Ariadna Villalobos-Pérez^{1,2}, Lizbeth Tolentino-Mayo^{1,2*}, Florence L. Théodore², Yatziri Ayvar-Gama² and Simón Barquera²

Abstract

Background In Latin America and the Caribbean (LAC), the commercial interests of the food industry dominate the food environment, jeopardising current efforts to improve the health and nutrition of the population. This study aims to document action strategies, mechanisms and practices (ASMP) of corporate political activity (CPA) employed by the food industry to obstruct public health, food, and nutrition policies in LAC countries. A narrative review was conducted based on publicly available data sources from scientific and grey literature across the 33 countries in the LAC region. Data were collected on the food industry's CPA within the health, food and nutrition policy cycle. For the analysis, the framework developed by Ulucanlar et al. (2023) to categorise ASMP of CPA, together with the policy cycle model proposed by Knill and Tosun (2008), was applied.

Results Documents published from January 2018 to October 2024 were examined using search strategies across multiple databases and citation tracking. In total, 76 documents from 24 countries in LAC were included in the analysis. The majority of documents originated from Mexico (n=22, 28.9%) and Brazil (n=12, 15.8%), with a notable concentration published in 2022. Front-of-pack food labelling and taxation of sugar-sweetened beverages were the policies with the most documented CPA evidence. The most frequently identified action strategy was *accessing and influencing policy making* (n=69, 90.8%), primarily in the policy cycle *formulation*, *adoption* and *implementation* phases. While the CPA mechanisms and practices varied by country, more than 900 examples of practices were documented throughout the review.

Conclusions Despite the limited availability of public information in LAC -particularly in Central America and the Caribbean- this review identified a broad range of ASMP used to influence health, food and nutrition policy processes. These findings highlight the need for a multifaceted response to counteract the harmful effects of the food industry's influence in the LAC region and underscore the urgency of safeguarding public health. Establishing robust legal frameworks to regulate conflicts of interest and to ensure greater transparency throughout the policy cycle are critical steps toward creating healthier food environments across the region.

Keywords Latin America and the Caribbean, Corporate Political Activity, Food Industry, Non-communicable Diseases, Food Policy, Ultra-processed Products

*Correspondence: Lizbeth Tolentino-Mayo mltolentino@insp.mx Full list of author information is available at the end of the article



Background

The globalisation of food systems has led to significant changes in the production, distribution, marketing and consumption of food [1-3]. This has led to changes in dietary patterns worldwide, mainly due to the increased availability, accessibility and variety of ultra-processed products (UPPs) [4]. UPPs are characterised by the use of industrial ingredients and additives (e.g., high-fructose corn syrup, maltodextrin, artificial flavourings or colourings, among others) and high amounts of sugars, saturated fats, trans fatty acids and sodium. Moreover, UPPs typically contain reduced amounts of protein, dietary fibre and micronutrients [5]. For this reason, their consumption has been associated with a higher incidence of obesity and other chronic non-communicable diseases (NCDs), such as cardiovascular diseases, type 2 diabetes and certain types of cancer [6].

Global analyses of UPPs sales and consumption patterns indicate a shift towards an increasingly ultraprocessed diet [4, 7]. This transformation has been especially notable in the Latin American and Caribbean (LAC) region, where transnational food and beverage corporations'concentration of resources and capital has coincided with LAC governments prioritising exports with a consequent decline in small producers [3]. Furthermore, the dominant political, economic, and commercial policies (e.g., the Central America-Dominican Republic Free Trade Agreement (CAFTA-DR) [8] and the Pacific Alliance) [9] have enabled these corporations the freedom to expand internationally and exert control over the food environments in the region [10]. According to data from the Pan American Health Organization (PAHO), between 2000 and 2013, sales of UPPs increased by 26.7%, and the purchase of fast food increased by 38.9% across all countries in LAC, except for Argentina [11]. The consumption of UPPs has displaced natural and fresh foods, causing excess consumption of critical nutrients (e.g., sugar, salt, fat and sodium). Available data estimate that between 49.3% and 65.5% of the population in countries such as Mexico, Uruguay, Argentina, Colombia, Chile, and Brazil exceed the internationally recommended limits for sugar intake [12]. Similarly, in these countries, the prevalence of excessive total fat consumption ranges from 39.9% to 65.5% [12]. Given this scenario, several LAC countries have implemented public policies, considered by the World Health Organization (WHO) as the most cost-effective policy interventions to reduce NCDs, designed to reduce the sales and/or consumption of UPPs [13, 14].

Among the policies implemented are, for example, economic and fiscal measures such as the taxation of sugar-sweetened beverages [15] and UPPs [16, 17]; the front-of-package nutrition labelling (FOPNL) [18]; the

regulation of advertising directed at children and adolescents [19]; and the regulation of school environments [16, 20]. Recent evidence has shown that, to expand its market and protect its commercial interests, the food industry has interfered with the legal frameworks and policy environments of countries and international organisations (e.g., the WHO, the United Nations (UN), and the World Trade Organization (WTO)) through the use of practices, mechanisms and strategies known as "Corporate Political Activity" (CPA) [21].

The CPA in the food sector is a theoretical framework situated within the broader field of the Commercial Determinants of Health [14]. It seeks to analyse the influence exerted by food companies or corporations on health, food and nutrition public policies, in addition to public policy actors and decision-makers [22]. Through various strategies, they seek to ensure preferential treatment to avoid, shape, circumvent, or undermine public policies, delaying efforts to prevent and control NCDs and prioritising their interests to the detriment of the population's wellbeing [22]. This CPA is one of the main obstacles to reducing the burden of NCDs in LAC and the rest of the world [23].

In 2015, Mialon et al. [24] developed a model, adapted from the tobacco industry [25], to identify and monitor the CPA of the food industry toward public health policies. It has been applied in various parts of the world [26–29]. Subsequently, Ulucanlar et al. [21] updated and extended this model, providing a taxonomy for researchers to document, predict and counter strategies used by unhealthy commodity industries (UCIs). One key distinction in this model is the differentiation between "action strategies" and "framing strategies". In this study, we concentrate exclusively on "action strategies", which refer to corporations'concrete and observable actions to influence public policy.

The objective of this study is to document the action strategies, mechanisms, and practices of corporate political activity employed by the food industry to obstruct health, food and nutrition public policies at various stages of the policy cycle in Latin American and Caribbean countries between 2018 and 2024, using scientific evidence and grey literature.

Methods

A narrative review of publicly available information was conducted using secondary sources regarding the food industry's CPA action strategies employed against health, food and nutrition public policy. This review includes the policy areas of: (1) FOPNL; (2) taxation of sugar-sweetened beverages and/or energy-dense foods; (3) regulation of UPPs advertising; (4) regulation of healthy school environments; (5) regulation of trans fatty acids; and (6)

Table 1 Narrative review databases and inclusion criteria

Indicator	Description
Scientific and grey literature search platforms	Bibliographic databases (PubMed, LILACS, SciELO, Cochrane Library, and Dialnet), search platforms (EBSCOhost), publisher websites (Elsevier and Springer), and the journal PLOS Medicine. In addition, Google was used to identify grey literature (e.g., websites of civil society organisations, independent journalism websites, government institution websites and websites of UN system agencies)
Type of evidence	The type of evidence is "open" to allow the inclusion of different types of resources (e.g., qualitative, quantitative, mixed studies, reports and journalistic accounts) Conflicts of interest free documents describing food industry CPA action strategies in the health, food and nutrition policy cycle (e.g., taxation of sugar-sweetened beverages and/or energy-dense foods; regulation of UPP advertising; FOPNL; regulation of healthy school environments; and regulation of trans-fatty acids)
Key concepts	Food industry: In this review, we refer to the commercial ecosystem that includes manufacturers of ultra-processed foods and beverages, along with other co-dependent sectors and industries in the food supply chain (agri-business) that benefit from the proliferation of their products and the displacement of NOVA 1–3 groups (unprocessed or minimally processed foods, processed culinary ingredients, processed foods) in the human diet [30, 31]. Action strategies of CPA: Framework of action strategies used by the UPP industry to achieve results that lead to favourable policies, including the persuasion of policymakers, the public and other organisations. They are implemented through different mechanisms (tools) and practices (concrete actions) [21]. Mechanisms of CPA:Tools or specific resources that the food industry uses to influence the process of formulating and implementing public policy [21]. Practices of CPA:Specific actions that the food industry performs to implement the mechanisms of influence on public policies [21].
Setting	33 countries in LAC
Period	January 2018 to October 2024
Languages	Spanish, English and Portuguese
Access	Full-text article

CPA: corporate political activity; UPP: ultra-processed products; FOPNL: front-of-package nutrition labelling; LAC: Latin America and the Caribbean; UN: United Nations

other national food policies or programmes. The narrative review encompassed the 33 countries of LAC and included scientific and grey literature published between January 2018 and October 2024.

To identify relevant scientific literature, nine search platforms were consulted (Table 1). The keywords used were combined in various search algorithms in both Spanish and English, applying Boolean operators and [MeSH Terms] if applicable. In Spanish-language databases such as LILACS and SciELO, the following specific terms for each platform were used: "Commercial determinants of health", "Conflict of interest", "Food Industry interference", "Food regulation", "Legislation", "Food", "Food jurisprudence", "Food and beverages", "Corporate political activity", "Food Industry", "Food policy", "Food labelling", "Food taxes", "Food labelling", and "School environments". All search terms were combined with "Latin America" or "Caribbean". In addition, each term was explicitly combined with the 33 LAC countries. The comprehensive search string in English and Spanish is available in Additional File 1.

To identify grey literature, a review was conducted using the Google search engine for each of the 33 countries using the terms "corporate political activity", "food industry interference", "conflict of interest", "food policies" and the five previously mentioned health, food and nutrition public policies. In addition, 50 websites were

reviewed (e.g., civil society organisations, independent journalism, UN organisations, among others). A full list of the 50 websites reviewed, along with details of the search strategy, is provided in Additional File 1.

In addition, *backwards citation chaining* technique was used to include articles that the research team considered relevant. Studies recommended by regional experts were also included, broadening the selection of documents analysed in this study. These regional experts were identified through the research team's existing professional networks, as well as via the Latin American and Caribbean Nutrition and Health Community of Practice (COLANSA).

Inclusion and exclusion criteria

The inclusion and exclusion criteria were clearly defined to ensure an adequate selection of documents (Table 1). Initially, the review was limited to papers in English and Spanish; however, as some documents from Brazil were in Portuguese, this language was also considered.

The exclusion criteria for scientific studies and grey literature papers were as follows: (1) papers funded by the food industry; (2) papers with CPA strategies from other types of industries (e.g., tobacco, alcohol, gambling, commercial infant formula); and (3) papers for which the full text was not available.

Data collection

First, titles were screened, and duplicates were removed (AV-P, VL-M and YA-G). Next, the three researchers independently reviewed the abstracts of the articles for inclusion. Finally, the full texts of preselected articles were reviewed independently by the same three researchers to ensure that they met the inclusion and exclusion criteria. Discrepancies between researchers were resolved by consensus, unresolved cases were reviewed by a fourth reviewer (LT-M). During the title and abstract screening phase, inter-rater reliability was assessed to ensure consistency in the screening process [32]. The researchers achieved an inter-rater agreement of 82%.

A data extraction tool was then developed via Microsoft Excel spreadsheets to collect the information. The variables extracted included title, year, country, authors, study design (e.g., objective, methodology, primary results and conclusions), type of industry, food policy, phase of the policy cycle and CPA (e.g., strategies, mechanisms and action practices), with specific examples per practice. Before data extraction, an exercise was conducted in which 10% of the documents were independently coded by members of the research team (AV-P, VL-M and YA-G) [33]. The initial coding data were then compared and discussed to standardise the coding approach and ensure the accuracy and consistency of the information collected. Although only English and Spanish were considered for keywords, Portuguese documents were translated via an online translator (DeepL *Traductor*).

Data analysis

The data analysis was conducted by two members of the research team (AV-P and VL-M), using the "policy cycle model" proposed by Knill and Tosun (2008) [30], which includes five phases of the policy cycle: (1) agenda setting (processes through which attention is directed towards a particular public problem); (2) policy formulation (definition, discussion, acceptance or rejection of feasible courses of action for coping with policy problems); (3) policy adoption (formal adoption to take on a policy); (4) implementation (conversion of new laws and programmes into practice) and (5) monitoring and evaluation (asks of whether the output of a given public policy has attained the intended goals).

In addition, the CPA's"Taxonomy of Action Strategies", developed by Ulucanlar et al. [21], was used, considering their six action strategies of which four target the central domains of policymaking: (1) Access and influence policy formulation; (2) Use the law to obstruct policy; (3) Fabricate support for corporate positioning; (4) Model evidence to generate doubt. A fifth (5) Displace and usurp public health, targets how public health can be shaped to

corporate interests. And the last, (6) *Manage corporate reputations*, permeates and facilitates all the others. Each strategy has its own mechanisms and practices [see Additional File 2]. Although each strategy is categorised separately, they may overlap and work synergistically.

It should be noted that, during the coding process, new practices were introduced, or existing ones modified as necessary. Based on our review, the taxonomy developed by Ulucanlar et al. [21] was adapted to incorporate the newly identified practices. The adaptation was conducted by three researchers (AV-P, VL-M, and YA-G), who reviewed and discussed the key elements of the original framework. Following extensive deliberation and thorough evaluation, consensus was reached on the modifications and new practices to be integrated into the taxonomy.

This paper presents illustrative examples of practices, each with an identifier of «Country, Type of Evidence, Year, ID -included in Additional File 3».

Results

Narrative review

The search provided an initial screening sample of 29,644 documents from search platforms (n=29,611) and grey literature (n=39). Following a title screening, 29,174 documents were excluded because they did not meet the inclusion criteria (Table 1). For example, documents dated outside the specified time period or including non-LAC countries were excluded. Among the 470 abstracts screened for eligibility, 353 were excluded for various reasons (e.g., documents with CPA strategies from other industries, documents without specified CPA strategies, documents with conflict of interest (COI), among others). As a result, 124 full-text documents were assessed, considering seven documents included by backwards citation chaining or by researchers'recommendation. Finally, 76 documents were included in the analysis, representing a range of different approaches (Fig. 1). The majority were scientific studies (n=45), followed by reports (n=18), investigative journalism reports (n=9), and institutional reports (n=4). The complete list of documents included in the narrative review is available in Additional File 3.

Among the 76 documents, 56 correspond to documents from a specific country, and 20 correspond to multi-country documents. In general, 24 countries were identified, 15 of which were from Latin America (Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru and Uruguay) and nine from the Caribbean (Barbados, Bahamas, Belize, Bermuda, Cuba, Dominican Republic, Grenada, Jamaica and Trinidad and Tobago). Importantly, all the documents involving a Caribbean country or a specific country in Central America

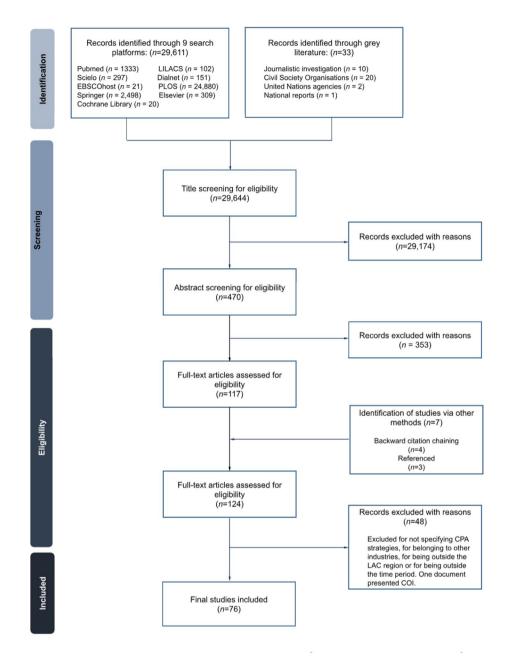


Fig. 1 Flow diagram of document review on Food Industry CPA in Latin America and the Caribbean

(Costa Rica, El Salvador, Guatemala, Honduras and Panama) were multi-country studies (n=4, 5.3% and n=6, 7.9%, respectively). The countries with the most significant number of documents identified in this review were Mexico (n=22, 28.9%) and Brazil (n=12, 15.8%). Figure 2 shows a heatmap with the number of documents included for each country in the LAC region.

With respect to the year of publication, from 2020 onwards, there was a notable increase in the dissemination of evidence on the CPA of the food industry in

public health, food and nutrition public policies. The year with the highest number of published papers was 2022 (n=18, 23.7%), while the year with the lowest number was 2019 (n=6, 7.9%).

Evidence of action strategies, practices and mechanisms of corporate political activity by health, food and nutrition public policies in Latin America and Caribbean countries More than half of the documents included in the review described CPA strategies related to the FOPNL policy



Fig. 2 Latin American and Caribbean countries with evidence of food industry CPA from 2018 to 2024. No evidence (grey): a country with no evidence; Very Low (light blue): a country with 1–5 documents; Low (sky blue): a country with 6–10 documents; Moderate (azure blue): a country with 11–15 documents; High (cobalt blue): a country with 16–20 documents; and Very High (navy blue): a country with more than 21 documents. Own elaboration

(n=49, 64.5%). Conversely, a smaller proportion of documents concerning the taxation of sugar-sweetened beverages and/or energy-dense foods (n=29, 38.2%), regulation of UPPs advertising (n=21, 27.6%) and the regulation of healthy school environments (n=18, 23.7%) were identified. Notably, only one study from Peru documented the regulation of trans fatty acids (1.32%) [30]. A total of ten documents addressed other types of policies, such as interference by large agribusiness corporations (n=2, 2.6%) and national programmes aimed at reducing malnutrition (n=2, 2.6%) or sodium intake (n=1, 1.3%). The rest of the

documents did not mention a specific policy (n=5, 6.6%) (Fig. 3).

Notably, the practices of making threats (S1M1P2), lobbying the executive (S1M2P8), lobbying the legislature (S1M2P9), marginalising unfavourable evidence (S4M12P31), participating at scientific events (S4M14P40), diverting attention to secondary issues (S5M16P43) and providing public education (S5M18P45) were identified in all subregions and countries' documents related to FOPNL (Fig. 3).

As previously mentioned, the most widely documented policy across all subregions and countries was related

to FOPNL. Mexico has the most extensive evidence of industry interference in this policy, with documented instances of all CPA action practices, except for *lobbying municipal or state governments* (S1M2P55) and *accessing media through financial ties and relationships* (S3M11P27) (Fig. 3). For example, in November 2019, Nestlé's CEO sent a letter urging its suppliers to mobilize against the FOPNL and send letters to the Mexican government officials to "intervene" in the process (S3M7P21) [34].

Concerning the taxation policy on sugar-sweetened beverages and/or energy-dense foods, Brazil was the country with the greatest variety of CPA practices on this policy, documenting all mechanisms, except for *managing policy venues* (S1M3) and *undermining the rationale for statutory policies on corporate practices* (S5M15) (Fig. 3). In contrast, Ecuador had the least documentation available on this policy. With respect to healthy school environment policy, Brazil again stands out for documenting a greater number of practices related to this policy identified in the reviewed documents. However, in Colombia, Uruguay and Ecuador, there is no evidence that CPA practices are associated with this policy.

With respect to policies regulating UPPs advertising, Mexico has documented the highest cases of CPA interference by the food industry. However, corporate influence on this policy has also been reported across all subregions and countries. Specifically, documented practices include making threats (S1M1P2), lobbying the executive and legislative (S1M2P8 and S1M2P9), marginalising unfavourable evidence (S4M12P31), participating at scientific events (S4M14P40), diverting attention to secondary issues (S5M16P43) and providing public education (S5M18P45) (Fig. 3). Regarding making threatspractice (S1M1P2), in Peru the Law N° 30,021 (enacted in 2013 and including the regulation of UPPs advertising) generated strong opposition from industry and the media due to the potential economic losses it would cause and led to discussions with members of Congress from various parties to block the proposal [35].

Notably, regarding food production policies (e.g., Federal Law for the Promotion and Protection of Native Corn, General Health Law on Pesticides, among others), Mexico is the only country with documented CPAs

in this area, and all six strategies have been identified. In contrast, for national programmes aimed at preventing malnutrition or reducing sodium consumption, CPA practices have been documented in Argentina, Ecuador, Brazil, Costa Rica, Paraguay and Peru, primarily through the strategies of accessing and influencing policymaking (S1) and manufacturing public support for corporate positions (S3) (Fig. 3).

In terms of health, food and nutrition public policies based on the policy cycle, the policy adoption phase (Phase 3) was the most thoroughly documented phase in the FOPNL and the regulation of UPPs advertising. Conversely, in the taxation of sugar-sweetened beverage and/ or energy-dense food policies, the regulation of healthy school environments, national programmes and food production policies, the policy implementation phase (Phase 4) was the most prevalent. Less evidence was identified for the monitoring and evaluation phase (Phase 5), with only five documents: two on FOPNL, two on the taxation of sugar-sweetened beverages and/or energydense food policy and one on the regulation of UPPs advertising policy. Figure 3 presents a comprehensive overview of health, food and nutrition public policies by LAC country, categorised according to action strategies, mechanisms and practices (ASMP) of CPA.

Evidence of CPA strategies, practices and mechanisms of corporate political activity by country in the Latin America and Caribbean and policy cycle

Regarding the CPA of the food industry in the five phases of the policy cycle, it was determined that there is a greater volume of evidence in the phases of *policy adoption* (Phase 3: n=32, 42.1%), *policy formulation* (Phase 2: n=27, 35.5%) and *policy implementation* (Phase 4: n=25, 32.9%) of public health, food and nutrition public policies. For example, all four documents from the Caribbean evidenced the CPA of the food industry in the *policy adoption* phase (Phase 2). In contrast, less evidence was identified for *the agenda-setting* phase (Phase 1: n=14, 18.4%) and the *monitoring and evaluation* phase (Phase 5: n=3, 3.9%). The three documents identified in the *monitoring and evaluation* phase (Phase 5) belonged to Mexico, Uruguay and Brazil. Eleven documents (14.5%)

(See figure on next page.)

Fig. 3 Food industry corporate political activity in LAC based on health, food and nutrition policies (2018–2024). *Additional practices included in the taxonomy: 1. Other policies and national programmes include policies to reduce sodium intake, trans fatty acid regulation, food production and national food programmes focused on childhood malnutrition. 2. Countries belonging to "LAC" in the multi-country documents: Argentina, Barbados, Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Panama, Paraguay, Peru, Trinidad and Tobago and Uruguay. 3. Countries belonging to "LAT" in the multi-country documents: Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panamá, Paraguay, Peru and Uruguay. 4. Countries included in the Caribbean documents: Bahamas, Belize, Bermuda, Trinidad and Tobago, Jamaica and Grenada. Own elaboration, adapted from Ulucanlar et al. (2023)

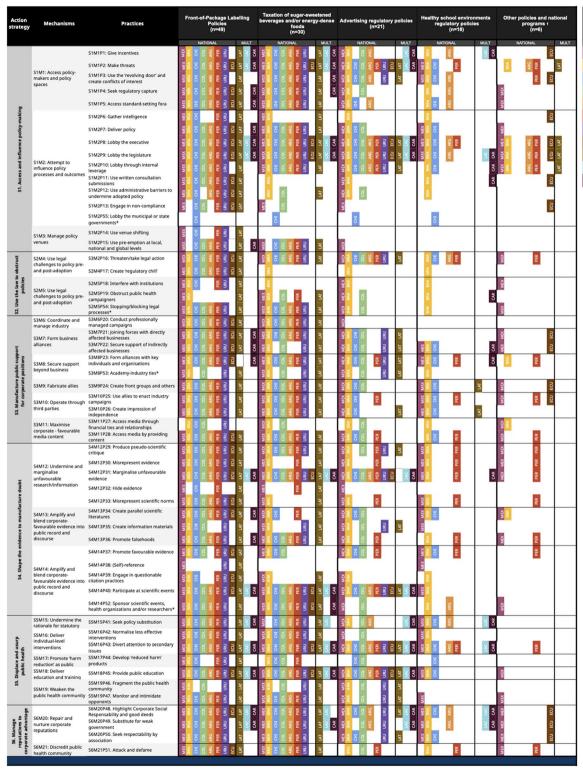


Fig. 3 (See legend on previous page.)

did not refer to a particular policy cycle phase or consider exclusively on one type of CPA strategy.

In terms of CPA action strategies in LAC countries, accessing and influencing policy making (S1) was the most frequently identified strategy in the documents included in this review (n=69, 90.7%), especially in Argentina, Brazil, Colombia, Ecuador, Mexico, Peru, Uruguay and the Caribbean (Table 2). However, despite the consensus on the action strategy, the most frequently reported mechanisms and practices differ across subregions and countries. In Brazil, Colombia, Mexico and Peru, the most reported mechanism was attempting to influence policy processes and outcomes (S1M2) through the practices of lobbying the executive (S1M2P8) and lobbying the legislature (S1M2P9). For example, throughout the process of approving and regulating the Law for the Promotion of Healthy Eating for Children and Adolescents in Peru, it was necessary to face opposition from interest groups and lobbies linked to the industry sector, which sought to influence discussions and decision-making in the executive and legislative branches and which also operated at the level of the media and through civil organisations [36].

In contrast, in Mexico, Argentina, Ecuador and Uruguay, the food industry gained access to and influenced policymaking by accessing policymakers and policy spaces (S1M1) through practices such as making threats (S1M1P2). For example, to intimidate legislators in Uruguay, food industry representatives stated that the FOPNL regulations would lead to job losses and price increases due to reduced sales and higher costs [106]. Additionally, the practice of using the revolving door and creating conflict of interest (S1M1P3) was evident in Mexico, where Patricio Caso, the government official responsible for the controversial Guideline Daily Amount (GDA) labelling promoted by the food industry, is now working as a senior manager at Coca-Cola Mexico [94]. These examples highlight how these two practices are employed to access and influence policymaking in LACs.

Although the mechanism of *managing policy venues* (S1M3) was not the most common (n=9, 9.2%), the practice of *using the pre-emption at local, national and global levels* (S1M3P15) was documented, primarily in Latin America (LATAM). An example of this can be seen in countries such as Argentina, Brazil, Paraguay and Uruguay, where the food industry used the Mercosur (a regional trade bloc in South America) as a convenient excuse to delay discussions on FOPNL, arguing the need to "harmonise" labelling standards at the regional level [39]. Finally, one study documented an example of the practice of using venue shifting (S1M3P14), which occurs when corporate actors ensure legislation occurs in regulatory jurisdictions more favourable to them. This

practice was reported in Peru, where there was a clear contrast between the space granted to the food industry and the opportunities provided to advocates during the discussions on the initiative for the Law of Promotion of Healthy Eating for Children and Adolescents [45].

The second most evidenced strategy was manufacturing public support for corporate positions (S3), with 56 documents (73.7%), primarily in Brazil, the Caribbean, Chile, Ecuador and Mexico. The mechanisms commonly employed were forming business alliances (S3M7), securing support beyond business (S3M8), fabricating allies (S3M9) and working through third parties (S3M10). Among these mechanisms, the one related to securing support was one of the most thoroughly documented, mainly through the practice of forming alliances with key individuals and organisations (S3M8P23). Brazil serves as a notable example, where the food industry partnered with universities and research institutes to create a platform called "Processed Foods", which aimed to "offer a more comprehensive view of the food and beverage industry, in contrast to a vast amount of myths and prejudice that have been spread". [69] This example illustrates how the food industry successfully secured the support of experts and scientific groups in various contexts, ensuring ownership and control over its allies.

Importantly, the practice of *creating front groups* and others (S3M9P24) was one of the most common within the strategy related to manufacturing public support for corporate positions (S3: n=27, 35.5%), especially in Mexico (n=15, 55.6%). In this country, the case of the Mexican Observatory on Non-communicable Diseases (OMENT in Spanish) stands out. The OMENT was a Nestlé-funded research organisation that monitored obesity and diabetes, including the effects of the sugar-sweetened beverage tax, with representatives from the food and beverage industry on its Advisory Council [83].

The strategies corresponding to shaping the evidence to manufacture doubt (S4), displacing and usurping public health (S5) and managing reputations to corporate advantage (S6) were the least documented. However, the mechanisms of undermining and marginalising unfavourable research/information (S4M12) and producing or sponsoring favourable research/information (S4M13) were identified in more than half of the documents included in the review (n = 40, 52.6%) through the practices of misrepresenting evidence (S4M12P30) and creating parallel scientific literatures (S4M13P34). For example, in Mexico, the National Association of Soft Drink and Carbonated Water Producers(ANPRAC in Spanish) paid approximately 93 thousand dollars to the College of Mexico to carry out a study on the taxation of sugar-sweetened beverages that Mexico implemented

 Table 2
 Main CPA results and examples from the food industry by country and policy cycle

Country	# Documents	Policy cycle phase Phase 1: agenda setting Phase 2: policy formulation Phase 3: policy adoption Phase 4: policy implementation Phase 5: policy monitoring and evaluation	Corporate Political Activity (CPA) Action Strategies Taxonomy			
			Strategies (n, %)	Mechanisms (n, %)	Practices (n, %)	Example of practices identified in the review documents ¹
Multi-country documents (n	= 20)					
Latin America & The Caribbean (LAC) ²	SL: 3 [20, 37, 38] GL: 0	Phase 2 Phase 4	\$5 : Displace and usurp public health (2, 66.7%)	S5M16: Deliver individual-level interventions (2, 66.7%)	S5M16P43 : Divert attention to secondary issues (2, 66.7%)	SSM16P43: " The UPPs industry claimed to be part of the solution in the NCD epidemic [in the LAC region]. There was a strong emphasis on physical activity to maintain good health, while the role of UPPs, central to the activities of food companies, was seldom mentioned" (SL, 2019, IDO1)
Latin America (LATAM) ³	SL: 6 [39–44] GL: 7 [45–51]	Phase 3	S1 : Access and influence policymaking (12, 92.3%)	S1M1: Access policymakers and policy spaces (10, 77.0%)	S1M1P2: Make threats (7, 53.8%)	S1M1P2-Uruguay: "These measures [FOPNL] imply an increase in product marketing costs, which 'ends up resulting in restrictions and price increases to the detriment of the consumers themselves"" (GL, 2023, ID60)
The Caribbean ⁴	SL: 0 GL: 4 [52–55]	Phase 2	\$1 : Access and influence policymaking (4, 100.0%)	S1M3: Manage policy venues (2, 50.0%)	S1M3P15 : Use pre-emption at local, national and global levels (2, 50.0%)	S1M3P15: "While the food and beverage industry has supported Front-of-pack nutrition labelling broadly, it has challenged the adoption of the octagonal 'high-in' warning labels and has mobilised in opposition to the regional standard, wielding significant influence at the regional and national levels" (GL, 2024, ID68)
			53: Manufacture public support for corporate positions (3, 75.0%)	S3M7: Form business alliances (2,50.0%)	53M7P21: Joining forces with directly affected businesses (2, 50.0%)	S3M7P21: "The Caribbean Private Sector Organisation features on its 12-member executive, the heads of 9 regional business entities with major interests in the Caribbean food sector— among them the leading supermarket chain in five Caribbean territories, the leading independent brewer of the Carib- bean, multiple distributors representing thousands of brands and products including Coca-Cola, Sprite, Welch's, Min- ute Maid, Hawaiian Punch, General Mills, Unilever, Nestle, Kellogg's, Lipton, Charles Chocolates" (GL, 2024, ID62)
Country documents ($n = 56$)						
Argentina	SL: 1 [56] GL: 3 [57–59]	Phase 3	51 : Access and influence policymaking (4, 100.0%)	S1M1: Access policymakers and policy spaces (4, 100.0%)	S1M1P3: Use the revolving door and create conflict of interest (2, 50.0%)	S1M1P3: "Following the half-sanction of the bill in the Senate, the bill was assigned for consideration by an unusually high number of commissions within the Chamber of Deputies, a strategy advocates identified as one motivated by conflict of interest held by the president of the Chamber of Deputies to hinder the passage of the bill" (SL, 2024, ID43)

 Table 2 (continued)

Country	# Documents	Policy cycle phase Phase 1: agenda setting Phase 2: policy formulation Phase 3: policy adoption Phase 4: policy implementation Phase 5: policy monitoring and evaluation	Corporate Political Activity (CPA) Action Strategies Taxonomy				
			Strategies (n, %)	Mechanisms (n, %)	Practices (n, %)	Example of practices identified in the review documents ¹	
Brazil	SL: 9 [60–68] GL: 3 [69–71]	Phase 3 Phase 4	51 : Access and influence policymaking (10, 83.3%)	S1M2: Attempt to influence policy processes and out- comes (8, 66.7%)	51M2P8: Lobby the executive (8, 66.7%) 51M2P9: Lobby the legislature (8, 66.7%)	S1M2P8: " ABIA (Brazilian Association of the Food Industry) pressured former President Michel Temer on the need to oppose frontal nutritional labelling warning, supporting the nomination of William Dib for director-president of Anvisa. Dib, as soon as he took office, made statements in the press favourable to traffic light labelling, which was Big Food's proposal and took a stand against the warnings" (GL, 2022, IDS9) S1M2P9: " There were also meetings between the National Council of Advertising Self-Regulation of Brazil (CONAR), the Brazilian Food Industry Association of Soft Drink and Non-alcoholic Beverage Industries (ABIR) and the Minister of Health and the Executive Chief of Staff, in addition to mobilisation of some legislators to lobby the National Health Surveillance Agency of Brazil (ANVISA) and interrupt the regulatory process" (GL, 2022, ID36)	
			S3: Manufacture public support for corporate positions (9, 75.0%)	S3M8: Secure support beyond business (7, 58.3%)	S3M8P23: Form alliances with key individuals and organisations (7, 58.3%)	S3M8P23: " Association between a food industry and an internationally recognised chef and promoter of a 'global movement to promote healthy food' to implement a 'food education Project' in public and private schools in Brazil" (SL, 2021, ID42)	
Chile	SL: 5 [72–76] GL: 0	Phase 4	S3: Manufacture public support for corporate positions (5, 100.0%)	S3M8 : Secure support beyond business (3, 60.0%)	S3M8P23: Form alliances with key individuals and organisations (3, 60.0%)	S3M8P23: " Such interpretation was likely reinforced by concordant opinions of prominent Chilean constitutional and intellectual property lawyers, some of whom submitted legal expert opinions supporting the industry's case" (SL, 2022, ID26)	
Colombia	SL: 4 [77–80] GL: 1 [81]	Phase 3	S1: Access and influence policymaking (5, 100.0%)	S1M1: Access policymakers and policy spaces (5, 100.0%) S1M2: Attempt to influence policy processes and outcomes (5, 100.0%)	S1M1P1: Give incentives (4, 80.0%) S1M2P8: Lobby the executive (4, 80.0%) S1M2P9: Lobby the legislature (4, 80.0%) S1M2P10: Lobby through internal leverage (4, 80.0%)	S1M1P1: "The President of Colombia, for example, declared receiving the equivalent of US\$148,000 from the sugar-sweetened beverages industry during his election campaign in 2018" (SL, 2020, ID16) S1M2P8 & S1M2P9: "They [Food industry] enter the congress and go everywhere without any legal authorisation; then they get into the organisation of the plenary's agenda, help break the quorum of the plenaries, pass proposals to be signed by someone to block, to file bills, to change the articles of the bills. They get into the whole parliamentary process irregularly" (SL, 2020, ID16) S1M2P10: "Some government agencies, such as the Ministry of Commerce, the Ministry of Agriculture and the National Institute for Food and Drug Surveillance, also lobbied alongside the food industry, including through the use of the revolving door, where former industry members eventually work in the government (or the opposite)" (SL, 2021, ID24)	

 Table 2 (continued)

# Documents	Policy cycle phase Phase 1: agenda setting Phase 2: policy formulation Phase 3: policy adoption Phase 4: policy implementation Phase 5: policy monitoring and evaluation	Corporate Political Activity (CPA) Action Strategies Taxonomy				
		Strategies (n, %)	Mechanisms (n, %)	Practices (n, %)	Example of practices identified in the review documents ¹	
SL: 1 [82] GL: 0	Several phases	51 : Access and influence policymaking (1, 100.0%)	S1M1: Access policymakers and policy spaces (1, 100.0%)	S1M1P3: Use the 'revolving door' and create conflict of interest (1, 100.0%)	S1M1P3: " Cases in which executives switch between government and industry positions are not unusual. Even in high-income countries, there are few obstacles to repeatedly crossing these borders, often at a high level, between the public and private sectors, many of them acting with clear conflict of interest. Closely related, lobbying and revolving door politics are probably a form of political corruption" (CL, 2024, ID29)	
		S3: Manufacture public support for corporate positions (1, 100.0%)	S3M9 : Fabricate allies (1, 100.0%)	S3M9P24: Create front groups and oth- ers (1, 100.0%)	S3M9P24, S6M20P48, S6M20P50: "Through its nonprofit (Fundación Favorita in Spanish) registered in June of 2021, Corporación Favorita partnered in early 2023 with the UN agency World	
		56 : Manage reputations to corporate advantage (1, 100.0%)	S6M20 : Repair and nurture corporate reputations (1, 100.0%)	S6M20P48: Highlight Corporate Social Responsibility and good deeds (1, 100.0%) S6M20P50: Seek respectability by asso- ciation (1, 100.0%)	Food Programme to promote the purchase of processed foods in its own supermarket chain [] also outreach events were organised by Corporación Favorita in partnership with World Vision for pregnant women and mothers and with Tonicorp (owned by Coca-Cola) for families" (CL, 2024, ID29)	
SL: 12 [34, 83–93] GL: 10 [94–103]	Phase 4	S1: Access and influence policymaking (21, 95.5%)	S1M1: Access policymakers and policy spaces (19, 86.4%) S1M2: Attempt to influence policy processes and outcomes (19, 86.4%)	S1M1P3: Use the 'revolving door' and create conflict of interest (13, 59,1%) S1M2P8: Lobby the executive (14, 63,6%) S1M2P9: Lobby the legislature (16, 72.7%)	S1M1P3: "The Mexican Foundation for Health (Funsalud) has employed 19 high-profile former public officials since its founding, including five former health ministers. All of these actors were at Funsalud before taking up a post in the federal or state government; in some cases, such as that of Mercedes Juan, they held positions in both the public and private sectors. Mercedes Juan was the executive president of Funsalud from 2009 to 2012, a position she resigned from to become Secretary of Health" (SL, 2024, ID45) S1M2P8: " Days before the issue [taxation of sugar-sweetened beverages] was discussed in Congress, President Andrés Manuel López Obrador met privately with the Executive Chairman of Mexican Economic Development's (FEMSA in Spanish) Board of Directors, José Antonic Fernández Carbajal, who is called "El Diablo" (The Devil). Fernández Carbajal said publicly that he went to greet the president and they talked about "how we can help Mexico." Subsequently, a letter sent by the CEO to his executives was circulated in which he stated his intention to invest 61 billion 876 million pesos (3.232 billion dollars) and thereby create 41 thousand jobs" (GL, 2019, ID51) S1M2P9: " A few weeks ago, La Jornada newspaper published a photo of deputies from the ruling Morena party and the Democratic Revolutionary Party (PRD in Spanish) drinking with lobbyists after the chamber rejected the 20 percentax on sugary drinks, alcoholic beverages	
	SL: 1 [82] GL: 0 SL: 12 [34, 83–93]	Phase 1: agenda setting Phase 2: policy formulation Phase 3: policy adoption Phase 4: policy implementation Phase 5: policy monitoring and evaluation SL: 1 [82] GL: 0 Several phases SL: 12 Phase 4 [34, 83–93]	Phase 1: agenda setting Phase 2: policy formulation Phase 3: policy adoption Phase 4: policy implementation Phase 5: policy monitoring and evaluation SL: 1 [82] GL: 0 Several phases S1: Access and influence policymaking (1, 100.0%) S6: Manage reputations to corporate advantage (1, 100.0%) SL: 12 [34, 83–93] GL: 10 [94–103] Phase 4: policy for mulation S1: Access and influence positions (1, 100.0%) S6: Manage reputations to corporate advantage (1, 100.0%)	Phase 1: agenda setting Phase 2: policy formulation Phase 3: policy adoption Phase 4: policy implementation Phase 5: policy molitoring and evaluation SL: 1 [82] GL: 0 Several phases S1: Access and influence policymaking (1, 100.0%) S3: Manufacture public support for corporate positions (1, 100.0%) S6: Manage reputations to corporate advantage (1, 100.0%) S6: Manage reputations (1, 100.0%) S7: Access and influence policymakers and policy spaces (19, 86.4%) S1: Maccess policymakers and policymakers a	Phase 1: agenda setting Phase 2: policy formulation Phase 3: policy adoption Phase 4: policy implementation Phase 5: policy monitoring and evaluation SL: 1 [82] Several phases S1: Access and influence policymaking (1, 100.0%) S2: Manufacture public support for corporate positions (1, 100.0%) S6: Manage reputations to corporate advantage (1, 100.0%) S6: Manage Reputations to corporate advantage (1, 100.0%) S1: Access and influence policymaking (21, 95.5%) S1: Access and influence policymaking (21, 95.5%) S1: Access and influence policymaking (21, 95.5%) S1: Access policymaking (31, 95.5%) S1M1: Access policymaking (31, 95.5%)	

Table 2 (continued)

Country	# Documents	Policy cycle phase Phase 1: agenda setting Phase 2: policy formulation Phase 3: policy adoption Phase 4: policy implementation Phase 5: policy monitoring and evaluation	Corporate Political Activity (CPA) Action Strategies Taxonomy			
			Strategies (n, %)	Mechanisms (n, %)	Practices (n, %)	Example of practices identified in the review documents ¹
			53: Manufacture public support for corporate positions (18, 81.8%)	S3M9 : Fabricate allies (15, 68.2%)	53M9P24 : Create front groups and others (15, 68.2%)	S3M9P24: " Several 'issue networks' and several 'policy communities' were created during the public discussion about the sugar-sweetened beverages tax before it was approved in the Fiscal Reform. [] For example, one group called Sweeten your Life (Endulza tu Vida) was sponsored by the sugar industry and tried to legitimise itself by including registered nutritionists in its leading team to give recommendations about sugar consumption" (SL, 2024, ID13)
Peru	SL: 2 [35, 104] GL: 2 [36, 105]	Phase 2	S1 : Access and influence policymaking (3, 75.0%)	51M2: Attempt to influence policy processes and outcomes (3, 75.0%)	S1M2P8: Lobby the executive (2, 50.0%) S1M2P9: Lobby the legislature (2, 50.0%)	S1M2P8 & S1M2P9: "Throughout the process of approval and regulation of the Law, it was necessary to face the opposition of interest groups and lobbies linked to part of the business sector, which sought to influence discussions and decision-making in the Executive and Legislative branches and which also operated at the level of the media and through civil organisations" (GL, 2021, ID73)
			S5 : Displace and usurp public health (3, 75.0%)	\$5M17 : Promote 'harm reduction' as a public health goal (2, 50.0%)	S5M17P44 : Develop 'reduced harm' prod- ucts (2, 50.0%)	S5M17P44: " A large Peruvian company of dairy products was sanctioned for advertising a product named "Pura Vida" as milk when it was a beverage made of mik when it well be products" (SL, 2023, ID38)
Uruguay	SL: 2 [106, 107] GL: 1 [108]	Phase 2	S1 : Access and influence policymaking (3, 100.0%)	S1M1: Access policymakers and policy spaces (3, 100.0%)	S1M1P2: Make threats (3, 100.0%)	S1M1P2: "The industry also emphasised the negative economic impact of the front-labelling decree, stating that it would harm international trade, increase prices due to its high implementation costs and reduce sales in the Uruguayan market" (SL, 2020, ID18)
			54: Shape evidence to manufacture doubt (3, 100.0%)	S4M12: Undermine and marginalise unfavourable research/information (3, 100.0%)	S4M12P31: Marginalise unfavourable evidence (3, 100.0%)	S4M12P31: " They also questioned the efficacy of the policy to encourage changes in eating habits (e.g., 'The industry is 100% in agreement with providing information to consumers about which are the foods that help to achieve an adequate diet and the maintenance of good health. However, it does not agree on the use of a black octagon because it tends to stigmatise some foods and can lead to demonising a flagship brand. It can scare more than it educates)" (SL, 2021, ID30)

For more details, consult Additional file 3

FOPNL Front-of-Package Nutrition Labelling, UPP Ultra-processed Products, NCD Chronic Non-communicable Diseases, SL Scientific Literature, GL Grey Literature

 $^{^{\}rm 1}\,$ Some examples of practices have been translated from Spanish to English

² The countries included in the LAC documents are as follows: Argentina, Barbados, Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Panama, Paraguay, Peru, Trinidad and Tobago and Uruguay

³ The countries included in the LATAM documents are as follows: Peru, Mexico, Brazil, Chile, Uruguay, Colombia, Argentina, Ecuador, Bolivia, Costa Rica, Panamá, Guatemala and Paraguay

⁴ The countries included in the Caribbean documents are as follows: Bahamas, Belize, Bermuda, Trinidad and Tobago, Jamaica and Grenada

in 2014. The contract included terms that granted the ANPRAC the right to supervise and review the research progress [95].

Finally, the strategy of *using the law to obstruct policies* (S2) was mainly documented with the practice of *threatening/taking legal action* (S2M4P16: n=28, 36.9%). In Chile, the *National Advertisers Association* (NAA), whose membership list includes multinational food industry companies such as Coca-Cola, Unilever and Nestlé, emphasises that the restrictions contained in the Food Act bill would violate Article 19 of the Chilean Constitution, which protects the freedom to express opinions and to inform, without previous censorship, in any form and by any means [72].

In summary, more than 900 examples of CPA practices were documented throughout the review. All practices were identified at least twice across the entire set of documents, although not necessarily in every document. Table 2 shows the key results by country, highlighting the most prominent policy phase identified, along with the main CPA strategies, mechanisms and practices reported by the food industry, accompanied by illustrative examples.

New practices found in the documents included in the review

No new strategies or mechanisms were introduced; however, four additional practices were included: *sponsoring scientific events, health organisations and/or researchers* (S4M14P52); *academic capture through direct contract* (S3M8P53); *blocking/obstructing legal processes* (S2M5P54); and *lobbying municipal or state government* (S1M2P55). The detailed definitions of these new practices can be found in Additional File 2.

The most frequently reported new practice was *sponsoring scientific events, health organisations and/or researchers* (S4M14P52: n=14, 18.4%), enabling the food industry to position its priorities on the public health and education agenda, particularly in Mexico, Colombia, Argentina and Chile. This is illustrated by cases such as Nestlé, which, since 2005, has funded a nutritional research prize in partnership with the Chilean Nutrition Society [73]; or Panama, where the food industry has also provided scholarships and awards for primary, secondary and university schools through the Castillo Foundation, which is linked to the beverage industry [40].

The other three new practices were found in minor proportions. The practice of *blocking/obstructing legal processes* (S2M5P54) was identified in Mexico, Brazil, Colombia, and LATAM more broadly. The following are two illustrative examples drawn from different countries. In early 2020, Mexico's food industry chambers of commerce successfully filed a motion to suspend

FOPNL regulation, declaring themselves "forced to take legal action", thereby paralysing its publication. However, the suspension was subsequently revoked, prompting a substantial increase in appeals from food industry companies and prestigious law firms, orchestrating an enormous legal force against the FOPNL [94]. In Chile, Pepsico, Carozzi and Kellogg's took the Chilean Treasury to court, arguing that products such as Cheetos and Gatolate could not be banned because they were not advertisements for children but rather elements that constituted the identity of the brands [45].

The practice of *academic capture through direct* contract(S3M8P53) was identified in Brazil, Colombia and LATAM (n=4, 5.3%), as demonstrated in Colombia, where the board members of the International Life Science Institute (-ILSI- a front group of the food industry to influence health policies) included a retired professor from the National University of Colombia and the Pontificia Universidad Javeriana [77].

Finally, the practice of *lobbying the municipal or state government*(S1M2P55) was evidenced only in Chile (n=1, 1.3%) but several times. In this country, the municipal or local authorities were frequently lobbied, particularly in locations where the food industry companies had factories or distribution centres [74].

Discussion

This study uses publicly available information to examine the ASMP defined in the food industry's CPA action taxonomy in LAC countries. According to this review, which included 76 documents, the FOPNL was the most frequently targeted policy area, reflecting the food industry's strategic efforts to obstruct or weaken regulatory measures aimed at improving public health. Our study also revealed that, particularly in Brazil and Mexico, the industry employed multiple practices to influence health, food and nutrition public policies. According to our perspective, the presence of well-established and well-funded research centres (e.g., NUPENS -Núcleo de Pesquisas Epidemiológicas em Nutrição e Saúde- in Brazil) [109] and advocacy groups (e.g., ASA -Alianza por la Salud Alimentaria—in Mexico) [110], both with strong international networks and recognition, has played a key role in facilitating the coordination and advancement of research and advocacy efforts to address CPA.

As of 2022, we observed a growing body of evidence on CPAs by food industry. This trend may be associated with regional efforts in LAC to promote policy environments free from commercial interests. Notably, the XVIII Latin American Congress of Nutrition (SLAN 2018) was held, for the first time, without financial sponsorship from the food industry and required COI declarations from all participants, setting an ethical precedent in the

region [111]. Similarly, the launch of the Nutricia Code in 2020 contributed to increased awareness and commitment within the nutrition and public health communities to operate transparently and ethically in the presence of a potential COI [112]. These initiatives may have fostered a more enabling environment for independent research and advocacy, as reflected in the increased production of related documents in subsequent years.

Corporate influence is continuously evolving and, as noted by Ulucanlar et al. [21], may require updates as new evidence emerges. In this study, four new practices were identified: sponsoring scientific events, health organisations and/or researchers (S4M14P52); academic capture through direct contract (S3M8P53); blocking/ obstructing legal processes (S2M5P54); and lobbying the municipal or state government (S1M2P55). The practice of lobbying the municipal or state government(S1M2P55) was identified only in Chile [74]. This was done through a significant number of meetings focused on presenting the food industry as "good actors", highlighting their role in the economy and the social fabric (e.g., Nestlé presenting a new plant together with projects to support the local community) [74]. The fact that this practice has been identified in only one document may be due to bias in the studies themselves, which do not concentrate on the municipal or local level. This level of influence is also used by the tobacco industry [113]. For example, a study in Colombia [114] revealed that they lobbied local governments to deprioritise regulatory responses to the sale of single cigarettes. Overall, this type of practice illustrates how UCIs exert their influence at various levels of the policy development process.

Similarly, in this review, examples of all CPA action strategies were identified and documented, reinforcing previous work that has pointed out how UCIs (e.g., tobacco alcohol and fossil fuels) use similar *playbooks*to undermine public health efforts in different countries [25, 31, 115–117]. Specifically, by accessing and influencing policymaking (S1) and manufacturing public support for corporate positions (S3) (90.8% and 75.0%, respectively). These findings show that the food industry adopts similar strategies in different regional countries to create a favourable regulatory environment for the sale and marketing of its products.

When talking about the NCD epidemic, the food industry claimed to be part of the solution. However, it focused its interventions in programmes or activities on individual issues, for example, promoting physical activity and education on healthy eating habits (S5M16P43: *divert attention to secondary issues*), instead of improving food environments, leaving aside the role of UPPs as the main risk factor in the incidence of diet-related NCDs [118]. Another action identified

was distributing educational material and organising sporting or scientific events through ties with public health professionals, universities and public officials.

Similarly, the food industry not only establishes ties with researchers for the organisation or sponsorship of events (S4M14P52: sponsoring scientific events, health organisations and/or researchers-new practice) but also to defame public health advocates and organisations through attacks on their work or personal integrity (S6M21P51). In a report from Brazil, Castro [70] described how Nestlé paid researchers to attack Carlos Monteiro, a professor at the University of São Paulo and the person responsible for creating the term "ultraprocessed" and the "NOVA classification" for ultra-processed products. Similarly, Kroker et al. [40] reported that this same strategy was employed in Guatemala during a scientific forum organised by the Association of Chemists and Pharmacists of Guatemala after the presentation of the initiative of Law 5504, "Promotion of Healthy Food" (Promoción de la Alimentación Saludable) [40]. In that forum, food industry actors intimidated people who defended the Law initiative.

In relation to the public policy cycle, the CPA was most frequently identified during the policy formulation (Phase 2), adoption (Phase 3) and implementation (Phase 4) phases, including the policy regulation stage. In contrast, limited evidence was found for the agenda-setting (Phase 1) and the monitoring and evaluation phases (Phase 5). Among the early stages of the cycle -agenda-setting and policy formulation- the most frequently documented strategy in this review was related to accessing and influencing policymaking(S1) processes. As noted by public health advocates, the food industry -often through its allies- participates in the technical and advisory groups that routinely deliberate on public policies. This involvement aims not only to prevent certain issues from advancing to the policy agenda, but also -once on the agenda- to secure access to policymaking spaces to delay their progress or promote the adoption of less stringent regulations [119]. Within these groups, food industry allies present regulatory proposals and even exercise their power by threatening to withdraw investments.

It is crucial to consider that a significant portion of publications on CPA occur after countries have passed the *adoption* phase (Phase 3) of public policies, despite industry interference. Therefore, we cannot conclude that there is no or less CPA in countries with less progress in public policies or that are in the early stages of the policy cycle. We highlight that, although with varying intensity, food industry pressure remains constant at each stage of the policy cycle. Consequently, the institutions responsible for these public policies,

together with civil society, free from COI, must persist in addressing the issue.

The stronger presence of evidence in *adoption* (Phase 3) and implementation(Phase 4) phases may be attributed to the direct influence and persuasive power that large corporations exert at critical moments of the policy cycle, when key decisions are made [120]. The adoption phase (Phase 3) is crucial, as policies are still in the process of being defined and regulated, making them vulnerable to external influence and their subsequent success or failure. During the implementation phase (Phase 4), measures are put into practice, requiring the allocation of resources and enforcement mechanisms. Factors in which the food industry can intervene to shape the scope of policies. Several documented examples show how the food industry in LACs has extensively participated in dialogue tables through different access mechanisms [see Additional File 4]. Like what was reported by Hoe et al. [31], who observed how the food industry has widely used corporate capture and has also been privileged with high levels of participation within international public health organisations, unlike the tobacco industry [31].

Specifically, in the *implementation (Phase 4)* of the policy, the results suggest that the food industry in LAC extensively employs the practice of *highlighting corporate* social responsibility (CSR) and good deeds(S6M20P47) to improve the company's image and thus avoid legal action and regulation. Various examples of CSR practices have been documented, such as the sponsorship of sporting and educational events and health campaigns in Argentina [121], Uruguay [108], Colombia [80], Chile [73], Mexico [84], and Brazil [68]. The findings of this study align with those of Richards et al. [122] who observed a similar trend in Australia, where food industry companies appear to use CSR activities to build brand image through initiatives associated with the environment and, more importantly, by targeting children. Additionally, Dorfman et al. [123] noted that the sugar-sweetened beverage industry launched CSR campaigns before the tobacco industry, taking advantage of the fact that there is less social stigmatisation. The campaigns consisted of financing social projects, educational campaigns for healthy lifestyles and donating items with the brand of the leading sugar-sweetened beverage companies (e.g., PepsiCo, Coca-Cola, Nestlé and Dr. Pepper-Snapple Group). Unlike tobacco, these campaigns explicitly seek to increase sales of their products and shift the responsibility back to the consumer [123]. Therefore, the regulation and restriction of CSR campaigns should also be considered part of government policies as an integral component of an effective public health approach.

In contrast, the lack of evidence on CPAs in the monitoring and evaluation phase(Phase 5) may indicate that countries in the region rarely monitor and evaluate existing policies and fail to plan for the monitoring phase at all. This can be attributed to several factors, such as the lack of adequate infrastructure for monitoring, the scarcity of resources allocated for effective evaluations, or the absence of robust regulatory institutions. In addition, COI between regulatory institutions and the food industry pose a significant barrier. A clear example is the case of Mexico between 2012 and 2018, where the Ministry of Health had ties to major sugar-sweetened beverage companies, resulting in the omission of key evaluations related to public policies such as taxes and FOPNL [101]. It is essential to strengthen policy monitoring and evaluation mechanisms to ensure that they are based on the best available scientific evidence and free from COI, as they play an essential role in reaching tipping points for policy adoption and sustaining effective implementation [124].

Given the considerable power that the food industry holds to influence health, food and nutrition public policies, there has been ongoing international debate regarding the appropriate measures countries should adopt to curb these practices. Political will is necessary, along with the implementation of robust legal frameworks to regulate COI between food industry companies and decisionmakers in the public policy process. Additionally, greater transparency is required from the food industry sector and the government in their interactions within policy processes. In Chile, Law No. 20,730, enacted in 2014, on lobbying and managing private interests between public officials and private interest groups, has increased transparency and improved its management [74, 125]. However, there are no formal mechanisms for regulating inappropriate lobbying. This is the case in several countries that have made significant steps towards transparency in public decision-making, but effective regulatory mechanisms remain lacking. In this sense, the Framework Convention on Tobacco Control (FCTC) [126], adopted in 2003 by the WHO, provides good examples of practical measures helping to control the interference of the tobacco industry in public policy decisions (e.g., ranking countries according to their "independence" from the industry), which can be applied to the food industry. Addressing corporate power is crucial, as the expansive power of the UPP industry has been identified as a significant barrier to tackling the industry's influence [127].

Regarding the strengths of the study, the first was the detailed and disaggregated analysis of all the strategies, mechanisms and examples of practices within the "Taxonomy of Action Strategies" of the CPA in LAC, using the

most up-to-date framework proposed by Ulucanlar et al. [21] Second, for the analysis of the information, the five phases of the "policy cycle" model proposed by Knill and Tosun [30] were taken into account (from agenda-setting up to monitoring and evaluation of the policy). Therefore, this approach allows for a comprehensive understanding of how corporate practices and interference evolve across different phases of policy development. Third, in addition to the scientific articles, the analysis included various sources of information: official documents from government bodies, websites of civil society organisations, websites of independent journalism and websites of agencies of the UN system. Since the review was based on publicly available information, those mentioned above undoubtedly promoted the identification of CPA strategies in LACs.

Nevertheless, the study is subject to several limitations. Because public information on food industry CPA in certain LAC countries, such as those in the Caribbean and Central America, is limited, the list of identified practices is likely not exhaustive. The limited availability of information may be related to the low level of disclosure and to the fact that, by their very nature, certain CPA activities are not documented or have not yet been identified by specific individuals (e.g., the provision of economic incentives, financing, alliances with corporate actors or the presence of COI. Another limitation is the inability to systematically control for potential duplication across studies lacking specific details, as well as the exclusion of press releases, which may have provided further insights into industry practices and their influence on public opinion. Finally, this study did not evaluate the influence of the CPA strategies employed by the food industry on decision-making processes and discourses used to influence policies and public opinion. Future research must analyse how CPA strategies impact the development and implementation of health, food and nutrition public policies and programmes in LACs, for example, by conducting interviews with key regional stakeholders to capture the modus operandi of hidden corporate practices and provide a better understanding of the complex interactions between the food industry and public policy.

Conclusions

Despite limited publicly available information in LAC countries—particularly in the Caribbean and Central America- it was possible to identify a wide variety of examples of ASMP of CPA that influence health, food and nutrition public policies and programmes. It is clear, and worth emphasising, that despite varying intensity, pressure from the food industry persist throughout each stage of the policy cycle. From a public health perspective, this is a major concern, as such

practices can undermine efforts to prevent and control obesity and NCDs in the region, primarily by blocking, delaying, or modifying regulations during public policy processes.

Therefore, effective food policies that protect public health from the harmful effects of the food industry's CPA require a multifaceted approach, including the implementation of robust legal frameworks to regulate COI, political commitment, well-supported institutions and increased transparency across all stages of policy development processes. While progress has been made, these efforts must be strengthened to implement and evaluate mechanisms that limit corporate influence in public policymaking spaces and foster healthier food environments. This is both urgent and imperative, as the effectiveness of the policies relies on overcoming these challenges in LAC region.

Abbreviations

ABIA Brazilian Association of the Food Industry

ANPRAC National Association of Soft Drink and Carbonated Water

Producer.

ANVISA National Health Surveillance Agency of Brazil ASMP Action strategies, mechanisms and practices

CONAR National Council of Advertising Self-Regulation of Brazil

CSR Corporate Social Responsibility
CPA Corporate Political Activity

FCTC Framework Convention on Tobacco Control
FEMSA Mexican Economic Development
FOPNL Front-of-Package Nutrition Labelling
Funsalud Mexican Foundation for Health
GDA Guideline Daily Amount

Latin America and the Caribbean

LATAM Latin America

IAC

NAA National Advertisers Association
NCDs Chronic Non-communicable Diseases

OMENT Mexican Observatory on Non-communicable Diseases

PAHO Pan American Health Organization
PRD Democratic Revolutionary Party
UCIs Unhealthy Commodity Industries

UN United Nations

UPPs Ultra-processed Products
WHO World Health Organization
WTO World Trade Organization

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12992-025-01136-1.

Additional file 1 Additional file 2 Additional file 3

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Clinical trial number

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Authors' contributions

VL-M: Conceptualisation, Data analysis and Writing-original draft. AV-P: Conceptualisation, Methodology, Data analysis and Writing-original draft. LT-M: Conceptualisation, Methodology, Project administration, Supervision and Writing-review & editing. FT-L: Conceptualisation, Writing-review & editing. YA-G: Data collection and Data analysis. SB: Project administration and Writing-review & editing. All the authors have read and approved the final version of the manuscript for submission.

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Data availability

Data is provided within the manuscript or supplementary information files.

Declarations

Ethics approval and consent to participate

The Ethics, Research and Biosafety Committees of the Mexican National Institute of Public Health evaluated and approved this study (Cl: 1925).

Consent for publication

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Competing interests

The authors declare no competing interests.

Author details

¹Latin American and Caribbean Nutrition and Health Community of Practice (COLANSA), São Paulo, Brasil. ²Centre for Health and Nutrition Research, National Institute of Public Health, Mexico. Universidad 655, Cerrada Los Pinos y Caminera, Santa María Ahuacatitlán, Cuernavaca, Morelos 62100, Mexico.

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