

Artigo original

## Front-of-package nutrition labelling in Latin America: review of the cases of Chile and Peru

### Rotulagem nutricional frontal de alimentos na América Latina: revisão das experiências do Chile e do Peru

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#### Abstract

In Latin American countries, economic growth has been reflected in a generalized change of eating patterns, transforming in a few decades from high rates of under-nutrition to frequent obesity problems in the population. This overweight crisis raises the propensity of suffering important health issues, especially non-communicable diseases, such as diabetes and coronary diseases. Changes in food labelling regulations, with the aim of giving the consumer more information, have been part of the proposed strategy to fight against this overweight problem. The objective of this paper is to present Chilean Law 20606 and Peruvian Law 30021 and accompanying regulation, in effect since 2016 and 2019 respectively. Both countries are the earliest worldwide to mandate front-of-package food labeling to those foods which exceed thresholds of the so-called “critical nutrients”. We present the main contents of Chilean and Peruvian regulation, the related discussions and impacts assessed.

**Keywords:** Chile; Peru; food labeling; front-of-package nutrition labelling; nutrition.

#### Resumo

Nos países latino-americanos, o crescimento econômico tem sido refletido em uma mudança generalizada nos padrões alimentares. Em poucas décadas, as altas taxas de subnutrição foram substituídas por problemas frequentes de obesidade na população. Essa crise de sobrepeso aumenta a propensão a problemas importantes de saúde, especialmente doenças crônicas não transmissíveis, como diabetes e doenças coronárias. Visando fornecer mais informações para o consumidor, os governos do Chile e do Peru realizaram mudanças na regulamentação da rotulagem de alimentos, como uma das estratégias para combater o excesso de peso. O objetivo deste artigo é apresentar a Lei 20.606 do Chile, a Lei 30.021 do Peru, em vigor, respectivamente, desde 2016 e 2019, e regulamentos associados. Ambos os países foram os primeiros em todo o mundo a exigir a rotulagem nutricional frontal para os alimentos em que os limites dos chamados “nutrientes críticos” são ultrapassados. São apresentados os principais conteúdos dessa legislação, Chilena e Peruana, bem como discussões e avaliações do impacto de sua aplicação.

**Palavras-chave:** Chile; Peru; rotulagem de alimentos; Rotulagem Nutricional Frontal; FOP; nutrição.

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## Introduction

According to the World Health Organization (WHO) almost 40% of the adult population (more than 18 years old) is overweight and 13% obese. In Latin America, the situation is especially critical as nearly a quarter of the population is obese.<sup>1,2</sup> The prevalence of overweight and obesity is also very present in children and adolescents in the region, affecting between 20-25% of the population aged under 19.<sup>3</sup> Some Latin American countries are facing different stages of the nutritional transition (i.e. economic growth leading to undernutrition decrease and overweight increase), being the high overweight and obesity a common factor, even where undernutrition is still a public health problem.<sup>4,5</sup> Diets have tended to include foods with high levels of energy, fats, sugars - as those ultra-processed - and insufficient levels of fruits, vegetables and fiber.<sup>6</sup>

A high prevalence of overweight and obesity shall be a relevant concern in terms of public health. An inadequate nutritional condition is a major risk factor for non-communicable diseases (NCD), especially for cardiovascular diseases and diabetes; which cause more deaths worldwide than all the other possible reasons combined.<sup>7</sup> On the other hand, childhood obesity has a high possibility of persistency in adulthood.<sup>8</sup> In Latin America, it is expected that overweight and obesity rates continue increasing, which will dramatically growth the prevalence of NCD.<sup>9</sup>

Legal intervention that aims to motivate individuals, who are at a high risk of NCD to change their lifestyle, and specifically diet, are increasingly common. In this, several countries have implemented or are preparing the implementation of front-of-package nutrition labelling (FOP). The first initiatives relating to mandatory FOP nutritional labeling have recently

appeared.<sup>10</sup> Chile and Peru have been the first two countries in Latin America implementing mandatory FOP nutritional labeling in the form of warning signs. Both have important problems of overweight and obesity which have increased rapidly.<sup>6</sup> In this paper, we present the origin, content and available impact assessment of the Chilean and the Peruvian legislation on FOP nutritional warning labeling.

### The case of the Chilean Law 20606

Nowadays, one of the Latin American countries with the highest rate of overweight and obesity is Chile. The 2017 National Health Survey showed that 39.8% of the adult population was overweight and 34.4% was obese. Women and less educated people had a significantly higher prevalence of obesity.<sup>11</sup> Considering that in Chile there is an important income gap between genders and in accordance with the educational level, obesity would especially affect the most vulnerable in socioeconomic terms. In children, the situation is very problematic. In accordance with the Nutritional Map Report,<sup>12</sup> the prevalence of obesity among children in first grade is 23.9%. Socioeconomic level determines the probability of being obese also in this case.<sup>13</sup> Eating behavior is closely related to childhood obesity and overweight rates,<sup>14,15</sup> which impacts not only the present and future health of Chilean children, but also generates behavioral problems even at an early age.<sup>16</sup>

Although the country is a globally relevant producer of fruits and vegetables, only 15% of the population eats the recommended serving per day (400 grams or 5 pieces).<sup>11</sup> Chile, along with Mexico, is the country in Latin America where sales of ultra-processed foods have increased the most,<sup>17</sup> which has health consequences.

In this scenario and motivated for the results of a joint WHO/FAO Expert Consultation

on Diet, Nutrition and the Prevention of Chronic Disease held in Geneva, in March 2007 the Chilean Senate Health Committee presented a draft legislation for the regulation of unhealthy food.<sup>18</sup> The legislation and its subsequent versions and modifications were extensively discussed, with the participation of social, business and academic actors.

The Law 20606<sup>19</sup> was finally approved in 2012 and the Decree n.º 13,<sup>20</sup> which implements it, was published in June 2015, and came into effect in 2016. They are based on three pillars: (i) FOP nutritional labeling, (ii) ban on advertising aimed at children, and (iii) education and promotion of healthy life, including a ban on the sale of unhealthy foods in schools.

On FOP nutritional labeling for every food product with added ingredients sold in the Chilean market, whether local or imported, a warning label must be used when “critical

nutrients” - sodium, sugar, saturated fat and energy content - exceed the thresholds specified in the regulation. Some food products are exempted from this labeling obligation, such as foods that are sold in bulk, broken down and prepared at the point of sale.

The Decree n.º 13 establishes the thresholds for critical nutrients.<sup>20</sup> For this, products are divided in two categories: solids and liquids, and thresholds are set by portions of 100 grams for solids, or 100 milliliters for liquids. Regulated thresholds were designed to come into effect progressively, becoming increasingly restrictive over time (Table 1).

Products which exceed the thresholds set by law must exhibit an octagonal label with a black background and white border that contains the text “High in” followed by the name of the “critical nutrient” and the words “Ministry of Health” for each nutrient in excess (Figure 1).

**Table 1** - Thresholds of critical nutrients' in Decree n.º 13.

Nutrient	Classification	From date of implementation (26 June 2016)	24 months after implementation (26 June 2018)	36 months after implementation (26 June 2019)
Energy	Solid (kcal/100 g)	350	300	275
	Liquid (kcal/100 ml)	100	80	70
Sodium	Solid (mg/100 g)	800	500	400
	Liquid (mg/100 ml)	100	100	100
Sugar	Solid (g/100 g)	22.5	15	10
	Liquid (g/100 ml)	6	5	5
Saturated fats	Solid (g/100 g)	6	5	4
	Liquid (g/100 ml)	3	3	3

Source: Chile.<sup>20</sup>

Figure 1 - Warning labeling in Decree n.º 13.



Legend: From top left to bottom right: 'High in Sugar'; 'High in Saturated Fats'; 'High in Salt'; 'High in Energy'.

Source: Elaborated by the authors.

According to Law 20606, the free sampling of labeled products is prohibited for children under fourteen years old. Decree n.º 13 prohibits all kinds of advertisement of labeled foods targeted to children, as well as the use of free toys or any other promotional strategy due to their credulity. The Decree n.º 13 also bans the sale and distribution of labeled products inside pre-school, primary or secondary education facilities.

Since the entry into force of the regulation in 2016, as well as during its discussion, the Law 20606 has been a contentious issue. One of the controversies derived from its implications for international trade. In 2013 the Chilean Government informed the World Trade Organization (WTO) about the implementation of the Law 20606. From 2013 to 2016 the adequacy of the Law was a recurring topic of discussion at the meetings of the Committee on Technical Barriers to Trade (TBT). More than ten WTO Members, including the United States (US) and the European Union (EU) presented concerns in this regard.<sup>21</sup>

The Chilean food industry was also very critical of Law 20606 during his discussion and in

the first years of its implementation. The industry disagreed with the use of 100 grams or milliliters as a standard portion for measurement. It was questioned that a product sold in a package that contains less than 100 grams must carry a warning label if the thresholds for critical nutrients was established for 100 grams portion. Moreover, some products may be sold in units above 100 grams, but the usual consumption portion is much lower, for example, butter and certain dressings. The nutrient thresholds in Decree n.º 13 were also questioned because they only separate solid and liquid products. In the industry's opinion the classification of foods should have included many more categories, like in the RSA, e.g. yogurt, butter, ice cream, breakfast cereals, ketchup, among others. The food industry also expressed their concern in relation to the consumer's ability to compare when making purchasing decisions. They affirmed that if every product within the same typology is labeled, for example chocolates, cookies or mayonnaise, even in their gourmet or light versions, the incentives to market higher quality varieties decrease. In short, the industry considered the labeling law as a positive initiative, but not the specific form in which it was implemented because they believed that it does not help the consumer make better decisions.

The Chilean professional associations linked to food production and advertising pointed out during the legislative discussion that the labeling may lead to stigmatizing certain foods and cause confusion among consumers. In their view, prohibiting or restricting advertising would limit freedom of expression and hinder the development of economic activities.

The Decree n.º 13 established that up to a period of eighteen months after its publication, the Chilean Under secretariat of Public Health had to produce a report with the evaluation of: (i) the implementation of the Law 20606,

(ii) the adaptation of technical procedures and (iii) the changes in consumers' attitudes and perceptions. This report was presented in January 2017. Its results showed that the new labeling influenced the purchase decisions of more than 90% of the population and more than 40% compared the number of warning labels among products before buying. Likewise, the Law also had a notorious impact in the reformulation of processed products, mainly for dairy, cereals and sausages.<sup>20</sup> In fact, most of the foods sold in Chilean supermarkets prior to the Law 2016 entrance into force needed a reformulation to avoid the "high in" warnings.<sup>23,24</sup>

### The case of the Peruvian Law

Between 2013 and 2018 overweight in Peru has growth in people older than 15 years old from 33.8 to 37.3%; alongside with obesity that has increased from 18.3 to 22.7% in the same period.<sup>25</sup> If we put together the numbers, in 2018, 60% of the population was overweight. This data coincides with other study that found that 60,2% of the population in Peru had excess of weight: 40.5% overweight and 19.7% obesity.<sup>26</sup>

The Peruvian Law, Law 30021, dates from May 2013, but needed a regulation that made it fully implemented in 2019.<sup>27</sup> Law 30021 adopted under the name of Law for the Promotion of Healthy Nutrition for Children and Teenagers applies to processed food and non-alcohol beverages. The law expressly excluded products in "natural state", i.e. non-processed.<sup>27</sup>

The objective of the Law 30021 is the promotion and protection of Public Health, the full development of Peruvians and the supervision of advertisement and information directed to children and teenagers. Along with the FOP labeling, some of the actions related to these goals are education, physical activities/sports and implementation of healthy food services in schools. The aim

of the regulation is to reduce and eliminate diseases related to overweight, obesity and non-communicable diseases (Article 1).<sup>27</sup>

Regarding the FOP, article 10 of the Law 30021 targets four types of nutritional components: trans-fat, sugar, sodium/salt and saturated fat in food and non-alcohol beverages. In case of high levels of sodium, sugar or saturated fat, the product package must indicate in a way that is "clear, readable and highlighted" for consumers that "the consumption of the product in excess must be avoided". For the specific case of trans fats, the legend must read, "avoid its consumption" (Article 10).<sup>27</sup>

The maximum levels to apply the FOP labeling are established in the Regulation that complements the Law. Despite the fact that the Law 30021 considered an initial deadline of 6 months to generate its complementary regulation, it is in June 2017 that the Supreme Decree 017-2017-SA, containing the Regulation of the Law 30021 was published.<sup>28</sup>

The Supreme Decree refers to the WTO TBT Agreement and the Decision 562 of the Andean Community regarding the concordance of the Law and the Decree with these instruments. The reference to the TBT Agreement is done because the Supreme Decree considers that its content is a Technical Regulation according to this WTO Agreement; and as a technical regulation it must be published, before its entry into force, in order to gather comments of the stakeholders. In the same line of transparency and publicity, the Decision 562 of the Andean Community establishes the guidelines for elaboration, adoption and application of technical regulation, establishing also rules for transparency.

At the Regulation the technical parameters to determine the thresholds of sugar, sodium and saturated fat are based on the recommendations of the World Health Organization-Pan American

Table 2 – Thresholds of ‘critical nutrients’ in Supreme Decree n.º 017-2017-SA.

Nutrient	Classification	6 months after the approval of the Manual of Advertising Warnings	39 months after the approval of the Manual of Advertising Warnings*
Sodium	Solid (mg/100 g)	800	400
	Liquid (mg/100 ml)	100	100
Sugar	Solid (g/100 g)	22.5	10
	Liquid (g/100 ml)	6	5
Saturated fats	Solid (g/100 g)	6	4
	Liquid (g/100 ml)	3	3
Trans-fats		According to Actual Regulation	According to Actual Regulation

\* The technical parameters applicable after 39 months can be updated according to new information and scientific evidence.

Source: Peru.<sup>28</sup>

Health Organization. For the Trans Fats, the regulation proposes a gradual process of reduction towards its elimination. The Supreme Decree has definitions for sugar, sodium, saturated fat and trans-fat (trans fatty acids). The article 4 considers the technical parameters to apply the warning sentences of the Law 30021 and the time to apply it (Table 2).<sup>28</sup>

The Supreme Decree had let to the “Manual of Advertising Warnings” the regulation of the way to present information on “critical nutrients” excess. It was a discussion between the Executive and the Legislative Power; the latter was in favor to follow a “traffic light” system (red, yellow and green), meanwhile the Executive Power was in favor to follow the Chilean model and use octagonal labels. The Manual, published in June 2018, considered the second option.<sup>29</sup>

In June 2019, minor changes were introduced to the Supreme Decree n.º 017-2017-SA and the Manual of Advertising Warnings. These changes were published on June 15th, 2019. Two days later was the full entrance into force of the Regulation and the Manual. In this sense, the octagonal warning

system has been implemented in Peru since June 17th, 2019.

The Law 30021 also regulates that at schools’ restaurants, cafeterias and food kiosks, only “healthy food” can be distributed or sold. The law also enhances the sports at school and public spaces; also, the law promotes nutritional education. The creation of an Observatory for Nutrition and Studies of overweight and obesity is also regulated in the Law.

Additionally, the Law 30021 regulates that advertisement of products with high sugar, sodium, saturated fat or trans-fat, aimed to children and persons under 16 years old must follow specific guidelines as to: avoid to give some toys, gifts or prizes to enhance the consumption; it is not possible to use real or fictitious characters, admired by the children, to induce to buy products; it is forbidden to promote any type of discrimination related to the intake of any food; among other prohibitions.

At the Committee of Technical Barriers to Trade of the World Trade Organization, the Law 30021 has been raised as a Specific Trade Concern 14 times, between 2013 and 2017, by 10 different members: Argentina, Brazil, Canada, Colombia,

Figure 2 – Warning Labeling at the “Manual of Advertising Warnings”.



Legend: From top left to bottom right: ‘High in Saturated Fats’; ‘High in Sugar’; ‘High in Salt’ and ‘Avoid its excessive consumption’; ‘High in Trans Fats’ and ‘Avoid its consumption’.

Source: Peru.<sup>28</sup>

Costa Rica, European Union, Guatemala, Mexico, Switzerland and the United States. Many of the critics were similar that those that presented the Sociedad Nacional de Industrias (SNI) at the national debate. In the words of the representative of Mexico at the TBT Agreement:<sup>30</sup>

Mexico felt this “stop sign” could cause confusion among consumers as: (a) The purpose of the nutrient information was to provide consumers with data on the nutrients contained in the food, so as to make informed decisions when purchasing food [...].

The United States representation also mentioned:<sup>30</sup>

The US was disappointed that Peru has chosen to adopt a labeling approach that did not educate consumers about the role that different nutrients play in an overall healthy and balanced diet.

These arguments clearly appoint to the requirement or article 2.2. of the TBT Agreement to do not affect more than necessary the trade with internal measures.

Other critics at the WTO were received by the first TBT Committee in 2013, and shared by the National Industries Society. At that time, adding to the general concern that Peru did not

notified the Law to the WTO members, it was said by the European Union that “adaptation to the new labelling requirements would require significant investment for manufacturers and a redesign of the packaging for some categories of products which were not defined yet”.<sup>31</sup> Maybe the last explains that Peru took a little longer to implement de Supreme Decree and the Manual of Labeling.

According to a survey done in July 2019, 67% of the Peruvians reduced or replaced the consumption of products with the octagonal warning.<sup>32</sup> This study was complemented in September 2019, showing that the food with the warnings of saturated fats and sugar were the products that the consumers chose to buy less. Among these products sweet cookies and sodas/sweet sparkling beverages where the products with lower consumption, 12% and 14% less, respectively, in comparison with the same month, in 2018 (the previous year).<sup>33</sup>

The reaction of the industry has not being evaluated yet in academic papers, but the data by the media and the previous report shows some trends: (1) some products are not affected because their principal display panel

are smaller than 50 cm<sup>2</sup>, and should not have an octagonal warning (this happens for instance with sweets as chocolates); (2) in some cases, the consumers were already aware of the content of the products and did not change its consumption (this happened with margarine, butter, soya sauce, among others); in addition, (3) some companies changed previously the formula or contents of some products to avoid FOP with octagonal warning signs <sup>28</sup>. Regarding the change in content, even if there is no academic research, various press publications on the reformulation of products as potato chips or other without the octagonal warnings; for instance a brand of potato chips claimed to invest 200 thousand USD to reduce saturated fat in its products.<sup>34</sup>

## Conclusion

Because of the alarming nutritional status of Latin American countries, there has been a need to take measures to reduce the overweight and obesity levels of the population. In this, Chile and Peru proposed and implemented legislative strategies, Law n.º 20.606 and Law n.º 30021, published in 2012 and 2013, and in charge since 2016 and 2019, respectively.

These measures aim to prevent overweight and obesity, especially in children, with the regulation of three aspects: mandatory front-of-package labeling, through warning signs when “critical nutrients” exceed a threshold; ban of sales of unhealthy foods in schools; and the advertising directed at children less than 14 years in Chile and 16 years in Peru.

There was a great debate during the design and implementation of these regulations, both for national and imported products. These discussions led to modifications to the original texts, but not to its intention and main

characteristics. Finally, except for some details, the FOP labeling schemes are very similar in both countries: black octagons with the legend “High in”. The “critical nutrients” thresholds are also the same for fats, sugar and sodium. The Chilean regulation includes energy and the Peruvian regulation includes trans-fats.

The impact evaluations made so far evidence in the case of Chile important effects in the reformulation of products to avoid labeling and in the consumers’ behavior. In the case of Peru, it is too soon to have an impact analysis and scientific research is not still available. From media information it is possible to see that the consumers are avoiding some products with the octagonal warnings; and the companies are also reacting.

## Conflicts of Interest

The authors declare no conflicts of interest.

## References

01. Fisberg M, Kovalskys I, Gómez G, Rigotti A, Cortés LY, Herrera-Cuenca M, Yépez MC, Pareja RG, Guajardo V, Zimberg IZ, Chiavegatto Filho ADP, Pratt M, Koletzko B, Tucker KL. Latin American Study of Nutrition and Health (ELANS): Rationale and study design. *BMC Public Health*. 2016; 30;16(1):93-103.
02. OECD. Organisation for Economic Co-operation and Development. *OECD Factbook 2015-2016*. Economic, Environmental and Social Statistics. OECD Publishing [internet]. 2016 [acesso em 11 dez 2019]. Disponível em: [https://www.oecd-ilibrary.org/sites/factbook-2015-en/1/1/2/index.html?itemId=/content/publication/factbook-2015-en&mimeType=text/html&\\_csp\\_=271851d564d57f60257faa735fcc0fa0&itemIGO=oecd&itemContentType=book](https://www.oecd-ilibrary.org/sites/factbook-2015-en/1/1/2/index.html?itemId=/content/publication/factbook-2015-en&mimeType=text/html&_csp_=271851d564d57f60257faa735fcc0fa0&itemIGO=oecd&itemContentType=book).
03. Rivera JÁ, Cossío TG de, Pedraza LS, Aburto TC, Sánchez TG, Martorell R. Childhood and adolescent overweight and obesity in Latin America: a systematic review. *Lancet Diabetes Endocrinol*. 2014;2(4):321–332.

04. Kain J, Vio F, Albala C. Obesity trends and determinant factors in Latin America. *Cad Saude Publica. SciELO Public Health*. 2003;19:S77–S86.
05. Popkin BM, Gordon-Larsen P. The nutrition transition: worldwide obesity dynamics and their determinants. *Int J Obes. Nature Publishing Group*. 2004;28(3):S2–S9.
06. Rapallo R, Rivera R. Nuevos patrones alimentarios, más desafíos para los sistemas alimentarios. Chile: Organización de las Naciones Unidas para la Agricultura y la Alimentación Santiago de Chile; 2019.
07. WHO. World Health Organization. Global Status Report on noncommunicable health diseases 2014. Geneva: World Health Organization; 2014.
08. Dietz WH. Childhood weight affects adult morbidity and mortality. *J Nutr. Oxford University Press*. 1998;128(2):411S-414S.
09. Webber L, Kilpi F, Marsh T, Rtveldzde K, Brown M, McPherson K. High rates of obesity and non-communicable diseases predicted across Latin America. *PLoS One. Public Library of Science*. 2012;7(8):e39589-e39589.
10. Kanter R, Vanderlee L, Vandevijvere S. Front-of-package nutrition labelling policy: global progress and future directions. *Public Health Nutr*. 2018;21(8):1399–1408.
11. Chile. Ministerio de Salud. Encuesta Nacional de Salud 2016-2017. Primeros resultados. S de Salud Pública. Santiago; 2017.
12. Chile. Ministerio de Educación. Junta Nacional de Auxilio Escolar y Becas. Informe Mapa Nutricional 2017 [Internet]. 2018 [acceso em 11 dez 2019]. Disponível em: <https://www.junaeb.cl/wp-content/uploads/2013/03/Informe-Mapa-Nutricional-2017-FINAL.pdf>.
13. Azar A, Franetovic G, Martínez M, Santos H. Individual, social and environmental determinants of overweight and obesity among Chilean adolescents. *Rev Med Chile*[internet]. 2015 [acesso em 11 dez 2019];143(5):598–605. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/26203571> PMID: 26203571.
14. Santos JL, Ho-Urriola JA, González A, Smalley S V, Domínguez-Vásquez P, Cataldo R, Obregón AM, Amador P, Weisstaub G, Hodgson MI. Association between eating behavior scores and obesity in Chilean children. *Nutr J. Springer*. 2011;10(1):108.
15. Sánchez U, Weisstaub G, Santos JL, Corvalán C, Uauy R. GOCS cohort: children’s eating behavior scores and BMI. *Eur J Clin Nutr*. 2016;70(8):925–928.
16. Kagawa RMC, Fernald LCH, Behrman JR. Weight status and behavioral problems among very young children in Chile. *PLoS One*. 2016;11(9): e0161380.
17. PAHO. Pan American Health Organization. Ultra-processed food and drink products in Latin America: trends, impact on obesity, policy implications. Washington: Pan American Health Organization; 2015.
18. Corvalán C, Reyes M, Garmendia ML, Uauy R. Structural responses to the obesity and non-communicable diseases epidemic: the Chilean Law of Food Labeling and Advertising. *Obes Rev. Wiley Online Library*. 2013;14:79–87.
19. Chile. Ministerio de Salud. Subsecretaría de Salud Pública. Ley n.º 20606. Sobre composición nutricional de los alimentos y su publicidad. Biblioteca del Congreso Nacional de Chile. 06 jul 2012. Última Versión 13 nov 2015.
20. Chile. Ministerio de Salud. Subsecretaría de Salud Pública. Decreto n.º 13. Modifica Decreto Supremo n.º 977, de 1996, Reglamento Sanitario de los Alimentos. Biblioteca del Congreso Nacional de Chile. 26 jun 2015. Última Versión: 05 jul 2019.
21. Boza S, Polanco R, Espinoza M. Nutritional Regulation and International Trade in APEC Economies: The New Chilean Food Labeling Law. *Asian Journal of WTO & International Health Law and Policy*. 2019; 14(1):73-113.
22. Chile. Ministerio de Salud. Informe de evaluación de la implementación de la Ley sobre Composición Nutricional de los Alimentos y su Publicidad. Chile: Ministerio de Salud; 2017.
23. Kanter R, Reyes M, Vandevijvere S, Swinburn B, Corvalán C. Anticipatory effects of the implementation of the Chilean Law of Food Labeling and Advertising on food and beverage product reformulation. *Obes Rev. Wiley Online Library*. 2019;20:129–140.
24. Kanter R, Reyes M, Swinburn B, Vandevijvere S, Corvalán C. The food supply prior to the implementation of the Chilean Law of Food Labeling and Advertising. *Nutrients*. 2019;11(1):52.
25. Peru. Ministerio de Salud. Instituto Nacional de Salud. Sobrepeso y Obesidad en la población Peruana [internet]. 2018 [acceso em 11 dez 2019]. Disponível em: [https://observateperu.ins.gob.pe/images/archivos/sala\\_nutricional/2018/situacion\\_sobrepeso\\_obesidad\\_peru/a\\_sobrepeso\\_obesidad\\_poblacion\\_peruana/sobrepeso\\_y\\_obesidad\\_en\\_la\\_poblacion\\_peruana.pdf](https://observateperu.ins.gob.pe/images/archivos/sala_nutricional/2018/situacion_sobrepeso_obesidad_peru/a_sobrepeso_obesidad_poblacion_peruana/sobrepeso_y_obesidad_en_la_poblacion_peruana.pdf).
26. Pajuelo Ramírez J, Torres Aparcana L, Agüero Zamora R, Bernui Leo I. El sobrepeso, la obesidad y la obesidad abdominal en la población adulta del Perú. *An la Fac Med (Perú)*. 2019;.80 (1):21-27.

27. Peru. Ministerio de Salud. Ley n.º 30021. Ley de Promoción de la Alimentación Saludable Para Niños, Niñas y Adolescentes. El Peruano. 17 mayo de 2013.
28. Peru. Ministerio de Salud. Decreto Supremo N.º 017-2017-SA. Decreto Supremo que aprueba el Reglamento de la Ley n.º 30021, Ley de Promoción de la Alimentación Saludable. 2017. [acceso 20 fev 2020]. Disponible em: [http://www2.congreso.gob.pe/sicr/cendocbib/con4\\_uibd.nsf/5289E04A2A160ABD052581A10070E6CE/\\$FILE/2\\_decreto\\_supre\\_017\\_de\\_alimentacion.pdf](http://www2.congreso.gob.pe/sicr/cendocbib/con4_uibd.nsf/5289E04A2A160ABD052581A10070E6CE/$FILE/2_decreto_supre_017_de_alimentacion.pdf)
29. Peru. Ministerio de Salud del Perú. n.º 012-2018-SA. Manual de Advertencias Publicitarias. Lima: MINSA; 2018.
30. WTO. World Trade Organization. Minutes of the meeting of 8-9 November 2017.[internet].[acceso 20 fev 2020]. Disponible em: <https://alianzasalud.org.mx/wp-content/uploads/2018/05/omc-bloqueo-mx-vs-etiquetado-peru-30-04-18.pdf>
31. WTO. World Trade Organization. Minutes of the meeting of 30-31 October 2013. [internet].[acceso 20 fev 2020]. Disponible em: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/G/TBT/M61.pdf&Open=True>
32. Oie R. 7 de cada 10 hogares cambian sus hábitos de consumo [internet]. 2019 [acceso em 11 dez 2019]. Disponible em: <https://www.kantarworldpanel.com/pe/Noticias/7-de-cada-10-hogares-cambian-sus-habitos-de-consumo>.
33. Luna F. Etiquetado: Primeros resultados en autoservicios [internet]. 2019 [acceso em 11 dez 2019]. Disponible em: <https://www.kantarworldpanel.com/pe/Noticias/ Etiquetado-Primeros-resultados-en-autoservicios>.
34. Llaja L. Marca peruana invierte 200 mil dólares para no tener octógonos [internet]. 2019 [acceso em 11 dez 2019]. Disponible em: <https://www.mercadonegro.pe/publicidad/inka-chips-se-convierte-en-el-primer-snack-peruano-libre-de-octogonos/>.