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Barriers and enablers in designing regulations to restrict the exposure of children to unhealthy food and beverage marketing

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Background: The insidious and pervasive nature of marketing of unhealthy food and beverages has been identified as one of several strategies the unhealthy food and beverage industry uses to exert their influence on population food choices and diet. Regulating the food and beverage industry's marketing practices is one mechanism to mitigate this commercial determinant of health. This paper seeks to understand the main barriers and enablers that governments face when attempting to design an appropriate regulatory system.

Methods: 14 semi-structured expert interviews were undertaken with participants across different jurisdictions (Ireland, United Kingdom, Chile, Canada, Norway, Portugal and Brazil) who were involved in introducing marketing restrictions; and a purposive documentary analysis was carried out. A thematic analysis of this data was conducted informed by the Health Policy Triangle.

Results: Multiple common technical and political issues were experienced by governments regarding the form and substance of the policy design regardless of the jurisdictional context. Such issues included: whether to introduce a mandatory approach; what age group to protect; what nutrient classification system to use; how to define "marketing to children"; and what mediums, settings and techniques to cover. The actors opposing regulation challenged the form and substance of each design element. However, having a strong political mandate to introduce regulation; multiple actors working together, including multiple government ministries, academics and civil society actors; and a strong evidence base supporting the policy design helped policymakers navigate the technical and political challenges faced when designing the regulatory approach.

Conclusion: Despite the different political contexts and actors involved in different jurisdictions internationally, there are many commonalities in the challenges and enabling factors faced by governments. Understanding the technical and political challenges experienced by governments and how these governments overcame those challenges is critical to improve capacity around designing more effective regulations to improve population's diets, and therefore NCDs.

KEYWORDS

marketing and advertising, child health, food marketing, non-communicable disease (NCD), regulation

Introduction

The insidious and pervasive nature of marketing of unhealthy food and beverages has been identified as one of the major channels that the food and beverage industry use to exert their influence and is a key "strategy used by the private sector to promote products and choices that are detrimental to health" and as such is defined as a key commercial determinant of health (Kickbusch et al., 2016; Mialon, 2020). Marketing of unhealthy products impacts on the preferences, purchases, brand awareness and consumption patterns of children which tracks into adulthood (Cairns et al., 2013; Kelly et al., 2015; World Cancer Research Fund International, 2020). Across the life course this leads to weight gain and an increased risk of overweight and obesity, cognitive impairments, reduced quality of life and non-communicable diseases (Chen et al., 2012; Telford et al., 2012; Black et al., 2015). One example of the health outcomes is the global prevalence of childhood overweight and obesity with 38.2 million children under 5 years of age with overweight or obesity as at 2019 and over 340 million children and adolescents aged 5–19 with overweight or obesity as at 2016 (Afshin et al., 2017; Bennett et al., 2018; World Health Organization *Obesity Overweight.*, 2021).

In addition, the World Health Organization (WHO) published a Set of Recommendations on the Marketing of Foods and Non-alcoholic Beverages (WHO Recommendations) in 2010 that called for a robust response to marketing to children from Member States (World Health Organization, 2012). Ten years on, very few governments have introduced a regulatory approach that fully operationalizes the WHO Recommendations despite a decade of further calls for action and research to support this action in this area (Magnusson and Patterson, 2014; World Health Organization Regional Office for Europe, 2018). There is therefore a high level of policy inertia to address the food and beverage industry's marketing practices.

This research explores the policy design processes of seven governments who have attempted to address the exposure of children to unhealthy food and beverage marketing. It aims to contribute to the call for capacity building in NCD prevention to aid governments in addressing the commercial determinants of health through regulation (McKee and Stuckler, 2018; Magnusson and Patterson, 2019, 2021; Magnusson et al., 2019; Mialon, 2020; Lee and Freudenberg, 2022). Regulating the exposure of children to unhealthy food and beverage marketing is a key area where governments can learn from other governments about designing robust policy interventions (Magnusson and Patterson, 2019, 2021; Magnusson et al., 2019). The aim of this paper was to answer the research question: what are the main barriers and enablers that governments face when attempting to design a regulatory system restricting unhealthy food and beverage marketing to children?

The research focuses on the policy design stage of policy development, namely what barriers and enablers governments faced when deciding on the form (what type of regulation) and substance (the scope of the regulatory response) of the regulatory system. It is acknowledged that the policy process is not linear, and therefore other stages of the process such as agenda setting, legitimation and implementation may be important factors that impact or occur alongside the policy formulation stage (Brewer and DeLeon, 1983).

However, the literature identifies a research gap in NCD prevention policy studies around understanding how to design effective regulatory approaches in order to meet the demand by governments for capacity building globally (Magnusson and Patterson, 2014, 2019, 2021; Magnusson et al., 2019). The call for evidence focuses primarily on establishing the policy problem rather than on the policy interventions to address those problems. Legal capacity-building requires scholarly consideration because NCD prevention policies will likely require legislative or regulatory responses to implement them (Magnusson and Patterson, 2019, 2021; Magnusson et al., 2019). Proponents argue that capacity building helps the actors involved understand how to design, and ultimately implement, effective and robust policies (Thow et al., 2010; Baker et al., 2018; Magnusson et al., 2019). Sharing government experiences is a key tenet to building capacity, particularly around designing regulatory approaches, as it will generate a clearer understanding of the technical and legal capacities required to introduce a restriction (Thow et al., 2011; Baker et al., 2018; McKee and Stuckler, 2018; Magnusson et al., 2019).

However, when policymakers formulate the form and substance of a policy intervention to restrict marketing, a complex mix of factors, including the actors involved and the political and economic context, shape the policy content and outcomes (Shiffman and Smith, 2007; Walt et al., 2008; Buse et al., 2012). Therefore, this research outlines a descriptive qualitative analysis of the technical issues policymakers grappled with, with the aim of increasing legal capacity building but also places the technical issues within the political economy context of policymaking.

Methods

Framework

Walt and Gilson's Health Policy Triangle framework (HPT framework) was used to inform the study, including the interview guide and thematic analysis (Walt et al., 2008; WHO, 2017). The HPT framework outlines four intersecting elements of healthy policy making; the content, the actors, the process and the context. In the context of policies to restrict food marketing, the use of the framework meant that several aspects of the policy design could be explored; for example, recognizing that the actors involved, the policy process those actors engage in, and the political and economic context the actors are operating in can influence the policy content and outcomes (Buse et al., 2012; WHO, 2017; Reeve et al., 2018).

This framework outlines the basic elements of a comprehensive approach to understanding the dynamics of policy issues. The framework was chosen as it exhibited key aspects that were relevant to the study of the global health policy process, particularly because it was grounded in the political economy perspective and had been used in similar research (Thow et al., 2010; Buse et al., 2012; Saito et al., 2015; WHO, 2017; Reeve et al., 2018).

Country selection

Countries were selected purposively from the World Cancer Research Fund International NOURISHING Policy Database. The inclusion criteria were first, that all of the potential interviewees were able to speak English or Spanish, and that the majority of the country's documents were available either in English or Spanish. Second, we selected countries that had a government-led regulatory approach, either mandatory (Chile, Portugal) or a mixed regulatory approach (Norway, Brazil, Ireland, UK) and a representative spread across multiple regions. Canada and the UK were included because both governments were attempting to design mandatory legislative approaches at the time of the research.

Data collection

Document analysis

A scoping review methodology was applied to identify relevant literature. Peer reviewed journal articles and gray literature, including WHO publications, were identified that discussed any of the selected country's experience with designing and implementing a marketing restriction. In particular, literature that aided in elucidating the challenges and enabling factors governments faced during the policy design process was selected for analysis. The document analysis was carried out ahead of the interviews to inform the interview guide and in a later stage during the iterative thematic analysis process. Undertaking a document analysis was also chosen to triangulate the interview data.

Interview data

Fourteen semi-structured expert interviews were undertaken in 2019. Ten interviews were with policymakers, civil society public health advocates and academics who were directly involved in the introduction of a marketing restriction in the selected countries. Four international experts on regulating unhealthy food and beverage marketing were also interviewed about their experience advising, monitoring or advocating for national level marketing restrictions across various countries, including the selected countries.

The participants were identified through the networks of the World Cancer Research Fund International Policy and Public Affairs team where FS and AC were employed at the time of data collection. Participants included international experts on unhealthy food marketing restriction policy design, and national policymakers, academics or civil society advocates who had worked closely on the design or introduction of a marketing restriction in their countries. In some instances, we identified further interviewees through snowball sampling. The interviews were conducted in English or Spanish which allowed for a broader range of participants to be included. Interviews were conducted with four policymakers; three academics; and three civil society advocates from the seven countries studied, and four international experts who knew about the barriers and enablers in more than one country. There was one interviewee from each country studied, with the exception of Norway, Brazil and Canada where there were two.

The interview guide was informed by each of the four elements of policymaking outlined in the Walt and Gilson policy triangle framework and by the key findings of the initial document analysis. This helped interviewees to identify not only the main barriers and enablers around establishing the policy content, but also the impact the context, process and actors had on the policy design and main outcome of its design. A copy of the interview guide is provided in Supplementary material 1 that lists each question asked under the headings agenda setting; policy design; policy process; legal and trade issues and lessons learned. Interviews were conducted by audio only and the participants were provided with the questions ahead of the interview.

The combination of methods allowed the authors to triangulate the data, to improve validity and reliability of the information obtained.

Analysis

A deductive reflexive thematic analysis was carried out using the interview data informed by the HPT Framework to answer the research question—what are the main barriers and enablers that governments face when attempting to design a regulatory system restricting unhealthy food and beverage marketing to children? (Saito et al., 2015; Reeve et al., 2018; Braun and Clarke, 2019). Using Braun and Clarke's approach to reflexive thematic analysis, the lead author (FS) coded the data and undertook the analysis independently because of the inherent subjectivity of the researcher's interpretation of the data (Braun and Clarke, 2006a,b, 2019). As inter-rater reliability was considered inconsistent with a reflexive approach (Braun and Clarke, 2006a,b, 2019), other co-authors reviewed the codebook but did not undertake a full coding analysis.

After an iterative coding process was undertaken the findings relating to how the actors involved; the policy process itself; and the decisions relating to the policy content were extracted and divided into whether they were barriers or enablers faced by governments. The results were then structured in alignment with this analysis with barriers to policy design addressed first followed by the enablers. A series of sub-headings address the relevant aspect of the HPT framework with a focus on actors; content and process. In relation to policy content, the findings were split into themes around regulatory form (what regulatory approach would be taken) and regulatory substance (the substantive content of the laws for example the policy scope). The results are a representation of the prevailing themes in the dataset, therefore were noted in more than one source.

Results

Barriers

Actors involved in the policy design

Every government faced opposition to their proposed policy during the policy design phase by actors whose commercial

interests were threatened. Such actors included: representatives of the food and beverage industry whose products would be restricted from being marketed; the advertising and media industries who would lose revenue from the reduction in advertising; and any other actors who supported those industries, including other Government ministries or parliamentarians. One of the main arguments around the opposition was the powerful position industry has in the policy space, both economic and discursive. The latter being more prominent in smaller countries. As several advocates pointed out:

> *"We're already seeing a huge amount of opposition from the media platforms, so in particular the TV broadcasters, the commercial channels. They're pushing back. Originally, their pushback was all around the cost to them and that it would prevent them from making original interesting programming, because it would cost them so much money. They've moved away from that argument now and are just trying to undermine the policy and say, Look. This isn't going to work." (Civil Society advocate participant, United Kingdom, Interview 1)*
>
> *"The industry really spent their time well pushing constantly while the non-governmental organizations largely lacked the resources to really follow up and it, kind of, disappeared from the horizon. It became clear how effective the industry can be in advocacy work because they have the resources to really stay in there and argue their case." (Academic participant, Norway, Interview 2)*

The different arguments put forward by the actors who opposed the regulation touched on all aspects of the form and substance of the policy design and policy process. The distinct arguments made in relation to the form and substance of the policy design are noted in the subsequent sections.

> *"I think the reality is that governments talk at a very early stage with the industry, [it] is my impression, and that they, especially some of the weaker governments, almost seek permission to move forward on this agenda from the industry. I think that's really slowing things down. I'm not talking about some of our bigger governments, who are a bit braver, but I'm talking about smaller governments that may want to do something but feel they don't have capacity." (International Expert participant, Interview 12).*

Process of policy design

One challenge noted by participants was how to engage with those actors who were opposed to any regulatory response to unhealthy food and beverage marketing when designing the policy. While all stakeholders did need to be consulted in accordance with good governance principles, a decision had to be made about how much to engage with those actors who opposed the policy. The outcome of those decisions on engagement were linked to the type of relationship the Government, particularly the Ministries of Health, had with those actors and their position on whether they were considered "experts" in the technical aspects of food marketing or whether they were considered to be conflicted because of their commercial interests. Increased engagement with actors opposed to regulation did not always result in the policy design weakening to account for their views.

In Canada, certain aspects of the policy design process (around evidence collation and policy development) were protected from engagement with external actors however during later stages of the regulatory development, the Government more closely consulted with industry actors. In Norway, consecutive Governments (opposing political parties) set up a high-level private sector advisory group to advise the Government on policy issues that met regularly. In Chile, officials from the Ministry of Health met with industry every month to talk through the proposed regulations, where drafts were presented and their opinions were sought. However, key informants stated that their opinions were not always adopted into the regulation because industry's position on the regulation differed from the Government's.

Content of policy design

Regulatory form—Mandatory or voluntary approach

Deciding whether to adopt a mandatory legislative or voluntary regulatory approach was a challenge for some health government agencies. Actors opposed to the policy argued that a self-regulatory approach was the most appropriate course of action to take because a mandatory approach would be an unjustified government action when weighed against the impacts it would have on industry's right to trade and their economic viability. Some participants also expressed that it was difficult to influence other non-health government ministries of the need to regulate unhealthy food and beverage marketing. This was particularly challenging if other non-health government ministries preferred to regulate industry as little as possible.

> *"Based on the resistance from the industry, the government actually pulled back and decided that they wouldn't go forward with the written legislative proposal, but rather, invite the industry to come up with a self-regulative version that would be equally strong or effective." "So right now, public health is being managed by the most conservative segments of our political spectrum, and they are very much in favor of private sector and want as few pieces of legislation on the table as possible." (Academic participant, Norway, Interview 2)*

Other governments were able to address opposition to a mandatory approach. The Portuguese government chose to introduce a mandatory legislative response after recognizing the weakness of the EU Pledge, an industry code adopted by several food and beverage companies in European countries.

> *"Our national association of the food industry subscribes to the EU Pledge. Often many problems, regarding these self-regulation codes, are related to the nutrition criteria because the nutrition criteria for the EU Pledge is less restricted when you compare, for example, with the WHO nutrient profile model. This is a problem because many, many, many food products that should be restricted for marketing to children, according to the*

> *EU Pledge criteria, they pass. This is one of the main problems. We think that the self-regulation approach is not enough to protect children from the marketing." (Government participant, Portugal, Interview 14)*

Government agencies that pursued a mandatory approach expressed an awareness that their jurisdiction to legislate in the interests of public health on this issue would be challenged by industry both during the policy development process and after the legislation had passed. Many participants expressed it was therefore imperative for governments taking a mandatory approach to have a robust legislative design that was backed by research and justified in the interests of public health or child rights.

> *"We know [the government department] have been very clear with us. They are preparing and ready for legal challenges on this. Yes. I think we all think that there will be. It's not going to be smooth sailing." (Civil society advocate participant, United Kingdom, Interview 1)*

Some experts, pointed at the challenges mandatory approaches might face, such as litigation on the basis of breaching corporation's interests and rights, and in many cases, based on the barriers such regulations present to trade. (World Health Organization Regional Office for Europe, 2018) As an expert mentioned:

> *"The risk of litigation is certainly on the minds of states. [..] the risk of litigation is strong. The question is, the risk of losing your case. That's what you should be concerned with as a government, not whether you're going to be challenged. If your marketing restrictions are going to be effective, if they're broad in scope, the chances are you will have a challenge, and probably several. The question is, how prepared are you to defend your challenge and make sure that it fails?" (International Expert participant, Interview 5)*

Regulatory form—Legislative framework

When choosing a legislative approach, the main challenge for countries was to identify the correct legislative framework under which the legislation would fit. For example, because of the mechanisms of the Canadian Food and Drug legislation, Health Canada had to work within a criminal law framework as opposed to a civil law framework, like consumer protection law, which had different requirements and thresholds. This had an impact on the way the key terms of the legislation could be defined, as the criminal law framework required the purpose of the legislation to be about harm reduction as opposed to health promotion. The legislative framework used also impacted on the enforcement powers available to the enforcing agency, for example, depending on the jurisdiction, a criminal law framework could possibly include different penalties such as a jail sentence compared to a civil law framework that could include injunctive powers.

Some participants stated the child-rights based framing, to protect children's right to health under the United Nations Convention on the Rights of the Child, was sometimes used by actors advocating in support of the policy, but that practically speaking, it couldn't have been used as the sole legislative framework. This was because the mandate of child's rights sat with another government ministry not the ministry charged with introducing the laws, which was typically the health ministry. Or because the health research underpinned the policy objectives not child-rights research and therefore a health-based legislative framework was needed.

Notwithstanding this, many participants expressed they would have liked to have used a child-rights based legislative framework, that would have utilized and protected the child's right to health. Others indicated that the child-rights based rhetoric had not been prominent at the time their regulatory approach was being developed, for example Chile and Norway in 2012, and those participants considered that if those regulatory approaches were being designed in the current day, that framing would have strengthened their policy process.

Regulatory substance—What marketing mediums and techniques are covered

Capturing the full extent of the marketing mediums and techniques to which children are exposed was a challenge for governments when deciding which mediums, settings or techniques the regulations would cover. Traditionally, governments have chosen to regulate broadcast marketing (World Health Organization Regional Office for Europe, 2018; Taillie et al., 2019) but decisions had to be made about whether to also cover school settings, digital marketing, sponsorship, retail outlets, and public spaces for example. Depending on the political will of the government, and the legislative and political mandate the government was working under, the scope varied. This was in part because industry challenged the scope of the legislation so governments had to justify the necessity of the wider scope using evidence of the means and level of exposure.

> *"I don't know of a country that has basically taken that [the WHO Set of Recommendations] definition and operationalised that in policy, because they always, as you just gave an example, they always exempt—well, almost always exempt—packaging, for example. (International Expert participant, Interview 12)*

As seen from tobacco advertising restrictions, when one medium, setting or technique was regulated, the advertising spend of the large tobacco companies moved into the unregulated areas creating a balloon effect. World Health Organization (2004, 2008), Munafò (2016) Governments had to balance this phenomenon with what was politically feasible to introduce into the scope of the legislation.

> *"The concern there is that if you shut off the ability of junk food to advertise on certain channels, that they just displace onto other types of channels, so we'd see more advertising on radio, we'd see more advertising on roadsides if they can't advertise on TV." (Civil Society Advocate participant, United Kingdom, Interview 1)*

Typically, important elements of the marketing landscape, like brand marketing and sponsorship, were not included in the scope of the legislation. Brand marketing was a particular challenge for governments. Brand marketing techniques that focused on building brand loyalty didn't always target children in traditional ways with

a "hook" or content that appealed specifically to children, and often didn't include a food or beverage product. This made it hard to include in the scope of the law as it was difficult to prove it was targeted or directed at children but also because it couldn't be categorized as a breach under the nutrient classification system as no food or drink were present.

> *Brands are very, very difficult to work with and I think that legal people and legal teams were very important in this moment. A lawyer of the World Health Organization was very important in this moment, to work with our lawyers, to develop a document, that is in English and Spanish, to help us with the problems with the brands, brands that are marketing itself, marketing directed to children. I think that is very important in the last moment of the process, when the regulations were implemented. (Government policymaker participant, Chile, Interview 13)*

Governments also came up against challenges to restricting sponsorship because such restrictions would reduce a funding mechanism for certain activities, particularly in sports or school environments. Canada removed sponsorship from its proposed Bill after heavy pushback on the impact it might have on the funding of children's sports (Health Canada, 2017, 2018). In lower resourced countries, sponsorship in the school environment created issues for governments trying to reduce the exposure of advertising in schools.

> *"So, the in-school marketing, for example, where there's sponsorship of school materials and it's quite difficult to take away because there's no replacement funding." (International Expert participant, Interview 6)*

Codifying the list of marketing mediums and techniques was considered unfeasible by the Chilean government because of the rapidly changing marketing environment, especially the digital environment. Chile drafted the legislation's language with an open-ended definition of what could be caught by the legislation in order to allow for changes in marketing techniques and practices.

> *"Then the other part is, of course, that it is changing so rapidly, so how can you have measures in place that would cover different new technologies or developments so that you don't have to run after constantly what is the latest?" (Academic participant, Norway, Interview 2)*

Regulatory substance—What age group to protect

The age threshold is typically challenged by industry and creates an issue for governments, with many examples of governments reducing their age thresholds through the policy process, for example Chile, Canada, Norway. Discerning the age at which a child is cognitively able to recognize and appropriately process marketing like an adult can cause issues for governments. Defining the scope of the legislation as protecting children up to 18, as required by the United Nations Convention on the Rights of the Child, has not always been feasible. This was despite robust research from global academic researchers showing a child's cognitive ability up to the age of 18 was susceptible to marketing (Pechmann et al., 2005; Kickbusch et al., 2016; Savell et al., 2016; Murphy et al., 2020).

> *"Governments do get bogged down in this nonsensical argument around: "A child above the age of 11 is able to cognitively recognize advertisement. Therefore, they have some sort of protection." [..] Even the most strong-willed government, like the Norwegians, like the Canadians, that recognize… their experts in-house fully understand, to the same extent that any UN experts or any academic experts understand, that a teenager is vulnerable. A teenager needs protection. A teenager is targeted. Therefore, the protection should go up to 18. They haven't been able to get that through internal processes or it's been very difficult and has led to some sort of concessions elsewhere. I think that age to protect is really a big challenge." (International Expert Participant, Interview 12)*
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> *"The age limit is a big issue, because now it's 12 and younger when then original proposal was up to 18. That was the main argument, the fact that it was 18 and also seen as more or less adults, the industry was able to argue successfully that it was impossible to separate what was targeting adults and then this older adolescent group and that it will be too invasive." (Civil Society Advocate participant, Norway, Interview 3)*

Regulatory substance—How to define "marketing directed at children"

Focusing the scope of the restrictions on marketing "targeted at" or "directed to" children was common, but it was difficult to define.

> *"Then the next point we make, around what level of marketing should be restricted, is a real quagmire that governments struggle with. I think the majority of policies that I know of talk about marketing to children, so that I think the industry has been able to convince governments, or lobby governments, that they should only be concerned around the marketing that is directly targeted to children. The way that they should assess that is by the content of the advertising, if it appeals to children, etc., and with appeal to children being very narrowly defined in a very classic understanding of what a child might like." (International Expert participant, Interview 12)*

Governments chose definitions that included audience thresholds where children need to make up a percentage of the audience (i.e., 25%) as well as obvious tactics that could reasonably be considered "child-directed"' like offers of toys or use of childlike marketing tactics such as cartoons or other features that would appeal solely to children. If settings were covered in the scope of the law, they often needed to be child settings such as schools.

The definition of "targeted at" or "directed to" children is difficult to apply in the digital marketing environment.

> *"There's good robust data about the age of children that are watching certain TV programmes. When it comes to online content, it's pretty much impossible to know for sure how old people are. That data isn't published independently anywhere, it's not verified. This is data that the likes of Google and Facebook and YouTube hold themselves. So if we challenge them with a*

> *complaint—which takes months for the [Complaints Board] to process—they can often come back and say, "Our data shows that less than 25% of the audience is children." We've got no way of challenging that, because we don't have that data. That has big implications for the types of regulation that we'd want to see in there." (Civil Society Advocate participant, United Kingdom, Interview 1)*

Some participants expressed that defining the scope of the legislation to focus on marketing that was targeted at children meant that it would be difficult to capture the full extent of the marketing mediums, tactics and settings that children are actually exposed to.

Regulatory substance—Nutrient profile model

While governments now have regional WHO nutrient profile models to adopt when deciding what classification system should underpin the legislation, many governments still struggled with how strict to make their chosen model. While the WHO nutrient profile models can provide a valuable starting point for countries, amending these models to take account of the national context can require certain resources and capacities that many governments do not have. In Chile, there was no nutrient profile model to draw on at the time of the regulation design, and they struggled early on to decide what foods would be subject to the restrictions and which should not.

The WHO models typically include blanket bans on certain categories of unhealthy products including biscuits, confectionary and cakes for example. Participants stated that industry actors argue this does not incentivize reformulation of these unhealthier products if there is not a nutrient threshold to work toward.

> *"The industry don't like the idea, the concept that their product will never be able to be marketed. They've bought into this thing that, "A nutrient profile model should permit reformulation. That should be an incentive to companies to improve their product, and then they'll be able to market." WHO were saying, "Yes, however good you make your chocolate, it shouldn't be marketed to children." Industry have not accepted that yet, and I think a number of governments struggle with that." (International Expert participant, Interview 12)*

Industry actors not only attack the strictness of the chosen model, they also seek amendments to the model to exempt certain food groups from the 'not permitted to market' category. For example, the dairy industries in Ireland and Canada have pushed for exemptions on dairy products.

> *"The weakness in the proposal at the moment that we're trying to get to grips with is the exemptions that are being proposed. I think what we know from every other type of policy that anyone has ever worked on that when you start to introduce exemptions, you start to introduce loopholes and weak points that can be exploited." (Civil Society Advocate participant, United Kingdom, Interview 1)*

Enablers

Actors

A network of key actors working collectively with the shared common goal to introduce regulations was noted as an influential feature of success in designing and passing a regulatory response. The trifecta of government officials, civil society advocates and academics working together to navigate the policy process and collating the evidence needed to frame the debate and challenge industry opposition was a key enabler when designing the regulatory response. The role of these actors included creating consistent messaging about the need for the policy and why the proposed scope was necessary, building the evidence base to support the defined scope, and garnering public support.

In some cases, policy entrepreneurs such as key politicians were central actors who enabled legislation to move forward. Examples include Chile where Senator Guido Girardi worked with lead academic Professor Ricardo Uauy to lead the political and technical teams that enabled the legislation to defend industry challenge and also to garner more political will amongst other government actors. In Canada, Senator Nancy Green Raine championed the policy and introduced a Bill in the Canadian Senate. Participants noted that these actors can build support for the policy inside parliament.

> *"Ricardo Uauy was very important in all of this process, because he is a very respected person in Chile. When we have many problems with industry or with academic groups or also with politics groups, we invite Ricardo Uauy to talk with them, to present evidence and to present his opinion. And, of course, no-one wants to go against Ricardo Uauy." (Government policymaker participant, Chile, Interview 13)*

Academics and expert advisors were key players in the policy process, helping to design the policy and work through the challenges posed by the definitions of marketing to children, the nutrient profile models, and what age threshold to set for example.

> *"The Marketing to Kids Coalition, this was a coalition—and continues to be a coalition—of health organizations, academics, and other interested parties. There are two co-chairs, and several signatories, and many, many who support the coalition in the country. I would say this was the organization that helped drive marketing for kids onto the political agenda." (Government policymaker participant, Canada, Interview 4)*
>
> *"I think it's also important to have the civil society involved. In Portugal, for example, the Portuguese National Association for Consumer Protection, they are very active. They made a lot of pressure on the government, it is important." (Government policymaker participant, Portugal, Interview 14)*

Process of design

Some governments had given their Ministries of Health strong mandates to introduce laws and regulations that allowed them

to not only draft strong laws but also to defend the law against industry opposition more confidently. In Canada, Portugal, UK and Chile there was a clear directive from the Government that a strong legislative approach could be pursued by the relevant health ministry. The laws proposed were the most comprehensive globally whereas other countries with a weaker mandate, such as Brazil and Peru, struggled to introduce a strong and comprehensive regulatory approach.

Norway started with a strong mandate, as a European leader on the issue at the WHO level but experienced a change in government during the process and ended up with a voluntary system rather than a mandatory legislative approach. Portugal had cross-party support for the law and strong support from the governing coalition parties which was noted as a key enabler for moving its nutrition policy agenda forward.

Most governments gave full mandate to their health ministries to lead the policy process and there was no mention that this delegation of authority to health ministries was contentious—it was where the jurisdiction to regulate this issue lay. However, some health ministries, such as the UK's health ministry, developed the policy with co-leads such as ministries in charge of consumer protection or digital regulation.

Multi-sectoral collaboration between government ministries also aided the policy process. While the health ministries were typically the lead ministry, working in collaboration with other government agencies, such as those responsible for the digital environment or education, enabled effective policy designed that could be properly implemented. Other government officials such as trade and legal experts helped the lead ministry navigate and mitigate any legal or trade threats.

Some countries chose to manage external stakeholders by attempting to keep the food and beverage industry at arm's length from the policy design process. In Canada, all meetings and correspondence between Health Canada and any industry actors had to be minuted and made available online. This reduced the industry's ability to lobby the government to reduce the scope of the policy, as they were less willing to have their correspondence to the government made public.

> *"Don't feel obliged to take on board all of their [food and beverage industry's] comments. You don't have to address all of their comments. You just take the ones that you feel are pertinent and key that you feel that you have to address. You don't have to address it in their opinion or their view. You can just say, "We've addressed this. We've considered this and we're not going to change that position."(International Expert participant, Interview 12)*
>
> *"Then, industry kind of said that they don't know nothing, that this is inside regulation with no information. We informed all of them, month by month, and we present a draft and they can give us their opinion. Of course, we not always can put their opinion in the regulation because they don't want the regulation. But, during all the process, they gave us their opinion." (Government policymaker participant, Chile, Interview 13)*

Content of the policy

A key enabler for governments that succeeded in passing regulations was having sufficient and robust research to support the need for, and scope of, the policy. This helped not only to bolster the framing and rhetoric politically, but also to strengthen the law against legal or trade threats.

When the policy's form or substance was challenged the governments could use research to show that the extent of the problem had been quantified and that the policy design necessitated the broad scope of the law to ensure the legitimate public health objective set out was met. For example, participants noted that Portugal had a strong mandate to restrict marketing because of a data set showing obesity rates were high and a national nutrition survey that showed nutrition patterns were poor. Likewise, participants stated that the Canadian and Irish governments were influenced by national reports on obesity that indicated the prevalence rates, that called on the government to act to reduce these health outcomes.

> *"I think it is very important to have data to show politicians and create awareness regarding this issue. I think it was very important for the Portuguese case." "I think this data that we have now for the Portuguese population was important to create this awareness in the political domain. I think that, nowadays, our Ministry of Health is becoming more committed to the need to have a strong policy to promote a healthy diet in the Portuguese population." (Government policymaker participant, Portugal, Interview 14)*

International and national research was also used to demonstrate that a reduction in the exposure and power of marketing over multiple mediums and platforms could reduce children's preferences, purchases, consumption of certain food and beverages as well as brand awareness. A reduction in those indicators would in turn impact on weight gain, obesity and diet-related NCDs.

Other governments found that by drawing on evaluations of existing regulatory approaches in their respective countries, which were typically self-regulatory systems, it could be shown that those systems had not been effective and a stricter approach was required.

Another enabler noted by those interviewed was the existence of both international consensus and international reports by global health actors such as the WHO calling on Member States to restrict unhealthy food and beverage marketing. This increased governments' legitimacy to act. The WHO's leadership, particularly the WHO Set of Recommendations and its regional nutrient profile models, which many participants cited as the basis for their government's policy, was critical. Chile and Canada looked to WHO and academic literature about controlling the advertising, promotion and sponsorship of tobacco products to learn how to navigate some of the technical challenges in designing the legislation.

Discussion

This study of the barriers and enablers governments face in designing the form and substance of marketing restrictions

found multiple, common areas of both technical and political challenges. The technical challenges observed in all countries include whether to introduce a mandatory approach; what age group to protect; what nutrient classification system to use; how to define "marketing to children"; and what mediums, settings and techniques to cover. Each of the technical aspects opened the government up to political vulnerability as the actors championing a limited regulatory response to the issue challenged both the form and substance of the regulation at every point.

In all contexts, political challenges were described. The actors opposing the governments approach to regulation challenged the mandatory nature of the regulation, preferring self-regulatory approaches. Actors that opposed regulation, specifically the food and beverage and advertising and media industries, applied pressure on the policy design process attempting to reduce the impact of the regulatory response on the core business function of those industries. The corporations' political activity during the policy design in all cases impacted the final design of the regulatory approaches studied.

In addition to corporate political activity, ministries of health are also operating within the political context of prevailing neosliberal ideologies that prefer to regulate markets as little as possible. Neoliberal policy paradigms have existed globally for four decades, leading to a disconnect in approaches to government intervention not only across political parties but within governments, impacting on policy coherence, particularly between the economic or agricultural sector and the health sector (Lencucha and Thow, 2019). Some academics argue that it is the underlying neoliberal policy paradigm that allows for such commercial interests to influence policy design, and that until this paradigm is addressed through wider structural changes, the attempts by governments to regulate harmful commodities, like unhealthy food, will always be fraught (Lencucha and Thow, 2019).

Some enablers identified related to how the political will for regulation was enabled by strong policy champions. Civil society actors and academics, particularly those that formed close coalitions, enabled the government to overcome many technical and political challenges by providing strategic advocacy, supporting the policy option and providing expert advice and evidence to support the need for the policy. To overcome these technical challenges, governments drew on experts in the area and used examples of regulation from other areas, particularly tobacco control.

This study illustrates the effect of corporate political activity such as lobbying on the policy design; and expands on the literature exposing corporate strategies in contemporary, comparable country case studies. The phenomenon of corporate influence in policy development for marketing restriction observed is similar to those from other harmful commodities such as alcohol and tobacco, which provide important precedents for the field of unhealthy food and beverage marketing (Brownell and Warner, 2009; Bakke and Endal, 2010; Miller and Harkins, 2010; Babor and Robaina, 2013; Mccambridge et al., 2014; Savell et al., 2016; Hiscock et al., 2020).

Analyzing the common barriers and enablers from other governments in relation to policy design for food marketing restriction, is not only necessary to aid with technical capacity building but also to address the challenges posed by powerful influences in opposition to the policy.

Strengths and limitations

The strength of this research is that it captured the experiences of key stakeholders involved in introducing unhealthy marketing restrictions from multiple jurisdictions. Little is understood about how governments design a regulatory response to unhealthy food and beverage marketing, what difficulties they face and how they overcome them. Using an HPT framework to direct the data collection and analysis also adds strength to the study to explore factors such as political context and actors that impact on the design of the policy.

A limitation of the study is that the breadth of the jurisdictions covered meant that findings are a more general overview of the issues faced, and overcome, by different governments. Interviewing additional government and policymaker participants would have added more insight into the challenges governments face. Therefore, a more in-depth case-study analysis of any of these jurisdictions is recommended to fully understand the policy process as a whole and its barriers and enablers at different phases.

More research capturing the full extent of the political nature of the food marketing policy development process would also provide greater insight into the political economy of regulating food and beverage marketing.

Policy implications

This research provides an in-depth understanding of how governments have attempted to address the marketing of unhealthy food and beverage marketing, a component of the commercial determinants of health. This will contribute to the need for capacity building in NCD prevention to aid governments to address the commercial determinants of health through regulation. Regulating the exposure of children to harmful food and beverage marketing is a key area where governments can learn from other governments about designing robust policy interventions, in particular, the common barriers and enablers faced by those governments who have attempted to design regulations to restrict unhealthy food marketing to children.

This research shows that designing and introducing marketing restrictions is politically and technically challenging when actors opposed to the regulations challenge the form and substance, preferring a limited regulatory response.

While a lot of the technical challenges are surmountable with robust research and experts guiding the design of the process, there are some key areas that would benefit from further research, where the technical guidance is currently limited. These areas include: how to incorporate brand marketing in the scope of the regulations when using a nutrient-based classification system; technical input to counter the argument that it is too hard to discern between a teenager and an adult so age thresholds must be reduced; and the definition of "directed to

children" not adequately protecting the full exposure of children to unhealthy food and beverage marketing particularly in the digital space.

Conclusions

The marketing of unhealthy food and beverage is a prolific and insidious commercial determinant of health. Regulating unhealthy food and beverage companies to reduce the exposure of children to their marketing practices is a critical regulatory response to a commercial interest interfering with children's health. The study found that designing the form and substance of polices for marketing restrictions is both technically and politically challenging but that the challenges are not insurmountable. Despite the different political contexts and actors involved in different jurisdictions internationally, there are many commonalities in the challenges and enabling factors faced by governments. Understanding the technical and political challenges experienced by governments and how they overcame those challenges is therefore an important study to contribute to capacity building in the NCD regulatory space.

Data availability statement

The original contributions presented in the study are included in the article/Supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by University of Auckland Human Participants Ethics Committee in July 2020, reference 024671. Written informed consent to participate was provided by all study participants.

Author contributions

FS was involved in all aspects of the study and drafted the manuscript. FS and AC undertook the interviews. AC informed the original thematic analysis work and edited and reviewed the manuscript. SM, TT, and BS provided supervision and review of the analysis and the manuscript. All authors read and approved the final manuscript.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpos.2023.945742/full#supplementary-material

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