



Development and Implementation Processes of the Food Labeling and Advertising Law in Chile



WORLD BANK GROUP



PROJECT DATA

PARTNER ORGANIZATION:

World Bank

ORGANIZATION TYPE:

Multilateral

DELIVERY CHALLENGES:

Opposition and Lack of Consensus;
Electoral cycles; Skilled Manpower;
Organizational Capacity; Stakeholder
Engagement

DEVELOPMENT CHALLENGE:

Prevention and Control of Obesity

SECTOR:

Health

COUNTRY:

Chile

REGION:

Latin America and Caribbean

CONTACT

CASE AUTHORS:

Ariel Azar Denecken

PROJECT EXPERT:

Linda Brooke Schultz

TABLE OF CONTENTS

Introduction	2
Context	5
Tracing the Development Process	6
Tracing the Implementation Process	10
What has the Food Law Achieved?	15
Lessons Learned	16
Annex 1: Key Inflection Points	19
References	21

Preface

The soaring prevalence of obesity, and the non-communicable diseases (NCDs) associated with it, is increasingly becoming one of the main public health threats in the world. Once considered an ailment of the rich, overweight and obesity are no longer a health concern only in wealthy countries. Their prevalence continues to grow in low- and lower-middle-income countries (LMICs), and is pervasive even in countries where undernutrition persists.

To face this challenge, many countries have designed and implemented comprehensive strategies and standalone policies to curb the epidemic. However, most documentation around the process to design and implement these policies come from high-income countries, and only recently have there been some efforts aimed at understanding the process and experiences in middle-income countries. This work aims to help fill this knowledge gap.

This case study is part of a series of country case studies commissioned to better understand the process of designing and implementing policies to prevent and control obesity. The series provides an overview of the contextual factors and political processes in which these policies were introduced and the roles of the stakeholders in moving the policies forward from design to implementation. The countries included in the series span World Bank regions and income levels, including Brazil, Chile, India, Mexico, Poland, Thailand, Turkey, Sri Lanka, and South Africa.

This case study was prepared by Ariel Azar Denecken as part of a Global ASA report on the Prevention and Control of Obesity. Many people contributed to the preparation of this case study, and thanks are due for their contributions, starting with the stakeholders and experts who graciously gave their time in interviews to help develop the story that became this case study. Linda Brooke Schultz, as Task Team Lead, provided invaluable support in liaising with government counterparts, reviewing drafts, and ensuring a smooth clearance process. Maria Eugenia Bonilla-Chacin served as the Principal Investigator and provided helpful insights and guidance throughout the preparation of the case study. Linda Brooke Schultz also provided technical oversight, extensive guidance, and review at every stage of the case study. Jacob Bathanti reviewed many drafts and provided guidance during the writing process. On the GDI team, Sruti Bandyopadhyay and Claudio Santibañez provided review and support. Financial support for this work was provided by the Government of Japan through the Japan Trust Fund for Scaling Up Nutrition.

The nine case studies were developed utilizing a case-study methodology developed by the Global Delivery Initiative (GDI). GDI is a collaborative effort to create a collective and cumulative evidence base of delivery know-how to inform development practice and improve implementation. For each case study, the methodology was tailored to highlight the factors that supported and hindered the design and implementation of obesity prevention policies in each individual country. This series aims to answer three key questions within the analysis: (1) *the development challenge*, the overall problem the country was aiming to solve; (2) *the delivery challenge*, the experiences that hindered the policy design and implementation from achieving its full potential; and (3) *the inflection points* that stalled or progressed the momentum gained throughout the process.

Each case study is based on peer-reviewed literature, publicly available government documents, a review of mass media advocacy campaigns, and in-person qualitative interviews with a broad range of key stakeholders.

Maria Eugenia Bonilla-Chacin

Introduction

In the second half of the twentieth century, Chile experienced a significant burden of undernutrition among children under the age of 6. In 1960, 37 percent of children in Chile were underweight, and in 1970, the prevalence of stunting was 19 percent (World Food Programme 2008). A sustained effort to implement effective health policies, led by the State and disregarding the ideological positions of political actors in power, helped reduce the proportion of underweight children and the burden of stunting to less than 2 percent by the year 2016 (Ministry of Health 2016). Moreover, by 2016, the prevalence of malnutrition for children under the age of 6 dropped to 0.37 percent. While Chile successfully reduced malnutrition, the prevalence of individuals who were overweight or obese was increasing.

Overweight and obesity are one of the greatest contemporary public health issues throughout the world. Chile is no exception in this arena, and furthermore, stands out as one of the most obese countries in the world. It has the highest prevalence of overweight and obesity among South American countries, 63 percent of adults are

overweight or obese, as are close to 11.4 percent of children under the age of 5 (Ministry of Health 2016). This situation is concerning because overweight and obesity status is a risk factor for non-communicable diseases (NCDs). Overweight is associated with type 2 diabetes (Chan et al. 1994), cardiovascular diseases (Eckel 1997), cancer (Renehan, Zwahlen, and Egger 2015), cognitive impairment (Veronese et al. 2016), premature mortality (Fontana and Hu 2014), and decreased motor functioning (He and Baker 2004), affecting people's wellbeing and putting enormous financial pressures on health care systems.

Aware of this situation, due to various warnings made by the WHO and the National Disease Burden Study (MINSAL 1996) published by the Ministry of Health in 1997, Chilean authorities began to implement policies that aimed to reduce obesity and overweight in the late 1990s and early 2000s. These policies were characterized by focusing on individuals rather than social contexts. It was not until 2007 that a group of parliamentarians, with support from the Ministry of Health, proposed to aggressively regulate the food industry in order to equip consumers with better information and tools for making informed decisions. This move represented a paradigm shift from previously implemented policies, moving from an individually-centered paradigm to a social-determinants of health perspective. This regulation was established through the Food Labeling and Advertising Law, hereafter referred to as the "Food Law," which was passed in 2012. This case study will focus on the three main policy interventions mandated by the Food Law: (1) front-of-package labeling with nutrition information; (2) restrictions on the type of food that can be sold and distributed within schools; and (3) prohibition of unhealthy food advertising directed at children under 14 years of age.

This case study seeks to understand the development and implementation process of the Food Law. What prompted politicians and policy-makers to commit to improving information provided to consumers to make better food choices? How was this impulse addressed through public policy? By tracing the story of the Food Law and its three supporting policies, the case study seeks to answer these questions, while taking into account the factors that facilitated and delayed the development and implementation processes of the law.

The Development Challenge

Overweight and obesity have significant economic and health consequences. Obesity constitutes a major share

of national health expenditures worldwide; one literature review found that several studies have estimated for obesity to account, on average, for between 0.7 percent and 2.8 percent of different high-income country-level health expenditures (Withrow & Alter 2011). Moreover, Withrow and Alter (2011) estimate that individuals with obesity have 30 percent higher medical costs than those with normal weight. In Chile, specifically, it is estimated that obesity accounts for an average of 2.2 percent of annual total health expenditures. This percent is predicted to increase to 4 percent by 2030 (Cuadrado 2017). The primary contributors to these costs are gallstone disease, chronic kidney disease, bariatric surgery, and type 2 diabetes. As a consequence of overweight and obesity, Chile loses around 0.81 percent of its GDP due to medical treatments, associated diseases, disability pensions, absenteeism, and early deaths. Additionally, 10 percent of total deaths in Chile may be attributed to obesity (Cuadrado 2017).

There are two direct determinants of overweight and obesity: diet and physical activity. Excessive caloric intake, together with physical inactivity generates accumulated energy that eventually transforms into fat, which leads to overweight or obesity. Chileans' diet and levels of physical activity are worrisome. According to the Chilean National Survey of Food Consumption (Ministry of Health 2011), only four percent and seven percent of men and women respectively have a healthy diet, while 87 percent of those surveyed would benefit from healthier consumption patterns.¹ In line with this, 80 percent of Chileans consider themselves to be sedentary (people who engage in physical activity less than 30 minutes three times a week). The Chilean outlook for both direct determinants of overweight and obesity is not encouraging.

In this context, Chile has developed policies that seek to offset the obesity challenge, using several strategies across time. The policies analyzed in this case study specifically tackle the challenge related to caloric intake by giving consumers better tools to make informed food choices, providing them with easy-to-understand nutritional information and modifying food environments, particularly for children. By understanding this particular policy development and implementation in Chile, this case study examines the main challenges faced by these processes, offering lessons about the value of creating strong alliances between academia and politics in order to convince policymakers about the relevance of creating policies to regulate the food industry, the importance of

making evidence-based decisions, and the usefulness of creating adequate incentives for self-regulation and creating agreements with existing institutions to ensure compliance with the Law.

The Delivery Challenges

A delivery challenge is a nontechnical problem that delays policy interventions and prevents countries from successfully implementing policies that seek to solve a specific development challenge (Gonzalez and Woolock 2015). In this particular case, the delivery challenges were the obstacles that hindered the approval and implementation of the Food Law in all possible phases—institutional obstacles due to the design of state institutions responsible for implementing or designing specific policies as well as difficulties due to lack of resources.

Three stages can be identified in the process followed by the policies addressed in this case study: development, implementation, and enforcement. The development process refers to the law-making procedure in Congress and its motivations, led by a group of parliamentarians, advised by the Ministry of Health, who presented the Food Law. The implementation process, led by the Ministry of Health, took place once the law was approved by Congress and consisted of developing the regulation that would define how to apply the Food Law. The enforcement stage, also led by the Ministry of Health, is ongoing at the time this case study was written (August 2017). It consists of monitoring compliance to all aspects of the law. Four specific challenges that impeded a fluid and efficient development and implementation of the law emerged throughout the process. These challenges were largely related to political processes and negotiations across the legislative and executive branches of government.

Opposition and Lack of Consensus. The law-making process officially started in 2007 and finished in 2012, which is considerably longer than average law-making processes; this process usually takes 13 months for bills submitted by the executive branch and 31 months for bills submitted by parliamentarians (Lobos 2013). Opposition to the original project from specific stakeholders and interest groups, and lack of consensus among

¹ To measure a "healthy diet," the Healthy Feeding Index (IASE for its acronym in Spanish), based on the Healthy Eating Index, was used. IASE was developed by Norte Navarro and Ortiz Moncada (2011).

parliamentarians led to an inability to find a solution acceptable to all major stakeholders. This challenge was not overcome once the law was approved, though. Even then, major differences between the body responsible for creating the regulatory framework—the Ministry of Health—and the food industry lobbyists further delayed the implementation of the Food Law.

Electoral cycles. Electoral cycles also posed a significant challenge for the development and implementation of the policies involved in the Food Law. Even though the law was developed by the Parliament, the Chilean political system gives the executive branch the ability to guide the discussion in Congress through a scheme of urgencies. The executive branch has the power to speed up the legislative procedure by forcing the parliament to discuss a specific bill in a particular amount of time at any point of the law-making process. This ability makes the government a central player in legislative processes. Three governments were in power during the Law's development, implementation and enforcement. One ruled between 2006 and 2010, another one in the period 2010-2014, and the last one in 2014 until 2018. The first government in power when the bill was originally presented in Parliament in 2007 had a substantially different position about the policies involved in the Food Law than the government in power throughout most of the discussion process in parliament, which also had differences from their successor government's position.

Skilled Manpower/Organizational Capacity. During the implementation process, a delivery challenge emerged regarding technical capacities within the Ministry of Health. The Parliament gave the Ministry of Health the task of developing a regulation seeking to implement the Food Law that was approved in Congress. One of the major challenges was to define “unhealthy food.” Corvalán et al. (2013) assert that this task found the Ministry's Nutrition and Foods Department in the midst of a restructuring process due to the change of administration, leaving the Ministry of Health facing a skilled manpower related challenge. Because of this change, new working teams in the Ministry were not familiar with the on-going process.

Stakeholder Engagement. Finally, a delivery challenge that recurred throughout the process has to do with

not engaging all necessary stakeholders. Most of the discussion in parliament involved politicians, public health experts, government authorities, and food industry's representatives. Civil society, nevertheless, was seldom taken into account as a relevant actor in the law-making process. This challenge carried over to the implementation process (Corvalán et al. 2013), particularly during the development of the first regulation. Although the Ministry of Health heavily relied on groups of experts and took into account the interests of the food industry, it did not fully utilize mechanisms for incorporating citizens' perspectives, who, together with the food industry, would be directly affected by the implementation of the law. As different actors recognize, though, this challenge is transversal to the whole Chilean policy-making system.²

The Case Study and Key Questions

The case study focuses on the development and implementation processes of the Food Law. Each policy contained in the Food Law—front-of-package labeling, food selling and distribution control policies, and advertising restrictions—faced delivery challenges. These are discussed together with the implementation process for each of these policies that emerged from the regulation approved in the Chilean parliament. The case study analyzes how these delivery challenges were addressed, and the conditions under which this initially controversial project was approved and successfully implemented after having faced technical and political challenges.

The case seeks to understand the main motivations that led Chilean political actors to develop a specific law regulating the food industry, taking into account the main goals and policies involved behind that law presented in Congress. In addition, the main stakeholders involved in the development and implementation processes of the Food Law will be identified, showing their positions and roles in these processes. Additionally, understanding the process of this Law and its policies involved, will shed light on the main challenges and facilitating factors faced during the development, implementation and enforcement phases. Finally, the main objective of this case study is to delineate what lessons can be drawn from the Chile's development and implementation of the most recent policies that seek to combat obesity.

² Author interview to Ministry of Health officials, June 2017.

Context

In 2014, Chile had the highest prevalence of overweight among South American countries and the third highest within Latin America and the Caribbean—behind Mexico and the Bahamas—reaching 63 percent among adults. Of the overweight adult population, 40 percent are obese (FAO and PHO 2017). This pattern is not new. By 1987, 20 years before the Food Law was first presented in Parliament, 45 percent of men and 49 percent of women were overweight. Ten years later, the proportion of men and women with a BMI equal to or greater than 25 increased by seven and six percentage points respectively. By 2007, when the bill was presented, 65 percent of Chileans (18+) had a BMI above the overweight threshold and 21 percent of men and 29 percent of women had a BMI over the obesity threshold (WHO 2017).

Prevalence of overweight and obesity among children is also worrisome. The latest data available show that by 2016, 24.5 percent of Chilean first graders were obese, while 26.5 percent were overweight (JUNAEB 2016). Interestingly, boys had higher obesity prevalence levels, while girls show a higher overweight prevalence. In 2007, the percentage of first graders with obesity reached 22 percent (JUNAEB 2008), showing a sharp increase from 2001, when the proportion of first graders with obesity reached 17 percent (JUNAEB 2002). The Food Law emerges, therefore, in an evident context of an upward trend of childhood obesity.

The overweight and obesity phenomenon does not affect the entire population equally. In addition to gender stratification, data for Chilean eighth graders show that 45 percent were overweight or obese, with statistically significant differences in the prevalence of overweight and obesity across socio-economic groups. A study developed by the Quality of Education Agency that grouped schools by socioeconomic group found that while students in schools in “low” and “medium-low” socioeconomic groups show 48 percent of eighth graders were overweight or obese, among schools in the “high” socioeconomic group, this percentage decreases to 36 percent (Agencia de Calidad de la Educación 2016).³

Antecedent Initiatives

The Food Law is not the first effort made by Chile to prevent overweight and obesity. Chile implemented several successful policies in the late 1990’s and early

2000’s. These were not part of an overall strategy to prevent and control obesity or NCDs in general, but isolated policies. In 1998, the Chilean Ministry of Health created the National Plan for Health Promotion, seeking to develop primary healthcare and to face Chile’s changing epidemiological profile (Salinas et al. 2007). As part of this Plan, in 1999 the Ministry created the National Council for the Promotion of Health, VIDA CHILE, an inter-sectoral coordinating body headed by the Ministry of Health, seeking to develop health promotion policies in the country at the local government level. Some of the Council’s programs, among others, were “Plazas VIDA CHILE” and “Health Promotion Schools.”

Plazas VIDA CHILE was a program seeking to encourage the use of public spaces by rehabilitating squares, parks, beaches, and other areas to make them suitable for physical activity, as well as for nutrition and environmental education activities. These programs were implemented in most *comunas* (local governments); municipalities regularly carried out community promotion activities, group educational activities, and training workshops for fitness instructors (Salinas and Vio 2003).

The “Health Promotion Schools” initiative was also part of the VIDA CHILE policies. The Council created a technical committee made up of representatives of the Ministries of Health and Education, the National Board of School Assistance and Scholarships, the National Board of Nursery Schools, Integra Foundation (a public national network of nursery schools and childcare centers), and the WHO/Pan-American Health Organization. The committee adopted a voluntary accreditation system based on minimum requirements that a school could adopt to become a “Health Promotion School.” To become accredited, schools had to fulfill 10 minimum conditions for promoting and programming activities related to nutrition, physical activity, interpersonal relationships, smoking, alcohol and drugs, and other components of school health through the participation of the educational community, which included teachers, students, parents, managers, and administrators (Salinas and Vio 2003).

3 The school’s socioeconomic group indicator is built using four variables: a) mother’s education, b) father’s education, c) household income, and d) Vulnerability School Index. A simple average is calculated at the school level for variables a), b), and c) (variable d) is originally built at the school level), and a cluster analysis is made to build five socioeconomic groups.

In addition to the efforts made by the VIDA CHILE Council, bread producers and the Ministry of Health joined forces, starting in 2009, to voluntarily reduce the amount of sodium in bread. Chile is one of the biggest bread consumers in the world (86kgs per person, per year), and therefore, bread is one of the main sources of sodium in people's diet. Before this policy there were around 800 mg of sodium per 100 grams of bread; this voluntary policy sought to reduce this amount to 400mg. Its results have been considered satisfactory, taking into account the voluntary nature of this policy. By August 2016, 10 percent of bakeries and supermarkets in Chile had reduced their levels of sodium in bread (Ministerio de Salud 2016; de Améstica 2017). The challenge, however, is for more bakeries to become part of this voluntary program.

In September 2014, in line with WHO guidelines (World Health Organization 2015), the tax on sugary drinks was raised and reduced for sugar-free beverages: from 13 percent to 18 percent for the former, and from 13 percent to 10 percent for the latter. This was part of a highly debated general tax reform in the country. The beverage tax, therefore, was not publicly debated as part of a public health policy. Moreover, this tax was not completely aligned with the Food Law: the definition of high sugar levels for the application of the tax is different from the threshold established by the Food Law: For the beverage tax, a drink is considered high in sugar if it has over 6.25 grams of sugar per 100 milliliters, while for the Food Law, a drink is considered high in sugar if it has over 5 grams of sugar per 100 milliliters. To date, there is no information about the impact of this policy in the Chilean context.⁴ Nonetheless, studies suggest that the five percent increase in tax may have a positive effect in terms of raising revenue, but not the expected effect in terms of consumption patterns. For behavioral change to occur, according to experts, a tax increase should be at least 20 percent (Manyema et al. 2014; Powell et al. 2013; Wright, Smith, and Hellowell 2017). It is worth highlighting, though, that the implemented Chilean beverage tax was a five percent increase for high sugar drinks, and a five percent decrease in non-sugary drinks, making the difference between them of eight percent.

⁴ To date, two studies are in progress. These seek to determine the impact of the beverage tax over demand and price transfer to consumers. Results for these studies are expected to come out by the end of 2018 and 2019.

It is within this context of stand-alone policies, along with trying to move from an individualistic to a social paradigm, that the proposal of the Food Law and supporting policies emerges. Policy- and law-makers realized that policies centered on individuals (with a promotional and educational emphasis) rather than social contexts (with a demographic and structural emphasis) were not enough: "This is a social issue; it is not only individual. It has an individual dimension, but it cannot be treated as non-social. Obesity does not have to do with the hospital anymore, it has to do with lifestyles, consumption models, with the type of city."⁵

This case study focuses on the period from the first discussion of the Food Law among a group of parliamentarians and scholars (around 2004), its presentation in the Congress by a group of senators in 2007, to its full implementation with the approval of the Ministry of Health's decree Nos. 13/15 in April 2015, which modified the Sanitary Regulation of Food in order to fulfill the mandate established by the Food Law, and the subsequent enforcement of the law.

Tracing the Development Process

The First Steps Towards the Food Law

Before the Food Law was presented in Congress, a series of global and local factors raised awareness of the need for such a bill. In 2002 the World Health Organization (WHO), together with the Food and Agriculture Organization of the United Nations (FAO), brought together a group of experts to discuss the relationship between diet and physical activity patterns, and the onset of major chronic diseases worldwide. The result of this discussion and expert consultation process culminated in the development of the "Technical Report Series (TRS) 916: Diet, nutrition and the prevention of chronic diseases" (WHO and FAO 2003), a joint WHO/FAO report, in which policy recommendations were made to prevent the onset of these diet and physical activity related diseases from a non-individualistic perspective, meaning that policies should aim towards modifying individuals' environments.

Among the international experts consulted for the development of this report was Dr. Ricardo Uauy,

⁵ Author interview with Senator of Chile, June 2017.

Chilean Professor and former Director at the Nutrition and Food Technology Institute (INTA) at the University of Chile and recipient of the National Prize of Applied Sciences. A few years after the report was released, Dr. Uauy encouraged a group of Chilean scientists and parliamentarians to discuss what kind of actions could be adopted in the country to follow the recommendations made by the WHO/FAO report (Corvalán et al. 2013).

By 2004, the WHO also released a “Global Strategy on Diet, Physical Activity and Health” (WHO 2004), which made a series of recommendations to member states in order to

“[...] promote and protect health by guiding the development of an enabling environment for sustainable actions at individual, community, national and global levels that, when taken together, will lead to reduced disease and death rates related to unhealthy diet and physical inactivity” (WHO 2004, 3).

Among the Strategy’s specific objectives was not only to create awareness of the issue across the international community, but also to encourage the development and implementation of policies to improve people’s diets and willingness to do physical activity by engaging all sectors of society: governments, private sector, civil society, and the media.

The Law of Food Labeling and Advertising Is Introduced in Parliament

In order to heed the call made by the World Health Organization, after the impetus provided by Dr. Uauy, he and Senator Girardi started writing a draft in 2005, which they publicly announced in 2006. By 2007, building on the foundation started by Dr. Uauy and Senator Girardi, a group of senators of all parties within the Senate’s Health Commission introduced a bill to the Chilean National Congress with the goal of promoting healthier food environments. Multiple interviewees stated that the role of Dr. Uauy and Senator Guido Girardi, was crucial, as they jointly drafted the bill and worked together to mobilize support in the academic and political sectors.⁶

The original bill sought to regulate the food industry’s production, distribution and selling processes, and

also to provide consumers with more sophisticated information about the quantity and quality of the food that they were eating (Congreso Nacional de Chile 2011). Out of the policies included in the bill, three stood out as the most innovative. First, the draft law established that unhealthy foods were not to be distributed in schools or within 100 meters around them.⁷ Within schools, the draft law prohibited distributing, free of charge, any type of unhealthy food for underage people (such as the food provided by the government in school canteens), and also prohibited distributing or selling unhealthy food to children less than 14 years of age. Second, the original bill also sought to forbid any type of advertising of unhealthy food targeted towards an audience of minors, prohibiting children or children’s icons to participate in any advertising campaigns for these kind of foods, and prohibiting the usage of toys or any promotional item to encourage purchases of unhealthy foods. Finally, the law aimed to establish a traffic light food labeling system which defined what was meant by unhealthy food by establishing thresholds for certain nutrients. According to this threshold, all processed food products would have had to be labeled green, yellow, or red for each nutrient.

All these innovative initiatives aim to address the recommendations made by the WHO in the “Global Strategy on Diet, Physical Activity and Health,” and “TRS 916: Diet, nutrition and the prevention of chronic diseases.” The first two proposals, which limit children’s access to unhealthy food, respond to the need raised by the WHO to address “obesogenic” (obesity-promoting) environments, particularly for children, in order for other obesity preventive policies to be successful (WHO and FAO 2003). The ban on children-oriented advertising was in response to evidence showing that the relationship between obesity and hours of exposure to television—after controlling for sedentary lifestyle—may relate to fast-food advertising. Fast foods are the most heavily advertised food products in television, and often target young children, who indirectly affect parents’ food choices (WHO and FAO 2003). The traffic-light labeling system aimed to provide consumers with “standardized and comprehensible information on the content of food items in order to make healthy choices” (WHO 2004, 7), since, as stated by Ministry of Health officials, the available labeling systems were considered confusing and difficult for most

⁶ Author interview with experts from INTA, Ministry of Health officers, and Senator of Chile, June 2017.

⁷ Article 6.

consumers to understand. Other aspects considered in the WHO recommendations, such as the promotion of physical activity, were not covered by the final version of the Food Law. As stated by a Chilean Senator,⁸ this does not mean that these other recommendations are not considered important for health policy in Chile, but rather acknowledges the impossibility of moving forward on all fronts at the same time.

Table 1 shows the original proposal of the front-of-package labeling system, which stated that those foods with excesses or deficiencies in specific nutrients must be labeled as indicated for each case or with an equivalent system determined by the corresponding Sanitary Authority on the topic (currently the Ministry of Health). This meant that foods containing below specific amounts of fat, saturated fat, added sugars, and salt would be considered “Low” and labeled with a green for the first four nutrients, while those with a specified amount of the nutrient over what is indicated would have been considered “High.” In the case of the next two nutrients shown in Table 1 (fiber and calcium), the traffic-light system operates the other way around, since it is desirable for food to have a high level of those nutrients.

Discussion Process in Parliament

The bill’s debate process in Parliament was relatively long. Five years passed from the presentation of the original bill in Parliament to its approval. The average time for a bill presented to Congress through its final sanction is 13 months for projects submitted by the executive branch and 31 months for bills presented in the legislative branch (Lobos 2013). An important factor regarding discussion times for bills is that, in Chile, the Executive has the power to speed up legislative processes by instructing the Parliament to address a specific bill in a particular amount of time. Since the different governments that were in power while the Food Law was under discussion had different positions on the bill, the discussion time took longer than expected, especially when the policies involved in the bill were not part of the government’s agenda. Another important factor is that parliamentarians had different feelings about the bill. An important group of parliamentarians of government parties by that time, were in favor of the law, while some of those in the opposition were initially more reluctant to such a bill.

The government in power when the bill was presented (2007) supported it. The government made the first amendments to the bill, modifying or adding new regulations, making it a more robust proposal. The government expanded the bill by incorporating articles that banned infant formula advertising and added a specific number of hours a week of physical education in schools. These modifications also determined that it was the Ministry of Health’s responsibility to define what was considered “healthy food” by determining thresholds of fat, saturated fat, sugar, sodium, and other nutrients.

As determined by the Chilean law-making process, the bill had to be discussed first in the Chamber where it was presented. In this case, this was the Senate. The Law was first presented in March 2007, but it was not until January 2008 that it was discussed in the Senate’s Health Commission. However, it is not that nothing happened about the issue during that time. During 2007, the Ministry of Health, together with some senators, organized the First International Summit on Obesity, where international experts came to discuss the topic with the parliament and academia. This kept the issue moving, avoiding the stagnation of interest in the congress. During 2008 the bill was discussed two times by the Senate and one more time by the Health Commission. Later, in April 2009, the Law was approved in the Senate and the traffic-light labeling system was removed arguing that this was a more appropriate faculty for the Ministry of Health.

Once the bill passed the Senate, it was the turn of the Chamber of Deputies to discuss it. The Chilean law-making process states that if the Review Chamber (in this case, the Chamber of Deputies) does not approve what came from the Source Chamber (in this case, the Senate), the bill goes back to the Source Chamber. The bill was first discussed in the Deputies’ Health Commission in January 2010, and later by all Deputies in March and September that same year. The bill was approved, but with amendments. For this reason, it came back to the Senate. Since the Senate did not approve all of the amendments made by the Chamber of Deputies, the bill passed to a bicameral commission (composed of members of both Chambers), where the differences of both chambers—which were not substantive—were resolved, and finally the project was sent to the executive branch for its endorsement in April 2011. It should be noted that a second International Obesity Summit was organized in 2011, once again making the topic vogue among the public.

⁸ Author interview with Senator of Chile, June 2017.

Table 1 Nutrient Thresholds for the Proposed Traffic Light System

	Low	Medium	High
Fat	≤ 3g/100g ≤ 1.5g/100ml	> 3g and < 20g/100g > 1.5g and < 10g/100g	≥ 20g/100gr ≥ 10g/100ml
Saturated fat	≤ 1.5g/100g ≤ 0.75g/100ml	> 1.5g and < 5g/100g > 0.75g and < 2.5g/100g	≥ 5g/100gr ≥ 2.5g/100ml
Added sugars	≤ 5g/100g ≤ 2.5g/100ml	> 5g and < 15g/100g > 2.5g and < 7.5g/100g	≥ 15g/100gr ≥ 7.5g/100ml
Salt	≤ 0.3g/100g ≤ 0.3g/100ml	> 0.3g and < 1.5g/100g > 0.3g and < 1.5g/100g	≥ 1.5g/100gr ≥ 1.5g/100ml
	Low	Medium	High
Fiber	≥ 3g/100gr ≥ 1.5g/100ml	> 0.5g and < 3g/100g > 0.1g and < 1.5g/100g	≤ 0.5g/100g ≤ 0.1g/100ml
Calcium	≥ 1.5g/100gr ≥ 0.15g/100ml	> 0.1g and < 1.5g/100g > 0.01g and < 0.15g/100g	≤ 0.1g/100g ≤ 0.01g/100ml

Source: Congreso Nacional de Chile, "Historia de la Ley 20.606 Sobre Composición Nutricional de los Alimentos y su Publicidad," 2011.

When the bill reached the desk of then-president Sebastián Piñera in 2011, he used his veto power. The Chilean law-making system gives the President the power to veto a Law approved by the Congress, forcing the legislative branch to reconsider and discuss the Law in the light of the indications made by the President. The Congress can either approve the President's observations by simple majority or two-thirds of its members can insist that the original Law sent to the executive. Either way, the Law must be endorsed by the President. Piñera's reason for rejecting the Law was that during the parliamentary discussion several parliamentarians had asked for a presidential veto to solve some issues that were not solved in the mixed commission. The main observations had to do with the non-inclusion of tertiary education institutions in everything that referred to regulations within schools, and with advertising of breast milk substitutes.

During the law-making process, the main arguments against the bill came from the industry and right-wing parliamentarians. Political arguments against regulating the food industry as proposed by the Food Law stated that such a regulation would attempt to limit people's freedom of choice. The industry, for its part, argued that existing self-regulation and international standards were enough to prevent the effect the industry itself could have over

people's food choices. The real solution, they argued, was not restricting the industry, but educating people on how to make better food choices. In this vein, the industry defended itself by saying that their corporate social responsibility initiatives point precisely in that direction.

In 2012, after several negotiation processes between the Senate, the Ministry of Health and the food industry, mainly within the Senate's and Chamber of Deputies' Health Commissions and the in-house debate sessions, the law was approved. Nevertheless, several articles were in order to allow passage, due to strong opposition from the food industry and some parliamentarians. For example, the traffic-light system was discarded. The Ministry of Health, joined by a group of parliamentarians from across the political spectrum, argued that a traffic-light system could be confusing in case a specific product was labeled in a way that might appear contradictory (e.g., green in sugar, yellow in salt, and red in calories).⁹ The Ministry of Health, also argued that the Food Law should provide a general framework rather than introducing specific regulations such as the labeling system itself since legislative processes are slow and costly, while regulations

⁹ For example, for whole-grain saltine crackers, the traffic-light would be yellow for total and saturated fat, green for sugar and fiber, and red for sodium.

emerging from the Ministry through decrees are easier to approve and modify if necessary, without violating current legislation. The Ministry of Health also made the case that due to its technical capacity, they were the ones tasked to determine the thresholds for “healthy food” and to find a labeling system adapted to local necessities. Ultimately, parliamentary discussion reached consensus that restrictions on food should apply only for children—those who cannot make conscious food choices—and adults should receive better information rather than be subject to restrictions. Therefore, the prohibition of selling unhealthy food in universities was also rejected, arguing that universities, unlike schools, are places frequented by adults rather than children. The prohibition of advertising infant formula was also removed and replaced by a ban on breast milk substitute labels that actively discourage breastfeeding. The rationale for this change was that a total ban on advertising would affect the information available to those mothers that are not able to breastfeed, and that a ban on particular kinds of messaging on these labels would also decrease the replacement of natural breastfeeding with breast milk substitutes.

In short, and as recognized by Senator Girardi, the main driver behind the bill, the version of the Food Law passed by the Chilean Congress ultimately respected the spirit of the original bill, with very few modifications with respect to the original draft developed by him and Dr. Uauy.¹⁰ The challenge was at that point in the hands of the Ministry of Health. The Parliament had already done its part of the job: drafting and passing the law.

Tracing the Implementation Process

Once the Parliament approved the Food Law, it was the responsibility of the Ministry of Health to develop the regulatory norms needed to fully implement the policies involved in the law. Corvalán et al. (2013) assert that the most demanding aspect for the Ministry was the need to determine what was meant by “unhealthy food.” All the policies that would be mandated by the Food Law depended on this definition, because the foods to be labeled and subject to advertising, selling, and distribution restrictions would be determined by the nutrient thresholds established by the Ministry.

When the law was approved, the Ministry was in the middle of a restructuring process subsequent to the election of a new government. The new technical teams were not familiar with the process that had been taking place. In order to overcome this obstacle efficiently, in July 2011 the Ministry’s Department of Nutrition decided to consult a group of researchers via public bidding. The experts team that awarded the tender were mainly from the Nutrition and Food Technology Institute (Instituto de Nutrición y Tecnología de los Alimentos; INTA) at the University of Chile. The researchers’ goal was to provide evidence regarding nutrient profiling and to give a recommendation on how to classify nutrient thresholds for the Chilean population (Ministry of Health 2012; Corvalán et al. 2013).

According to the report made by researchers from INTA for the Ministry of Health public bid, determining the nutrient profiling scheme was extremely challenging, mainly due to the lack of evidence that could inform the decision-making process. Researchers developed the proposed classification of schemes shown in Table 2 based on available evidence. Based on this information, and considering Chilean nutritional reality, the experts’ committee decided to determine cutoffs for specific serving sizes, with the concern, however, of the possibility that the food industry could change serving sizes once the regulation was approved since these were not regulated in the Chilean legal framework. The numbers proposed were as followed (INTA and Ministerio de Salud 2011):

- Energy: 200kcal per serving size
- Sodium: 300mg per serving size
- Total simple sugars: 18g per serving size
- Added simple sugars: 8g per serving size
- Saturated fat: 3g per serving size
- Trans fat: 0.3g per serving size

With the exception of certain specific limits for some categories to which the general limit does not apply, the INTA recommended any food that exceeded the limit proposed, to be considered “high in... .” Nevertheless, this decision was ultimately changed once the final regulation was written. This decision was made after several consultations with experts in nutrition and civil society representatives.

Once the Ministry had the information on how to define the nutrients limits for labeling food “high in... .” the next step was to determine a specific warning labeling

¹⁰ Author interview with expert from INTA and Senator of Chile, June 2017.

Table 2 Advantages and Disadvantages of Different Nutrient Profiling Schemes

Scheme type	Alternatives	Strength	Weakness
Reference amount	Per 100 gr	<ul style="list-style-type: none"> • Simple • Widely used in profiling schemes, therefore useful for comparisons between schemes. 	<ul style="list-style-type: none"> • Weak rationale • Too permissive for food consumed in large serving sizes.
	Per 100 kcal	<ul style="list-style-type: none"> • Allows “fair comparisons” between foods. 	<ul style="list-style-type: none"> • Difficult to use and regulate • Not massively utilized in profiling schemes nor even food labeling
	Per serving	<ul style="list-style-type: none"> • Consider “real” consumption conditions • Allows “fair comparisons” between foods 	<ul style="list-style-type: none"> • Difficult to use and regulate • Too permissive for food consumed in small serving sizes • Needs additional regulation on serving size • Difficult comparison among schemes since serving sizes may vary • Serving sizes do not necessarily reflect “real” consumption conditions
Food categories declination	Category-wise scheme	<ul style="list-style-type: none"> • Takes into account intrinsic differences between food categories 	<ul style="list-style-type: none"> • Difficult to use and regulate
	Across the board	<ul style="list-style-type: none"> • Simple • Allows for clear discrimination of “healthy” and “unhealthy” food categories 	<ul style="list-style-type: none"> • Not that sensitive • Penalization of certain categories • Do not discriminate between the “less unhealthy” among “unhealthy categories”
Cutoffs	Thresholds values	<ul style="list-style-type: none"> • Simple 	<ul style="list-style-type: none"> • Low sensitivity • Minimal food reformulation may allow a category switch
	Allocating scores	<ul style="list-style-type: none"> • The overall quality is taken into account • Sensitive 	<ul style="list-style-type: none"> • Difficult to use and regulate • Difficult for providing a rationale to the score (lack of scientific data)

Source: Corvalán et al., “Structural responses to the obesity and non-communicable diseases epidemic: the Chilean Law of Food Labeling and Advertising”, *Obesity Reviews*, 2013.

for food packages. Once more, an expert committee was convened, via public bidding, to suggest different labeling options. The committee’s job consisted of reviewing relevant literature and gathering qualitative data that could help to find the best labeling system possible. The committee’s final report was released in December 2012.

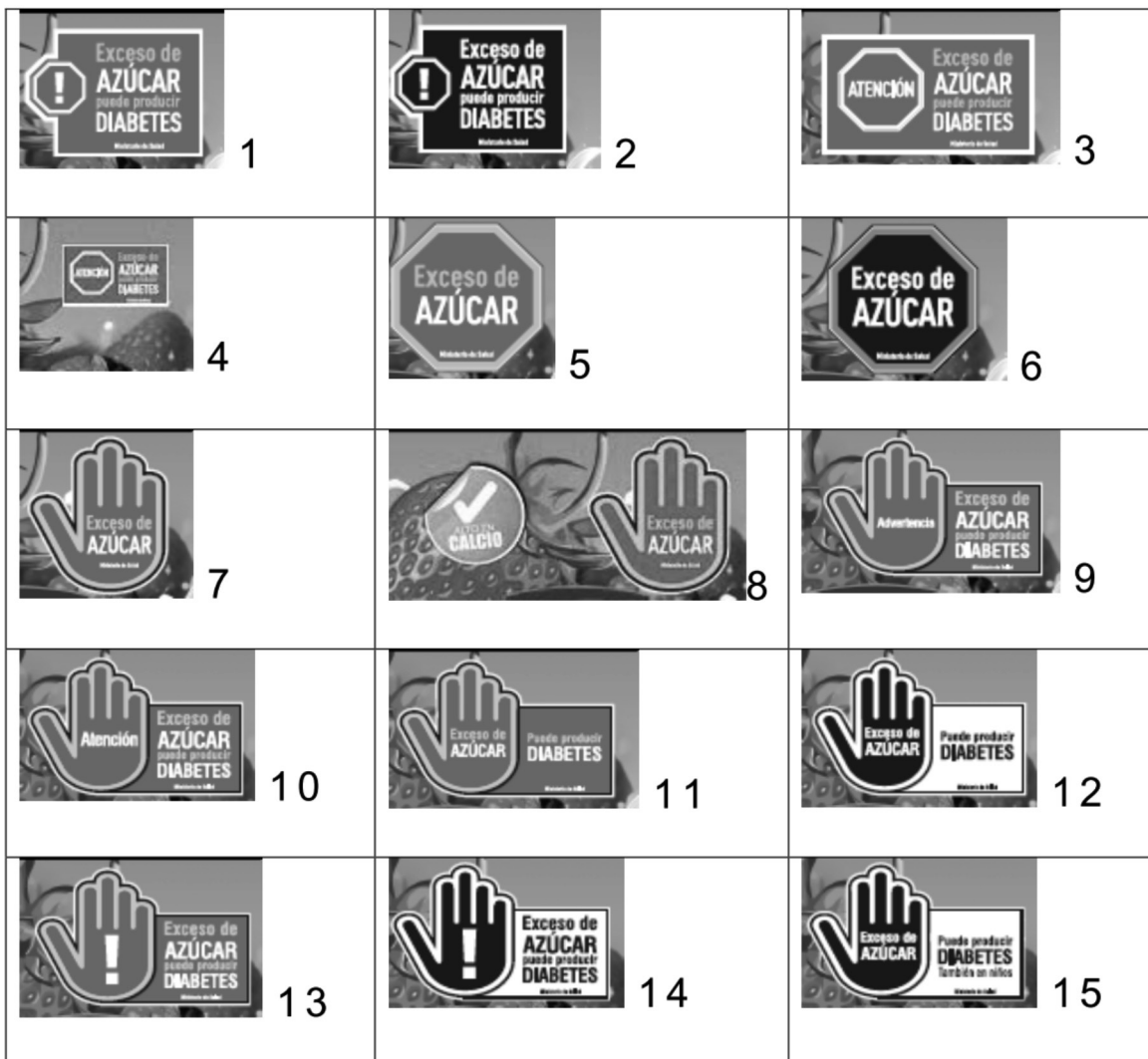
During the literature review phase, the committee realized that there was very little evidence on the effects of nutritional warning messages. Other countries had implemented traffic-light systems, but warning messages were almost non-existent, and the Food Law had already specified that a warning message should be used with only one threshold rather than two, as would be needed in a traffic light system. Relying on literature about warning messages in other industries, such as tobacco, and evidence gathered in the Chilean context, allowed the committee to successfully make suggestions that were in accordance with what the law required: An eye-catching sign that would account for products high in

calories, salt, or any other nutrient the Ministry of Health would consider necessary to label.

The qualitative and quantitative studies drawn up by the committee of experts suggested for the warning message to be as simple as possible, hexagonal or triangle-shaped, and with a certifying message from the Ministry of Health. With this information, 15 different warning messages (see Figure 1) were designed and tested experimentally. The prototype with the stop sign shape, black, and the message “excess sugar” (prototype #6) was found to perform best in terms of catching people’s attention, comprehension, perception, and likelihood to influence behavior change, even when adjusting for the level of education attained.

With this information in hand, by the beginning of 2013, the Ministry had the task of writing the regulation of the Food Law. However, the government in power ended its term in March 2014. In a short period of time, the Ministry hired an external group of advisors, headed

Figure 1 Warning Messages Prototypes Tested in the Quantitative Experimental Stage



Source: INTA and Ministerio de Salud 2012, “Estudio sobre evaluación de mensajes de advertencia de nutrientes críticos en el rotulado de alimentos. Informe final.” 2012.

by a doctor specialized in diabetes and nutrition and different from the previously consulted experts from INTA, and wrote and approved Decree No. 12, the first attempt to specify how the Food Law would operate. It sought to enact the provisions established by the Law on food nutritional composition and advertising. This decree, approved in April 2013, did not follow the labeling system suggested by the report commissioned by the Ministry regarding the type of warning message to be put in food packages (see Figure 1), and more importantly, it included a table of critical nutrients with

thresholds that affected only 20 food categories. Besides, this first regulation did not consider junk food because the Ministry did not consider it packaged food. As stated by Fernando Vio, a scholar from INTA, “if the regulation does not emphasize what the Law does, the regulation is useless (...). The goal was to reduce the consumption of fat, sugar and salt, because we have high rates of obesity, high blood pressure and diabetes (...). In this regulation, for example, all sugary soft drinks would fit, even though they are known to be a great cause of obesity. Even potato chips fit. That is unacceptable.” (Ramirez 2014)

Figure 2 Front-of-Package Warning Signs Approved by the Ministry of Health's Decree No. 12

Source: INTA and Ministerio de Salud 2012, "Estudio sobre evaluación de mensajes de advertencia de nutrientes críticos en el rotulado de alimentos. Informe final." 2012.

The new government decided to annul Decree No. 12 on June 14, leaving the law on the books but preventing it from entering into force as scheduled on June 17, 2014. The food industry expressed its discomfort with this decision. According to them, the result of Decree No. 12 was part of a consultative process that included input from various stakeholders, including the industry (Grocery Manufacturers Association 2014), and therefore its derogation was whimsical. Nevertheless, the government argued that the regulation approved by the previous government failed to account for what was mandated by the Food Law, having internal regulatory inconsistencies, and definitions that had not been based on the available scientific evidence (e.g., the warning sign proposed by the experts was not used, and the size of the labeling was smaller than the one proposed to be effective) and that it deliberately sought to curb the supervisory powers of the Ministry of Health. It was finally stated that "after a thorough analysis by scholars and experts in the field, it has been concluded that Decree No. 12 introduces technically erroneous concepts into the Food Sanitary Regulation (RSA)". The new Ministry had, once again, the task to write a new regulation, resuming work in the generation of the new regulation, and leading the process. It set new content limits for sodium, sugar, saturated fat, and calories in only two categories (liquids and solids), based not on serving sizes, but rather quantities of 100g or 100ml. The original Decree No. 13 (the new regulation) established the use of the word "Excessive in..." instead of "high in..."

as had been established in the previous decree, in an hexagonal stop-sign-shaped figure as proposed by the committee of experts originally consulted. Nevertheless, since the Food Law used the words "high in," the term "excessive in..." was not allowed by the Comptrollership, the institution responsible for exercising control of the legality of acts of the Public Administration, such as approving a decree.

This situation generated tension between the government and the food industry. For example, the Grocery Manufacturers Association (GMA), a trade association that represents the world's largest food and beverages companies in the world, released a report providing comments on the "Proposed Amendment to the Chilean Food Health Regulations, Supreme Decree No. 977/96" (Grocery Manufacturers Association 2014), which stated their concerns with the new regulations in general, but particularly with the Ministry of Health's new proposal. Their main argument against Decree No. 13 was that it was "more trade restrictive than necessary." The statement elaborated on this argument:

In every component (the non-science-based nutrient thresholds; the stop sign label itself, along with the warning statement "excessive in," and the marketing restrictions), the proposal will restrict trade more than Decree No. 12, and does so without scientific basis. This substantially more trade-restrictive approach contradicts, by definition, Chile's obligations as a member of the WTO to implement

Figure 3 Front-of-Package Warning Signs Approved by the Ministry of Health’s Decree No. 13



Source: Official Journal of the Republic of Chile, “Decree No. 13 of the Ministry of Health.” April 16, 2015.

regulations in the least trade-restrictive manner” (Grocery Manufacturers Association 2014, 4).

The government solved this tension through a national and international public consultation in which anyone, natural or legal person, could comment on the regulation proposed by the government. The Ministry of Health publicly answered each observation, arguing for or against the inclusion of the comments made by both national and international actors.

Finally, on April 16, 2015, the new regulation was approved, and came into effect in June that same year. It

forced the industry to use the warning messages shown in Figure 3 for any kind of food with added sodium, sugar, or saturated fat. For solid foods (see table 2), these are considered high in sugar if they have more than 10g of sugar per 100g, high in saturated fat if they have more than 4g of saturated fat per 100g, high in sodium if they have more than 400mg per 100g of food, and high in calories if 100g of food exceed 275 kilocalories. For liquids, the thresholds are for those over 100 milliliters—5g for sugar, 3g for saturated fat, 100mg for sodium, and 70kcal for energy. The size of the symbols to be used was also established by the regulation, determining that it depended on the size of the food label. Depending on the number of nutrients over the threshold established, and the size of the package, the warning messages cover between four 4 percent and 30 percent of the package’s main face of labeling.

To facilitate the implementation of the law, and to help the food industry adapt to this new regulation, transitory articles were established. For the first three years the law established less strict thresholds for the warning labels, making the regulation more flexible during that time period. This flexibility was granted with the assumption that during this time developed and developing technological capacity would help the industry find a way to adjust to the regulation and to diminish the critical nutrients.

In addition to food labeling, the other aspects of the Food Law were also covered by the regulation. The regulation stated that any food considered high in sugar, fat, or sodium cannot be advertised for children under 14 years of age through any form of media. Furthermore, these foods are not allowed to be freely distributed to children under 14 years of age, nor can commercial hooks—such as toys, accessories, etc.—be used when promoting these products. The regulations also determined that these products cannot be sold or distributed in nursery, elementary, and high schools.

Table 3 Limits of Content of Energy, Sodium, Total Sugar, and Saturated Fat in Food

	Energy kcal/100g	Sodium mg/100g	Total sugar g/100g	Saturated fat g/100gr
Thresholds in solid foods. Values higher than:	275	400	10	4
	Energy kcal/100ml	Sodium mg/100ml	Total sugar g/100ml	Saturated fat g/100ml
Thresholds in liquid foods. Values higher than:	70	100	5	3

What Has the Food Law Achieved?

Health policies are difficult to assess in the short term, particularly those that seek to produce epidemiological modifications that need change in human behavior, such as the prevalence of overweight and obesity. Therefore, after only six months of its implementation, the Ministry of Health—the organization in charge of monitoring the Law’s enforcement and effectiveness—evaluated the most immediate impacts of the policies involved in the Food Law: levels of compliance of the labeling and advertising restriction policies within the food industry, changes in products’ nutritional formulas in order to avoid the black stop sign and to be able to advertise to minors, people’s willingness to change food consumption habits, and changes in schools’ food environments.

The Food Law gave the Ministry of Health the responsibility of monitoring the Law’s enforcement. In June 2017 the Ministry released an evaluation report of the Food Law’s implementation phase. More than 3000 inspections were made to food distribution companies, supermarkets, food processors, schools, cinemas, and different media such as TV, internet, radio, street advertising, magazines and newspapers. Most of these were carried out in schools (56.6 percent) and supermarkets or food distribution companies (37.6 percent). In more than 70 percent of the inspections made, the supervised institution complied with the new regulations. The Ministry initiated steps to penalize the near 30 percent of those who did not pass inspections in the areas of mislabeling food products, for advertising unhealthy food to children under 14 years of age, or for selling unhealthy food in schools.

As officials of the Ministry of Health recognize, though, the most difficult part of inspections has been monitoring schools.¹¹ Compliance with the rules against distributing “high in” food is easier, since food for children at most schools falls under the authority of the National Board for School Aid and Scholarships (JUNAEB; Junta Nacional de Auxilio Escolar y Becas), a government institution that provides three meals a day for students who are part of the poorest 60 percent of Chilean families. Collaborative work between the Ministry of Health and JUNAEB, allowed modification of which foods were to be included in the school and preschool programs.

The sale of snacks at stands and kiosks, however, is harder to inspect. There are insufficient human resources to inspect the many schools throughout Chile. To ensure adequate supervision, the Ministry of Health created an alliance with the Ministry of Education by asking inspectors of the Superintendence of Education to monitor food offered within schools when carrying out their usual tasks. In addition, the Ministry of Health has made efforts to encourage school communities to demand healthy food within their schools. Initiatives such as “citizens’ dialogues” provide a platform for citizens to discuss public issues such as the Food Law, or the “Healthy School Parliaments,” and similarly enable schoolchildren to discuss the necessary actions to develop healthy school environments.

Regarding inspection of advertising in the media, officials state that there have been no major problems. An agreement between the Ministry of Health and the Television National Council—the institution that ensures the correct functioning of television services—greatly facilitated this task. The agreement considered, among other duties, the following things:

- Handing over to the Ministry of Health all content broadcasted between 6am and 12am for all open and paid TV channels targeting a young audience.
- Provide information to the Ministry of Health specifically aimed at identifying audiences in the under 14 age group.
- Submit information to the Ministry of Health regarding the advertising offers issued in the channels indicated, by block time, day of the week, type of product and hours of advertising.

All this information helped the Ministry in their task of supervising the media. The industry has made their own television campaigns against the Food Law, but all within the legal framework. These have received attention from the scientific community, international organizations, and government agencies, which have argued against these campaigns. Over time these campaigns have not prospered.

One of the main objectives of the Food Law is to, through the established labeling system, give consumers better information to make better food choices. The other side of the coin is the creation of incentives for the industry to modify their nutritional formulas in order to avoid the front-of-package labeling. As of December

11. Author interview with Ministry of Health officials, June 2017.

2016, 65 percent of dairy production and 48 percent of cured meats products modified their content. Out of all products analyzed, 18 percent of them made changes in their nutritional formulas. The Ministry of Health expects this number to rise with time. Probably one of the most exemplary cases in this respect is McDonald's Happy Meal.

In June 2016, the Metropolitan Regional Health Ministerial Secretary (SEREMI for its acronym in Spanish) opened an investigation against McDonalds for selling the presumably “high in” Happy Meal with a commercial hook (a toy). The ministerial service took samples from several restaurants and analyzed its nutritional content. Since results showed that the product exceeded the limits established by the regulation, the commercial hook and advertising associated with the Happy Meal were forbidden. After this, McDonalds Chile modified its Happy Meal and asked the authorities to analyze its nutritional content again, which indicated that the reformulated product complied with the limits, thereby lifting the prohibition of including a commercial hook with the sale of its Happy Meal.

Another aspect of the Food Law evaluated by the Ministry of Health after six months of its implementation is people's perception of these new regulations, and their willingness to change of habits. A representative survey conducted in Santiago, Chile's largest city (home to approximately one third of the population), by the University of Chile, revealed that most people positively evaluated the new regulations. Seventy-five percent considered that banning advertising products “high in” for children is a good policy; 91 percent considered that not allowing “high in” products to be sold in schools is also a good measure; and a 92 percent of those interviewed believed that the labeling system is a good regulation. Regarding consumption habits, of those interviewed, around 44 percent of them stated that they compare warning signs before buying. Of these 44 percent, more than 90 percent stated that labels do influence their food choice. In addition, more than 85 percent of the people surveyed said that minimizing children's consumption of products with warning labels is a good idea.

In addition, the Ministry of Health has also monitored compliance with the front-of-package labeling policy. Over 90 percent of the food products in the market have complied with the regulation (Ministry of Health 2016). Nevertheless, a sample of food products showed that there is a difference of 20 to 117 percent in sodium content

between what is labeled and the actual content seen in laboratory analysis. For calories, the differences range from 22 percent to 84 percent. For sugar, the variation reaches up to 70 percent (Ministry of Health 2016).

In sum, the Food Law and its associated policies have had satisfactory results after one year of implementation (by August 2017). Regulations have created incentives for the industry to modify their nutritional formulas to make their products healthier, and consumers have declared themselves to be satisfied with the new regulations, while they have also recognized that these have affected their consumption habits.

Lessons Learned

This case study has examined the main aspects of the Chilean Food Law, clarifying its primary delivery challenges, and how those challenges were solved through the law-making, implementation, and enforcement processes. This section suggests lessons that can be learned from this process, including elements that, despite being particular to the Chilean case, can be taken as lessons for countries considering the implementation of similar policies. Even though several actors recognize that this process depended heavily on factors beyond the control of political actors and implementers—such as the reelection of Michelle Bachelet after Sebastian Piñera's government—there are specific features that were not accidental and that were vital for effective development and implementation.

Create Strong Alliances Between Academia and Policy- and Law-Makers, and Convince with Evidence

Solid and close political-academic cooperation was the most important factor for the success of the Food Law. In 2007, the regulations contained in the Food Law bill were controversial.

Some parliamentarians believed that regulations like banning unhealthy food from schools and certain types of advertising violated individual freedom. As part of the in-house discussion of the bill, a deputy said: “Another point is how far we want to go. We want a guiding State, a regulator? or we want a *nanny State* (“*estado nodriza*”) that tell Chileans what we can or cannot eat? Personally, I do not like nanny States. I like, as a consumer, to be

informed, to freely make my decisions” (Congreso Nacional de Chile 2011, 316).

The food industry, for its part, believed that self-regulation was enough and that such a bill was not really going to help to solve the obesity issue. The industry defended their corporate social responsibility initiatives (including funding for nutritional education and sports activities) before Congress, and argued that existing regulations already complied with international standards (Congreso Nacional de Chile 2011).

Effective counterarguments relied on scientific evidence. The idea that the state should promote active regulatory frameworks that encourage changes in lifestyle was promoted by leading scientists using evidence-based arguments that provided clear information about the country’s worrying situation in terms of overweight and obesity and that showed that regulatory frameworks in other industries, such as tobacco, had been effective in changing people’s consumptive behavior. The result of this discussion was satisfactory for those who proclaimed a favorable position to the bill.

This experience shows the importance of using data-based arguments for convincing those who proclaim arguments against what is intended to be regulated. As stated by researchers that participated in the discussion in Congress,¹² the food industry was not able to counterbalance the arguments in favor of this regulations because they did not have evidence for it. Their power to mobilize international actors with enormous capacity for negotiation at a global level, such as the Grocery Manufacturers Association, could not compensate for its lack of evidence in favor of their arguments.

This case study shows the importance of conducting an open and transparent debate led by the political authority, being careful to keep a strong partnership with scholars, so that they can provide solid arguments when it comes to arguing against those who criticize without evidence.

Evidence-Based Decisions

The Food Law was a pioneer, worldwide, in terms of its regulations, particularly for the front-of-package labeling policy, and the restrictions for child-oriented advertising. As stated by all actors, once the Law was approved in Congress, which mandated that the Ministry of Health both define the thresholds to determine if a certain product

was “high in” or not, and develop the warning message to be put on packages of all processed foods, there was not substantive national nor international evidence. Few, if any, countries in the world had implemented such a policy.

In this sense, it was very important that the Ministry of Health collected data in order to make evidence-based decisions. Once again, the role of academia in supporting the technical teams in the Ministry of Health was crucial. Commissioned by the Ministry of Health, academicians proposed ways to implement front-of-package labeling based on evidence from similar policies, such as tobacco and alcohol labeling policies. In addition, they collected information to determine what type of labeling was appropriate for the Chilean population. Quantitative and qualitative studies were carried out to see which kind of warning sign worked better for people with different educational backgrounds, purchasing power, ages, etc.

This information was important for implementing the most appropriate warning sign, but also to cope with the political cycles within the Ministry of Health. Although final decisions were always made in a political body, such as the Ministry, the fact that proposals always came from committees of experts allowed the Food Law efforts to remain, at least in part, apart from the political debate.

Enforcement: Incentives for Self-Regulations and Agreements with Existing Institutions

Once the Food Law was implemented by the Ministry of Health, when Decree No. 13/15 was published, came the challenge of enforcing it. The Law mandated this task to the Ministry of Health. But monitoring compliance with the Law was not easy. The scale of the regulations forced the Ministry to invest an enormous amount of resources in fulfillment of regulation efforts. Therefore, in order to make an efficient use of resources, the Ministry of Health signed agreements with several existing organizations, which contributed to better implementation and enforcement processes, and reinforcing intersectoral work in order to achieve a common goal. Recent agreements with the National Television Council, the National Consumer Service, and the Ministry of Education have been vital for the correct enforcement of the Law.

Along with using existing institutions for monitoring compliance with the Law, another key lesson learned about the process of developing and implementing such policies is the importance of generating the right incentives for

¹² Author interview with INTA Researcher, June 2017.

self-regulation. For example, final distributors have the ability to demand that their suppliers sell them properly labeled products. This kind of incentive remove a huge burden from the Ministry of Health, allowing it to focus on other areas of compliance that require more attention.

Another lesson from the Chilean Food Law is the existence of some unintended effects at the national level. One of the main objectives of the Food Law is modifying people's behavior when it comes to making food choices. By giving consumers better information about what they are buying, they should make healthier choices. Nevertheless, the self-regulation incentives have had, sooner than expected, a larger effect on a different outcome. Due to the advertising restrictions associated with unhealthy food, rather than a change of habits, in the short term, there has been a change in the formulas used by industry to develop their products, so that the products are healthier and thereby meet the standards set by the ministry of health.

Dealing with International Repercussions

When the industry became more uncomfortable with this regulation, Decree No. 12 was revoked in order to write Decree No. 13. As part of its arguments, the Grocery Manufacturers Association argued that the new regulation violated several trade obligations that Chile had acquired as a member of the World Trade Organization (WTO) and under the U.S.-Chile Free

Trade Agreement. In addition, several countries that were members of the WTO, headed by the United States, raised concerns about the content of the Chilean Food Law. While countries recognized as legitimate Chile's objective of providing nutritional information that would contribute to the reduction of public health problems as obesity, they considered that the actions proposed in the Law were not appropriate. Although these differences were not resolved, Chile continues to pursue its regulatory policy, always maintaining an open attitude to dialogue by using all formal bodies of discussion.

The Chilean Food Law underwent a long process from inception to reality. It took several years to convince parliamentarians and policy-makers that such a regulation pointed in the right direction—fighting the obesity pandemic. In order to draw valuable lessons for the international community wishing to pursue similar policies, this case study reviews the entire development, implementation, and enforcement processes of the Chilean Food Law, detailing the primary obstacles that prevented a more fluid and expeditious process. The lessons that emerge here are valuable. Although the regulations, proposed by group of parliamentarians and scholars for approval by the year 2005, were pioneer and in many cases provocative, today Chile has an unprecedented regulation of the food market, which, in a short period of time, has already had positive effects. No doubt these lessons, and the Chilean experience and evidence, can serve other states that seek to deliver better tools to help their consumers to make healthier food choices.

Annex 1: Key Inflection Points

Date or time period	Event	Relevance
2002	Release of WHO and FAO's TRS 916: Diet, nutrition and the prevention of chronic diseases	Prompted the alert on the situation of obesity in Chile and encouraged Chilean experts to promote public debate on the issue.
2004	Release of the WHO's "Global Strategy on Diet, Physical Activity and Health"	Provided suggestions on how to deal with the overweight and obesity problem
2005	Dr. Uauy and Senator Girardi start writing the Food Law bill	Food Law kick-off
2006	Press conference on bill that sought to regulate the sale of junk food in schools.	First public demonstration of the intention to regulate the "unhealthy" food industry.
March 2007	A group of parliamentarians, from all political sectors, introduce the "Food Law bill" to Congress.	First formalization of the project
March 2007	The first constitutional process begins: Senate	
2007	First World Obesity Summit	Kept parliamentarians and the public opinion aware of the overweight and obesity public health issue.
January 2008	The Senate's Health Commission releases its first report on the Food Law bill.	The bill advances in Congress. Various civil society actors are invited to the congress to give their views on the progress of the project.
March 2008	The Food Law is discussed in the Senate for the first time.	The bill is discussed by a broad group of parliamentarians for the first time
October 2008	Executive branch amendments	The amendments presented by the executive branch are the first sign of support from the government.
April 2009	The bill is approved in the Senate	The bill advances in Congress.
January 2010	The second constitutional process begins: Chamber of Deputies	The bill advances in Congress.
March 2010	Change of president	The executive branch, and therefore the Ministry of Health, changes.
September 2010	Chamber of Deputies approves the bill with amendments	The bill advances in Congress, but it has to go back to the Senate
September 2010	The third constitutional process begins: back to the Senate	The bill advances in Congress.
December 2010	Senate rejects Chamber of Deputies' amendments	The bill advances in Congress, but it has to go to a mixed commission process for both Chambers to solve their differences.
2011	Second World Obesity Summit	Kept parliamentarians and the public opinion aware of the overweight and obesity public health issue.
April 2011	The mixed commission constitutional process begins	The bill advances in Congress.
April 2011	Bill is approved in Congress and sent to the President for promulgation	The bill preliminary finishes its processing in the Congress
April 2011	Presidential veto constitutional process begins	The promulgation of the Law is delayed. It goes back to the Congress.
April 2012	Presidential veto is discussed in Congress	The bill advances in Congress.
June 2012	The Food Law is finally approved in Congress	The bill is approved and promulgated by the executive.
July 2011	Public bidding of experts suggests nutrient thresholds	Evidence was discussed and raised by a group of experts in order to propose thresholds for defining unhealthy food.

(continued on next page)

Annex 1: Key Inflection Points *(continued)*

Date or time period	Event	Relevance
July 2012	Public bidding of experts to suggest labeling system	Evidence was discussed and raised by a group of experts in order to propose a labeling system for unhealthy food.
April 2013	Decree No. 12 is approved	Decree No. 12 intended to regulate the mandates of the Food Law.
March 2014	Change of president	The executive branch, and therefore the Ministry of Health, changes.
June 2014	Decree No. 12 is annulled	The new government considered that Decree No. 12 did not respect the spirit of the Food Law. Decree No. 12 did not follow any of the recommendations made by the experts hired by Piñera's government. Therefore Bachelet's government decided to derogate it.
June 2014	Group of experts is convened by the Ministry of Health to develop a new regulation	
August 2014	New regulation proposal	
April 2015	Decree No.13 is approved by the presidency	Decree No. 13 rules currently and determines the specificities of the Food Law. It includes most of the recommendations made by the experts.
June 2015	Decree No. 13 becomes official	
June 2016	Decree No. 13 comes into force	
December 2016	Implementation process evaluation after 6 months	
June 2017	Implementation process evaluation after 1 year	

References

- Agencia de Calidad de la Educación. 2016. "Factores Asociados Al Sobrepeso En Estudiantes Y El Rol de Las Escuelas." Santiago, Chile.
- Chan, June M, Eric B. Rimm, Graham A. Colditz, Meir J. Stampfer, and Walter C. Willet. 1994. "Obesity, Fat Distribution, and Weight Gain as Risk Factors for Clinical Diabetes in Men." *Diabetes Care* 17 (9): 961–69. doi:10.2337/diacare.17.9.961.
- Congreso Nacional de Chile. 2011. "Historia de La Ley 20.606 Sobre Composición Nutricional de Los Alimentos Y Su Publicidad." Valparaiso, Chile.
- Corvalán, C, M Reyes, M L Garmendia, and R Uauy. 2013. "Structural Responses to the Obesity and Non-Communicable Diseases Epidemic: The Chilean Law of Food Labeling and Advertising." *Obesity Reviews* 14 (November): 79–87. doi:10.1111/obr.12099.
- Cuadrado, Cristobal. 2017. "The Health and Economic Burden of Obesity in Chile: An Epidemiological and Economic Simulation Model." *Value in Health* 19 (7): A584–A584. doi:10.1016/j.jval.2016.09.1370.
- de Améstica, Catalina. 2017. "Sólo El 10% de Las Panaderías Vende Marraquetas Reducidas En Sal."
- Eckel, Robert H. 1997. "Obesity and Heart Disease." *JOUR. Circulation* 96 (9): 3248 LP-3250. <http://circ.ahajournals.org/content/96/9/3248.abstract>.
- FAO, and PHO. 2017. "América Latina Y El Caribe. Panorama de La Seguridad Alimentaria Y Nutricional." Santiago, Chile.
- Fontana, Luigi, and Frank B Hu. 2014. "Optimal Body Weight for Health and Longevity: Bridging Basic, Clinical." *Aging Cell* 13: 391–400. doi:10.1111/accel.12207.
- Gonzalez, María, and Michael Woolock. 2015. "Operationalizing the Science of Delivery Agenda to Enhance Development Results." Washington D.C.
- Grocery Manufacturers Association. 2014. "Comments on the Proposal from Chile. Proposed Amendment to the Chilean Food Health Regulations, Supreme Decree No. 977/96."
- He, Xiaoxing, and David Baker. 2004. "Body Mass Index, Physical Activity, and the Risk of Decline in Overall Health and Physical Functioning in Late Middle Age." *American Journal of Public Health* 94 (9): 1567–73. doi:10.2105/AJPH.94.9.1567.
- INTA, and Ministerio de Salud. 2011. "Propuesta de Criterios y Recomendación de Límites Máximos de Nutrientes Críticos para la Implementación de la Ley de Composición de Alimentos y Su Publicidad."
- _____. 2012. "Estudio Sobre Evaluación de Mensajes de Advertencia de Nutrientes Críticos En El Rotulado de Alimentos Informe Final." Santiago, Chile.
- JUNAEB. 2002. "Mapa Nutricional 2001." Data repository. Santiago, Chile.
- _____. 2008. "Mapa Nutricional 2007." Data repository. Santiago, Chile.
- Lira, Mariana, and Andrea Vio. 2016. "Mapa Nutricional 2015." Santiago, Chile.
- Lobos, Elkjaer. 2013. "'Dormidos' en El Congreso." *24horas.cl*.
- Manyema, Mercy, Lennert Verrman, Lumbwe Chola, Aviva Tugendhaft, Benn Sartorius, Demetre Labadarios, and Karen Hofman. 2014. "The Potential Impact of a 20% Tax on Sugar-Sweetened Beverages on Obesity in South African Adults: A Mathematical Model." *PLoS ONE* 9 (8): e105287. doi:10.1371/journal.pone.0105287.
- Ministry of Health. 2011. "Encuesta Nacional de Consumo Alimentario Chile 2010–2011."
- Ministry of Health. 2012. "Estudio sobre evaluación de mensajes de advertencia de nutrientes críticos en el rotulado de alimentos. Informe Final." Santiago, Chile.
- Ministry of Health. 2016. "Estrategia Voluntaria Para Disminuir El Sodio En El Pan." Santiago, Chile.
- Ministry of Health. 1996. "Estudio Carga de Enfermedad." Santiago, Chile.
- Norte Navarro, A. I., and Ortiz Moncada, R. 2011. "Calidad de la dieta española según el índice de alimentación saludable." *Nutrición Hospitalaria* 26 (2): 330–336.
- Powell, L.M., J.F. Chriqui, T. Khan, R. Wada, and F.J. Chaloupka. 2013. "Assessing the Potential Effectiveness of Food and Beverage Taxes and Subsidies for Improving Public Health: A Systematic Review of Prices, Demand and Body Weight Outcomes." *Obesity Reviews* 14: 110–28.
- Ramirez, Pedro. 2014. "Lo Que Está En Juego En El Último Round de La Guerra Por La 'Ley Del Súper Ocho.'" *CIPER-Centro de Investigacion Periodistica*.
- Renehan, Andrew G., Marcel Zwahlen, and Matthias Egger. 2015. "Adiposity and Cancer Risk: New Mechanistic Insights from Epidemiology." *JOUR. Nat Rev Cancer* 15 (8). Nature Publishing Group, a division

- of Macmillan Publishers Limited. All Rights Reserved.: 484–98. <http://dx.doi.org/10.1038/nrc3967>.
- Salinas, Judith, Anselmo Cancino, Sergio Pezoa, and Fernando Salamanca. 2007. “Vida Chile 1998 – 2006: Resultados Y Desafíos de La Política de Promoción de La Salud En Chile.” *Revista Panamericana de Salud Pública* 21 (2/3).
- Salinas, Judith, and Fernando Vio. 2003. “Promoción de Salud Y Actividad Física En Chile: Política Prioritaria.” *Revista Panamericana de Salud Pública* 14 (4): 281–88.
- Universidad de Chile. 2012. “Encuesta Nacional de Consumo Alimentario: Informe Final.”
- Veronese, Nicola, Silvia Facchini, Brendon Stubbs, Claudio Luchini, Marco Solmi, Enzo Manzato, Giuseppe Sergi, Stefania Maggi, Theodore Cosco, and Luigi Fontana. 2016. “Weight Loss Is Associated with Improvements in Cognitive Function among Overweight and Obese People: A Systematic ...” *Neuroscience and Biobehavioral Reviews* 72 (November). Elsevier Ltd: 87–94. doi:10.1016/j.neubiorev.2016.11.017.
- Vio, F., G. Weisstaub, E. Atalah, T. Boj, M. Jimenez, P. Fernandez, G. Puentes, D. Fuccaro, J. Rojas, and M. Vasquez. 2008. “Segunda Parte: La Erradicación de La Desnutrición Infantil En Chile.” Article. *Hacia La Erradicación de La Desnutrición Infantil En América Latina Y El Caribe. Primera Ed. Panama: Programa Mundial de Alimentos de Las Naciones Unidas (PMA)*.
- WHO. 2004. “Global Strategy on Diet, Physical Activity and Health.” Geneva, Switzerland.
- . 2017. “Global Health Observatory.” Data repository.
- WHO, and FAO. 2003. “Diet, Nutrition and the Prevention of Chronic Diseases.”
- Withrow, D., and D. A. Alter. 2011. “The Economic Burden of Obesity Worldwide : A Systematic Review of the Direct Costs of Obesity.” *Obesity Reviews* 12: 131–41. doi:10.1111/j.1467-789X.2009.00712.x.
- World Food Programme. 2008. “La Erradicación de La Desnutrición Infantil En Chile.” Santiago, Chile.
- World Health Organization. 2015. “Guideline: Sugars Intake for Adults and Children.” Geneva, Switzerland.
- Wright, Alexandra, Katherine E. Smith, and Mark Hellowell. 2017. “Policy Lessons from Health Taxes: A Systematic Review of Empirical Studies.” Article. *BMC Public Health* 17 (1): 583. doi:10.1186/s12889-017-4497-z.



The World Bank Group is a vital source of financial and technical assistance to developing countries around the world. It is a unique partnership designed to support countries' efforts to end extreme poverty by decreasing the percentage of people living on less than \$1.25 a day to no more than 3 percent, and to promote shared prosperity by fostering the income growth of the bottom 40 percent.

© 2018 International Bank for Reconstruction and Development / The World Bank. Some rights reserved. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries. This work is available under the Creative Commons Attribution 3.0 IGO (CC BY 3.0 IGO) license (<https://creativecommons.org/licenses/by/3.0/igo>). The World Bank does not necessarily own each component of the content included in the work. If you wish to reuse a component of the Work, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright owner. If you have questions on rights and licenses, please email pubrights@worldbank.org.