

# **Unhealthy food and beverage advertising in outdoor spaces and on publicly owned assets:**

A scoping review  
of the literature

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## 1.1 Executive Summary

Unhealthy diets, overweight and obesity are the greatest risk factors for death and disease in Australia (1) and globally (2). In Western Australia, just over two in three adults, and one in four children are affected by overweight or obesity (3, 4). The social and economic implications for individuals, families, communities and societies are substantial - recent estimates suggest that in WA the cost of obesity will reach \$610m by 2026, if current trends continue (5). Yet the very foods and beverages that make us sick are incessantly marketed to us and our children in ways that influence attitudes, preferences, expectations and consumption of these products across the life-course (6), leading to excess weight gain, obesity, and positive social norms relating to unhealthy food consumption. Our children need to be protected from these harmful impacts of unhealthy food marketing, which requires Government action that puts health before profits. Western Australia is a leader in public health and now has an opportunity to make further investments in the future health of their children by leveraging state powers to enact legislation to ban unhealthy food advertising on state-owned assets (e.g public transport, billboards, sporting venues). These advertising mediums are highly visible and cannot be avoided as children go about their daily lives.

The aim of this report is to support the case for government policy in Western Australia by synthesising the international literature to 1) identify and describe existing government-led policies that restrict unhealthy food advertising in outdoor spaces and/or on publicly owned assets; 2) identify factors perceived to have influenced the adoption and/or implementation of these policies; 3) describe potential health and economic impacts of restricting unhealthy food advertising in outdoor spaces and/or on publicly owned assets and to 4) identify key arguments used by food and advertising industries to oppose such policies and provide evidence-based counter-points.

Four jurisdictions were identified that have regulations in place that ban the advertising of unhealthy foods and beverages specifically on publicly owned assets. Three of these were targeted at public transport and/or stations (London, Australian Capital Territory and Amsterdam) and one targeted at Ministry of Health premises and entities (Brazil). An additional five jurisdictions were identified that had implemented broader-based policies, which inherently capture marketing in outdoor spaces or on publicly owned assets. None of these policies covered the full breadth of mediums and entities that enable unhealthy food advertising in outdoor spaces or on publicly owned assets or sufficiently covered all marketing to which children are exposed to in these spaces.

Common factors identified that ultimately enabled policy adoption and implementation included collaboration and coalitions among multi-sectoral actors and effective partnerships across levels of government, academia, and NGOs, backed by strong and influential political leadership and championing. Policy alignment and/or common policy agendas and long-

term visions, including clear policy objectives, were also identified as critical, particularly during changes of leadership. Industry opposition and political lobbying by the food, media and advertising industries was consistently identified as the biggest challenge to adopting and implementing policy to restrict unhealthy food advertising. This included the risk of legal threats and lawsuits, criticisms of regulatory design and negatively framing policy and public discourse. Ultimately, this appeared to have led to watering down of the policy scope and regulatory design in many jurisdictions.

No literature was identified that had directly and specifically evaluated the health or economic impacts of policies that restrict unhealthy food advertising in outdoor spaces or on publicly owned assets. However, the literature clearly and consistently demonstrated that unhealthy food advertising in outdoor spaces surrounding schools and on public transport is prolific in many countries around the world. Evidence also suggested a significant association between food advertisements on public transport or in outdoor spaces and confectionary (7), snack consumption (8) and obesity prevalence (9). There is no evidence to date to suggest that restricting unhealthy food advertising has negative financial impacts, as claimed by the food and beverage and advertising industries.

Other key arguments made by industry to oppose regulation included the need for people to take responsibility for their own health, a lack of evidence demonstrating that unhealthy food marketing influences diets or weight, that similar policies have been ineffective and claims of inadequate regulatory design. All key arguments have been rebutted in this report with evidence-based counter-points.

In summary, the findings from this report, when combined with the broader evidence-based literature on unhealthy food marketing, demonstrates that policies to restrict unhealthy food advertising in outdoor spaces and on publicly owned assets are feasible, likely to be effective at improving population diets and health and reducing health inequities, with minimal financial implications. The food and advertising industries will remain a formidable force against any proposed regulation and strong coalitions and leadership will be important to drive the policy agenda forward.

## 2.1 Introduction

### 2.1.1 Overweight and obesity

Overweight and obesity is a significant public health challenge. In Australia, overweight and obesity is a leading contributor to the national burden of disease, second only to tobacco use (1). In Western Australia (WA), just over two in three adults, and one in four children are affected by overweight or obesity (3, 4). Recent estimates suggest that in WA the cost of obesity will reach \$610m by 2026 if current trends continue (5).

Unhealthy diets are a key, modifiable risk factor for overweight and obesity (10) and are a leading risk factor for the burden of disease, globally (11). Australian children consume excessive quantities of unhealthy food and beverages compared to recommended national dietary guidelines. For example, among children aged 2-3 years, around 30% of daily energy comes from unhealthy, discretionary, food and beverages. This figure rises to 41% for teens aged 14-18 years (12). Not only does this pose serious health risks, but also violates children's rights to the highest attainable standard of health. This right to health, as outlined in the UN Convention on the Rights of the Child (ratified by Australia in 1990) states that parties should act appropriately to combat disease and malnutrition.

Increasing evidence also demonstrates that obesity is associated with a higher risk of COVID-19 complications and hospital admission (8), intensive care surveillance (8) and a need for invasive mechanical ventilation (9). Building resilient populations to the ongoing threat of COVID-19 and other future pandemics will require prioritisation and implementation of comprehensive obesity prevention policies.

### 2.1.2 Unhealthy food and beverage marketing

Unhealthy food marketing (foods and non-alcoholic beverages high in fat, salt and/or sugar) is ubiquitous around the world (13). Clear and consistent evidence demonstrates that marketing of unhealthy foods and beverages negatively influences dietary preferences and consumption among children and adults (6, 8, 14, 15). This occurs through increased awareness of products and brands (16, 17), increased brand loyalty (16, 18) and the reinforcement of positive societal and cultural norms around unhealthy foods (16, 19, 20). Not only does unhealthy food marketing increase unhealthy food consumption (6), but it increases total energy intake (16). This is important as excess energy intake ultimately leads to excess weight gain and obesity (21).

The food and beverage industry utilises a range of settings and mediums for marketing (22). Marketing in outdoor spaces is unique in that it is highly visible and, in most instances, cannot be avoided as one goes about their daily life. A large part of this outdoor marketing is by way of advertising, often on government owned land (e.g sporting venues or transport

hubs) or assets (e.g public transport), and is at odds with the public and preventive health imperatives of governments.

A 2020 audit of outdoor food advertising within 500 metres of Perth schools found that 74% of outdoor food advertising was for unhealthy food, with alcohol, fast food and sugary drinks the top three most frequently advertised products (23). This study also found a higher proportion of total food advertisements, unhealthy food advertisements and alcohol advertisements (but not healthy food advertisements) within 250m of schools located in disadvantaged neighbourhoods compared to schools located in more affluent areas (23). Another study conducted in Perth in 2019 found that 31% of advertisements on bus shelters within 500m of schools promoted unhealthy products (24). These findings are not unique to Western Australia. In Sydney, a 2017 study of food and beverage advertising on the metropolitan train network found one quarter of all advertisements were for food or beverages, and of those, almost 85% were promoting unhealthy food and beverages (22). Similarly, in 2019, 61% of food advertisements found on Melbourne's public transport network (displayed in and around train stations, tram stops, bus stops and near schools) were found to promote unhealthy food and drinks (25).

#### 2.1.4 Existing controls for food and beverage advertising in Australia

Food and beverage advertising in Australia is largely governed by industry-led codes and practices. This includes the Australian Association of National Advertisers (AANA) Code of Ethics (26), the AANA Food & Beverages Advertising Code (27), and the AANA Children's Advertising Code (28). Specific to outdoor advertising, the Outdoor Media Association (OMA) administers a Code of Ethics (29) that requires members to adhere to the codes administered by the AANA. The OMA also recently introduced their National Health and Wellbeing Policy, restricting advertising of unhealthy food and drinks within 150 metres of a primary or secondary school (30). This policy came into effect in July 2020.

The Australian Food and Grocery Council (AFGC) represent manufacturers of food, beverage and grocery brands in Australia. The AFGC developed two codes that relate to food advertising to children: the Responsible Children's Marketing Initiative (RCMI), which applies to food and beverage advertising to children under 12 years of age (31), and the Quick Service Restaurant Initiative for Responsible Advertising and Marketing to Children (QSRI), which applies to fast food advertising to children under 14 years of age (32). Since June 2019 these initiatives have been incorporated into the AANA Food & Beverages Code, with AANA assuming responsibility for administering these codes in July 2020.

Public health organisations have expressed concern over the inadequacy of these voluntary codes of practice. The reasons for this include the limited definition of what is considered to

be 'directed to children', the limited forms of marketing covered under the codes (e.g. sports sponsorship and product packaging are not included), the inadequate classification of 'healthier' foods, which can be marketed to children (e.g. high sugar breakfast cereals and ice-creams are considered acceptable) and the lack of independent monitoring and enforcement (33).

Unsurprisingly, public health organisations in Australia are advocating for a comprehensive and enforceable legislative response to protect children from the harmful impacts of unhealthy food marketing (33, 34). This is supported by international public health experts and health and medical agencies including the World Health Organization, the World Cancer Research Fund and UNICEF (35-40).

### 2.1.5 Government policies restricting unhealthy food and beverage advertising on publicly owned assets

To date, governments in Australia, the United Kingdom and Brazil have introduced legislation to restrict unhealthy advertising on government owned assets. The Australian Capital Territory Government introduced a ban on unhealthy food advertising (as well as alcohol and gambling) on all government run bus services in 2015. This policy has since been extended to include light rail services. In London, a ban on unhealthy food advertising across London's entire public transport network, including underground and overground rail, buses and bus shelters was implemented in February 2019. In Brazil, a ban on advertising ultra-processed food on all Ministry of Health premises and entities was introduced in 2016.

Unlike many other marketing mediums and settings (e.g TV, digital), unhealthy food advertising on publicly-owned assets is under the control of States and Territories in Australia.

### 2.1.6 The Western Australian context

Western Australia is a leader in public health, with existing policies banning alcohol advertising on buses and at train stations (41). There is now an opportunity to make further investments in the future health of Western Australian children and citizens by protecting them from the harmful impacts of unhealthy food marketing as they go about their daily lives. The removal of unhealthy food and drink advertising from government owned assets has been recommended in a number of key reports and has the support of the medical and public health sectors, and the broader community. These are as follows:

- A Joint Statement on Protecting Children from Unhealthy Food and Drink Advertising on State-owned Assets was made in September 2020, signed by numerous Western Australian public health and medical organisations (42).



- The Western Australian Health Promotion Strategic Framework 2017-2021 called for stronger controls across all levels of government to reduce exposure to the marketing and promotion of discretionary food and drinks, particularly for children (43).
- The removal of unhealthy food and drink promotions from state assets is a domain for action in the 2018 Western Australia Preventive Health Summit Summary Report (44).
- Banning unhealthy food and drink promotions from all State premises was included as one of the recommendations of the 2019 Sustainable Health Review Final Report (45).
- Removing unhealthy food and drink promotions from all State premises is a recommended action for Western Australia in the Food Policy Index, which tracks progress on policies for tackling obesity and creating healthier food environments progress update (2).
- There is public support in Western Australia for removing unhealthy food advertisements from public transport. A 2019 Cancer Council WA survey found that 72% of adults support removing unhealthy food ads from public transport (46, 47).

This report presents a review and synthesis of the international evidence to support the adoption and implementation of a Western Australian state-led policy to restrict unhealthy food and beverage advertising on publicly owned assets.

### 2.1.7 Objectives

1. Identify and describe existing government-led policies that restrict unhealthy food advertising in outdoor spaces or on publicly owned assets.
2. Identify factors perceived to have influenced the adoption and implementation of policies restricting unhealthy food advertising in outdoor advertising spaces or on publicly owned assets.
3. Describe the potential health and economic impacts of restricting unhealthy food advertising in outdoor spaces or on publicly owned assets.
4. Identify the key arguments used by food and marketing industries to oppose policy proposals to ban unhealthy food and beverage advertising in outdoor spaces or on publicly owned assets.

## 3.1 Methods

### 3.1.1 Overview

There are two parts to this report: Part 1 (objectives 1-3) consists of a scoping review to synthesise the current evidence regarding the adoption and implementation of government-led policies to ban unhealthy food advertising in outdoor spaces or on government owned assets. Part two (objective 4) consists of an analysis of industry submissions made to consultations regarding unhealthy food and beverage marketing in the Australian Capital Territory and London.

### 3.1.2 Part 1 Scoping review

#### 3.1.2.1 Overview and search strategy

Academic and grey literature was systematically searched (see below). The academic literature was purposefully broad to capture literature addressing any of the three research objectives. The grey literature search was iterative, first identifying jurisdictions with relevant policies adopted and implemented, followed by a broad search to identify any grey literature related to each of these jurisdictional policies that met any of our three research objectives. Because we anticipated that there would be very little literature evaluating real-world policies, we included studies reporting the prevalence of, or exposure to, unhealthy food marketing in outdoor spaces or on publicly owned assets to identify the potential impacts on advertising as the first parameter along the policy-health pathway. We also included articles reporting on the association between unhealthy outdoor advertising and diet to understand the potential impacts on health.

#### *Academic Literature search*

We systematically searched five electronic databases covering a range of disciplines including health, public health and business. These included:

- Ovid MEDLINE
- Embase
- Web of Science
- Global Health (EBSCO)
- Business Source Complete (EBSCO).

Reference lists of all included articles were scanned for additional relevant studies.

Search terms were identified for each of the following concepts: 'food and beverage', 'advertising', 'outdoor/public assets' and combined using the operator 'AND'. See Table 1 for a list of search terms. Search terms were applied to title, abstract and keyword searches.

Subject headings were used where applicable, and the strategy was translated as necessary for each database. No date limits were set. The search was conducted in August 2020.

Table 1. Database search terms

<b>Food and beverage</b>	<b>Advertising</b>	<b>Outdoor</b>
Food*	Advertis*	Outdoor
Beverage*	marketing	Public*
Drink*		train, subway, bus,

#### *Grey Literature search*

As recommended for grey literature searches, we used a variety of methods to search for relevant grey literature (48-50). We manually searched the WCRF NOURISHING database ([www.policydatanase.wcrf.org](http://www.policydatanase.wcrf.org); an overview of implemented government policy actions implemented around the world); the WHO Global database on the Implementation of Nutrition Action (GINA) ([www.who.int/nutrition/gina](http://www.who.int/nutrition/gina); a platform for information on nutrition policies and action around the world); and Australia’s Obesity Evidence Hub ([www.obesityevidencehub.org.au](http://www.obesityevidencehub.org.au); a website that aims to identify, analyse and synthesise the evidence on obesity around the globe), to identify jurisdictions where government-led policies have been implemented to restrict advertising in outdoor spaces or on publicly owned assets and to obtain details of regulatory design.

Next, a focused search of government websites of jurisdictions where policies had been implemented was undertaken to identify further details of regulatory design and any details on policy evaluation (e.g. regulatory impact statements). Where we identified that a policy has been implemented in a jurisdiction but could not find further information relating to the policy on the government website, we contacted our known networks for additional information. Finally, Google Scholar was used to locate any additional relevant details for the policies and jurisdictions identified in the policy database searches, scanning the first 10 pages (100 entries) returned for each search.

#### 3.1.2.2 Eligibility criteria

##### *Academic literature*

Inclusion criteria for this review was intentionally broad, designed to capture the objectives of the review (51). Articles were eligible for inclusion if they met the following criteria: (i) the study reported on the adoption or implementation (including barriers and enablers) or evaluation of government-led policy to restrict unhealthy food or beverage advertising in outdoor spaces or on publicly owned assets (ii) the study reported on the prevalence or impact of unhealthy food or beverage advertising in outdoor spaces or on publicly owned

assets (including, but not limited to, billboards, digital billboards, posters, public transport and public transport waiting areas (bus shelters, train stations), shopping centre or building exteriors) on food consumption or health. Advertising was defined as material published that draws the attention of the public to promote a product, service, or organisation (27).

Articles were excluded for the following reasons: (i) the study examined unhealthy food and beverage marketing in mediums and settings outside the scope of this review (e.g. television, online, in schools or in retail stores); (ii) the study was not published in English; (iii) the article was a conference abstract, book, editorial, letter to the editor, news article or commentary.

#### *Grey literature*

Grey literature was deemed relevant if it reported on any aspects of a government-led policy to restrict unhealthy food and beverage marketing in outdoor spaces or on publicly owned assets, including policy implementation or evaluation. This included policy documents (i.e. policy proposals, implementation plans, or evaluations), academic articles, media releases, and reports from NGOs (e.g. the WHO, WCRF). Literature pertaining to industry-led codes was excluded.

#### 3.1.2.3 Article selection

##### *Academic literature*

Following the search process and removal of duplicates, all titles and abstracts were each screened independently by two members of the research team. Each article deemed potentially relevant based on title and abstract was obtained, read in full, and assessed against the eligibility criteria by a member of the research team. The first 25% of full text articles were assessed in duplicate by a second member of the research team, with discrepancies discussed and resolved between authors. Because there was high concordance between authors (95%) all remaining articles were assessed by a single member of the team.

##### *Grey literature*

One author conducted the search and extracted the relevant data sources and information. Any queries (e.g., concerning the type and depth of information being retrieved) were iteratively discussed and resolved with other members of the research team.

#### 3.1.2.4 Data charting

Charting tables were developed and piloted during the development of the review protocol. These tables were used to record key details of each included article from the academic and grey literature.

The following information was recorded from all academic literature (where available): authors, title, publication date, setting (country or town), type of study (descriptive / observational study, modelling study, evaluation), study aim, summary of policy design, advertising medium, key evidence used to support the policy, key findings or recommendations of the report or study.

From grey literature sources, the following information was extracted and recorded: characteristics of regulatory design, including the regulatory system (mandatory/voluntary), policy objective, food classification system, advertising content targeted, mediums included in the policy, regulatory exemptions and monitoring system. We also collected information related to policy evaluation, including the potential impact on advertising, health or economics. Factors perceived to have influenced policy adoption or implementation were also identified and extracted.

#### 3.1.2.5 Critical appraisal

The purpose of this scoping review was to map and describe existing evidence across the academic and grey literature, therefore appraisal of the methodological quality of included evidence has not been conducted (52, 53).

#### 3.1.2.6 Synthesis of results

Because the information sources for this review were drawn from a range of study designs and document types, across academic and grey literature, a narrative synthesis was considered the appropriate method to synthesise findings to answer our review objectives. To do this, evidence collated from academic and grey literature sources was presented in tables and subsequently mapped to each of the three review objectives.

### 3.1.3 Part 2 Industry submissions analysis

Submissions were obtained from the food and beverage and advertising industries to the 2015 community consultation on 'Food and Drink Marketing in the Australian Capital Territory (ACT)' (n=5) and to the consultation on the proposal to ban advertising of unhealthy food on Transport for London's estate in 2018 (n=31). The ACT consultation was focused on ways to increase the availability and promotion of healthy food and drinks and reduce the marketing of unhealthy food and drinks, particularly when aimed at children. This consultation led to a ban on unhealthy food advertising on ACT-owned buses and light

rail. The London consultation focussed specifically on a ban on the promotion (directly or indirectly) of food or non-alcoholic drinks that are high in fat, salt and/or sugar on services run or regulated by Transport for London, which was subsequently adopted and implemented (further details on these policies can be found in Table 3). All submissions to these consultations were read in full to identify key examples of industry tactics, categorised into the four main types outlined by the World Cancer Research Fund - 'delay', 'divide', 'deflect' or 'deny' (39) (see Box 1 for definitions of tactics). Key opposing arguments to regulate unhealthy food advertising by industry were also extracted and are presented alongside evidence-based counter arguments.

*Box 1: Key industry tactics employed by industry to oppose regulatory action, adapted from the World Cancer Research Fund (54)*

*Delay:* Delay tactics are used by industry to draw out the implementation of regulation. For example, industry may call for more research before decisions are made.

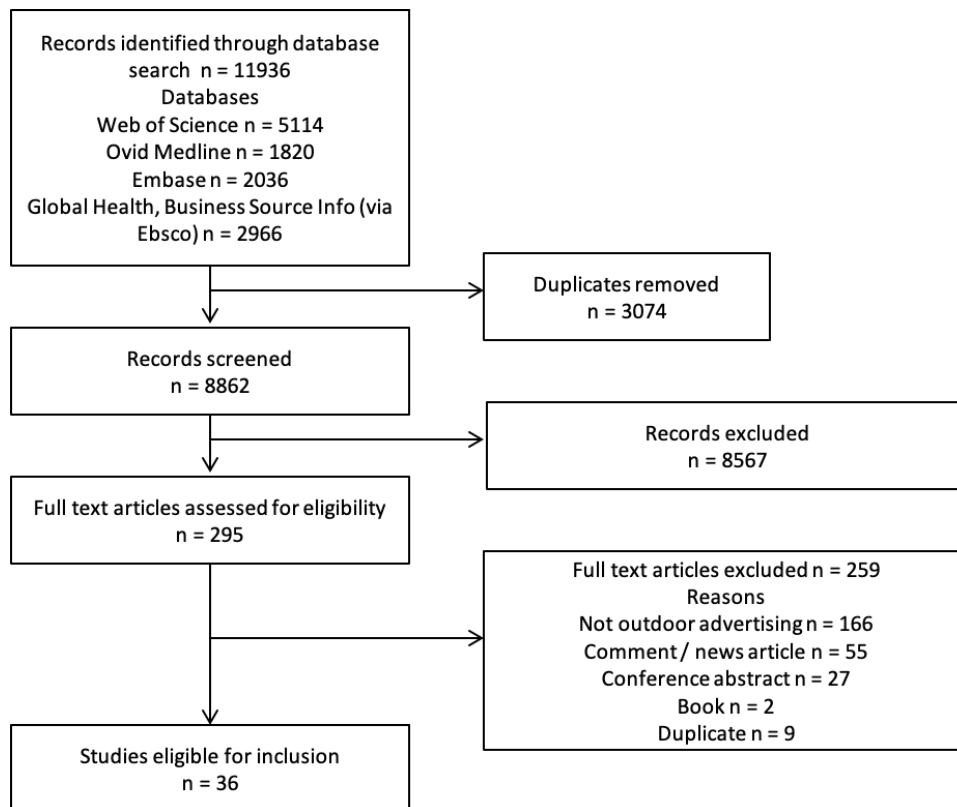
*Divide:* Divisive tactics aim to attack the proposed regulation, and present industry's desired alternative. Divisive tactics can include political lobbying or funding research that opposes the evidence of the effect of marketing restrictions.

*Deflect:* Deflection is a tactic used to try to shift the focus of the debate from the real problem to other issues. This includes reframing issues and drawing attention away from regulatory action.

*Deny:* Denial tactics are used to suggest that the problem doesn't exist, that evidence is lacking or inconclusive, or that government regulation won't work.

## 4.1 Results

The academic literature database search returned 11,936 potentially relevant citations. After removing duplicates and screening titles and abstracts for relevance, 295 full text articles were retrieved and reviewed in full, with 36 articles included in the review after assessment against the inclusion and exclusion criteria. The primary reason for exclusion was not reporting on advertising in outdoor spaces or on publicly owned assets. The article selection process is presented in Figure 1.



**Figure 1:** Search results and article selection for academic literature

Grey literature searching identified relevant policy information from the WCRF NOURISHING database (n=10), the WHO Global database on the Implementation of Nutrition Action (GINA; n=9) and Australia’s Obesity Evidence Hub (n=3). A Google search revealed two further potentially relevant policies. After removing duplicates and assessing policies against our inclusion criteria, 11 jurisdictional policies were included for a focused search of relevant government websites to identify further details for each policy.

#### 4.1.1 Overview of included studies

A detailed description of all included studies from the academic literature can be found in Appendix 1. A majority of studies reported on data obtained in the United States (n=11), Australia (n=10) and New Zealand (n= 6), with a further two studies from the United Kingdom, and one each from Canada, Sweden, Chile, Ghana, Jamaica and Indonesia, The Philippines and Mongolia (the latter two included in a single study). From the grey literature searching, we identified nine jurisdictions with relevant policies in place. Seven of these were statutory regulations and two government-led voluntary regulations.

All results are summarised below, according to the four research objectives.

## 4.1.2 Synthesis of Findings

### 4.1.2.1 Objective 1: Existing policies that restrict unhealthy food advertising in outdoor spaces or on publicly owned assets

Nine jurisdictions were identified with government-led policies that ban or restrict unhealthy food advertising in outdoor spaces or on publicly owned assets. These policies were diverse in policy objectives, the mediums and food groups covered, and the regulatory system used. London, Amsterdam and the Australian Capital Territory (ACT) have implemented policies to ban unhealthy food and beverage advertising on their public transport networks. In London the Transport for London (TfL) advertising policy was revised in 2019 to update standards such that the promotion (directly or indirectly) of food or non-alcoholic drink which is high in fat, salt and/or sugar (HFSS) can no longer be advertised on services run or regulated by TfL (55). In 2018, Amsterdam, as part of the Healthy Weight Program, banned advertisements for unhealthy food products targeted at children and teenagers (up to 18 years of age) across Amsterdam's 58 metro stations (56). In the ACT, as part of the ACTION bus services advertising policy, the promotion of junk food on government-run bus services and light rail has been banned since 2016 (57).

In 2016 Brazil implemented a specific policy that bans unhealthy food and beverage advertising across all Ministry of health premises and its entities (58). This is part of a broader Ordinance (No 1.274) on healthy food procurement to address overweight, obesity and non-communicable diseases and based on the right to adequate food (58).

Advertising of unhealthy foods and beverages in outdoor spaces and on publicly owned assets is also inherently captured in other broad-based laws, including the Chilean *Food Labelling and Advertising Law* where 'child-directed' marketing (to children under the age of 14 years) is banned across all mediums, and as part of the consumer protection legislation that Quebec has in place where commercial advertising, which is 'child-directed' (aimed at children <13 years), including for foods and beverages, is prohibited across all mediums (59).

In Latvia, under the *Law on the Handling of Energy Drinks*, the advertising (and sale) of energy drinks to children < 18 years is prohibited in educational establishments and on the buildings and structures of these establishments (60).

A further two government-led voluntary regulations were identified in Ireland and Finland. In Ireland, under the Government-led Voluntary Codes of Practice (2017) (the Codes) the marketing of foods high in fat, sugar and salt should not be marketed in non-broadcast media, including all forms of digital media, out-of-home media, print media and cinema. Out-of-home media includes billboards or hoardings, public transport stops or shelters, interiors and exteriors of buses or trains, or building banners. The Codes also stipulate that advertisements for HFSS foods will be restricted to placement at least 100 metres from the



school gate for large roadside billboard formats. The Codes were co-developed with industry, with no statutory basis (61). The Finnish Consumer Protection Act regulates all marketing, including food marketing to children (<18years). Food advertisements should not be misleading and should not encourage unhealthy dietary habits in children. However, the guidelines supporting the implementation of the Act, which are not legally binding, do not provide guidance on food classification or what is considered as marketing to children (62).

Details on the regulatory design for each of these policies can be found in Table 3 and are briefly outlined below.

**Table 3:** Government policies restricting unhealthy food and beverage marketing in outdoor spaces

Jurisdiction	Policy objective/scope	Food classification system	Advertising content and mediums	Monitoring system
<b>Policies focussed on public assets - mandatory</b>				
<b>London (2019)</b>	<i>The TfL (Transport for London) advertising policy</i> was revised in 2019 to update standards for approval of advertisements. Under this revision, the promotion (directly or indirectly) of food or non-alcoholic drink which is high in fat, salt and/or sugar (HFSS) cannot be advertised on services run or regulated by TfL (55). The policy is integrated with the London Food Strategy (63).	Public Health England's Nutrient Profiling Model used to classify high fat, sugar and/or salt (HFSS) products (64).	<b>Content:</b> Graphics and text promoting HFSS foods and drinks (visual content, in-text references, brands, incidental placement) <b>Mediums:</b> Includes London underground, rail, buses, overground, light railway, roads (e.g. roundabouts and bus stops owned by TfL), river services, tram, Emirates Air Line, Victoria coach station, Dial-a-Ride, Taxi and private hire.  <b>Exemptions:</b> If an advertiser can show that the product does not contribute to HFSS diets; incidental features that do not promote a HFSS product. Brands can be included if the advertisement promotes healthy products as the basis of the advertisement (e.g. sugar free drink ) (64).	The London School of Hygiene and Tropical Medicine is evaluating the impact of the regulation on sales of HFSS foods and drinks.
<b>Australian Capital Territory (2016)</b>	Part of the ACTION bus services advertising policy, which includes restrictions on the promotion of unhealthy food on government-run bus	Unhealthy food and drinks as defined by the Australian Dietary Guidelines and associated Australian Guide to Healthy Eating (57).	<b>Mediums:</b> Government-run buses and light rail	n/a

Jurisdiction	Policy objective/scope	Food classification system	Advertising content and mediums	Monitoring system
	services and light rail to ensure that the promotion of products is appropriate for the broader population and aligns with the values of the community and Government objectives (57). Stated alignment with the Towards Zero Growth: Healthy Weight Action Plan (65).			
<b>Amsterdam (2018)</b>	To ban billboard advertisements for unhealthy products targeted at children and teenagers (up to 18 years of age) in any of Amsterdam's 58 metro stations as part of the Amsterdam Healthy Weight Program (56, 66).	National nutrition guidelines from the Netherlands Nutrition Centre (67).	<b>Mediums:</b> Billboards at metro stations (n=58).	n/a
<b>Brazil (2016)</b>	Part of a broader Ordinance (No 1.274) on healthy food procurement to address overweight, obesity and non-communicable diseases and based on the right to adequate food. Included in the Ordinance is the prohibition of advertisements and sales promotions of ultra-processed food products on the premises of the Ministry of Health and its entities (58).	Ultra-processed products defined by the Pan American Health Organization Nutrient Profiling Model: food mainly produced from the processing of unprocessed food and/or other organic matter, containing $\geq 1\text{mg}$ of sodium per 1kcal, $\geq 10\%$ of total energy from free sugars, $\geq 30\%$ of total energy from total fat, $\geq 10\%$ of total energy from saturated fat and $\geq 1\%$ of total energy from trans fat (58).	<b>Mediums:</b> Ministry of Health premises and entities.	The Brazilian Ministry of Health is responsible for monitoring and evaluation.
<b>Broad policies (including outdoor advertising restrictions) - Mandatory</b>				
<b>Chile (2016)</b>	The <i>Food Labelling and Advertising Law</i> aims to protect children, promote	Foods and beverages considered to be "High" in critical	<b>Content and mediums:</b> All forms of child-directed marketing techniques across any communication channel.	Monitored by an inter-sectoral network including government agencies, academia, NGOs,

Jurisdiction	Policy objective/scope	Food classification system	Advertising content and mediums	Monitoring system
	informed selection of food, and decrease the consumption of food with excessive amounts of critical nutrients. The policy is focused on child-directed advertising (where children are defined as <14 years) (59). Outdoor spaces and publicly owned assets inherently captured as part of the broad Food labelling and Advertising Law.	nutrients cannot be advertised. For solid foods, “High” products contain energy >275 kcal/100g, sodium >400 mg/100g, total sugar > 10g/100g, saturated fat >4g/100g. For liquids, “High” products contain energy >70 kcal/100g, sodium >100 mg/100g, total sugar > 5g/100g, saturated fat >3g/100.	<b>Exemptions:</b> Brand or other kinds of food marketing is permitted if it is not aimed at children and the amounts of sugar, salt, fats, and calories are below the “High” criteria.	consumer associations food marketing and consumers’ rights organisations (68).
<b>Latvia (2016)</b>	The purpose of the <i>Law on the Handling of Energy Drinks</i> is to protect human health from the adverse effects of energy drinks on the body. The government regulated law aims to restrict the marketing of energy drinks as well as prohibiting the sale of energy drinks to children < 18 years’ (60).	Energy drinks containing > 150mg/l caffeine and one or more other stimulants such as taurine and guarana.	<b>Content:</b> Any association with sports activities, energy drinks cannot be offered for free to children <18 as a promotion. <b>Mediums:</b> Educational establishments and on the buildings and structures of these institutions.	
<b>Quebec (1980)</b>	Quebec’s Consumer Protection Act (Section 248) bans any commercial advertising directed at children < 13 years, including food and beverage marketing. Food advertising in outdoor spaces and publicly owned assets are inherently captured in this Act.	All foods and beverages.	<b>Content:</b> 3 criteria – promotion that is intended for children; the appeal of an advertisement to children; and whether children are likely to be exposed to the advertisement. <b>Mediums:</b> Signage, use of promotional items. <b>Exemptions:</b> Children’s entertainment events, in-store windows, and on-pack advertisement (if they meet certain criteria).	No formal monitoring body; complaint and media reports are submitted to report non-compliance.
<b>Broad policies (including outdoor advertising restrictions) - Voluntary</b>				
<b>Ireland (2018)</b>	The Voluntary Codes of Practice aim to reduce exposure of the Irish population to	Nutrient Profile model used by the Broadcasting Authority of Ireland.	<b>Content:</b> No licensed characters or celebrities that are popular with children, promotions, competitions.	Government body and monitoring framework designated to monitor these Voluntary Codes of

Jurisdiction	Policy objective/scope	Food classification system	Advertising content and mediums	Monitoring system
	marketing initiatives relating to foods that are high in fat, sugar and/or salt (HFSS foods) (61).		<b>Medium:</b> non-broadcast media, including all forms of digital media, out-of-home media, print media and cinema. Out-of-home media includes billboards or hoardings, public transport stops or shelters, interiors and exteriors of buses or trains, or building banners <b>Exemptions:</b> Corporate social responsibility initiatives, donations, or patronage.	Practice.
<b>Finland (1978; updated in 2016)</b>	The Finnish <i>Consumer Protection Act</i> regulates all marketing, including food marketing to children (<18years). Food advertisements should not be misleading and should not encourage unhealthy dietary habits in children (62).	The guidelines for the implementation of the Consumer Protection Act does provide guidance on food classification or what is considered as marketing to children.	<b>Content:</b> Food advertisements must have an explicit purpose; advertising cannot be misleading or promote unhealthy diets among children. The appropriateness of marketing to children is examined on a case-by-case basis.  <b>Mediums:</b> All mediums	The voluntary guidelines were developed to consider examples of cases where marketing was found to violate the Consumer Protection Act. Over the last 10 years, the Consumer Ombudsman has collaborated with the food industry to ensure marketing aligns with the guidelines and have not determined the need to take any case to court.

#### 4.1.2.2 Objective 2: Factors perceived to have influenced the adoption or implementation of policies restricting unhealthy food advertising in outdoor advertising spaces or on publicly owned assets

The factors perceived to have influenced the adoption or implementation of policies restricting unhealthy food advertising in outdoor advertising spaces or on publicly owned assets are summarised below, in Table 4 (summary) and Appendix Table 2 (detailed data extraction) as those likely to have enabled policy adoption or implementation and those likely to have presented as a barrier.

##### *Policy enablers*

Common factors identified that ultimately enabled policy adoption included collaboration and coalitions among multi-sectoral actors and effective partnerships across levels of government, academia, and NGOs, backed by strong and influential political leadership and championing (69, 70). For example, in London, key stakeholders included the Mayor of London (political champion and chair of the Transport for London Board), Public Health

England and other NGOs (public sector lobbying and advocacy), the Greater London Authority and Transport for London (drafting of policy and consultation), Transport for London (policy implementation), London boroughs and the London Food Board (general policy support) and local universities (policy evaluation).

Policy alignment and/or a common policy agenda were also identified as key enablers to policy adoption. For example, the ACT policy to restrict the promotion of unhealthy food on government-run bus services and light rail aligned with the 'Towards Zero Growth: Healthy Weight Action Plan', the Transport for London ban aligned with local government level policy on 'Sugar Reduction' and 'Healthier Foods' (hence gained the support of London boroughs) and the Amsterdam ban across 58 metro stations was implemented as part of their Healthy Weight Program. Embedding the policy in a long-term vision and including clear policy objectives were also identified as critical, particularly during changes of leadership (66, 70). Lastly, policy framing (e.g. using child or consumer rights and/or obesity prevention) was also reported to facilitate policy adoption and used in advocacy efforts.

Four additional studies examined public support and policy frameworks as potential enablers to policy adoption (but were not connected to any specific policy). Three of these, conducted in Australia cited support from government stakeholders and the general public as key enablers for policy adoption. In the first of these studies, more than 80% of surveyed Victorian government stakeholders indicated support to restrict non-broadcast marketing (internet, billboards, sport sponsorship) in 2009-2010 (71). Public support for government policy to restrict unhealthy food and beverage advertising in public spaces (e.g. bus stops and train stations) was also strong in a nationally representative sample of Australian adults, with 70% of participants agreeing that there should be at least some government regulation to protect the public (72). When framed as regulation for protecting children, the level of support increased to 78.9% (72). In the third study, 92% of sampled mothers supported restrictions on unhealthy food advertising in and around public transport (73). The fourth Australian study identified three legislative and three non-legislative government planning tools in the state of Queensland that could be used to limit unhealthy food advertising. Legislative tools include Corporate and Operational plans, local laws and State planning policies. Non-legislative tools were identified as able to complement legislative processes and included community public health planning, community renewal and health impact assessments (74).

#### *Policy barriers*

Political lobbying by the food, media and advertising industries was the most frequently identified challenge to adopting and implementing regulations to restrict unhealthy food advertising. Multiple forms of lobbying were identified, including the risk of legal threats and lawsuits, criticising regulatory design and negatively framing policy and public discourse.

Ultimately, this led to watering down of the policy scope and regulatory design in many jurisdictions. For example, the initial consultation on the promotion and marketing of unhealthy foods in Canberra, ACT, sought views and ideas on many different types of marketing, including at sporting venues and at government venues and events, however the adopted policy only included advertising restrictions on government-run buses, and later, light rail (57).

Other challenges identified included a perceived risk of reduced advertising revenue, potential policy loopholes, weak or unclear mechanisms for enforcement and monitoring of policies and inadequate public support.

**Table 4: Summary of barriers and enablers to policy implementation**

<b>Enablers</b>	<b>Barriers</b>
Wide-spread support among stakeholders, including general public	Industry opposition, including legal challenges
Strong political will and a political champion with power	Disagreement over definitions including what age defines a child, choice of reference models to classify foods as unhealthy
Effective partnerships between key stakeholders	Perception of negative impact on revenue
Rights-based framing i.e. protecting children	Lack of political will
Policy alignment	Weak or unclear mechanisms for monitoring and enforcement
Policy capabilities / existing policy frameworks	Insufficient public support

4.1.2.3 Objective 3: Potential health and economic impacts of restricting unhealthy food advertising in outdoor spaces or on publicly owned assets.

*Prevalence of unhealthy food advertising in outdoor environments*

Twenty seven studies reported on the prevalence of advertising in outdoor spaces or on publicly owned assets, with 15 of these reporting differences by an indicator of socioeconomic position. Among the studies focused on outdoor advertising, 10 focused specifically on areas surrounding schools. These studies consistently showed that unhealthy food and beverage advertising is prevalent in areas around schools across all jurisdictions included. For example, one Australian study found that non-core food was twice as likely to be advertised than healthy food in areas close to primary schools in Sydney and Wollongong

(75). Similar findings were found in another Australian study (76) and in New Zealand (77, 78), Canada (79), the USA (80, 81), Ghana and Asia (Manila, The Philippines & Ulaanbaatar, Mongolia) (82).

Seven studies specifically examined food and beverage advertising on public transport, including four from Australia. A Perth study analysed advertisements on every bus shelter within 500 m of a school within five local government areas and found 31.4% were promoting unhealthy products. Food represented the largest proportion of unhealthy advertisements, accounting for 56.5% of all advertisements in the unhealthy category (including fast food, ice-cream, confectionary and chocolate). Less than one per cent of advertisements (0.7%) promoted a healthy product (24). Another study in Sydney examined advertisements at 178 stations across the Sydney metro train network finding 27.6% of all identified advertisements were for food or beverages. Of the food and beverage advertisements, 84.3% were promoting unhealthy food (83). The remaining studies, across Australia, USA, UK, Jamaica, Sweden, and New Zealand focused on outdoor advertising more broadly, all demonstrating a high prevalence of unhealthy food advertisements.

Studies from the US (80, 81, 84-88), UK (89, 90), Stockholm (91), Canada (79), Australia (83, 92) and New Zealand (93) demonstrated socioeconomic differences in unhealthy food advertising in outdoor areas, with unhealthy food marketing more prevalent in areas of lower socioeconomic position (SEP). Conversely, one study from Australia (76) and a study from the US (94) found no SEP differences in the prevalence of outdoor marketing of unhealthy food and beverages.

#### *Potential impact of policies to ban unhealthy food advertising in outdoor environments or on publicly owned assets on diet or health outcomes*

No studies were identified that specifically examined the impact of policies restricting unhealthy food advertisements in outdoors spaces or on publicly owned assets. Two studies, one each in Australia and Indonesia, reported a positive association between exposure to unhealthy food marketing (including on public transport) and consumption of unhealthy food, (7, 8). Another New Zealand study reported on the food environment, including food and beverage advertising surrounding schools and associations with the food environment within schools. Principals, teachers and parents from schools with a higher percentage of students passing food outlets and advertisements considered that their presence impacted efforts within their school to improve the food environment (93). A fourth study reported that census-tracts in the US (Los Angeles and Louisiana) with a higher proportion of outdoor advertisements promoting food or non-alcoholic beverages had a greater odds of obesity among its residents, controlling for age, race and educational status, compared to census-tracts with less food advertisements. For every 10% increase in food

advertising, there was a 1.05 (95% CI 1.003 - 1.093, p<0.03) greater odds of being overweight or obese (9).

#### *Potential economic impacts of banning unhealthy food advertising in outdoor environments or on publicly owned assets*

No literature was identified that specifically reported on the economic impacts of policies that ban unhealthy food advertising in outdoor environments or on publicly owned assets. However, relevant literature relating to the economic implications of banning unhealthy food advertising on public transport was identified in two documents. The first is the Annual Report and Statement of Accounts (2019/20) for the Transport for London, which reported an increase in commercial advertising income (2.8%) between 2019 and 2020 (policy implemented in February 2019) (95). The second is documentation from a Western Australian Parliamentary debate (Hansard) in February 2020 where, in response to a question to the Department of Transport, it was reported that the income paid to the Public Transport Authority from all food and drink advertising is in 2017-18 was \$1,006,050 and in 2018-19 was \$1,002,984 (96).

#### *4.1.2.4 Objective 4: Industry arguments to oppose regulation of unhealthy food marketing in outdoor spaces or on publicly owned assets*

Five submissions by the food and beverage industry and marketing industry to the 2015 'Food and Drink Marketing in the ACT' community consultation and 31 submissions to the 2018 consultation on the proposal to ban advertising of unhealthy food on Transport for London's estate were identified.

A summary of how the food and beverage and advertising industry is using the tactics of delay, divide, deflect and deny, to oppose government regulation of unhealthy food marketing in outdoor spaces or on publicly owned assets is summarised in Table 5. Key arguments opposing regulations to restrict unhealthy food marketing in outdoor spaces or on public assets are summarised with evidence-based counter-points in Table 6.



**Table 5:** How the food and beverage and advertising industry has used the delay, divide, deflect and deny tactics to oppose government regulation of unhealthy food marketing in outdoor spaces or on publicly owned assets: generalised statements used in food and beverage and marketing industry submissions to the five submissions made to the 2015 ‘Food and Drink Marketing in the ACT’ community consultation and the 31 submissions made to the 2018 consultation on the proposal to ban advertising of unhealthy food on Transport for London’s estate.

<p style="text-align: center;"><b>Delay</b> <i>Used to draw out the implementation of regulation.</i></p>	<p style="text-align: center;"><b>Divide</b> <i>Aims to attack the proposed regulation, and present industry’s desired alternative.</i></p>	<p style="text-align: center;"><b>Deflect</b> <i>Used to shift the focus of the debate from the real problem to other issues.</i></p>	<p style="text-align: center;"><b>Deny</b> <i>Used to suggest that the problem doesn't exist, that evidence is lacking or inconclusive, or that government regulation won't work.</i></p>
<p>Stating that it is premature to take action ahead of current reviews of other advertising restrictions (London)</p>	<p>Claiming that self-regulation is already in place and there is no need for further restrictions (ACT, London)</p>	<p>Claiming that Self-regulation is working / is effective at minimising children’s exposure to advertising (ACT)</p>	<p>Casting doubt on the evidence that there is a direct link between food and drink marketing and childhood obesity (ACT, London)</p>
<p>Arguing that regulation is too difficult to implement – with too great a burden on industry to have different regulations for different media, products or geographic locations (ACT)</p>	<p>Claiming that self-regulation can quickly respond and adapt to meet community expectations (compared to government regulations) (ACT, London)</p>	<p>Claims that there is a low level of complaints about food and beverage advertising to children (ACT)</p>	<p>Claiming that there is no evidence that regulating unhealthy food advertising will have an impact on obesity rates (ACT, London)</p>
	<p>Proposing further self-regulation - e.g. A ban on advertising of unhealthy foods and beverages within 200m of primary or secondary school (London) or health or nutritional information on advertisements (ACT, London)</p>	<p>Reframing the issue to highlight the importance of education via advertising to improve health and wellbeing, empower community and information provision (ACT, London)</p>	<p>Arguing that nutrition, price and taste are bigger influences on purchasing by parents than advertising (ACT)</p>

	<p>Criticising regulatory scope or design – e.g. outdoor advertisements are not directed at children, brand only advertisements should not be subject to restriction (ACT, London), questioning the appropriateness of the nutrient profiling model (London)</p>	<p>Reframing the issue as one of personal responsibility, and that marketing supports informed choice (ACT, London)</p>	<p>Arguing that other measures are more effective (London)</p>
	<p>Claiming that advertising directed primarily to children and advertising that may be seen by children, but is not directed primarily at them, are different things. Marketing directed to adults should be allowed (ACT, London)</p>	<p>Highlighting the need to promote increased physical activity and healthier lifestyles (ACT, London) and the need to focus initiatives in schools and communities (London)</p>	<p>Discrediting existing studies that demonstrate high prevalence of unhealthy food advertising (ACT)</p>
		<p>Highlighting what industry has already done to support healthy eating, including food labelling and product reformulation (ACT, London)</p>	
		<p>Claiming that there will be negative economic impacts (e.g. on small business and locations that rely on advertising revenue) (ACT) and that advertising revenue benefits consumers and the wider community (ACT, London)</p>	

**Table 6:** Key industry arguments identified in submissions to London and ACT consultations on regulating unhealthy food and beverage advertising in outdoor spaces or on publicly owned assets

Industry Arguments	Evidence based counterpoints
Individuals have choices. We already provide nutrition information and healthy messages to support individual choice.	Population diets are influenced by a wide range of determinants including physical, economic, political, social and cultural factors (97, 98). Strong and consistent evidence shows that information provision and education alone will not be sufficient to shift population diets and will disproportionately benefit those with greater social and economic resources (99). Effective and equitable action will require change to the current food environment towards one that encourages healthy dietary choices and promotes the maintenance of healthy weight (35, 38).
Parents should take responsibility for what their children eat.	Parents want to make healthy choices for their children, but many factors beyond parents’ control, including advertising and marketing to children, makes it difficult for them to do so (100).  Adolescents have their own purchasing power and purchase and consume high volumes of unhealthy foods and drinks (22, 101). Adolescents are reward driven, impulsive, strongly influenced by their peers and are particularly vulnerable to marketing that promotes products which provide immediate gratification (102, 103).
Outdoor advertisements are not targeted towards children. If children do see outdoor advertisements, they will likely be with their parents.	Clear evidence shows unhealthy food marketing negatively influences children’s attitudes, preferences and consumption across the life-course (6). Children and adults share many of the same physical spaces, including outdoor spaces, where advertising is a highly visible and cannot be avoided. Policies that are narrowly focused on marketing that is ‘directed to children’ can be difficult to enforce (and are therefore less effective) due to the complexities with different interpretations of the intended audience (104). As per WHO recommendations (38), marketing to children should be defined as all marketing to which children are <i>exposed</i> .
Obesity is a problem of unhealthy lifestyles and inadequate physical activity.	No single solution will solve the problem of obesity. A comprehensive approach including a range of interventions will be essential to make a meaningful impact on the population prevalence of obesity. These strategies will need to include policies that change the food environment (35).
There is no evidence that advertising contributes to obesity.	Exposure to unhealthy food marketing influences children’s attitudes, preferences, expectations and consumption over the life-course, leading to excess weight gain and obesity (6, 105, 106).
The nutrient profiling models and classifications of healthy / unhealthy are inadequate.	National dietary guidelines provide a benchmark for national nutrition policies and can be used as a reference point for determining which foods are most appropriately covered in any food marketing restrictions (107). The COAG Health Council endorsed national interim guide for classifying foods and drinks not recommended for promotion and marketing is

	available for use by Australian governments and is consistent with the Australian Dietary Guidelines and the Australian Guide to Healthy Eating (108).
Brand-only advertisements should not be subject to restriction.	Brands are a critical element of marketing, with increased brand loyalty and brand awareness key consequences on unhealthy food marketing (16). Brand marketing (with or without food products) for brands that are strongly associated with unhealthy foods (e.g. for quick service restaurants or confectionary) has been shown to increase reward pathways in the brain and to increase selection and consumption of unhealthy products (109, 110).
Advertising encourages brand preference or changes within brands, but doesn't encourage consumption of <i>more</i> unhealthy food.	Exposure to unhealthy food advertisements has been shown to lead to increased <i>total</i> energy intake among children (111, 112).
There is no evidence to suggest that regulating unhealthy food advertising will have any impact on obesity rates.	<p>Policies should have a clear stated objective of reducing population (or children's) <i>exposure</i> to unhealthy food and beverage advertising on publicly-owned assets (107).</p> <p>The effect of the policy on obesity rates should only be considered as a long-term objective and should be viewed in light of obesity being a complex problem, requiring a co-ordinated policy response including a range of interventions, to make a significant impact on population obesity rates.</p>
Food advertising is already regulated by industry codes.	Strong and consistent independent evaluations assessing the effectiveness of both government-led voluntary regulation and industry-led self-regulation indicate that the impact of these approaches on reducing the exposure of marketing is limited (113). Research in Australia found that the frequency of food advertising and children's exposure to unhealthy food marketing remained unchanged despite the implementation of industry self-regulatory pledges (34, 114).
Government revenue will be lost. Advertising revenue is beneficial to governments and the wider community.	<p>There is no evidence to date to suggest that such a policy will have negative financial impacts. Transport for London reports no loss of revenue arising from the ban on unhealthy food advertising on the London Underground. Healthier foods are being advertised instead, and revenue has reportedly increased slightly (115).</p> <p>Income paid to WA Public Transport Authority from all food and drink advertising is around \$1 million per year (\$1,006,050 in 2017-18 and \$1,002,984 in 2018-19) (96). This amount is insignificant when compared to the costs of obesity, which is estimated to reach \$610 million in Western Australia by 2026 if current trends continue (5), and considering that most advertising space will be replaced by alternative advertising.</p>

	Restrictions on marketing of unhealthy foods to children have been evaluated as one of the most cost-effective interventions for obesity prevention (116-120).
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## 5.1 Discussion

The findings from this report, when combined with the broader evidence-based literature on unhealthy food marketing, demonstrates that policies to restrict unhealthy food advertising in outdoor spaces or on publicly owned assets are feasible, likely to be effective at improving population diets and health, with minimal financial implications. The food and advertising industries will remain a formidable force against any proposed regulation and strong coalitions and leadership will be important to drive the policy agenda forward.

Nine jurisdictions were identified that have adopted policies to restrict unhealthy food advertising in outdoor spaces or on publicly owned assets. Four of these specifically focus on publicly owned assets, of which three focused on public transport or stations (London, Australian Capital Territory and Amsterdam) and one focused on Ministry of Health premises and entities (Brazil). The remaining five jurisdictions have implemented broader-based policies (consumer protection law or broad-based advertising laws), which inherently capture marketing in outdoor spaces and on publicly owned assets. Whilst this precedent demonstrates the feasibility of enacting such policies, it also highlights several limitations with existing policies.

First, whilst restricting unhealthy food advertising on publicly owned transport is likely to have large reach, as evidenced by the large volumes of unhealthy food advertising identified in this scoping review, it does not capture the full range of government owned assets, which also include sports stadiums, billboards, and signage in public spaces and at public events. Second, a key limitation of the broader-based policies is the tendency to focus on marketing that is 'directed to children' (Chile, Quebec, Finland). Policies that are narrowly focused on marketing that is 'directed to children' can be difficult to enforce (and are therefore less effective) due to the complexities with different interpretations of the intended audience (59). Third, two of the policies identified were voluntary in nature. Strong and consistent independent evaluations assessing the effectiveness of both government-led voluntary regulation and industry-led self-regulation indicate that the impact of both approaches on reducing the exposure and power of marketing to children is limited (121). Research in Australia found that the frequency of food advertising and children's exposure to unhealthy food marketing on television remained unchanged despite the implementation of industry self-regulatory pledges (122). Mandatory regulation creates a level playing field for businesses, where compliance is not left to the voluntary commitment of industry. This removes any possibility of a company attempting to gain market advantage through non-compliance (an option that is still open to them under voluntary or self-regulation (54). Finally, several policies included exemptions for brand marketing or allowed brands to be marketed if the advertisement promotes healthy products. This is problematic as brand marketing (alone or with healthy options) for brands that are primarily associated with unhealthy products, has shown to increase reward pathways in the brain and to increase selection and consumption of unhealthy products (109, 110). It is recommended that policies that ban unhealthy food advertisements on publicly owned assets cover

*all* entities and assets owned by government and *all* marketing of unhealthy food *products* and *brands* to which children are exposed (regardless of whom the advertisement is directed to).

The findings of this report also highlight the global and ubiquitous nature of unhealthy food advertising in outdoor spaces or on publicly owned assets. This was particularly pertinent in locations surrounding schools or on children's routes to school, with a higher volume of unhealthy food advertising in neighbourhoods experiencing greater socioeconomic disadvantage. No studies were identified that evaluated existing policies that have banned unhealthy food advertising in outdoor spaces or on publicly owned assets. Further, only two studies that examined the association between this type of advertising and food consumption were identified, both of which reported a positive association between exposure to unhealthy food marketing (including on public transport) and consumption of unhealthy food, (7, 8). Nevertheless, when considered alongside the broader literature on unhealthy food marketing (through other mediums), the evidence is strong that marketing of unhealthy foods and beverages influences attitudes, preferences, expectations and consumption of these products across the life-course (6, 16). Evidence also shows that unhealthy food marketing not only increases unhealthy food consumption (6), but total energy intake (16). This is important as excess energy intake ultimately leads to excess weight gain and obesity (21).

Because of the lack of existing policy evaluations, firm conclusions on the financial impact of policies to ban unhealthy food advertising in outdoor spaces or on publicly owned assets were unable to be made. What can be concluded is that there is *no* evidence to date to suggest that such a policy will have negative financial impacts, as claimed by the food and beverage and advertising industries. In fact, the literature that was identified pointed in the opposite direction. Advertising revenue from Transport for London assets has slightly increased pre- and post- policy implementation. Of specific relevance to Western Australia, the Department of Transport reported that the Public Transport Authority received an income of approximately \$1 million per year in 2017-18 and 2018-19 from all food and drink advertising (96). When compared to current estimates on the costs of obesity, estimated to reach \$610 million in Western Australia by 2026 if current trends continue (5), and considering that most advertising space will be replaced by alternative advertising, this argument by industry is completely unfounded.

Political lobbying and arguments opposing regulation by the food, media and advertising industries was consistently identified as a key challenge to adopting and implementing regulations to restrict unhealthy food advertising. This included the risk of legal threats and lawsuits, criticisms of regulatory design and negatively framing policy and public discourse. Ultimately, this led to watering down of the policy scope and regulatory design in many jurisdictions. For example, the initial consultation on the promotion and marketing of unhealthy foods in Canberra, ACT, sought views and ideas on many different types of marketing, including at Government venues and events, however current policy restricting unhealthy food advertising on government owned assets is limited to government owned buses and light rail (57). This highlights the importance of the policy enablers identified in this review, particularly, cohesive and collective advocacy (123) by multi-sectoral actors including different levels of government, academia and NGOs, and the need for strong and influential leadership with a long-term vision.

As Western Australia and other jurisdictions around the world advocate for policies to protect children from unhealthy food advertising on publicly owned assets, they must be armed with strong and consistent evidence-based arguments that both justify the policy and counter opposing sentiments. This report presents these counterpoints and although they have been developed from an Australian perspective, these are likely to be transferable more generally across the world.

## 6.1 Conclusion

Unhealthy food advertising in outdoor spaces or on publicly owned assets is ubiquitous and cannot be avoided, making it impossible to protect children from its harmful impacts. Greater volumes of this type of advertising in disadvantaged neighbourhoods suggests that action to remove the advertising is likely to improve population diets and reduce inequalities in diet-related morbidity and mortality across the life-course. Although several jurisdictions have successfully implemented regulation that bans the advertising of unhealthy food and drinks on government-owned assets, none of these cover the full-breadth of government-owned assets or adequately cover all unhealthy food and brand advertisements that children are exposed to. The Western Australian government has the opportunity to step-up as a global leader in this regulatory space and invest in the future health of Western Australian people and children.

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## Appendix

Table 1: Scoping review summary of academic literature

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Adams et al. (2011)	Newcastle upon Tyne, England	To explore differences in the prevalence of outdoor food advertising, and type and nutritional content of advertised foods, according to SEP.	Cross-sectional. 1371 advertisements.	Food and beverage advertisements.	Outdoor.	Total advertising and total food advertising space was significantly higher in the least affluent, compared with the middle and most affluent, tertiles. The proportion of (all) advertisement space devoted to HFSS foods was significantly higher in middle vs least affluent tertiles (but absolute HFSS advertisement space was greatest in least affluent areas).
Adjoian et al. (2019)	New York City, USA	To determine if outdoor advertising density for non-alcoholic drinks, food, tobacco products, and alcohol, is associated with neighbourhood poverty or other Census-level characteristics in New York City (NYC).	Cross-sectional study. 16,305 advertisements across 15 strata (5 boroughs × 3 poverty levels).	Non-alcoholic beverages; food (healthy / unhealthy / fast food); tobacco; alcoholic beverages; branded products, with familiar and widely recognized logos; child-directed marketing.	Outdoor, street-level stationary signs including posters, stickers, decals, digital signs.	Within the food category, the most prevalent subcategories of product images were “other” food (31%), followed fresh produce (14%) and sweets (9%). Within the non-alcoholic beverage category, sugary drinks comprised more than two-thirds of product images (16%; n = 8197), while low calorie drinks and water/seltzer combined accounted for 9% (n = 1035). Unsweetened coffee, “other” drinks, and unknown drinks made up the remaining 24% (n = 2893).



Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Basch et al. (2019)	New York City, USA	Determine the prevalence of sugar-sweetened beverage advertisements on LinkNYC kiosks.	Cross-sectional. 2025 advertisements across 100 kiosks.	Beverage advertisements.	Outdoor, LinkNYC kiosks.	A total of 2025 advertisements were observed, including 347 (17.1%) for non-alcoholic beverages at 64 kiosks. 60% of non-alcoholic beverage ads featured beverages with added sugar. No significant differences in frequency of sweet drink ads by area-level median income.
Bragg et al. (2017)	Lower East Side, Manhattan, New York City, United States	Quantify the number and type of advertisements in a Chinese-American neighbourhood in a large, urban city and catalogue the targeted marketing themes used.	Cross-sectional. 1366 advertisements in a 0.6 mile <sup>2</sup> (1.6km <sup>2</sup> ) area where more than 60% of residents identify as Chinese-American.	Food: candy/dessert; snack/processed foods (e.g. granola bars); fruits; vegetables; fast food / restaurants; Beverages: SSBs, fruit beverages (e.g. smoothies), coconut water, brewed tea, ethnic beverage (e.g. plum drink), alcohol, coffee and milk.	Outdoor, including signs, front-of-store displays and billboards.	30% of ads featured food and/or beverage products. 67% of all beverage ads were for SSBs. 51% of food ads promoted fast food. 9% of food ads were for fruit, 0.9% for vegetables.

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Bragg et al. (2016)	Accra, Ghana	Assess the marketing themes and sugar content of beverages promoted in outdoor advertisements within a portion of Accra, Ghana and to quantify the types of ads that appeared along the Accra-Cape Coast Highway.	Cross-sectional. 77 advertisements across a 4.7 km <sup>2</sup> area of Accra and a 151 km region along the highway.	Non-alcoholic beverages, classified as SSB or non-SSB and the presence of child-targeted marketing, cultural relevance and health or fitness references.	Outdoor, including billboards and front-of-store displays.	73% of ads featured SSBs. 13% of ads featured children and 5.2% were located near schools or playgrounds. 9% of ads contained a reference to health and 8% referenced fitness/strength/sport. Along the Accra-Cape Coast Highway, Coca-Cola accounted for 60% of branded ads.

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Cassady et al. (2015)	Sacramento County, CA, United States	Assess obesity-related (diet and physical activity) advertisements, in an economically and racially diverse urban area in Northern California and investigate whether there are disparities in the distribution of ads by neighbourhood income and race.	Cross sectional. 171 ads across 16 randomly selected zip codes from income strata above and below California median household income.	Food and beverage advertisements, coded as healthy if they promoted a food or beverage encouraged by the Dietary Guidelines for Americans and unhealthy if they promoted high-calorie, low-nutrition foods and beverages such as sugary beverages and fast food.	Outdoor, including billboards, bus shelters, bus benches, and posters on storefronts large enough to be seen from the street.	<p>171 health-related outdoor advertisements. 40% of ads were on billboards and 60 % on bus shelters or benches. One half of the ads were obesity related and addressed physical activity or food and beverages. Billboards were more likely to have ads classified as unhealthy for food or physical activity (51 %) compared to bus shelters (7 %) or bus benches (0 %).</p> <p>Unhealthy food ad space was most dense in low-income Latino and African American neighbourhoods, which had five times the unhealthy food ad space compared to high-income white neighbourhoods and six times that of low-income white neighbourhoods. Unhealthy beverage ads were denser in low-income neighbourhoods and in multiracial neighbourhoods.</p>

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Dowling et al. (2019)	New York City, United States	Estimate the density of street level sugary drink advertisements across the 5 boroughs of NYC and describe variation by neighbourhood.	Cross-sectional. 4,356 advertisements across 953 retail-dense street segments in low-, medium-, and high-poverty neighbourhoods.	Sugary drinks advertisements.	Outdoor, including street-level advertisements including stationary signs (posters, digital signs, stickers, and decals) on outdoor structures, such as newsstands, bus shelters, and payphones.	<p>Overall, 4,356 advertisements were featuring sugary drinks with 8,197 sugary drink images observed in the sample. Between 2.72 (Staten Island) and 29.91 (Bronx) ads for sugary drinks observed per 1,000 feet of retail-dense street segment, meaning someone walking the length of 3 city blocks in a retail-dense area would encounter anywhere from about 3 to 30 ads (7–48 images), depending on the neighbourhood.</p> <p>In unadjusted analyses for NYC, sugary drink ad density was 1.54 (95% CI=1.16, 2.04) times as high for medium- versus low-poverty neighbourhoods and 1.66 (95% CI=1.26, 2.19) times as great for high- versus low-poverty neighbourhoods.</p>

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Egli et al. (2018)	Auckland, New Zealand	Explore the use of Google Street View to examine outdoor food and beverage advertising within 800m buffer zones around schools.	Cross-sectional. 2474 advertisements across 19 school zones (800m buffer zones).	Food and beverage advertisements classified as healthy or unhealthy and categorised according to target audience. (Defined by WHO guidelines for classifying marketing to children).	Outdoor, including all billboards, signs, flags, banners, balloons, neon signs, stickers, and bus shelter advertisements, that were large enough to be seen on a 15-inch computer screen, with an identifiable logo or text; and located completely or partially on public land.	Of the advertisements that could be identified (n=1,747, 70.6%), the most frequent category of advertising was “non-food other” (41%), followed by “non-food residential” (12.2%), “food other” (5.6%), and “food unhealthy” (5.4%). The majority of food and beverage advertising was marketed to “adults only” (54%), with remaining 46% marketed to “children and adults.” No advertisements were coded as marketed to “children only”. Of the food and beverage ads marketed to both children and adults, there were significantly more advertisements for unhealthy food and beverages than for other food and beverages.

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Esdaille et al. (2019)	Australia	Investigate the level of support for state government health promotion policies among mothers with infants and its associated factors.	1155 mothers in NSW, participating in the Communicating Healthy Beginnings Advice by Telephone (CHAT) Trial.	Six policy options posed to mothers: Zoning laws about number of fast food restaurants in an area; Restricting unhealthy food advertising in and around public transport; Building a network of connected walkways and bike paths; Requirements for childcare services to have policies around nutrition, play, screen time and sleep which meet a set standard; Support programs for healthy eating and active living; Develop a standard for child height and weight to be routinely taken at health appointments, and feedback on child growth provided to parents.		There was very high support for a broad range of childhood obesity prevention policy options available to the NSW government. The proportion of mothers who felt these policy options were 'about the right amount' (56%-68%) or 'not going far enough' (24%-36%), collectively represented 89%-95% approval of government intervention. Regarding policy restricting unhealthy food advertising in and around public transport, 56% thought about the right amount' and 36% thought 'not going far enough', indicating 92% of participants supported that policy.
Fagerberg et al. (2019)	Stockholm, Sweden	Explore the proportion of ultra-processed food advertisements in two districts of Stockholm, Sweden with low vs. high socioeconomic status.	Cross-sectional. Two districts: Skarholmen (1935 advertisements); Ostermalm (2157 advertisements).	Food, beverage and fast food advertisements, classified in accordance with the Group 4 of the NOVA classification system for ultraprocessed foods.	Public transport including all advertisements in the subway station and in streets outside of the entrances to the subway station (50m to the left and the right of the streets outside the entrance) as well as inside and outside the shopping mall-located within 100m of the subway station.	32.8% of ads promoted food products. 65.4% of all food ads promoted ultra-processed food products.  A significantly higher proportion of ultra-processed food advertisements of all food advertisements was identified in the low SES area, irrespective of the researcher taking the pictures (74.6% vs. 61.8%, $p < 0.001$ and 70.4% vs. 54.8%, $p = 0.001$ ). There was no significant difference in the proportion of food advertisements when expressed as a proportion of all advertisements.

<b>Author and year of publication</b>	<b>Jurisdiction</b>	<b>Study aim</b>	<b>Study design and methods</b>	<b>Advertising content</b>	<b>Advertising medium</b>	<b>Main results</b>
Fernandez et al. (2019)	Indonesia	Assess the association between food marketing exposure and children's consumption of confectioneries at home.	Cross-sectional, survey design. 240 caregivers of children aged 3-5 years attending 25 early childhood education centres in Central Jakarta. Structured Food Frequency Questionnaire (FFQ) to ascertain child's frequency intake of confectioneries at home.	Confectionary	Multiple mediums, including advertisements (i) seen on public transport, (ii) seen in a magazine/newspaper, (iii) received via email, social media, and television, (iv) seen at school, and (v) received via SMS and from supermarket promotions.	Among the most common food marketing practices were advertisements on public transport, print and electronic media. The five most common food marketing practices were also found to have significant association with the consumption of several of the popular types of confectioneries.
Good et al. (2010)	Australia	Identify how local government planning tools could be used to influence physical and policy environments to support healthy eating behaviours in communities.	An audit of Queensland's legislative and non-legislative local government planning tools to assess potential use in strategies to achieve positive nutrition outcomes.	Relevant strategy: Modify outdoor food advertising to increase healthy food promotion and decrease unhealthy food promotion.		Three legislative frameworks and three non-legislative processes identified across Local and State Government as opportunities to address outdoor food advertising.

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Herrera & Pasch (2018)	Central Texas, United States	Determine if the prevalence of outdoor food and beverage advertising was greater around middle and high schools with a majority Hispanic population as compared to schools with a lower Hispanic population.	Cross-sectional. All 47 schools in Central Texas (Schools with 60% or more Hispanic students had an average of 76% Hispanic students out of their total student population).	Food and beverage advertisements, coded for theme including "Price" or "Deals or Value meals".	Outdoor, including freestanding signs on gas pumps, sidewalks, A-frames, banners, billboards, and advertisements on the exterior windows or walls of establishments within a half-mile (800m) radius of each school.	Outdoor food and beverage advertisements were more prevalent around schools with a higher Hispanic population. A majority of these advertisements were for calorie-dense, high-fat, low-nutrient food or beverage products (e.g. fast food and sugar sweetened beverages).  Schools with 60% or more Hispanic students had significantly greater numbers of establishment, price promotion and total FB advertisements around their schools within the half-mile radius.
Huang et al. (2020)	Auckland, New Zealand	Quantify the amount of food and beverage ads that children are exposed to from bus stops around all schools in the Auckland region.	Cross-sectional. 573 schools; 842 advertisements.	Food, beverage and fast food advertisements, coded as "core" and "non-core" based on the WHO Regional Office for Europe Nutrient Profiling Model.	Bus stops within in a 500m radius of each school.	12.8% of all bus stop advertisements were promoting non-core food or beverages. A greater number of total and food and beverage ads per 100 m were identified as the distance from the school increased.



Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Isgor et al. (2016)	Nationwide sample of communities in the United States	Examine the prevalence of outdoor food and beverage advertisements on the exterior of retail food outlets in relation to community demographic and socioeconomic characteristics in a nationwide sample of communities in the U.S.	Cross-sectional. 8021 stores within school enrolment zones (1634 supermarkets/grocery stores and 6337 limited service stores); 69% of stores located in non-Hispanic White neighbourhoods.	Food and beverage advertisements and food and beverage price promotion advertisements.	Retail exterior, including all ads on store buildings' exterior and/or store properties.	Higher prevalence of any food and beverage advertisement (OR=1.70, 95% CI 1.11, 2.61), food and beverage price promotion advertisements (OR=1.92, 95%CI 1.22, 3.01), and regular soda advertisements (OR=2.14, 95% CI 1.32, 3.47) in low-income compared to high-income community supermarkets / grocery stores.
Kelly et al. (2007)	Sydney & Wollongong, Australia	To describe the volume and nature of outdoor food advertisements and factors associated with outdoor food advertising in the area surrounding primary schools.	Cross-sectional. The area within a 500m radius of each school n=40 primary schools, 9,151 advertisements.	Food and beverage advertisements, classified by the Australian Guide to Healthy Eating as core / discretionary / miscellaneous (tea coffee, supplements, brand-only ads).	Outdoor, including billboards, posters, outdoor furniture, signs on buildings, temporary ads for special events.	25% of all identified ads were for food. Of these, 80% classified as non-core. Non-core food twice as likely to be advertised close to a primary school. 95 non-core food ads per 2km within 250m of school vs. 46 ads per 2km within 250-500m of school.

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Kelly et al. (2015)	Manila, The Philippines & Ulaanbaatar, Mongolia	Identify, describe and quantify the volume of food and beverage advertisements around schools; within two demographically and culturally disparate cities in Asia.	Cross-sectional. The area within 250m or 500m from the centre of the school for 30 primary schools in each of the cities (n=60 primary schools); 1459 food and beverage advertisements.	Food and drink advertisements, classified as core/healthy, non-core/unhealthy and miscellaneous.	Outdoor, including billboards, posters, free standing signs, neon signs, stickers, electronic boards, banners, bus shelter signs and signs on outdoor furniture, bridge/awning signs and painted buildings.	<p>The density of food advertising in the immediate area of schools, within 250 m, was almost double that in the area further away from schools (.9 vs. .5 in Ulaanbaatar and 6.5 vs. 3.3 advertisements per 100 m<sup>2</sup> in Manila).</p> <p>Mongolia: Most advertised products were non-core food/drinks (92%). Philippines: The majority of advertised foods/drinks were non-core (85%).</p>

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Lesser et al. (2013)	Los Angeles & Louisiana, United States	To test the association between outdoor food advertising and obesity.	During the same time period and in the same census tracts in which the outdoor advertisements were surveyed, telephone interviews were conducted with a systematic sample of adults from geographically referenced telephone-listed households. In Louisiana the average response rate per census tract was 37.9%; in Los Angeles, it was 34.4%. Analytic sample comprised 2589 participants without missing data. 25% of adults were obese, 35% overweight and 40% normal weight. Adults drank, on average, 1.3 (sd 1.9) 12-ounce sodas per day.	Food and/or restaurants; alcohol; tobacco; and other products. Did not distinguish between healthy and unhealthy food ads, as <5% of ads were for vegetables or fruit.	Outdoor, including billboards, posters, flyers, flags, banners, and transit shelters and benches.	<p>The average number of outdoor advertisements in each census tract was 10.2 (SD=17.3, median=4). 67 (30.6%) had no outdoor advertisements, and 122 (55.7%) had no food advertisements. On average 10.4% of advertisements related to food or beverages was 10.4%.</p> <p>Black or Latino low-income census tracts had significantly greater odds of having any food advertisements compared to high-income white census tracts. No significant relationship between census tract characteristics and percent of outdoor advertisements promoting food.</p> <p>Census-tracts with a higher proportion of outdoor advertisements promoting food or non-alcoholic beverages had a greater odds of obesity among its residents, controlling for age, race and educational status, compared to census-tracts with less food advertisements. For every 10% increase in food advertising, there was a 1.05 (95% CI 1.003 - 1.093, p&lt;0.03) greater odds of being overweight or obese.</p>

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Liu et al. (2019)	Wellington, New Zealand	Measure children's space-time exposures to unhealthy food advertising in public outdoor spaces, using GPS and wearable cameras; and test effectiveness of banning options.	Cross-sectional. 138 12-year-old children in Wellington, New Zealand, using wearable cameras and GPS devices worn over 4 days.	Food and beverage advertisements, classified as core or non-core based on the WHO Regional Office for Europe Nutrient Profiling Model.	Outdoor.	<p>Children were exposed to a mean of 8.3 (95% CI 7.9–8.7) food advertisements for every hour they spent in outdoor public areas. Of these, 89.2% were for unhealthy and 0.8 (95% CI 0.7–1.0) or 9.6% were for healthy food products.</p> <p>Banning outdoor advertising of unhealthy foods within 400 m of playgrounds would reduce estimated exposure by 33%, followed by residential areas (27%), and 400 m of schools (25%). Banning advertising in residential areas and within 400 m of both schools and playgrounds would reduce estimated exposure by 50%.</p>

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Lowery et al. (2014)	Los Angeles, California, United States	To examine associations between the content of outdoor advertising and neighbourhood ethnic and socioeconomic composition.	Cross-sectional. 585 advertisements. 7 regions; One African American neighbourhood, one Asian American neighbourhood, one White neighbourhood, one Latino American, one Latino American Youths neighbourhood, one Latino American Poverty Risk neighbourhood, and one Latino American neighbourhood with Multiple Risks.	"Harmful" outdoor advertisements that encourage (1) addictive behaviours such as alcohol use, tobacco use, and gambling; (2) violence through the depiction of weapons or crime; (3) unhealthy eating by promoting high-calorie, low-nutrition food; (4) unsafe environments for women through misogynistic portrayals and advertisements for strip clubs; and (5) content that has been deemed inappropriate for young children such as the mature themes of R-rated movies.	Outdoor.	<p>In all communities, harmful content represented at least 24% of outdoor advertising space. Harmful advertisements included unhealthy foods but was part of a larger analysis included addictive behaviour, violence, unsafe environment for women, inappropriate content for young children. There was a disproportionate number of advertisements promoting negative messages in non-White, lower-income communities.</p> <p>Advertisements featuring unhealthy food options, depicting foods that are high-calorie and of questionable nutritional value, were most prevalent in the African American community in Baldwin Hills (18.6%) and the Latino community denser with young people (12.7%). Most frequent among these were ads that promoted fast food options (e.g. hamburgers, fried foods) and ads for soft drinks, flavoured beverages, and candy.</p>

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Lucan et al. (2017)	Bronx, NY, United States	To determine how placement of advertisements for foods and beverages related to subway ridership and to the demographics, dietary intake, and prevalence's of diet-related conditions.	Cross-sectional. 1586 print advertisements on Subway in Bronx, NY.	Food and beverage advertisements.	Public transport, Subway ads in Bronx, NY.	Advertisements for foods and beverages were more common in stations located in areas characterized by greater poverty, lower levels of educational attainment, and greater percentages of Hispanic residents.
Maher et al. (2015)	New Zealand	Examine the extent and content of outdoor food advertisements and food availability from outlets in the vicinity of secondary schools.	Cross-sectional. 1408 outdoor advertisements in 1km zone surrounding 10 schools (6 urban, 4 rural and evenly split across low and high socioeconomic areas).	Food and beverage advertisements.	Outdoor, including billboards, neon signs, posters, stickers, free-standing signs, banners, painted buildings, bus shelter advertisements, flags, and images in shop windows designed for viewing from outside.	Out of 1408 outdoor advertisements for products, 61.5% were for food. Major categories were soft drinks (21.6%), frozen confectionary (16.2%), savoury snacks (11.4%), and alcohol (8.1%). Overall, 70.2% of food advertisements were for foods classified as 'unhealthy' (i.e. inconsistent with the national nutritional guidelines for adolescents). Average of 87 outdoor food advertisements per 1-km radius surrounding a school (28 food ads per km <sup>2</sup> ).

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Nelson et al. (2019)	Kingston, Jamaica	Examine the prevalence of food and beverage advertising and analyse the content (healthier or less healthy) of advertisements.	Cross-sectional. 484 advertisements across four major transportation hubs / arteries in Kingston (Liguanea, Papine, Cross Roads and Half Way Tree).	Food and beverage advertisements, including fast food. Classified as everyday, select carefully or occasionally, according to Healthy Canteen Kit (Victoria, Australia).	Outdoor, including billboards, posters and transit advertising.	One in four outdoor ads was for food and beverages. The percentage of less healthy food advertisements was higher (70.4% 'occasional' choice) than healthy food advertisements (14.5% 'everyday' choice). 35% of ads were promoting fast-food franchises and 13% were promoting soft drink brands.
Palmer et al. (2020)	Liverpool, United Kingdom	Automatically extract and classify unhealthy advertisements from street-level images (collected via GoPro camera) to understand who is exposed to unhealthy advertising.	Cross-sectional. 10,106 advertisements across three areas of Liverpool (1) City Centre; (2) North Liverpool; (3) South Liverpool. Health outcomes include measured child obesity.	Food, alcohol, gambling, other (food not classified as healthy / unhealthy).	Outdoor, street level / street view images.	Less deprived areas have fewer advertisements compared to the more deprived areas e.g. larger proportions of food advertisements are found within deciles 1 to 6. Large proportions of food advertisements found within areas populated by students (Students Around Campus (4.62%), 2b- Inner-City Students (11.8%)). Also observed larger exposure of food advertisements within areas with higher percentages of school age children carrying excess weight.

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Parnell et al. (2017)	Perth, Australia	Assess the volume and type of unhealthy bus shelter advertisements near schools in five local government areas in Perth, Western Australia and to monitor whether the volume of unhealthy advertisements varied seasonally.	Cross-sectional. 293 advertisements across five high SES local government areas. Bus shelters with advertisements within 500m of school n =37. Schools n = 16 (within 500 m of advertising bus shelter).	Food and beverage advertisements, coded as healthy, moderate or unhealthy by a nutritionist, as well as alcohol and gambling advertisements (coded as unhealthy).	Public transport, every bus shelter within 500 m of a school.	Of 293 advertisements viewed over four audits, 31.4% were promoting unhealthy products. Food represented the largest proportion of unhealthy advertisements, accounting for 56.5% of all advertisements in the unhealthy category. Products classified as being moderate represented 3.1% of total advertisements. Less than one per cent of advertisements (0.7%) promoted a healthy product.
Richmond et al. (2020)	Sydney, Australia	Examine the number and type of food advertisements to which children are exposed when using public transport or walking to school in Sydney, Australia.	Cross-sectional. 21 schools (high and mid/low decile SEP and various geographic locations); 53 school routes; 763 advertisements. Theoretical train, bus and walking routes were planned for a one-way trip to each school using Google maps.	Food and beverage advertisements, categorised as 'core' (recommended to meet daily nutrient requirements), 'discretionary' (foods that are surplus to daily nutrient requirements) or 'miscellaneous' (tea, coffee, supplements, meal delivery apps).	Outdoor, including train stations (vending and billboards), and on buses, bus shelters and telephone posts.	<p>Almost one-third (32%) of advertisements were for foods or beverages and of those, 75% promoted discretionary products. Core food and miscellaneous advertisements contributed to 11% and 14% of total food and beverage advertisements, respectively. On average, there were significantly more advertisements per trip for discretionary foods on train routes compared with bus and walking routes.</p> <p>There were no significant differences in the rate of discretionary and core food advertisements per trip between primary and secondary schools, or across schools in high and mid/low decile socioeconomic areas.</p>



Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Sainsbury et al. (2018)	Australia	Determine the level of public support for food-related regulations for obesity, and to assess the determinants of support.	Cross-sectional survey. Nationally representative sample of Australian adults (n = 2011).	Survey questions included: Government regulations should restrict advertising of unhealthy foods and beverages in public spaces (e.g. bus stops, train stations, roadside).		70.3% participants agreed that Government regulations should restrict advertising of unhealthy foods and beverages in public spaces (e.g. bus stops, train stations, roadside). 90% felt there should be at least some government regulation to protect the public. Respondents agreed that the government should regulate food and beverage advertising (generally) (69.5%), with strongest support for restricting unhealthy food advertising to children (78.9% agreed).
Sainsbury et al. (2017)	Sydney, Australia	Determine the level of public exposure to unhealthy food and beverage advertising on train stations, and if the amount and type of food and beverage advertising varies by SEP.	Cross-sectional. 178 stations on Sydney metro train network; 6,931 advertisements, 36% low SEP.	Food and beverage advertisements, classified as core / discretionary / miscellaneous (tea coffee, supplements, brand-only ads) according to Australian Guide to Healthy Eating.	Public transport, on and immediately surrounding metro train stations. Including commercial billboards, poster, flyers, branded furniture, vending machines, experiential displays promoting product, service or brand.	27.6% of all identified ads were for food or beverage. Of those 84.3% classified as discretionary, 8% core, 7.6% miscellaneous.  No difference in the mean number of food and beverage advertisements by area, but proportion of advertising for discretionary foods highest in low (41.9%) compared to medium (18.4%) and high (25.2%) SEP areas (p < 0.001).

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Scully et al (2012)	Australia	Examine associations between food marketing exposure and adolescents' food choices and reported consumption of energy-dense and nutrient-poor foods.	Cross-sectional survey. 12,188 Australian secondary students aged 12–17 years. Students indicated whether they had seen a special offer, competition or giveaway for a food or drink product (i) in a magazine, (ii) on public transport or (iii) at school in the last month. Self-reported consumption of fast food, sugary drinks and sweet and salty snacks, and whether they had tried a product seen advertised.		Multiple mediums, including commercial television, print/transport/school food marketing and digital food marketing.	Over two-thirds were exposed to at least one source of print, public transport or school food marketing in the last month. Greater exposure to commercial television, print/transport/school food marketing and digital food marketing were all independently associated with students' food choices. Students exposed to two or three print, public transport or school food marketing reported higher consumption of sweet snacks than those with no exposure.

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Settle et al. (2013)	Australia	To examine the prevalence of outdoor food advertising at tram, bus and train public transit stops across the least and most socioeconomically disadvantaged areas.	Cross-sectional. 233 food advertisements at 558 public transit stops, audited across 20 sampled suburbs; 10 suburbs of least disadvantage, 10 of most disadvantage.	Food, beverage and food store advertisements.	Public transport stops including train stations, bus and tram shelters.	<p>On average, 30% transit stops displayed food advertisements. 66% of train stations, 40% of tram shelters and 24% of bus shelters had at least one food ad.</p> <p>Similar proportion of transit stops in the least and most-disadvantaged suburbs displayed food advertisements (total n=203). However, some differences in the type of advertisements across suburbs were noted with advertisements for fast food restaurants, flavoured milk and fruit juice more common in the most-disadvantaged neighbourhoods (all p&lt;0.05) and advertisements for diet soft drink, tea, coffee and convenience stores more common in the least-disadvantaged neighbourhoods (all p&lt;0.05).</p>

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Shill et al. (2012)	Australia	Identify regulatory interventions targeting the food environment, and barriers/facilitators to their implementation at the Australian state government level.	45 interviews with 47 senior representatives from state and territory government departments, NGOs and statutory authorities.	Restrict (non-TV) marketing of unhealthy foods/beverages to children, e.g. Internet, billboards, sports sponsorship was included as a pre-selected intervention put to participants.		Participants suggested four main approaches to promote healthier food environments, one of which was regulating unhealthy food marketing. Pre-selected interventions e.g. restricting non-TV marketing (internet, billboards, sport sponsorship) was supported by >80% respondents. Marketing restrictions were seen to face substantial implementation barriers including a push for deregulation and private sector opposition, and marketing restrictions were seen to require national leadership (rather than state-level action).

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Signal et al. (2017)	Wellington, New Zealand	Examine the frequency and nature of everyday exposure to food marketing across multiple media and settings.	Cross-sectional. 168 children (mean age=12.6 years).	Food and beverage advertisements classified as recommended (core) or not recommended (non-core).	Multiple mediums including home, school, food venues, recreation venues and other public spaces. Public spaces included: Street, Shop front, Shopping mall, Private transport, Public transport facility, Public transport (on-board), and Other Retail.	<p>Children were exposed to non-core food marketing 27.3 times a day (95% CI 24.8, 30.1) across all settings, in public spaces 0.9 (core) vs 8.3 (non-core foods). 30% of all non-core food exposure was in public spaces, compared with 7% of core-food marketing exposure in public spaces.</p> <p>The rate of exposure for non-core foods was higher than for core foods in all strata. Compared to middle-decile children, children at higher decile schools had higher exposure to core foods (RR = 1.60, 95% CI 1.03, 2.48); while children at lower decile schools had non-significantly higher rates of such exposure (RR = 1.18; 95% CI 0.80, 1.73; reference is middle decile group). Ethnic differences in non-core exposures showed non-significantly higher rates of exposure to non-core foods for Māori children relative to NZE (RR = 1.18, 95% CI 0.90, 1.55) but not for Pacific children (RR = 0.99, 95% CI 0.84, 1.16). There was reasonably strong evidence for ethnic differences in the lowest school decile group (Māori RR = 1.20, 95% CI 0.97, 1.47; Pacific RR = 1.50, 95% CI 1.19, 1.89; both relative to NZE).</p>

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Taillie et al. (2020)	Chile	Evaluate the impact of Chile's Law of Food Labelling and Advertising on household beverage purchases.	Monthly longitudinal data on packaged beverage purchases were collected from urban-dwelling households (n = 2,383) participating in the Kantar World- Panel Chile Survey from January 1, 2015, to December 31, 2017. Beverage purchases were linked to nutritional information and categorized as "high-in" or "not high-in" nutrients of concern (i.e., sugars, sodium, saturated fat, or energy) according to Chilean nutrient thresholds.	2016 Law of Food Labelling and Advertising: jointly mandate front-of-package warning labels, restrict child-directed marketing, and ban sales in schools of all foods and beverages containing added sugars, sodium, or saturated fats that exceed set nutrient or calorie thresholds.		<p>Purchases of high-in beverages significantly declined following implementation of Chile's Law of Food Labelling and Advertising; these reductions were larger than those observed from single, standalone policies, including sugar-sweetened-beverage taxes previously implemented in Latin America.</p> <p>Compared to the counterfactual, the volume of high-in beverage purchases decreased 22.8 mL/capita/day, post-regulation (95% confidence interval [CI] -22.9 to -22.7; p &lt; 0.001), or 23.7% (95% CI -23.8% to -23.7%). High-educated and low-educated households showed similar absolute reductions in high-in beverage purchases (approximately 27mL/capita/day; p &lt; 0.001).</p>

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Velazquez et al. (2019)	Vancouver, Canada	Describe the prevalence and characteristics of food and beverage advertisements surrounding public schools in a large Canadian city, and examine whether advertising differed by neighbourhood socio-economic deprivation, school type (elementary versus secondary), and—for advertisements located on store exteriors— store type.	Cross-sectional. 26 geographically and socioeconomically diverse schools (20 elementary and 6 secondary) in Vancouver, Canada. 653 advertisements.	Food and beverage advertisements, classified as “sell most”, “sell sometimes” and “do not sell” using a modified version of the Guidelines for Food and Beverage Sales in BC schools.	Outdoor, including posters or other physical materials with branded or non-branded information, images related to food, or logos for provincially or nationally recognizable food or beverage retailers in areas surrounding each school (reported on 400m line-based buffers surrounding each school).	<p>Four schools were exposed to &gt; 25 advertisements for items categorized as “do not sell” by provincial guidelines for the sale of food in schools. 22/24schools had at least one food- or beverage-related advertisement within 400m (median: 18, range: 0–96) and approximately 90% of food or beverage advertisements were for items not recommended for frequent consumption by provincial school food guidelines. Most frequently depicted products were pizza or burgers (20.7%), soft drinks or energy drinks (19.4%), and milk and alternatives (19.0%). Of the 44 advertisements featuring fruits and vegetables, 21 were classified as “sell sometimes” or “do not sell” (e.g. fruit juices or smoothies containing added sugars). Overall, just 6.7% of advertisements were for “sell most” items, whereas 24.0% and 45.6% were for “sell sometimes” and “do not sell” items, respectively.</p> <p>In comparison with less deprived neighbourhoods, the most deprived neighbourhoods had proportionally more branded advertisements (56.2% versus 41.9%) and food pictures (30.1% versus 22.2%) and fewer logos or non-branded advertisements. Neighbourhoods with high deprivation scores also had a higher proportion of “sell most” advertisements (n=23, 7.9%) in comparison with the least deprived neighbourhoods (n=6, 3.6%). While the most deprived schools had higher counts of advertisements in every</p>

Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Walton et al. (2009)	Wellington, New Zealand	Document community food environment surrounding case study primary schools and to consider whether aspects of the community food environment impact on the food environment within schools.	Cross sectional. 79 advertisements, 4 schools (varied by SEP), 792 students; 35% highest deprivation groups, 35% Maori ethnicity. For each school, interviews were conducted with school management (principals, teachers and parents on the governance board or involved in lunch programmes).	Food and beverage advertising. Classified into 'everyday', 'sometimes' and 'occasional', based on energy, fat and sodium levels according to the Food and Beverage Classification System for Schools (FBCS). Food outlets were categorised as cafe; local fast food; multinational fast food; petrol station or convenience store.	Outdoor, including advertising on food outlets in neighbourhoods surrounding primary schools. Data collected by driving and walking the streets surrounding each school with a 2km Euclidean buffer.	<p>The buffer zones surrounding schools that had the highest number of food outlets also had the highest number of food advertisements. The majority of food and beverage advertised was considered 'occasional'. The schools with a higher percentage of students passing food outlets and advertisements considered that their presence impacted on efforts within schools to improve the food environment.</p> <p>The school with the highest social deprivation characteristics had a greater number of food advertisements classified unhealthy (foods for 'occasional consumption') within a 2km buffer zone of the school (20 advertisements) compared to the school classified as mid-low deprivation (0 advertisements).</p>



Author and year of publication	Jurisdiction	Study aim	Study design and methods	Advertising content	Advertising medium	Main results
Yancey et al. (2009)	United States	Content analysis of advertising to examine whether African Americans, Latinos, and people living in low-income neighbourhoods are disproportionately exposed to advertisements for high-calorie, low nutrient–dense foods and beverages and for sedentary entertainment and transportation.	Cross sectional. Selected zip-codes across four cities: Los Angeles, Austin, New York City, and Philadelphia.	Advertised content in one of the following categories: Food; Non-alcoholic beverages; Alcoholic beverages; Physical activity; Sporting goods (not clothing); Sporting goods (clothing); Screen entertainment (i.e., movies, television, video games); Other health-related topics (e.g., obesity prevention public service announcements).	Outdoor, including billboards, bus bench and shelter advertisements, sidewalk “sandwich” signs, murals painted on the sides of buildings, and large store window posters.	<p>The density of advertising varied by zip code area race/ethnicity, with African American zip code areas having the highest advertising densities, Latino zip code areas having slightly lower densities, and white zip code areas having the lowest densities.</p> <p>Low income Latino zip code areas had the highest prevalence of advertisements featuring high-calorie/low-nutrient products, which included ads for fast foods, alcoholic beverages, and sugary beverages like sodas and sweetened juices.</p>

Note: SEP - Socioeconomic Position; NGO – Non-government Organisation; SD – standard deviation

**Table 2:** Extracted data pertaining to the factors that have influenced the adoption or implementation of government-led policies to restrict unhealthy food advertising in public spaces or on government owned assets

Jurisdiction	Barriers and challenges	Enablers
<b>MANDATORY</b>		
London <sup>1</sup> (2019)	<ul style="list-style-type: none"> <li>Perceived <b>decreased revenue</b> for Transport for London (especially given existing financial pressures and the need to maintain the affordability of transport).</li> <li>Belief that the <b>Nutrient Profiling Model is inappropriate</b> and will contravene the policy.</li> <li>Risk of <b>legal threats</b>.</li> <li>Removal of a clause preventing the logos of food businesses associated with HFSS foods, such as fast-food chains, from appearing in advertisements (i.e. <b>policy watered down</b>).</li> </ul>	<ul style="list-style-type: none"> <li><b>Multi-sectoral actors:</b> Public sector lobbying (Mayor of London, Public Health England), Greater London Authority and Transport for London (drafting of policy and consultation), TfL (implementation), general support from London boroughs, public health organisations and the London Food Board, private sector (TfL agents to provide support to advertisers), NGOs (advocacy), and university (evaluation on HFSS sales).</li> <li><b>Leadership:</b> Strong political will from the Mayor of London who also chairs TfL's board and has the power to direct its policies.</li> <li>Effective <b>government partnerships</b> between the Greater London Authority and TfL.</li> <li><b>Public health lobbying.</b></li> <li>Support by Boroughs and <b>policy alignment</b> with local government level policy on Sugar Reduction and Healthier Foods.</li> </ul>
Amsterdam <sup>2</sup> (2018)	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li><b>Policy implemented under the</b> broader Healthy Weight Program.</li> <li><b>Policy leadership and multi-sector actors:</b> Mayor acted as a champion and responsibility originally belonged to the Department for Social Development (not Health).</li> </ul>

Jurisdiction	Barriers and challenges	Enablers
		<ul style="list-style-type: none"> <li>• <b>Strategic use of power:</b> Prioritise action according to feasibility and need.</li> <li>• <b>Long-term focus and clear milestones</b> enable ongoing buy-in even during changes in leadership.</li> <li>• <b>Evidence and monitoring.</b></li> <li>• <b>Creativity</b> to address barriers (e.g. industry influence addressed by building the business case for action).</li> </ul>
Australian Capital Territory <sup>3</sup> (2016)	<ul style="list-style-type: none"> <li>• Strong <b>industry opposition</b> in submissions to consultation.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>NGO support:</b> The Heart Foundation prepared a report for ACT Health. This report outlined an audit of marketing to children across 61 sites in the ACT (with a focus on mediums that can be influenced by the ACT government). This report was endorsed by the ACT Minister of Health in 2015.</li> <li>• <b>Policy alignment:</b> Stated alignment the 2013 Towards Zero Growth: Healthy Weight Action Plan.</li> </ul>
Chile <sup>4-6</sup> (2016)	<ul style="list-style-type: none"> <li>• <b>Industry opposition</b> to Nutrient Profile Model and through arguments that the policy could be a barrier to trade practices.</li> <li>• Application of <b>marketing definitions</b> of ‘child-directed advertising’ – <b>difficult to monitor compliance</b> given ongoing changes and innovations in marketing.</li> <li>• <b>Policy loopholes:</b> Only includes marketing to children &lt;13 years of age, excludes universities and other tertiary education settings, marketing adaptations to other unregulated platforms, and use of labelling as a</li> </ul>	<ul style="list-style-type: none"> <li>• The President, Parliament, Ministry of Health, and university sector <b>set a common agenda</b>, with political consensus achieved on the need to reduce population weight (especially among children) and the prevalence of diet-related NCDs.</li> <li>• <b>Broad regulatory approach:</b> the need for a comprehensive approach to address obesity was recognised, allowing for coherent discussions concerning trade-offs, negotiations, and technical consensus.</li> <li>• <b>Policy leadership</b> (Senator Guido Girard) backed by <b>influential academic support</b> (Professor Ricardo Uauy).</li> </ul>

Jurisdiction	Barriers and challenges	Enablers
	<p>marketing tool.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Time given to develop an <b>evidence-based implementation plan.</b></li> <li>• <b>Political timing</b></li> <li>• <b>Multi-sectoral actors:</b> academia and health advocacy groups <b>advocacy for</b> and compilation of evidence-based regulatory measures; ongoing involvement of the Ministries of Health, Education, Economy, Treasury, Social Development, Agriculture and Foreign Affairs; and other government bodies (The National Institute of Industrial Property, The National Council of Television and the National Consumers Service) to define compliance measures.</li> <li>• Nutrient Profiling System and regulation designed by scientific and media experts <b>without industry interference.</b></li> <li>• <b>Industry given time to adapt</b> to the regulation and convinced to support it by being early adopters.</li> <li>• <b>Public debates and framing</b> (i.e. reduce child obesity, consumer rights to nutrition information).</li> </ul>
Brazil <sup>7-9</sup> (2016)	<ul style="list-style-type: none"> <li>• <b>Food, beverage, and media industries lobbying</b> against marketing restrictions: regulation is framed as restricting citizens and enacted policy is a watered-down version of the more comprehensive draft that aimed to restrict all marketing to children.</li> <li>• <b>Legal threats by industry:</b> Efforts by the Ministry of Health and National Health Surveillance Agency to</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Counter-advertising.</b></li> <li>• <b>Public campaigns.</b></li> <li>• <b>Lawsuits</b> by NGOs and public health advocates to target inappropriate marketing of unhealthy products.</li> <li>• <b>Reduced marketing power.</b></li> <li>• <b>Comprehensive approach to reduce obesity.</b></li> <li>• <b>Framing:</b> describe the psychological issues that arise from</li> </ul>

Jurisdiction	Barriers and challenges	Enablers
	<p>restrict marketing of HFSS food and beverages to children were suspended in 2006 after being challenged in federal court by the food industry.</p> <ul style="list-style-type: none"> <li>• <b>Inadequate public support</b> for marketing regulations (because of limited public awareness about the extent and drivers of obesity and public health issues).</li> <li>• <b>Weak enforcement.</b></li> </ul>	<p>childhood obesity (e.g. distress, low self-esteem, social discrimination, and stigmatization).</p>
Latvia <sup>10</sup> (2016)	<ul style="list-style-type: none"> <li>• <b>Industry lobbying</b> resulting in watered-down policy actions (i.e. self-regulatory measures) concerning restricting the marketing of unhealthy foods and beverages since 2006.</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
Canada <sup>9,10,12</sup> (1980)	<ul style="list-style-type: none"> <li>• <b>Loopholes:</b> Cross-border spill over effects and exemptions.</li> <li>• <b>Industry opposition/legal threats:</b> In 1989, industry argued that the regulation restricted the freedom of expression that is supported by the Charter of Rights. The regulations were upheld with the court ruling that a democratic society can enact measures to protect children from seductive and manipulative techniques that are used by advertisers.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Comprehensive, mandatory, rights-based policy approach</b> to protect children (includes all mediums).</li> <li>• <b>Public support:</b> 85% agree that children are exposed to too much junk food advertising and 86% support government actions to restrict advertising to children.</li> </ul>
<b>VOLUNTARY</b>		
Ireland <sup>13</sup> (2018)	<ul style="list-style-type: none"> <li>• Voluntary</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Comprehensive approach/multi-sector actors:</b> complement other advertising codes.</li> </ul>
<b>MARKETING RESTRICTIONS OVERALL</b> <sup>14,15</sup>		

Jurisdiction	Barriers and challenges	Enablers
	<ul style="list-style-type: none"> <li>• <b>Lobbying through legal threats/lawsuits</b></li> <li>• <b>Lobbyists arguments:</b> “statutory regulation is unnecessary because self-regulation works” and “there is insufficient evidence for statutory regulations”.</li> <li>• <b>Industry influence on policymaking:</b> delay and water down scope and potential impact of regulations.</li> <li>• <b>Four industry tactics to interfere with policy efforts to regulate the marketing of unhealthy foods and beverages:</b> delay, divide, deflect and deny.</li> </ul>	<ul style="list-style-type: none"> <li>• Protect policymaking processes from industry interference (i.e. <b>remove conflicts of interest</b>).</li> <li>• <b>Counter industry lobbying</b> by being prepared for industry push-back with new and emerging evidence and ethics-based arguments (policies can be enacted to restrict freedom of expression for public interest).</li> <li>• <b>Be strategic:</b> understand the local context and ensure there is broad support for policy action.</li> <li>• <b>Critically appraise the policy design.</b></li> <li>• <b>Learn from other countries</b> that have defended marketing restrictions.</li> </ul>

\*N/A: information not available

## Appendix References

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