

Policy Process And Non-State Actors' Influence On The 2014 Mexican Soda Tax

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Accepted on 15 May 2020

Abstract

In January 2014, Mexico introduced a soda tax of 1 Mexican Peso (MXP) per litre. The aim of this paper is to examine the political context out of which this policy emerged, the main drivers for the policy change, and the role of stakeholders in setting the policy agenda and shaping the policy design and outcomes. Thirty-one semi-structured interviews were conducted with key stakeholders, and 145 documents, including peer-reviewed papers, policy briefs, press releases, industry, government, and CSO reports, were analysed. An iterative thematic analysis was conducted based on relevant theories of the policy process using a complementary approach, including Stages Heuristic Model, Policy Triangle Framework, and Multiple Streams Model. Results showed that a major motivation was the new administration seeking funds as they entered government. The soda tax was supported by a key group of legislators, civil society actors and by academics promoting evidence on health effects. However, the policy measure was challenged by the food and beverage industries (F&BI). Non-state actors were both formally and informally involved in setting the agenda, regardless of some of them having opposing interests on the soda tax policy. Approaches used by non-state actors to influence the agenda included: calls for action, marketing strategies, coalition building, challenging evidence, and engaging in public-private partnerships (PPPs). The effectiveness of the soda tax was highly debated and resulted in public polarization, although the framing of the outcomes was instrumental in influencing fiscal policies elsewhere. This study contributes to the debate around implementing fiscal policies for health and how power is exercised and framed in the agenda-setting phase of policy development. The article examines how the F&BI sought to influence the national strategy for obesity prevention. It argues that the experience of the soda tax campaign empowered policy advocates, strengthening national and international civil society networks.

Keywords: obesity, soda tax, policy process, Mexico

Introduction

A significant body of evidence has identified a relationship between the consumption of sugar-sweetened beverages (SSB) and the risks of obesity, diabetes and cancer (McCormick *et al.*, 2007; WCRF, 2007; Swinburn *et al.*, 2011; Stuckler and Nestle, 2012; Stuckler *et al.*, 2012; Slavin, 2012; Malik *et al.*, 2013; Te Morenga *et al.*, 2013). SSB are drinks with added sugar, including sodas,

carbonated beverages, fruit drinks, sports drinks, energy drinks, sweetened coffees and teas (Ebbeling *et al.*, 2012). Current trends in SSB consumption shows how it has risen sharply in the past decades, particularly in Latin America (LA) (Popkin and Hawkes, 2015).

International agencies have recommended population approaches to overcome the global crisis of NCDs, including obesity (WHO, 2013, 2014, 2017). Among those recommendations, taxing

KEY MESSAGES

- Power dynamics allowed the soda tax to be on the policy agenda, but also restricted its potential effect.
- Including the soda tax as part of the fiscal and health policy plans, alongside the perseverance and continued advocacy work by civil society coalitions supported by international organizations, gave an unprecedented window of opportunity for the tax to be adopted.
- Externalities to the policy measure, which might diminish the effect of the regulation, should be carefully considered when implementing such a tax, for example emerging social responsibility actions by soda producers.
- The policy process and agenda setting debates lead to strengthened coalitions within civil society, and to unpack accountability and corporate interference in the process.

unhealthy products such as soda, tobacco and alcohol are considered a ‘best buy’ or low-cost intervention that is highly effective in reducing consumption (Mozaffarian *et al.*, 2012; Powell *et al.*, 2014).

Mexico was the first country in LA to apply a tax on sugar-sweetened beverages, defined in the tax regulation as any type of beverage, which has added sugar or syrups. The soda tax was part of a comprehensive strategy to tackle obesity, as well as part of the Fiscal Reform launched by the incoming president (*Diario Oficial de la Federación*, 2013). Although a soda tax was already being executed in Barbados, France, Egypt and Hungary, in these countries it was not portrayed as a ‘health tax’ (Cahuana *et al.*, 2012). Several countries followed Mexico and implemented SSB taxes the following year including Chile, South Africa, the United Kingdom and the state of California (WCRFI, 2018). Although some previous national food and beverage taxes have been revoked (e.g. sugar and fat taxes in Denmark), around 40 countries have now adopted SSB taxes, and they are under debate in other countries such as Australia and Canada (WCRFI, 2018).

To date, there has been little research into the implementation of such fiscal policies, the strengths and weaknesses of the process, the outcomes and public opinion towards the measures (Roache and Gostin, 2017; Saxena *et al.*, 2019). A topic of concern among public interest groups is the corporate influence and conflict of interests surrounding the implementation of food policies that are aimed to improve the food environment, including taxing unhealthy foods, food labelling and regulatory measures on baby food and milk formulas (Dorfman *et al.*, 2012; Casswell, 2013; Shelley *et al.*, 2014).

Recent literature suggests that a range of non-state actors, particularly the food and beverage industry (F&BI), seek to shape policy debates in ways that are favourable to their commercial interests (Stuckler *et al.*, 2012; Pfister, 2016b; Scott *et al.*, 2016; Gómez, 2019). It is important to examine the role of non-state actors, including the actions of the F&BI, in order to address corporate influence in future policy attempts to achieve a healthy food environment (Caraher and Cowburn, 2015). The aim of this study is to examine the political context from which the Mexican soda tax emerged, the main drivers for the policy change and the role of non-state actors in setting the policy agenda and shaping policy outcomes. Lessons drawn from this case study may aid a better understanding of the factors influencing the SSB tax and help similar policy interventions in middle-income countries.

Methodology

The study applies a qualitative methodology. Thirty-one actors were interviewed (October–December 2014) representing members of the government, civil society, F&BI, media and academics. A documentary analysis was undertaken to triangulate and complement data

from the interviews (November 2015 to March 2016). The analytical framework was guided by policy theory. Two factors were considered when selecting the theories to inform this case study: first, the purpose of each theory based on Buse *et al.*'s classification (classify information, explain or predict information) (Buse, 2008, Buse *et al.*, 2012), and second, the relevance to this study (Figure 1). Initially the Stages Heuristic Model (De Leon, 1991; Sabatier, 2007) was used to identify and organize the results chronologically throughout the different stages. Then the Policy Triangle Framework (PTF) (Walt and Gilson, 1994) and the Multiple Streams Theory (MS) (Kingdon, 1995) were selected to explain the results (Buse *et al.*, 2012). Both helped to identify relevant aspects of the policy and to explore and explain the policy change. In addition, we employed the concept of framing (Koon *et al.*, 2016) to examine how actors sought to shape the terms of policy debates by defining the policy problem, its proposed solution and the alleged effects of the soda tax. This study follows other recent studies of health harming corporations' attempts to shape health policy, which have employed framing analysis within Kingdon's overall framework, to understand the agenda setting process (Hawkins and McCambridge, 2020). *Supplementary material 1* outlines our study aim and divides it into four components (a, b, c, d) which are used to explain the use of theories for the analysis (Cairney, 2013). Finally, the principles of good health governance (Siddiqi *et al.*, 2009) were used to discuss findings around non-state actors' influence (here defined as the capacity to have an effect on the development of the soda tax), and to understand power dynamics.

Interviews with stakeholders

Thirty-one face-to-face semi-structured interviews were conducted. A sampling frame was established by mapping the stakeholders according to their interest in and influence on the soda tax debate using the ODI technique (Start, 2004), and informed by the literature review and previous knowledge of the PI who had participated in early stages of the policy process (2012–mid 2013). Reflection on the previous position and underlying values of the PI were considered by all authors involved to assure the quality of the analysis (Green and Thorogood, 2012). Forty-three stakeholders were invited to participate, and 33 accepted to be interviewed. Two of these declined to have the interview recorded. *Table 1* shows the affiliation of the stakeholders invited to participate and those interviewed. The semi-structured interview guide included topics related to all areas of policy analysis: contextual, diagnostic, evaluative and strategic components, guided by Ritchie and Spencer's (1994) adapted qualitative analysis for applied policy research. Interviews lasted between 45 and 60 min. Ethical approval was obtained from the authors' institution.

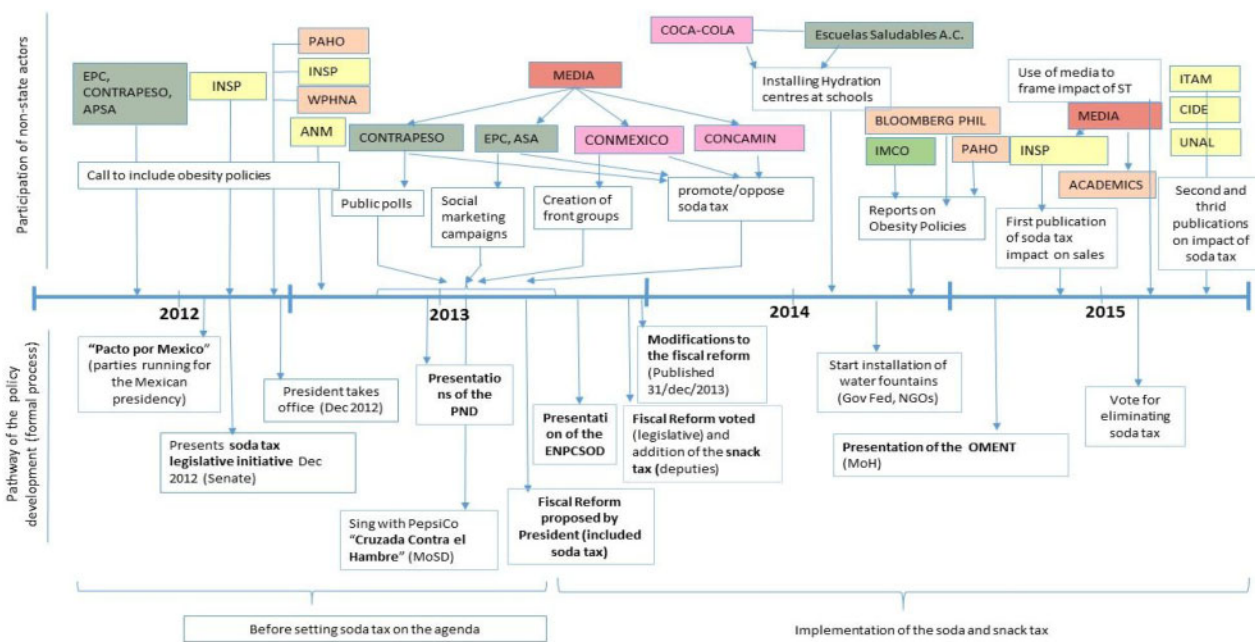


Figure 1 Policy process of the soda tax policy, and strategies used by non-state actors throughout the formal process.

Table 1 Stakeholders invited to participate in this study

Type of organization	Number of participants			
	Interviewed	Declined participation	Unable to reschedule	Invited
Food & Beverage Industry and Industry Consortiums	5	6		11
Academics	7	1	1	9
Governments				
Executive power	7*			7
Legislators	3			3
Civil society	4	1		5
International organizations	2			2
Media	3		1	4
Think tanks	2			2
TOTAL	33	8	2	43

*Two members of the federal government did not allow recording during the interview so we effectively count 31 interviewees.

Documentary analysis

The documentary review included published press releases; peer-reviewed journals; public regulatory documents and government communications; civil society, think tanks and academic reports and press releases; and selected newspaper articles. In total, 148 documents were included (Table 2). They were compiled through a systematic search of all the websites of the stakeholders involved in the policy process (Table 3) and some shared by interviewees. The time frame of the search was January 2011 to December 2015 to cover documents from before and after the soda tax was implemented.

Analysis

All recorded interviews were transcribed *verbatim* and uploaded to NVivo software V. 11 and coded. Codes and themes were combined

using an iterative analysis. A first set of themes was defined deductively using a combination of theories adapted to the research question (Pope, 2000; Ritchie *et al.*, 2003). The second set of themes emerged from data and were added to the coding frame. Interview transcripts in Spanish were read and reviewed by the PI (AC) and one co-investigator (BH), and the thematic framework was discussed to achieve consensus. Triangulation between interview data and documentary sources was performed to improve the reliability, validity, and consistency of the findings.

The findings are presented in two parts. The first part briefly outlines the context, the problem identification, the policy process and actors involved in the soda tax policy. The second part highlights the approaches used by different actors to influence the policy debate (politics) surrounding the policy change. Finally, the implications of the policy process and outcomes are discussed. Full details of the methods, analysis and results can be found elsewhere (Carriedo, 2017a). Some direct quotes are included in the results and are reproduced from the original PhD thesis (Carriedo, 2017a).

Results

Context, policy and actors involved in the soda tax policy

Context

Mexico has a federal republic government, with a president elected every six years, and higher and lower chambers (senators and deputies) elected every three years. A presidential election took place in 2012 and, in 2013 when the new government led by Peña Nieto took office, it sought to implement new regulations to increase revenue for public expenditure. At this time the soda tax came onto the political agenda, and a soda tax of 1MXN per litre was voted for in September 2013, coming into effect in January 2014. A chronological description of the Mexican soda tax policy process is presented in Figure 1.

The soda tax had originally been proposed by a Senator of the opposing party with the support of several civil society

Table 2 Documents analysed by type and by year of publication

Type of document	Period					Total
	2011	2012	2013	2014	2015	
Policy documents	0	2	2	4	1	9
Peer reviewed journals	0	1	0	0	2	3
Corporate documents	2	4	4	4	1	15
Press releases	2	3	3	3		11
Posts on websites	2	12	19	18	36	87
Organizations' reports		1	3	2	5	11
Financial reports (papers)		1	1	1	2	5
Newspaper articles (secondary documents)				1	4	5
Minutes/programmes of meetings		1	1			2
Total	6	25	33	33	51	148

Table 3 Stakeholders identified as involved or interested in the soda tax policy

Type of organization	Name of organization
International organizations	<ul style="list-style-type: none"> • PAHO (Pan-American Health Organization) • Bloomberg Philanthropies (BP) • World Obesity Federation (WOF) • Interamerican Development Bank (IDB) • World Public Health Nutrition Association (WPHNA) • Center for Science in the Public Interest (CSPI)
Government	<ul style="list-style-type: none"> • Ministry of Health (MOH) (Secretaría de Salud- SSA) • Ministry of Finance (MoF) (Secretaría de Hacienda y Crédito Público - SHCP) • Ministry of Education (MoE) (Secretaría de Educación Pública - SEP) • Ministry of Social Development (MoSD) (Secretaria de Desarrollo Social- SEDESOL) • Federal Commission to Protect Against Sanitary Risks (Comisión para la Protección Contra Riesgos Sanitarios - COFEPRIS) • National Water Commission (Comisión Nacional de Agua -CONAGUA) • SENATORS • DEPUTIES
Think tanks/ civil society organizations	<ul style="list-style-type: none"> • National Association of Diabetes (Asociación Mexicana de Diabetes—AMD) • Mexican Diabetes Federation, (Federación Mexicana de Diabetes—FMD) • Mexican Foundation for Health (Fundación Mexicana para la Salud—FUNSALUD) • Contrapeso • Mídete Foundation (Fundación Mídet—FM) • Consumers' Power (El Poder del Consumidor—EPC) • Alliance for Healthy Eating (Alianza por la Salud Alimentaria—ASA) • Aspen Institute (AI) • Mexican Institute for Competitively (Instituto Mexicano para la Competitividad—IMCO) • Polithink
Industry	<ul style="list-style-type: none"> • Mexican Association of Nutritionists (Asociación Mexicana de Nutriólogos—AMENAC) • National Association of Soda and Carbonate Water Producers (Asociación Nacional de Productores de Refresco y Agua Carbonatada—ANPRAC) • Mexican Board of the Consumption Industry (Consejo Mexicano de la Industria de Consumo A.C—CONMEXICO) • Confederation of the Industry Chambers (Confederación de cámara de industriales—CONCAMIN) • National Union of Sugar Cane Producers (Unión Nacional de Canero—UNC) • Coca-Cola's Economic Mexican Promoter (Fomento Económico Mexicano, Coca-Cola FEMSA) • ARCA (Coca-Cola's Mexican and Latin-American distributor) • PepsiCo • Pepsico Foundation (PF) • Cocal-Cola Foundation (CCF) • National Chamber of Sugary and Alcohol Industry (Camara Nacional de la Industria Azucarera y Alcoholera —CNIAA) • Euromonitor

organizations in December 2012, before the new president took office. However, it was rejected in both Chambers of Deputies and the Senate. In 2013 a ‘policy window’ opened for the soda tax in the new president’s agenda, and was adopted from the original proposal in 2012. Based on the sociopolitical conditions in Mexico at the time, beliefs surrounding the underlying driving forces behind the soda tax were perceived in two ways. First, it was seen as a government initiative to secure budgets and spending levels and, second, as an opportunity for obesity to get on the policy agenda. According to some informants, the new government first had the intention to increase the taxes on all foods, non-alcoholic drinks and medicines as part of Fiscal Reform, aiming to improve health and public services. Taxing all foods and medicines was considered too unpopular; therefore, the ‘health tax’ argument used in the original proposal was employed to advocate for a soda tax. As mentioned by a government official:

It [the soda tax] had to do with the fact that the president liked it because it is [a very good way] to increase revenue (Civil society member).

At the time, 71.2% of adults were overweight, and 36% of schoolchildren were either overweight or obese (Gutiérrez *et al.*, 2012). In 2012, Mexico was the highest consumer of SSB in the world, with 160 ml per person per day (42% of all beverages consumed by adults) (Stern *et al.*, 2014). Academics highlighted the obesity trends and SSB consumption as a public health problem, and in need of a regulatory framework to mitigate the consequences for the country’s economy (Rivera Dommarco *et al.*, 2012; APSA, 2012; IMCO, 2015). Informants agreed that several factors merging at the same time allowed the soda tax to be considered as a policy option. As a government official mentioned:

I think a cluster of factors allowed the soda tax to pass; there were many initiatives proposed by the Deputies’ chamber, all initiatives supported by the civil society, with unyielding technical support of the Institute [National Institute of Public Health], and the support of international organizations (Government official)

Framing the soda tax as a positive action was crucial for contributing to the policy stream, defined by Kingdon as the on-going analysis of the problem and its solution (Kingdon, 1995; Knaggård, 2015). The positive framing not only allowed the soda tax to gain further support from the public, groups of civil societies, and academics, but it was a move by the federal government to increase its popularity as Peña Nieto’s recent electoral win was facing criticism (Crumpacker, 2013). Other advocacy campaigns for taxing soda, such as El Monte and Berkley (USA) sought public support by framing the tax as being for ‘health purposes’ (social justice) (Scott *et al.*, 2016). In Mexico, in contrast, soda taxes were perceived as a way to ‘punish corporations’ as mentioned by one interviewee, and a way for the president to gain acceptance.

Policy

The first attempt to vote in Congress for an excise tax of 20% on SSB was in December 2012. It was proposed by a Senator with the support of several civil society groups, but rejected as it had strong opposition within the Senate chamber:

A Senator of my party represents the soda industry, and she radically opposed my legislative initiative. We even had personal problems inside our party (Think tank representative)

This action, however, opened up opportunities for on-going debate, as described below (see section ‘Politics of the soda tax: approaches to influence the agenda’). The soda tax was included in the Presidential National Development Plan (NDP 2013–2018) as part of several multi-sector actions to tackle obesity. In October 2013 specific plans from the Ministry of Finance (MoF) and Ministry of Health (MoH) were published, and the tax was changed to 1MXP per litre, instead of the 20% initially proposed. It was unclear how the changes came about under the new federal leadership, as the bill came from the MoF, but the public workshops organized to discuss the regulatory measures had participants from all sectors (Secretaría de Salud, 2015, 2016). According to one academic, the final tax rate proposed was influenced by the participation of the F&BI whose interests would be compromised by the tax:

I have no doubt the industry had a critical persuasion role, in modifying or reducing the tax proposed, especially the sugar cane industry, but it is also corruption and influence on legislators (Academic)

The new tax rate differed from what academics had been discussing and expecting. The Fiscal Reform document did not include a thorough review of evidence to support the rate of the levy. Nor did it include estimates of the potential impact on consumption (or obesity). The MoH was not supportive of a soda tax either the first or the second time it was presented to the Congress. The Secretary of Health, Mercedes Juan, commented in 2013 when asked about her position on soda taxes:

The important thing is to educate people so they are aware of the health effects because you cannot force anyone not to drink soda (SSA, 2013)

By suggesting the unsuitability of coercive action to tackle soda consumption, Juan adopted an industry discourse framed in terms of consumer choice [El Centro para la Libertad del Consumo (CLC), 2013]. Before and after the soda tax was formally proposed by the executive, the MoH made no public statements. In September 2014, the Secretary of Health publicly supported the soda tax and launched the Mexican Observatory of Non-transmissible Diseases [Observatorio Mexicano de Enfermedades No Trasmisibles (OMENT)], a multi-stakeholder platform responsible for evaluating the policy (OMENT, 2014). These moves were followed in 2015 by MoH statements about the positive effects of the soda tax (SSA, 2015). Nevertheless, a key role of the private sector in modifying the original bill was evident in the development of policy.

Agenda setting, policy formulation and the actors involved

The soda tax and other obesity policies adopted by the new government were strongly promoted as having a ‘multi-stakeholder’ approach, whereby any Mexican organization was invited to provide comments and suggestions. ‘Policy entrepreneurs’ or actors involved in the soda tax debates (Table 3) included members of the F&BI, civil society, international agencies and academics (Donaldson, 2015; Carriedo, 2017a). The type of participation varied depending on the timing of the policy process, and the opportunities to influence the agenda. As shown in Figure 1 this was either through formal participation in terms of the design (Buse, 2008), e.g. invited (or not) by the government as part of the multi-stakeholder approach to policy making (DOiario Oficial de la Federación, 2013); or through informal participation with alternative actions (Buse, 2008). Inconsistent accounts were found for the participation of non-state

actors in the formal process. Many sources confirmed active participation of the F&BI in several fora; in the discussions to formulate the soda tax policy for the NDP, those organized by the Federal Commission to Protect Against Sanitary Risks [Comisión Federal para la Protección Contra Riesgos Sanitarios (COFEPRIS)], and discussions about obesity policy. In contrast, the ability of civil society groups and academics to contribute actively to the process was disputed. They announced publicly that they were not always invited to participate in stakeholder workshops once the federal government launched the soda tax proposal in 2013, and were not considered for the government's obesity policy monitoring and evaluation platform (OMENT).

As mentioned by one industry actor:

All the industry was there, plus the Sub-secretariat of Health and some members of only [a] few non-governmental organizations (NGOs) (Food and Beverage Industry member).

Results suggest commercial interests might have been influential in designing the policy. First, claims by civil society that they were not actively included while the F&BI were, contested the official discourse about the inclusive approach of the policy design and the democratic process. Second, there was no initial support for the soda tax from the Secretary of the MoH, who had formerly been chief executive of the Mexican Foundation for Health (FUNSALUD), a research charity sponsored by Nestlé ([Fundación Mexicana Para La Salud, 2016](#)). And finally, keeping the F&BI on board, despite having a conflict of interest with the soda tax, appeared to be a bid to avoid conflict with powerful actors who are significant contributors to Mexico's economy (Pan American Health Organization ([PAHO](#)), 2015b; [Factset, 2017](#); [Terifs: Collaborate on Forecast, 2018](#)). [Table 4](#) shows the organizations participating in the OMENT, and the links to the F&BI found for those participants ([Carriedo, 2017a](#)).

Politics of the soda tax: approaches to influence the agenda

According to Kingdom's model, the politics stream (i.e. ongoing debates about the policy problem and its solutions) is key to influence getting the topic onto the policy agenda. The politics taking place outside of government institutions attempting to raise obesity up the policy agenda, and highlighting the soda tax as one of the solutions, proposed several strategies. Some of them included calls for action; coalition building; the use of marketing; ways to frame the problem and impact of the tax; and emerging public-private partnerships (PPPs) with SSB producers.

Calls to actions

Calls to action are defined here as the main strategy used by actors to increase support for their positions and benefit from such support. Different responses were proposed before the soda tax was officially put forward as a policy measure.

The civil society 'Consumers Power' [-El Poder del Consumidor (EPC)], was the first national organization to call for a soda tax in September 2012, in their press release '*We ask for a soda tax*' ([EPC, 2011](#)). Later that year, a multi-stakeholder conference organized by the National Institute of Public Health [Instituto Nacional de Salud Pública (INSP)], the University of Sao Paulo and the National Institute of Food Technology [Instituto Nacional de Tecnología Alimentaria (INTA)] was held in Chile to talk about the obesity problem and policies to address it in the region.

In January 2013, the Mexican Academy of Medicine [-Academia Nacional de Medicina (ANM)] presented a book. The media called it the 'white paper' for obesity, as it included a brief chapter on the position and recommendations for policy change ([Rivera Dommarco et al., 2012](#)). It highlighted how interventions related to marketing and the pricing of unhealthy foods are core areas for action, and how taxing unhealthy foods would protect 'fundamental rights' ([Rivera Dommarco et al., 2012](#)).

Table 4 Advisory board for the government's obesity policies monitoring strategies and their links (OMENT, 2014)

Actor	Name	Links with F&BI	Links with other governmental organizations
Academics	Academia Mexicana de Pediatría (National Academy of Pediatric—NAP)	YES	NA
	Academia Nacional de Medicina (National Academy of Medicine—NAM)	NO	YES
	Instituto Politécnico Nacional (National Polytechnic Institution)	NO	NA
	Sociedad Mexicana de la Salud Pública (Mexican Society of Public Health)	YES	NA
	Universidad Nacional Autónoma de Nuevo—UNAL (National Autonomous University of Nuevo León)	YES	NA
Industry	CANACINTRA		YES
	CONCAMIN		YES
	ConMexico		YES
Civil Society	ContraPESO	NO	YES
	Fundación Carlos Slim	YES	YES
Society	Fundación Este País		
	Funsalud	YES	YES
	IMCO	YES	YES
	Mexicanos Activos	YES	NA
	Sociedad Mexicana de Cardiología	NO	NA
Aspen Institute México	YES	NA	

NA = Not available.

Between January and June 2013, civil society actors consistently advocated for the adoption of the soda tax (Donaldson, 2015). Throughout the public debate, organizations such as the World Public Health Nutrition Association (WPHNA), the International Obesity Task Force—now World Obesity (WO) and PAHO supported Mexican national groups such as ContraPESO, and the Alliance for Healthy Eating [Alianza por la Salud Alimentaria (ANSA)] (Alianza Por La Salud Alimentaria, 2012; Donaldson, 2015).

That same year, calls for F&BI investment, diversification of markets and expansion to other countries were highlighted in several internal corporate documents directed at financial investors in the region:

We hope to see more value-added innovation specifically geared toward the Latin American market as manufacturers compete for the money people are willing to devote to soft drinks (Euromonitor, 2014).

But it was not until October 2013, when the soda tax became effective, that the Mexican's Council of the Consumer Products Industry [Consejo Mexicano de la Industria del Consumo (CONMEXICO)] expressed their 'energetic opposition' to the soda taxes, stating that these beverages were being 'discriminated against' (ConMexico, 2013).

Throughout 2014 and 2015, statements by F&BI actors about the lack of effectiveness of the tax were published in the media, framing the results in such a way as to generate public opposition to the tax. F&BI actors also publicly called on Congress to reject the vote on whether to increase the soda tax rate and instead support its removal in September 2015. At this time, civil society members and academics denounced the harassment and threats received linked to the tax and possible changes (Perlroth, 2017).

In a parallel issue, after the tax was seen to be effective, the coalition of civil society groups supporting the tax embarked on a campaign to demand transparency and accountability regarding progress made on installing water fountains in all public schools and public spaces, which had been outlined in an addendum approved by congress in 2014 (AguaOrg, 2015; Senado de la República, 2015).

Media and marketing strategies

A media battle began in June 2013 between civil society organizations and those opposing the soda tax. This public debate of the different counter-arguments appears to have had a positive effect on public opinion of the tax, as reported in a poll conducted at the end of 2013 (PAHO, 2015a). SSBs and sugar producers improved their marketing strategies to try to increase brand loyalty, and they also sponsored campaigns to portray the negative aspects of the tax. For instance, sugar cane producers launched a campaign entitled 'Let's Talk About Sugar' (*Hablemos de Azúcar*), stating that sugar is 'a little happiness every day' (*Hablemos de Azúcar*, 2016). The director of The Centre for Consumer Freedom (Centro para la Libertad del Consumo), an anti-tax group, made a video saying, '[The soda tax] messes with our free choice and consumption' (CLC, 2013). Additionally, this group sponsored advertising with the questions: 'Can you bottle obesity with taxes? Yes or no on the tax on chubby people?' (CLC, 2013; Donaldson, 2015).

SSB producers engaged local retailers to gain brand loyalty and to highlight a negative opinion of the tax (Donaldson, 2015). The soda industry 'aggressively increased' their distribution of branded refrigerators to small business (388 000 coolers were distributed in 2012) (Coca-Cola Femsa, 2012).

During the same period, advocates of the tax used a social marketing campaign to position drinking soda as a negative behaviour, and although it was only promoted in Mexico City, it actually had a significant impact all over the country. These campaigns drew the attention of the Director of the LA Office of the UN Food and Agricultural Organization who praised the adverts and called for their replication across Latin America (Bloomberg Philanthropies (BP), 2016).

Coalition building

During the policy development process, coalition building was essential for actors on both sides to gain more influence to support or oppose the soda tax. Academia, civil society and international agencies had disclosed links between themselves. BP, INSP, EPC and Fundación Mídete had partnered for several years to promote the soda tax and other regulatory measures to tackle obesity. They had the support of one or more international agencies, such as WPHNA, WO and PAHO. At the national level, coalitions between civil society groups emerged, such as ContraPeso and ANSA. Also, a co-operative relationship between the WHO country office and the same senator was also built to advocate for the tax from an early stage (PAHO, 2015a).

Oponents of the soda tax also built coalitions to promote their position in public. Some health-focused organizations, e.g. the Latin American Federation of Diabetes (Federación Mexicana de Diabetes (FMD), 2016), positioned itself as being against the soda tax, but it did not reveal that it had funding from Coca-Cola. Other organizations against the tax emerged, such as Mexico Moves (Mexico Se Mueve) and Active Mexicans (Mexicanos Activos A.C.), promoting physical activity, and the Center for Consumer Freedom (CLC, 2013), an industry-funded front group advocating for the 'right to free choice'.

Relationships between the F&BI and academic institutions were also active during the period of policy development, mainly through funding research. For example, the National Association of Producers of Soft Drinks and Carbonated Water [Asociación Nacional de Productores de Refrescos y Aguas Carbonatadas (ANPRAC)] with the National Autonomous University of Nuevo León [-Universidad Nacional Autónoma de Nuevo León (UNAL)]; and the Autonomous Institute of Technology [Instituto Tecnológico Autónomo de México (ITAM)] with ConMexico. Both academic institutions received industry-funded grants to evaluate the impact of the soda tax in the first year. Some actors were found to have dual roles, e.g. one who was a board member of a civil society group and was invited to evaluate the tax was also part of an industry-related board (Carriedo, 2017b).

Discussing the soda tax effectiveness

The soda tax's effectiveness was debated extensively in the media after the publication of three key reports (Chapa-Cantú *et al.*, 2015; Aguilar *et al.*, 2015; Colchero *et al.*, 2016). Contradictory arguments were found in these reports, which were due to three main issues: funding, outcome measurement and interpretation of the data. First, two reports were funded by the F&BI and BP funded one. Second, different reports used different databases and units of measurement, leading to different conclusions. Finally, the reports framed their results differently and evidence of the effectiveness of the soda tax appeared to reflect the reports' funding.

ANPRAC funded ITAM's report, and ConMexico used 'caloric intake' as an outcome measure, and concluded 'that the tax did not reduce caloric intake in a significant way. It only reduced 6 kcal of

the 3,200 calories consumed daily by Mexicans' (Ramirez, 2016). For ConMexico; this report was enough evidence to argue 'that demand of taxed beverage and foods is inelastic' (Ramirez, 2016). The report also estimated that the decrease in sugary drinks was between 6.5% and 7%, conceding that the soda tax had incentivized consumers to reduce consumption, albeit only 'moderately' (Aguilar *et al.*, 2015).

UNAL's report found sales to have decreased by 3%–4%. However, it discussed a concomitant increase in soda production from 1200 to 1400 million litres monthly (+16%) and concluded that the tax 'did not substantially change the median caloric intake of Mexicans (if so, it reduced calorie consumption by 0.215)' (Chapa-Cantú *et al.*, 2015).

Finally, the only peer-reviewed publication at the time reported a decrease of sales of taxed beverages of 6% (–12 ml/capita/day) and a rate of decrease in sales of up to 12% in December 2014 (up to 17% in low socio-economic households) (Colchero *et al.*, 2016). The outcome variable included adjusted soda purchases from Euromonitor International data. With a positive impact of the soda tax, it suggested that 'economic models of addiction and related behavioural models imply that the long-term impact of a price change will be much larger than the short-term effect' (Colchero *et al.*, 2016).

Increase in corporate social responsibility activities related to other health issues

Soda companies had strategies to counter the impact of the soda tax on consumers' behaviour and to protect profits, despite increased retail prices. Coca-Cola company annual reports showed that corporate social responsibility actions were framed as the company increased its empathy with consumer concerns (Coca-Cola Femsa, 2013; Coca-Cola FEMSA, 2014). They included: improved access to water and sanitation, gender empowerment, provision of education (e.g. PepsiCo University and funding public schools), promoting physical activity programs, and environmental sustainability (PepsiCo, 2012; PepsiCo, 2014).

Both the government and the SSB industry saw PPPs as a positive opportunity, as some corporate social responsibility actions also supported national social policy. For example, a collaboration between a charity funded by Coca-Cola and the government was launched to improve physical activity in public schools, partnering with the civil society programme 'Movement is Health' (Fundación Movimiento es Salud A.C.), and with the National Committee for Developing Physical Activity in Basic Education [Consejo Nacional para el Desarrollo de la Educación Física y el Deporte en la Educación Básica (CONDEBA)] (Coca-Cola Foundation, 2014b).

Agreements were considered between the SSB industry and the government to provide drinking water to public schools. In 2014, Coca-Cola Mexico collaborated with Sustainable Schools, A.C. (Escuelas Saludables A.C.), a civil society association founded that year with the purpose of providing drinking water to 999 public schools (Coca-Cola Foundation, 2014a). With a similar purpose, that same year, in the states of Durango and Nayarit an agreement was signed between the school boards, the Institute of Physical Activity Infrastructure [Instituto de la Infraestructura Física Educativa del Estado de Durango (INIFED)], the Coca-Cola Hydrate Centre and Escuelas Saludables A.C. (Arca Continental, 2014).

Following previous civil society criticism of the environmental impacts of SSB production, in 2014, Coca-Cola launched Water for Our Future, an environmental programme in partnership with Latin American Water Funds Partnership. The PPP aimed to protect

>6,000 hectares of watersheds, replenishing 6.9 million cubic metres of water to nature through an investment of US\$7.4 million in at least five countries in the region (Coca-Cola FEMSA, 2014).

Finally, in October 2016 the President, together with the MoH, the MoF and the head of CONACYT opened the Centre for Innovation and Development Coca-Cola [-Centro para la Innovación y Desarrollo Coca-Cola (CIDCC)], with the purpose of 'investing in the generation of sustainable values through research' (Coca-Cola FEMSA, 2016). At the centre's inauguration, President Peña Nieto stated that he drank Coca-Cola every day, and reiterated his call to the private sector to support research and employment in the country (Carriedo, 2017a). This was another example of the SSB industries' active role as a partner of the MoH, and the conflicts of interest in public programmes for the prevention of obesity. The media and CSOs heavily criticized the opening event, but no changes to the structure of the partnership were made.

Discussion

Several factors during the process of developing a soda tax policy in Mexico influenced the policy outcomes. Our findings suggest the soda tax was primarily driven by a need for the government to increase revenues for public expenditure, as has also been seen in the case of the Philippines and the Pacific Islands (Thow *et al.*, 2011; Saxena *et al.*, 2019). There was support for the soda tax from academics, civil society, and international organizations using health evidence; but it was highly challenged by the F&BI. Public awareness of the obesity problem and the negative health effect of high SSB consumption as well as increased support for the soda tax were seen after national media debates on the topic (Radio Formula, 2013).

Strategies used by some actors to negatively influence perceptions of the soda tax mirrored strategies used by F&BI to oppose other health-related policies aimed to decrease tobacco and alcohol consumption, referred to by some authors as Corporate Political Activities (CPA) (Hawkins *et al.*, 2012; Mialon *et al.*, 2016; Ulucanlar *et al.*, 2016). These included challenging scientific evidence, the creation of (industry-funded) front groups, intense lobbying of politicians, involvement in government policy development processes, media strategies to frame the soda tax in a negative light and sponsoring organizations and research. This occurred throughout the policy development period and continued after the soda tax was implemented and shown to be effective. These activities were strongly contested by academic and civil society coalitions supporting the tax.

The power dynamics changed throughout the policy debate. The F&BI was heavily involved and working closely with the government throughout, which promoted deliberate distractions such as PPPs. The coordinated and strong civil society groups, supported by academics and international organizations, countered these actions by engaging with the public. They became key policy entrepreneurs in a climate of uncertainty (change of government), positively influencing the policy agenda.

The national public health situation encouraged the civil society groups to call for action on obesity and was the perfect justification for a health tax by the government. This was challenged and framed as a matter of personal responsibility by the F&BI. The final tax levy changed from 20% to 1MXP per litre. Explanations for this change were not clear, although findings suggest it might have been influenced by F&BI lobbying. Regardless of the reduced rate of the

tax, the soda tax was approved and perceived as a success both nationally and internationally (WHO, 2016; Perez-Escamilla, 2017).

The stages heuristic model was used to organize accounts of the policy process chronologically. The policy triangle framework and the multiple streams model were used in a complementary approach and provided different perspectives from which to explain our empirical outcomes. While the former helped to explain the process in a simplified way, the latter helped to detail the politics of the policy process, including the different framings of the policy problem and the proposed solutions put forward by various interest groups. This paper emphasizes the relevance of the concept of framing within Kingdon's (1995) multiple stream approach (Supplementary Material 1). It builds on previous studies of framing and agenda setting (Knaggård, 2015; Colombini *et al.*, 2016; Rawat and Morris, 2016) in recent years. It contributes to an understanding of how framing a policy issue affects all of the streams of a Kingdon model, and revamps the relevance of policy entrepreneurs' ideas influencing the policy agenda (Colombini *et al.*, 2016). In addition, this article contributes to the still limited yet expanding application of these theories in food politics in low and middle-income countries (LMIC) (González-Zapata *et al.*, 2009; Manoj and Ganesh-Kumar, 2009).

Our study results show an active role being taken by the F&BI in the soda tax policy development and in the monitoring and evaluation platform (OMENT). Corporate actions to prevent or delay food and drink regulation are currently focused on LMIC, as they are emerging markets where SSB intake has increased rapidly (Monteiro *et al.*, 2013). The F&BI corporate strategies focus on increasing brand loyalty particularly among disadvantaged populations, and on increasing the visibility of corporate social actions by participating in other social programmes (Kraak *et al.*, 2012). This conflicts with the vested commercial interest of corporations, in which commercial fiduciary duties to their shareholders are above any social responsibility actions (Joyner and Payne, 2002). This research shows that the Mexican government was not concerned with any conflicts of interest when partnering with the soda industry, even during or after the soda tax policy and the public debate around it.

Soda tax policies are seen as threats by SSB companies. Leaked Coca-Cola Company documents in October 2016 revealed their pre-occupation with responding to such policies through a 'public policy risk matrix and lobby focus' (Pfiester, 2016a), and a global political strategy (Belluz, 2016). As a result, the F&BI have invested in actions to manage or mitigate the reputational and economic risks, using marketing campaigns, investing in reformulation and new products, changing their beverage portfolios and pricing. Through PPPs, the F&BI linked corporate social responsibility actions to social policy actions, used for the negotiation of fiscal benefits. Some of these actions could be thought of as trying to jeopardize the policy (Caraher and Cowburn, 2015).

This case study shows how evidence was used politically in the policy development process. Studies of the effectiveness of the soda tax were reported and discussed in the media, and were used to polarize the public. Null or negative impacts were reported in industry-funded reports and used to build a conflicting evidence base (Clark *et al.*, 2012). Finally, links and coalitions built between actors throughout the process helps the explain the dynamics and timing of the policy actions that led to the soda tax policy.

Some limitations of this study include its short time frame and the timing of the research. The country was experiencing serious political challenges under a new president with issues on national security and drug policies. These matters might have influenced two

national journalists to decline to be interviewed. Methodological limitations in this study include (a) the lack of participation by some F&BI actors, (b) the reluctance of some political actors to be recorded and (c) the fact that the lead investigator was part of the academic group supporting the tax proposals during the early stages of policy discussion (until mid 2013).

The authors acknowledged that although the lead author is a native speaker familiar with the study context, her position was an important fact to consider in the subjectivity of the policy analysis. The study followed a quality assurance process to reduce potential validity and reliability limitations, and to account for the inherent subjectivity of the policy analysis, regardless the background of the authors (Gilson and Raphaely, 2008; Hibbert *et al.*, 2014).

Conclusions

This study contributes to further understanding how and why the soda tax was developed and implemented in Mexico. It has explored how power was exercised, framed and shifted throughout the policy process. It identifies the specific national context and provides some lessons on how key organizations and policy coalitions became instrumental in influencing the policy content and outcomes. This research provides evidence about how the F&BI have used their influence in regulatory actions for obesity prevention in Mexico. The policy process resulted in the empowerment of advocacy coalitions between civil society, academics and international organization, although this was counter-balanced by new PPPs created by the SSB companies. These partnerships created opportunities to deflect negative interest in soda taxation by using other social interventions, such as the provision of safe drinking water. These findings and lessons learned could enable health researchers and policy actors to develop strategies to address the role and influence of non-state actors and conflicts of interest that might endanger important health regulation.

Acknowledgements

The corresponding author thanks interviewees for generously giving their time and expertise, to Dr Ben Hawkins and Dr Karen Lock for supervising this PhD. The paper is part of the PhD thesis of AC, which was funded by CONACYT Mexico (Comisión Nacional de Ciencia y Tecnología).

Conflict of Interest: The authors declare no conflicts of interest. AC was a PhD student while the study was conducted, with previous familiarity of the case as part of the academic team supporting the soda tax while she was a research fellow at the National Institute of Public Health.

Ethical approval: The project was approved by the LSHTM Ethics Committee, Ref No. 8575.

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