

Ricerche

Front-of-pack labelling: Nutri-score in the quicksands of the Latin American octagonal model and NutrInform?*

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1.– Introduction and approach

The health of citizens is paramount and this is demonstrated by the fact that the European Union sets out the need for mandatory provision of nutrition declaration¹ - often in a tabular format with the numbers aligned - and the comprehensive listing of all ingredients in descending order of weight². Also, Codex Alimentarius Guidelines on

nutrition labelling essentially go in the same direction, stressing the need for the presence of a nutrient declaration and a nutrition claim³.

However, this information is not considered adequate for the buyer/consumer to make critical decisions in favour of a "healthier" diet, an aspect which, if carried out properly, could contribute to reducing the rate of obesity, especially in children. Hence, the common international impulse to consider this information as not entirely sufficient and the desire to complement it with front-of-pack labelling, which is much more visible than the information often included on the back. The European Union has therefore given Member States the option - and not the obligation - to incorporate such labelling⁴. The invitation has been taken up and this option has given rise to several models⁵.

In this context, the Nutri-score model inaugurated by France⁶ seems to be taken as a point of reference in parts of Europe, having influenced coun-

(1) The contribution is intended for writings in honour of Professor Noemí Lidia Nicolau. It is with great motivation and pleasure that I have written these pages in honour of Professor Noemí Lidia Nicolau; a great jurist and a great person whose character stands out for her kindness, gentleness and affability; traits that characterise her not only in the etymology of her first name, but undoubtedly, and even more, in everyday life
(1) Cfr. arts. 9, 30 34, Annex I, Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers.

(2) Art. 18 Regulation (EU) No 1169/2011, *cit*.

(3) Codex Alimentarius Guidelines on nutrition labelling, CAC/GL 2-1985, Rev. 1 – 1993.

(4) Art. 35 Regulation (EU) No 1169/2011, *cit*.

(5) See review of front-of-pack labelling schemes provided by the European Commission: S. Storcksdieck, S. Genannt Bonsmann, G. Marandola, E. Ciriolo, R. Van Bavel, R. and J. Wollgast, *Front-of-Pack Nutrition Labelling Schemes: a Comprehensive Review, Report JRC113586, EUR 29811 EN*, Luxembourg, Publications Office of the European Union, 2020; see also R. Kanter, L. Vanderlee, St. Vandevijvere, *Front-of-Package Nutrition Labelling Policy: Global Progress and Future Directions*, in *Public Health Nutrition*, 2018, vol. 21, n. 8, p. 1399 y ss; WHO, *Guiding principles and framework manual for front-of-pack labelling for promoting healthy diets*, Mayo 2019; *World Health Organization, Manual to develop and implement frontofpack nutrition labelling: guidance for countries on the selection and testing of evidence in f o r m e d frontofpack nutrition labelling systems in the WHO European Region*, WHO/EURO:2020-1569-41320-56234, and its appendix (WHO/EURO: 2020-1570-41321-56235). See also S. Lanni, *Front-of-package food labels and consumer's autonomous decisionmaking*, in this *Riv.*, www.rivistadirittoalimentare.it, No 1-2020, p. 5; E. Grasso, C. Poncibò, *Nutrition Labelling Chaos: How Far Shall We Go in Nudging Consumers?*, *Verbraucherrecht und Verbraucherverhalten*, 2016, No 1, p. 119 et seq. More in general see F. Albisinni, *Le norme sull'etichettatura dei prodotti alimentari*, in *Trattato di diritto agrario nazionale e comunitario*, L. Costato (dir.), Cedam, Padova, 2003, 3° ed., 631 et seq; Aa.vv., *European and global food Law* (L. Costato, F. Albisinni eds.), Cedam, Padova, 2016.

(6) For a first overview: C. Julia, S. Herberg, *Europe WHORO for Development of a new front-of pack nutrition label in France: the five-colour Nutri-score*, *Public Health, Panorama*, vol. 3 No 4, p. 712 et ss, also P. Borghi, *Rosso, giallo o verde? L'ennesima etichetta alimentare "a semaforo". L'ennesimo segno di disgregazione*, in this *Riv.* www.rivistadirittoalimentare.it, No 2-2017, p. 2 et seq. See Government's report after the first three years of implementation: *Gouvernement français, Nutri-Score Assessment Report after three year of Nutro-score implementation*, Feb. 2021, at https://solidaritesante.gouv.fr/IMG/pdf/nutri-score_follow-up_report_3_years_26juillet2021.pdf.

tries such as Belgium⁷, the Netherlands⁸, Germany⁹, Luxembourg¹⁰ or Switzerland¹¹. Even countries - such as Spain - which, although it wants to support its implementation, officially and publicly recognizes that “it is not perfect labelling¹²”, even though it has tried to validate it with previous studies¹³.

In partial counter-trend to the European phenomenon, a legislative phenomenon is developing in Latin America with a model of mandatory front-of-pack labelling. Thus, a traffic light label model is used in Ecuador, followed by Bolivia, or the use

of octagon-shaped labels. The latter, implemented for the first time by Chile, has been the predominant point of reference for other legislation such as that of Peru and Uruguay or México, although other models have also been used, for example in Colombia and Brazil¹⁴.

The recent approval of the Argentinean law on healthy nutrition¹⁵ opts to incorporate a front-of-package food labelling model influenced by the Chilean octagonal model¹⁶. The Italian model of NutriInform Battery¹⁷ decides to move away from the European trend towards the French Nutri-

(⁷) Adopted in abril 2019, see e.g. St. Vandevijvere, *Uptake of Nutri-Score during the first year of implementation in Belgium*, *Archives of Public Health*, oct., 2000, vol. 78, n. 1, p. 1 et seq; on an analysis of the impact of labels on supermarket shelves: St. Vandevijvere, N. Berger, *The impact of shelf tags with Nutri-Score on consumer purchases: a difference-in-difference analysis of a natural experiment in supermarkets of a major retailer in Belgium*, *International Journal of Behavioral Nutrition and Physical Activity*, 2021, vol. 18, n. 150, p. 1 ss.

(⁸) As communicated to the European Union: *Regulation of the Minister for Medical Care, designating Nutri-Score as a food choice logo and its conditions of use (Regulation on the designation of food choice logo)*, Notification 2021/530/NL (Netherlands), August 2021.

On some previous studies in comparison with other labelled studies: M. Egnell, Z. Talati, M. Gombaud, P. Galan, S. Hercberg, S. Pettigrew, C. Julia, *Consumers' Responses to Front-of-Pack Nutrition Labelling: Results from a Sample from The Netherlands*, *Nutrients* 2019, n. 11, p. 1817 y ss. <https://doi.org/10.3390/nu11081817>. See also S. Lanni, *Front-of-package food labels and consumer's autonomous decisionmaking*, in this Riv. www.rivistadirittoalimentare.it, No 1-2020, p. 57 et ss; E. Grasso, C. Poncibò, “Nutrition Labelling Chaos: How Far Shall We Go in Nudging Consumers?”, *Verbraucherrecht und Verbraucherverhalten*, 2016, n. 1, p. 119 et seq.

(⁹) For a previous overview: M. Egnell, Z. Talati, S. Pettigrew, P. Galán, S. Hercberg., C. Julia, *Comparison of front-of-pack labels to help German consumers understand the nutritional quality of food products. Color-coded labels outperform all other systems*, *Ernahrungs Umschau*, 2019, vol. 66, n. 5, p. 76 et seq. DOI: 10.4455/eu.2019.020.

(¹⁰) As communicated to the European Union: *Draft Grand Ducal Regulation establishing additional forms of expression of the energy value and nutrient quantities (NUTRI-SCORE)*, Notification 2020/391/L (Luxemburg), September 2020.

(¹¹) For a previous overview: M. Egnell, P. Galán, Nj., Farpour-Lambert, Z. Talati, S. Pettigrew, S. Hercberg, C. Julia, *Compared to other front-of-pack nutrition labels, the Nutri-Score emerged as the most efficient to inform Swiss consumers on the nutritional quality of food products*, *PLoS One*. 2020 Feb 27; vol.15, n. 2:e0228179. doi: 10.1371/journal.pone.0228179.

(¹²) These are the words of the Spanish Minister of Consumer Affairs in his intervention in favour of the implementation of the Nutri-score system during his appearance in the Spanish Congress of Deputies: A. Garzón Espinosa, *Comparencia ante la Comisión de Sanidad y Consumo del Congreso de los Diputados*, 16 june 2021, at <https://www.youtube.com/watch?v=PZKUOPF5YZ4>.

For a view in Spain: P. Galan, M. Egnell, J. Salas-Salvadó, N. Babio, S. Pettigrew, S. Hercberg, et al., *Understanding of different front-of-package labels by the Spanish population: Results of a comparative study*, in *Endocrinol Diabetes Nutr.*, 2020, n. 67, p. 122 et ss.

(¹³) P. Galan, N. Babio, J. Salas-Salvadó, *Nutri-Score: el logotipo frontal de información nutricional útil para la salud pública de España que se apoya sobre bases científicas*, in *Nutr. Hosp.*, vol.36, n.5, 2019, p. 1213 y ss.

(¹⁴) A comparative study for Colombia can be found at A. Ferrante, *El etiquetado frontal en los alimentos y la iconografía jurídica: un ejemplo para la comprensión del trasplante jurídico y del nuevo paradigma latinoamericano*, *Derecho (PUCP)*, No 87, 2021, p. 141 et ss. at <https://revistas.pucp.edu.pe/index.php/derechopucp/article/view/24467/23230>. About Chile see also L. Rodríguez Osiaca, T. Pizarro Quevedo, *Ley de Etiquetado y Publicidad de Alimentos: Chile innovando en nutrición pública una vez más*, in *Revista chilena de pediatría*, 018; vol. 89, No 5, 2018, p. 579-581.

(¹⁵) Ley n. 27.642 de 26 de octubre de 2021 (*Ley de promoción de la alimentación Saludable*), in *Boletín Oficial de la República Argentina* de 12 de noviembre de 2021 For a brief commentary on the draft legislation that led to the adoption of the Act see J. Trivisonno, *El derecho a la alimentación saludable: información al consumidor y etiquetado frontal de alimentos*, *Jurisprudencia Argentina (Dossier de Derecho del Consumo)*, n. 3, 2021, p. 76 y ss. Para una visión anterior a la a la Ley: see Ministerio de Salud y Desarrollo Social, *Etiquetado nutricional frontal de alimentos*, Presidencia de la Nación, Buenos Aires, 2018.

(¹⁶) A study on this model and its comparison with the Peruvian model can be found in Ferrante, *El etiquetado frontal*, cit., p. 141 et ss.

(¹⁷) The Italian model has recognised this iconographic battery system, which has been implemented by the Decreto 19 November 2020. This model has been implemented with the relative manual, approved in 2021: Ministero dello sviluppo economico, Ministero della salute e Ministero delle politiche agricole alimentari e forestali, *Manuale d'uso del marchio nutrizionale “NutriInform Battery”*, 19 January 2021, at https://www.mise.gov.it/images/stories/documenti/Manuale_uso_NutriInform_Battery.pdf. For more information see <https://www.nutrinform-battery.it/>.

score model. These two aspects give the opportunity to make some comparative reflections on some aspects related to this issue, in particular on the octagon-shaped labels model, Nutri-score and the Italian model.

Although there seem to be common goals, such as the predisposition for greater consumer protection and information or the predisposition for measures to help reduce non-communicable diseases such as obesity, there are also deeper reasons behind them, including those related to the market economy. Hence, implementing one model or another means indirectly introducing on the market a different type of product to consumers' perception and even increasing or decreasing sales or import/export of certain products.

Thus, the choice of a front-of-pack labelling model has clear economic implications. The proof is that both the *Agence nationale de santé publique* and the *Ministero dello Sviluppo Economico* have registered the trademark, also in its graphic representation "Nutri-score"¹⁸ and "NutriInform Battery"¹⁹ respectively at the European Union Intellectual Property Office. In this sense, thus they can claim a certain protection and ownership in these contexts. Critical reflections are important because the European Union seems to have

decided to change course from its initial decision²⁰: so, it is considering the future standardization of front-of-pack labelling model as well. Thus, in the "Farm to Fork" strategy - implemented since 2020 - it plans to introduce within the fourth quarter of 2022 a "proposal for a harmonized mandatory front-of-pack nutrition labelling to enable consumers to make health conscious food choice"²¹. To carry out this task, the European Food Safety Authority (EFSA) has been asked by the European Union²² to provide scientific advice to inform harmonized front-of-pack labelling and restriction of claims on foods, which has now resulted in a draft submitted for public consultation²³. Moreover, the solution as to what the model should be seems to be undecided because it appears that several institutions or studies are heterogeneously, in favour of one or the other labelling model. In this context, scientific studies are somewhat self-reported²⁴ and therefore do not contribute to a clear picture. In this context, scientific studies have a certain self-referentiality and therefore do not contribute to a clear picture of the landscape. Thus, there are studies that push in favour of the Nutri-score model²⁵. There are also studies that validate the effectiveness of NutriInform Battery by stating that it would be

(¹⁸) In relation to the name: Trade mark number 1513536, Date of receipt 13 February 2020; in relation to the graphic representation: date of receipt 20 February 2017 and 13 February 2020; Trade mark numbers: 004112415-0001, 004112415-0002, 004112415-0003, 1513936: <https://euipo.europa.eu/eSearch/#basic/1+1+1+1/100+100+100+100/nutri-score> .

(¹⁹) In relation to the name: Trade mark number 018213570, date of receipt 23 March 2020. In relation to the graphic representation: date of receipt 25 March 2020, Trade mark number 018215138: see <https://euipo.europa.eu/eSearch/#basic/1+1+1+1/100+100+100+100/nutrinform>.

(²⁰) Art. 35 Regulation (EU) 1169/2011, *cit.*

(²¹) Así "The Commission will propose harmonised mandatory front-of-pack nutrition labelling and will consider to propose the extension of mandatory origin or provenance indications to certain products, while fully taking into account impacts on the single market. The Commission will also examine ways to harmonise voluntary green claims and to create a sustainable labelling framework that covers, in synergy with other relevant initiatives, the nutritional, climate, environmental and social aspects of food products": point 2.4 Communication from the Commission to the European Parliament, the Council and the Committee of the Regions. *A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system*, COM/2020/381 final, 20 May 2020.

(²²) This has been granted in December 2020, giving 14 months for the report to be issued: European Commission Directorate, General for Health and Food Safety, *Request for a scientific advice on the development of harmonised mandatory front-of-pack nutrition labelling and the setting of nutrient profiles for restricting nutrition and health claims on foods*, SANTE/E1/AVS/ko (2020)8242215, 14 December 2020.

(²³) Public Consultation PC-0108, stated on 15 November 2021 and finished 7 January 2022: European food Safety Authority, *Draft Scientific Opinion advising on the development of harmonised mandatory front-of-pack nutrition labelling and the setting of nutrient profiles for restricting nutrition and health claims on foods*, (EFSA-Q-2021-00026_Draft opinion_Nutrient profiles), at <https://connect.efsa.europa.eu/RM/s/publicconsultation2/a011v00000E877g/pc0108>.

(²⁴) As evidenced in Storcksdieck, et al., *Front-of-Pack Nutrition Labelling Schemes...*, *cit.*; Molteni, *Decisioni impegnative...*, *cit.*, p. 5.

(²⁵) See Gouvernement français, *Nutri-Score Assessment Report*, *cit.*

more correct under the scientific profile than the Nutri-score²⁶ and would even prove that the Italian system would be more informative than the Nutri-score²⁷. Other studies have shown that the Latin American warning system is the most effective²⁸. They have also demonstrated that with the Chilean octagon-shaped labels model, sales of products have been reduced and the quantities of calories, sugars, fats and sodium in foodstuffs have also been reduced²⁹, without affecting the employment rate, with a low economic impact for the companies³⁰.

It should also be recalled that UNESCO has already declared since 2010 the “Mediterranean diet” as intangible world heritage of humanity (including it in the Representative List of the Intangible Cultural Heritage of Humanity³¹) and the food pyramid of the Mediterranean diet seems not necessarily to be combined with the Nutri-score mechanism. This is because the latter fore-

sees the use of olive oil as the main added fat, sausages or the importance of the consumption of dairy products which would sometimes be less healthy according to the French model, hence the debate on whether or not to apply the Nutri-score mechanism only to certain products³².

In partial contradiction to this, the World Health Organisation has promoted September 2021³³ the use of the Nutri-Score claiming that it reduces the risk of non-communicable diseases such as cancer, however no comparative study has been provided regarding the more or less favourable effects compared to other types of front-of-pack labelling. Furthermore, it should be recalled that the Codex Alimentarius Commission for Food Labelling - trying to give a definition to front-of-pack labelling at its 46th meeting working group on FOPNL³⁴ - opts for a very broad definition of labelling, stating that it should be a simplified mechanism that can have a combination of sym-

(²⁶) Centro di Studio e Ricerca sull'Obesità, *Sistemi di etichettatura frontepacco (FOP) utili per migliorare la qualità dell'informazione nutrizionale al pubblico, in un'ottica di prevenzione dell'eccesso ponderale. Nutri-Score o Nutrinform Battery?*, Università di Milano, 2021, at https://www.salute.gov.it/imgs/C_17_pagineAree_5509_1_file.pdf.

(²⁷) Although the study is conducted on 200 respondents: M.F. Mazzù, S. Romani, A. Gambicorti, *Effects on Consumers' Subjective Understanding of a new Front-of-Pack Nutritional Label: a Study on Italian Consumers*, in *International Journal of Food Sciences and Nutrition*, vol. 72, n. 3, 2020, p. 1 et ss.

(²⁸) H. Croker, J. Packer, S.J. Russell, C. Stansfield, R.M. Viner, *Front of pack nutritional labelling schemes: a systematic review and meta-analysis of recent evidence relating to objectively measured consumption and purchasing*, in *Public Health Nutrition*, n. 23, 2020, p. 518 y ss, in particular p. 530 et ss. <https://doi.org/10.1111/jhn.12758>.

(²⁹) As noted in L.S. Taillie, M. Bercholz, B. Popkin, M. Reyes, M.A. Colchero, C. Corvalán, C. *Changes in food purchases after the Chilean policies on food labelling, marketing, and sales in schools: a before and after study*, *Lancet Planet Health*, vol. 5, n. 8, e526-e533, 1 August 2021. See F. Da Silva Gomes, *Legislación en Etiquetado frontal en la región de las américas. Nuevas evidencias, in United Nations Organization (Argentina), Jornada de legislación sobre etiquetado de advertencias en Argentina, Aporte de la experiencia y la evidencia internacional*, 2 september 2021, at <https://www.youtube.com/watch?v=gpuFj2hzToc>.

(³⁰) See G. Paraje, D. Montes de Oca, J. M. Wlasiuk, M. Canales, B. M. Popkin, *Front-of-Pack Labelling in Chile: effect on Employment, Real Wages, and Firm's Profits after three Years of its Implementation*, *Nutrients*, vol. 44 n. 295, 2022, <https://doi.org/10.3390/nu14020295>.

(³¹) It had already been registered since 2010 relatively to Italy, Spain, Greece and Morocco and found transnational recognition and extension to Cyprus, Croatia and Portugal in 2013: United Nations Educational, Scientific and Cultural Organization (UNESCO), Eighth Session of the Intergovernmental Committee (8.COM) – 2-7 December 2013, <https://ich.unesco.org/es/8com>.

(³²) Further information and the pyramid on the Mediterranean diet can be found for example at <https://dietaediterranea.com/nutricion-saludable-ejercicio-fisico/>.

(³³) International Agency for Research on Cancer, WHO, *The Nutri-Score: A Science-Based Front-of-Pack Nutrition Label Helping consumers make healthier food choice*, *IARC Evidence Summary Brief*, No 2, September 2021, at https://www.iarc.who.int/wp-content/uploads/2021/09/IARC_Evidence_Summary_Brief_2.pdf.

(³⁴) *Front-of-pack nutrition labelling* is “a form of supplementary nutrition information that presents simplified, nutrition information on the front-of-pack of pre-packaged foods. It can include symbols/graphics, text or a combination thereof that provide information on the overall nutritional value of the food and/or on nutrients included in the FOPNL. This definition excludes nutrition and health claims”: Joint Fao/Who Food Standards Programme Codex Committee on Food Labelling, Forty-sixth Session Virtual 27 September –1 October and 7 October 2021, See https://www.fao.org/fao-who-codexalimentarius/sh-proxy/it/?Ink=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FMeetings%252FCX-714-46%252FLinks%252FSummary_of_responses_to_CL202119OCSFL%20final.pdf.

bols, graphics or text ending with nutritional information. It should be noted that, in the definition provided, “nutrition and health claims” are expressly excluded. This reference hides an express reference to Regulation n. 1924/2006 on nutrition and health claims made on foods³⁵. It must therefore necessarily be interpreted in conjunction³⁶ with Regulation n. 1169/2011³⁷ on the provision of food information to consumers³⁸. From what has been seen, it can be observed that the panorama is moving on some shifting sands that do not allow for a sufficiently firm footing. The proof, in this sense, is that both the Argentine and Italian legislators are fleeing from the Nutri-score model, respectively taking inspiration from the Chilean model or choose their own model. In view of this, it is appropriate to make some legal analysis of the current situation.

2.- Nutri-score and NutrInform Battery: a brief parallel

The following are some brief considerations on the Italian and French models from an iconographic and nutritional point of view.

A. Iconographic model

NutrInform Battery provides a nutritional logo showing the content of each standard portion in grams/ml³⁹, as if it were a battery. Energy, fat, saturated fat, sugars and salt are assumed as reference values and it is shown how much the consumption of these portions influences the reference assumptions of an average person. For each value, the proportional percentage indicated is fixed as if it were a battery. The battery relative to the energy is measured in Joule and Kcal, while the other values refer to the quantity in grams.⁴⁰

The model applies to all types of products with some exceptions, such as PDOs, PGIs and TSG products according to the Regulation No 1151/2012⁴¹, and packaged foods in which the lar-

⁽³⁵⁾ Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods, *OJ L 404* 30.12.2006, p. 9 et seq. About “claims” in Italian see v.gr. S. Bolognini, *Claims nutrizionali sulla salute e pratiche commerciali scorrette: quando l'inganno da dolce diventa amaro*, in *Riv.dir.agr.*, 2012, n. 4, p. 313 et seq; V. Rubino, *Gli “health claims” e l’etichettatura degli alimenti*, in this *Riv. www.rivistadirittoalimentare.it*, No 1-2014, p. 22 et ss.

⁽³⁶⁾ The necessary and interesting ‘overlap between regulations’ is highlighted by R. Molteni, *Decisioni impegnative per l’etichettatura nutrizionale fronte-pacco (FP)*, *Dir.Giur.Agr.Alim.Amb.*, 2020, n.6, p. 1 et seq.

⁽³⁷⁾ Regulation (UE) No 1169/2011, cit.

⁽³⁸⁾ On the implementation of the Regulation n. 1169/2011 see the special issue of this *Riv.* at www.rivistadirittoalimentare.it, No 1-2020: “The Implementation of Regulation (EU) n. 1169/2011 in some Member States and the sanctions models adopted” (Workshop AIDA-EFLA Milano, 10 December 2019). Also S. Lanni, *Cibo & Diritto comparato: le etichette alimentari tra Europa e America Latina, Percorsi di diritto comparato* (R.E. Cerchia ed.), Milano University Press, 2021, pp. 87-104. On Food Law also see acts of XXV Colloquium of the Italian Association of Comparative Law (Parma, May 2019): Aa.Vv., *Cibo e diritto. Una prospettiva comparata* (L. Scaffardi-V. Zeno-Zencovich, ed.), Roma Tre Press, Roma, 2020. From the Italian point of view see also: V. Cavanna, *Il nuovo regime sanzionatorio in materia di etichettatura degli alimenti, Ambiente e sviluppo*, 2018, No 3, p. 165 et seq; V. Rubino, *Le informazioni sugli alimenti ai consumatori. Il regolamento (UE) n. 1169/2011*, Aracne, Ariccia 2015; G. Spoto, *Tutela del consumatore e sicurezza alimentare: obblighi di informazione in Etichetta*, in *Contratto e Impresa*, 2014, No 4-5, p. 1071 et ss; E. Grasso, *Prove tecniche di paternalismo liberale: l’etichettatura dei prodotti alimentari dopo il regolamento (UE) n. 1169*, in *Contratto e impresa. Europa*, 2013, No 1, p. 463 et seq; A. Germanò, *Le indicazioni in etichetta (e la loro natura) e i segni degli alimenti*, *Riv.dir.agr.*, 2012, No 2, p. 207 et ss, R. Saija, A. Tommasini, *La disciplina giuridica dell’etichettatura degli alimenti*, Aa.vv., *Trattato di diritto agrario* (L. Costato, A. Germanò Alberto, E. Rook-Basile), 3, Utet, Torino, 2011, p. 493 et ss.; L. Costato, *Le etichette alimentari nel nuovo regolamento n. 1169/2011*, in *Riv.dir.agr.*, 2011, No 4, p. 658 et seq; G. Biscontini, *Regolamento n. 1169 del 2011: tutele civilistiche per violazione del dovere di informazione nel settore alimentare*, in *Persona e mercato*, 2012, No 3, p. 162 et ss.

⁽³⁹⁾ This varies depending on the food as established by the *Centro i ricerca alimenti e nutrizione: Consiglio per la ricerca in agricoltura e l’analisi dell’economia agraria, Linee Guida per una sana alimentazione*, at <https://www.crea.gov.it/web/alimenti-e-nutrizione/-/linee-guida-per-una-sana-alimentazione-2018>, so for example the standard portion will be 50 grams for bread, 80 grams for pasta, etc: see point n. 25 *Manuale d’uso de NutrInform Battery*, cit.

⁽⁴⁰⁾ Energy: 8400 KJ/2000Kcal; fat 70 g; saturated fats 20 g; sugars 90 g, salt 6 grs: Annex A, Decreto 19 nov 2020, cit.

⁽⁴¹⁾ Protected designations of origin (PDOs) or protected geographical indications (PGIs) or “traditional speciality guaranteed’ (TSG’): Regulation (EU) No 1151/2012 of the European Parliament and of the Council of 21 November 2012 on quality schemes for agricultural products and foodstuffs.

gest surface area is less than 25 square cm⁴².



NutrInform as well as Nutri-Score are characterized to adopt chromatic models. The former adopts the monochromatic blue nutritional label⁴³. In the French model there is the identification of five colors associated with letters, where the letter A is associated with dark green, B with light green, C with yellow, D with orange, and finally the letter E associated with red. On this scale, the healthiest product is the one associated with the letter A and the color dark green. The color labelling is deliberately chosen because of the influence it can have on psychology and decision making⁴⁴. It has been also suggested to predispose the Italian battery model with different colors depending on the percentage values⁴⁵. However, the polychromatic model could find some disagreements with other European regulations such

as the Regulation No 1924/2006⁴⁶.

However, the Italian monochromatic model, contrary to the Nutri-score model, does not induce in the decision (by stating what is healthy or less healthy), something that the French model does by providing a classification of foods based on colors and letters.

Generally, it should also be noted that (if certain requirements are met⁴⁷) the European legislation allows the product to be labelled as “low energy”, “energy-reduced”, “low-fat”, “low-saturated fat”, “low sugar”, “low sodium/salt”, “very low sodium/salt”, among others, which may indicate negative statements such as “fat-free”, “saturated fat-free”, “sugar-free”, “with no added sugar”, “sodium-free” o “salt-free”. However, it should be noted that the values are not absolute but relative, and it may be possible to indicate these on condition that there are really small quantities⁴⁸.

B. Nutrients and Nutrient Profile Model

The French and Italian front-of-pack labelling are based on the elaboration of a different nutritional profile models. While the Italian model takes as a reference the values set by Regulation No 1169/2011⁴⁹, the French model reworks an algo-

⁽⁴²⁾ Art. 1.6 Decreto 19 nov 2020, cit.; punto n. 25 *Manuale d'uso de NutrInform Battery, cit.*

⁽⁴³⁾ Point n. 18 *Manuale d'uso de NutrInform Battery, cit.*

⁽⁴⁴⁾ However, although there is undoubtedly a decisional influence in relation to colour scales, this can be subject to margins of subjectivity; for example, one study found that blue and yellow evoked positive emotions and associations with health and naturalness (to a lesser extent green and red), while heather, pink and celadon suggested an artificial and therefore unhealthy product see: G. Wasowicz, M. Styko-Kunkowska, K.G. Grunert, *The Meaning of Colours in Nutrition Labelling in the Context of Expert and Consumer Criteria of Evaluating Food Product Healthfulness*, *Journal of Health Psychology*, 2016, pp. 907 y ss. Véase en relación con el Nutri-Score: L. Bairati, E. Grasso, *Lire ou regarder? Les couleurs dans l'étiquetage alimentaire et l'information du consommateur*, in *Contrats Concurrence Consommation*, 2019, No 10, p. 1 et ss.

⁽⁴⁵⁾ Molteni, *Decisioni impegnative...*, cit., p. 6.

⁽⁴⁶⁾ See Molteni, *Decisioni impegnative...*, cit., p. 3.

⁽⁴⁷⁾ See Annex Regulation (CE) n. 1924/2006, cit.

⁽⁴⁸⁾ These are indicative values, as it is possible to place such an indication “fat-free” if where the product contains no more than 0,5 g of fat per 100 g or 100 ml (However, claims expressed as ‘X % fat-free’ shall be prohibited). It may also be indicated saturated fat-free also where the sum of saturated fat and trans-fatty acids does not exceed 0,1 g of saturated fat per 100 g or 100 ml; “Sugar-free” where the product contains no more than 0,5 g of sugar per 100 g or 100 ml.

“Sodium-free” and “Salt-free” can be used also where the product contains no more than 0,005 g of sodium, or the equivalent value for salt, per 100 g: see Annex Regulation (CE) n. 1924/2006, cit. From the Italian law perspective see: V. Rubino, *Il claim “senza zuccheri aggiunti” nel nuovo regolamento 1924/06 :problematiche interpretative ed applicative*, in *Alimenta*, 2007, n. 1, p. 99 y ss; G. Spoto, *Tutela del consumatore, etichette a Semaforo e informazioni “negative”*, in this Riv. www.rivistadirittoalimentare.it, No 2-2018, p. 28 et ss.

⁽⁴⁹⁾ Annex XIII, part B, reference intakes for energy and selected nutrients other than vitamins and minerals (adults): Regulation (UE) No 1169/2011, cit.

rithm developed in 2004 by the British Food Standards Agency (FSA).

The algorithm⁵⁰ is achieved through calculations that mix certain scores that receive the amounts of nutrients in 100 grams, looking at energy, simple sugars, saturated fatty acids, salt on the one hand, and fruits, vegetables, nuts, fibres and protein on the other hand. The French system provides some modifications in relation to beverages, fats and cheeses, whose scoring algorithms differ from the UK model. These different approaches to analysis stem from the fact that the European level is characterized by a general lack of clear-cut direction in relation to some aspects of the values associated with front-of-pack labelling. The proof is that the specific nutrient profiles, which are of undoubted help to improve public health⁵¹ and which should have been set by the European Union in 2009⁵², are still to be defined, although they have been put back at the center of the debate in 2020⁵³.

Therefore, in addition to an iconographic heterogeneity of front-of-pack labelling, there is also a scenario with various nutrient profiles models within and outside the European Union. For example, in addition to the “Nutri-score”, “NutriInform Battery” or the quality index derived from the British Food Standard Agency (FSA), there is also the Healthy Eating Index (HEI) developed by the US Department of Agriculture or the Nutrient Rich Food Index (NRFI)⁵⁴.

3.- *The Chilean octagon-shaped front-of-pack labelling model and its evolution*

The Argentinean law on healthy nutrition⁵⁵, which adopts the octagon-shaped front-of-pack labelling model, has not only been modelled on its main Chilean model⁵⁶, but also but also has been influenced by Peruvian⁵⁷, Uruguayan⁵⁸ and Mexican regulations⁵⁹.

⁽⁵⁰⁾ As CEPEA's research highlights, which also explains how the Nutri-score algorithm works: Centro de estudios sobre políticas y económica de la alimentación (CEPEA), *Perfiles nutricionales y etiquetado frontal de alimentos. Definiciones, estado de situación y discusión del tema en Argentina*, 2017, <https://cepea.com.ar/cepea/wp-content/uploads/2017/11/Perfiles-y-FOP-CEPEA-2017.pdf>.

⁽⁵¹⁾ For a literature review of the guiding principles to implement “nutrient profile” models see M. Santos, A.I. Rito, F.N. Matias, R. Assunção, I. Castanheira and I. Loureiro, *Nutrient profile models a useful tool to facilitate healthier food choices: A comprehensive review*, *Trends in Food Science & 1930 Technology*, vol. 110, april 2021, pp. 120 y ss, doi: 10.1016/j.tifs. 2021.01.082.

⁽⁵²⁾ Pursuant to art. 4 Regulation (CE) No 1924/2006, cit. The European Food Safety Authority EFSA has also issued an opinion on the nutrient profiles: EFSA, *The setting of nutrient profiles for foods bearing nutrition and health claims pursuant to Article 4 of the Regulation (EC) No 1924/2006 - Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies*, in <https://efsa.onlinelibrary.wiley.com/doi/pdf/10.2903/j.efsa.2008.644>.

⁽⁵³⁾ Commission staff working document: Evaluation of the Regulation (EC) No 1924/2006 on nutrition and health claims made on foods with regard to nutrient profiles and health claims made on plants and their preparations and of the general regulatory framework for their use on foods, SWD(2020) 95 final del 20.5.2020, in https://ec.europa.eu/food/system/files/2020-05/labelling_nutrition-claims_swd_2020-96_sum_en.pdf.

⁽⁵⁴⁾ An overview and comparison of these instruments can be found in Cepea, *Perfiles nutricionales...*, cit.. See also M. Rayner, P. Scarborough, *The UK OFCOM Nutrient Profiling Model*; British Heart Foundation Health Promotion Research Group, Department of Public Health, University of Oxford; 2009.

⁽⁵⁵⁾ Ley n. 27.642 de 26 de octubre de 2021, cit.. To look at the positioning of each institution between September and November 2017 in relation to the model that would have had to be adopted: Ministerio de Salud y Desarrollo Social, *Etiquetado nutricional frontal de alimentos*, cit., p. 31.

⁽⁵⁶⁾ Ley n. 20.606/2012 de Composición Nutricional de los Alimentos, *Diario Oficial de la República de Chile*, 6 July 2012; *Reglamento Sanitario de los Alimentos*, Decreto n. 977/1997, *Diario Oficial de la República de Chile*, 13 de mayo de 1997 (from now, RgSA). The latter has been amended by Decreto n. 13/2015, *Diario Oficial de la República de Chile*, 26 de junio de 2015.

⁽⁵⁷⁾ Ley n. 30021/2012 de Promoción de la Alimentación Saludable para niños, niñas y adolescentes, en *Diario Oficial El Peruano*,; *Reglamento de la Ley n. 30021*, *Diario Oficial El Peruano*, 17 June 2017 (from now Decreto Supremo n. 017-2017-SA); *Manual de Advertencias Publicitarias en el marco de lo establecido en la Ley n. 30021*, Decreto Supremo N° 012-2018-SA, *Diario Oficial El Peruano*, 16 June 2018.

⁽⁵⁸⁾ Decreto n. 272/2018 relativo al etiquetado de alimentos (Uruguay), 29 August 2018) at <https://www.impo.com.uy/bases/decretos/272-2018/1>, See also the Manual: Decreto n. 272/018 sobre rotulado frontal de alimentos, at https://www.gub.uy/ministerio-salud-publica/sites/ministerio-salud-publica/files/documentos/publicaciones/MSP_MANUAL_APLICACION_ROTULADO_FRONTAL_ALIMENTOS_0.pdf

⁽⁵⁹⁾ See *Etiquetado de alimentos: modificación a la Norma Oficial Mexicana NOM- 051-SCFI/SSA1-2010, Especificaciones generales de*

Although they had all opted for the iconographic warning model based on a black octagon with a white border and white letters, there is a certain evolution in the legal transplant⁶⁰, as some aspects are valued differently in each national context. Although the *Reglamento* of Argentinean law is still pending, some aspects should be noted. Thus, the iconographic models derived from the Chilean model, together with the octagonal label, have tended to evaluate 1) which components to indicate within the octagon; 2) the introduction of the warning message within the octagon: such as “*alto en*” or “*exceso*”; 3) the possibility of incorporating, in addition to the octagon label, new complementary warning message labels; 4) which values or nutritional profile to adopt.

The iconographic model will be analysed first, followed by some reflections on the nutritional profile aspects.

A. Components to indicate within the octagon

The Chilean legislator considers that the consumer must have a necessary knowledge about the levels of content of four aspects: “sugars”, “sodium”, “calories” and “saturated fats”. This model⁶¹ is refined in other countries by adding or

substituting some of these factors. For this reason, Peru and Uruguay consider it necessary to maintain the information on four values but decided to keep only the first three Chilean values, to eliminate the octagon related to “calories” and replace it with another one. In this sense, the Peruvian regulation⁶² eliminates the “calories” octagon and replaces it with the “trans fats⁶³” octagon, while the Uruguayan regulation eliminates the reference to “calories” and replaces it with an octagon related to “total fats”, so that there are two indicators of fat warnings (saturated fats and total fats)⁶⁴.

However, the other two legislators that subsequently adopted the model considered appropriate to raise the reference octagons from four to five. Thus, both Mexico and Argentina agree in repeating the four Chilean values⁶⁵ but differ in the choice of the fifth octagon to be incorporated. If Mexico⁶⁶ incorporates a fifth octagon related to “trans fats” (essentially joining the Chilean-Peruvian model), Argentina⁶⁷ opts not to incorporate this last aspect and incorporates a fifth octagon related to “total fats” (essentially joining the Chilean-Uruguayan model).

As can be seen, therefore, while the octagonal model of warnings is unanimously chosen, the legislative formant differs, resulting in a partially

etiquetado para alimentos y bebidas no alcohólicas preenvasados - Información comercial y sanitaria NOM051, Diario Oficial de la Federación, 27 march 2020 (from now Norma Oficial Mexicana).

⁽⁶⁰⁾ See A. Watson, *Legal Transplants: an Approach to comparative Law*, 2^a ed. University of Georgia Press, Athens & London, 1993; A. Watson, *Aspects of reception of law, American Journal of Comparative Law*, 1996, vol. 44, núm. 2, pp. 335 et seq; M. Graziadei, *Transplant and Receptions*, Aa.vv., *The Oxford Handbook of comparative Law* (M. Reinmann & R. Zimmermann ed.), 2^a ed., Oxford University Press, Oxford, 2019, p. 442 et seqs; en español A. Ferrante, *Trasplante. y formante: hermanos, pero no gemelos. Hacia una mejor comprensión de la metodología en la comparación jurídica, Actualidad Jurídica Iberoamericana*, n. 14, 2021, p. 168 et seq., at https://idibe.org/wp-content/uploads/2021/03/4_Alfredo_Ferrante_pp_168-207.pdf.

⁽⁶¹⁾ It should be noted that there is also a Parlantino model law: Parlamento Latinoamericano e Caraibico, *Ley modelo de etiquetado de productos alimenticios procesados y ultraprocesados para el consumo humano y protección a la salud*. It does not pronounce itself on the iconographic model but it does advocate the warning system and as a nutrient profile qualification it is associated with those of PAHO: https://parlatino.org/pdf/leyes_marcos/leyes/ley-modelo-etiquetado.pdf. This is recorded in the draft of the Argentinean Law (Proyecto 4826-D-2019 at <https://www.hcdn.gob.ar/proyectos/textoCompleto.jsp?exp=4826-D-2019&tipo=LEY>).

⁽⁶²⁾ Note that in the Peruvian model the reference is to “sugars” and not to “sugar”, this may lead to different legal perceptions of this value: see Ferrante, *El etiquetado frontal...*, cit., p. 156 et ss.

⁽⁶³⁾ Here the octagons are relative to “sugar”, “sodium”, “saturated fats” and “trans fats”.

⁽⁶⁴⁾ Here the octagons are relative to “sugars”, “sodium”, “saturated fats” and “total fats”.

⁽⁶⁵⁾ “Sugars”, “sodium”, “calories” and “saturated fats”.

⁽⁶⁶⁾ “Sugars”, “sodium”, “calories” y “saturated fats” and “trans fats”: Art. 4.5.3.4.1, Appendix A Norma Oficial Mexicana.

⁽⁶⁷⁾ “Sugars”, “sodium”, “calories” y “saturated fats” and “trans fats”: art. 4 Ley n. 27.642, cit.

harmonized transplantation influenced by previously developed regulations at the international level.

Essentially, the mismatch hinges on the choice of whether to introduce or exclude mandatory warnings about “calories” (eliminated by Peru and Uruguay) and the information to be given on fat levels, whether to indicate only “saturated fats” (Chile) or to complement this information with an octagon also related to “total fats” (Argentina) or “trans fats” (Mexico and Peru). Anyway, *a contrario*, it is true that any of these models, are aware that the level of fat is not necessarily harmful to health, as there are healthy fats such as monounsaturated and polyunsaturated fats or Omega 3. It can certainly be observed that the choice of which octagons to choose hides rather deep economic-legal policies related to certain market aspects that cannot be dealt with here. However, it is only fair to say that determining a homogeneous or heterogeneous model can also influence certain aspects of international economic policy. This can influence the import/export of products to a greater or lesser extent. A single model for the countries would favour more import and export flows between countries, otherwise it could lead to stagnation in certain cases: where mandatory labelling regulations are introduced in the country of reference that are different from those of the exporting country.

B. Numerical front-of-pack labelling in Mexico

An important evolution of the Chilean model has

undoubtedly been initiated by Mexico⁶⁸ and not yet followed by Argentina: the introduction of octagonal numerical labelling on very small packaging. This decision is due to the fact that the previous octagonal model would otherwise be difficult to read in these types of packaging. The numbers one to five will therefore replace respectively “sugars”, “sodium”, “calories” and “saturated fats” and “trans fats”. These mini-octagons shall be placed on products whose principal display area is ≤ 5 square centimeters⁶⁹. The Mexican solution is clear and aims to raise awareness for all types of packaging. This is in stark contrast to the exemption from all kind of labelling, for example in the Italian model, for food in packaging or containers the largest surface of which has an area of less than 25 square centimeters⁷⁰. It is worth remembering here that Italian model is inspired by Regulation n. 1169/2011 which exempts this type of food from the requirement of mandatory nutrition information⁷¹.

C. “Alto en” or “exceso en”

In addition to the indication of the Ministry of Health⁷², an effective warning has been inserted into the octagon next to the component.

The Chilean model was inspired by the model of the “stop⁷³” road signs and replaced this warning with the “high in ” (“*alto en*”) warning. The Chilean model is followed by the Peruvian model⁷⁴, for example the indication “high in sodium” (“*alto en sodio*”).

In subsequent legislation, a second model of war-

⁽⁶⁸⁾ Previously, the Mexican system was based on Guideline Daily Amounts (GDA). A list of scientific studies concerning Mexican labelling and legislation can be found on the website of the National Institute of Public Health at <https://insp.mx/nutricion-y-salud/estudios-cientificos>.

⁽⁶⁹⁾ Art. 4.5.3.4.2, Appendix A Norma Oficial Mexicana.

⁽⁷⁰⁾ Art. 1.6 letra b) Decreto 10 november 2020, *cit*.

⁽⁷¹⁾ The foods which are exempted from the requirement of the mandatory nutrition declaration are in Annex V Regulation n. 1169/2011, *cit*.

⁽⁷²⁾ In case of Chile “Ministerio de Salud” is indicated, for Uruguay the abbreviation “MSP” is used, for Mexico “Secretaría de Salud”, in Peru this reference is ignored.

⁽⁷³⁾ In Peru, the idea of adopting the red octagonal label had also been considered: more broadly Ferrante, *El etiquetado frontal...*, *cit.*, p. 151 et ss.

⁽⁷⁴⁾ See for Chile: srt. 5 Ley 20.606/2012, *cit*; art. 110 *bis* y 120 *bis*. In Perú: art. 10 Ley 30012/2013, *cit.*, points 2-6 MAP, also in its Annex.

ning is adopted. The word "excess" ("exceso") is preferred - adopted by Uruguay and Mexico - with the variant "excess in" ("exceso en") in the Argentine version⁷⁵, although in the latter case it should rather have been "exceso de"⁷⁶.

In this second model, a more daring warning is observed, which in part takes up a different value judgment from the first. In fact, the interpretation "alto en", although in Spanish language it plays on the double meaning of "alto" as the "stop" road sign and *alto en* as "high in", is only to note that certain threshold values are exceeded, compared to the recommended values. In this sense, the Chilean regulation identifies only this aspect. On the other hand, the Peruvian legislator adds another complementary reference: that of "evitar su consumo excesivo" ("avoid its excessive consumption") - in the case of saturated fats, sugar and sodium - and a more categorical one that states "evitar su consumo excesivo" ("avoid its consumption") in the case of trans fats.

The incorporation of these new complementary warning labels further subjective consumers' perception, as it gives a clear induced command not to consume high quantities of products with these values, which becomes blunt in the case of trans fats.

D. Complementary warning message labels

The supplementary labels introduced by Peru (see above) have undoubtedly influenced subsequent regulations, with the exception of Uruguay,

which conforms to the single octagon model as in Chile. Following the Peruvian trend, Mexico also realises that it is appropriate to offer a system of complementary labels, but different from the first one.

For this reason, it opts (as in the Chilean model) not to add complementary labels like the Peruvian ones ("evitar su consumo consumo excesivo" or "evitar su consumo"), considering sufficient the substitution of the word "alto en" ("high in") by the expression "exceso" ("excess"), not present in the Chilean and Peruvian models.

However, in order to protect the diet of minors in particular, it introduced two new additional labels: "contiene cafeína evitar en niños" ("contains caffeine - avoid for children") and "contiene edulcorantes- no recomendables en niños" ("contains sweeteners - not recommended for children")⁷⁷. This choice is based on the observation that sugar has been replaced by sweeteners in the other countries that have adopted the octagonal warning system. This more rigid solution also makes it possible to differentiate between products that previously might have had the same labels (in calories and sugars), such as a carbonated soft drink and a yoghurt. In this way, the former can be given more warning labels thanks to the introduction of these two complementary labels⁷⁸. In this way, the new regulation clearly provides the consumer with a better critical view. This improvement convinces the Argentinean legislator⁷⁹ who decides to incorporate it specifying that the reference should be to "niños/niñas" and not considering the term "niños"

(⁷⁵) Cf, for Uruguay Annez IV Decreto n. 272/2018 y manual (*passim*), for Mexico art. 4.53 y 4.5.3.4.1, 4.5.3.4.6, Appendix A, Norma Oficial Mexicana, and for Argentina: art. 4 Ley 27.642, *cit*.

(⁷⁶) Indeed, if we can say "alto en" ("high in"), *exceder* is not governed by the preposition "en" but "de". Thus it is stated that *exceder* "admits two constructions: a transitive one, in which the limit is expressed by a direct complement (...); an intransitive one, in which the limit is expressed by a complement introduced by "de": Real Academia española, *Diccionario panhispánico de dudas*, Espasa, Madrid, 2005, also in www.rae.es.

(⁷⁷) Arts 4.5.3.4.7; 7.1.3; 7.1.4, Appendix A Norma Oficial Mexicana.

(⁷⁸) In this regard, it is worth noting the important observations of Barquera. The example can even be seen visually in S. Barquera *Etiquetado de advertencia para comida chatarra en México: experiencia*, in United Nations Organization (Argentina), *Jornada de legislación sobre etiquetado de advertencias en Argentina...*, *cit*.

(⁷⁹) Art. 4 Ley 27.642, *cit*.

as a neutral gender.

4.- Reference values and nutrient profile model associated with the warning label

However, the iconographic panorama shown above also differs in some aspects on the substance, in that the reference parameters for setting the reference thresholds associated with the warning labels are different. In this sense, two macro-blocks can be observed, an octagonal warning model that takes as a reference the Pan American Health Organization Nutrient Profile Model (PAHO)⁸⁰ - based on kcal - and a separate one that adopts as a unit of measurement a system based on 100 g or cubic centimeters (cc). The first two regulations belong to this second block - the Chilean and Peruvian models - but with some important differences between them. At the time of the incorporation of both regulations, the PAHO nutritional profile was not yet consolidated, given that it dates from 2016, although some studies from 2003 were taken up⁸¹. There were, however, some 2010 PAHO recommendations⁸², which at that time were

based on the unit of measurement based on 100 g or cubic centimeters (cc), as expressed Recommendation number 10⁸³.

Chile, as the PAHO nutritional profile did not yet exist and there are only a few recommendations, opted to adopt the same unit of measurement of the recommendations with less rigid criteria⁸⁴.

When the Peruvian regulation was enacted in 2012, the PAHO nutritional profile did not yet exist, but the legislator is clear in expressly stating since 2013⁸⁵ in the Peruvian Law on Healthy Nutrition that its reglamento, when enacted, must follow the PAHO recommendations.

However, the reglamento comes a few years later to adopt less rigid parameters, which some believe is due to pressure from the industry⁸⁶.

This model is opposed to the one based on the 2016 PAHO nutritional profile⁸⁷, which takes as reference thresholds those associated with Kcals, and is followed by Mexican⁸⁸, Uruguayan⁸⁹ and Argentinean⁹⁰ legislators and whose introduction has been sponsored in Peruvian legislation⁹¹. In this sense, models with different thresholds and/or parameters are created. However, the evolution of subsequent legislators and the tendency to standardize the criteria by pushing towards a different nutritional profile can be

(⁸⁰) PAHO, *Nutrient profile models*, Washington- DC, 2016, in https://iris.paho.org/bitstream/handle/10665.2/18621/9789275118733_eng.pdf. In relation to the importance related to non-communicable diseases see also PAHO, *Plan of Action for the Prevention and Control of Noncommunicable Diseases in the Americas 2013-2019*, Washington, DC: PAHO, 2014.

(⁸¹) It should be noted that, as has been highlighted, this model takes as a criterion the transcription into food of the population nutrient targets defined by the World Health Organisation in its Technical Report 916 (2003): Cepea, *Perfiles nutricionales...*, cit., p. 11.

(⁸²) PAHO, *Recommendations from a Pan American Health Organization Expert Consultation on the Marketing of Food and Non-Alcoholic Beverages to Children in the Americas*, Washinton-DC, 2011, at <https://www.paho.org/hq/dmdocuments/2011/2011-paho-final-experts-food-marketing-children.pdf>.

(⁸³) Paho, *Recommendations*, cit., p. 13 et seq.

(⁸⁴) For a comparison of Chile and Peru values and their progressive implementation see A. Ferrante, *El etiquetado frontal...*, cit., p. 160 et ss.

(⁸⁵) Según lo que dispone la Primera Disposición transitoria complementaria. Ley n. 30021/2012, cit.

(⁸⁶) It is considered that "the regulation approved by the Executive approved much more tolerant parameters in favour of the industry": Delgado Zegarra J., *Seis meses para adaptarnos a estándares más exigentes en los alimentos*, 11 January 2022, at <https://saludconlupa.com/opinion/seis-seis-meses-para-adaptarnos-a-estndares-ms-exigentes-en-los-alimentos/>.

(⁸⁷) The criteria can be seen in PAHO, *Nutrient profile models*, cit., p. 17 y ss.

(⁸⁸) Art. 4.5.2.4.16; 4.5.3; artículo transitorio Norma Oficial Mexicana.

(⁸⁹) Anexo II Decreto N° 272/2018 and Manual para la aplicación (p. 13 y ss).

(⁹⁰) Art. 6 Ley 27642/2021, cit.

(⁹¹) J. Delgado Zegarra, F. Da Silva Gomes, *Perfil de nutrientes de productos alimentarios eximidos de la aplicación de advertencias en el frente del envase durante la primera etapa de la Ley de alimentación saludable en Perú: estudio de caso*, in *Rev. Panam, Salud Publica*. 2021;45, p. 5. <https://doi.org/10.26633/RPSP.2021.153>.

observed.

In this context, the imminent evolution of the Peruvian parameters should also be noted. Indeed, the Peruvian Supreme Court, in a ruling of August 2021 and filed in November⁹², urged the executive branch to bring the existing technical parameters into line with the 2010 PAHO Recommendations within a reasonable period of six months. The reference to these parameters is expressly provided for in the Peruvian law of 2013, which had been in place since the first draft law⁹³. The draft was presented in April 2012⁹⁴ and parameters were subsequently eliminated during the legislative process.

However, this pronouncement presents some peculiarities. On the one hand, it will lead to an improvement of the system, since the criteria⁹⁵ of 2010 PAHO Recommendations are lower, and therefore stricter, than those currently envisaged for the last phase of implementation of the Peruvian law.

On the other hand, it should be noted that these values are still linked to the unit of measurement by grams or cubic centimeters (cc), because, since 2016, PAHO has partially changed the criteria by adopting nutritional profiles based on Kcal. For this reason, it would therefore be desirable that, for the sake of a systematic and integrative interpretation, if the values were to be updated, this should be done in relation to the current nutri-

tional profile, otherwise the legislation would be updated with parameters that PAHO itself considers could be improved. What is certain is that, in any case, the Peruvian legislator will move towards more rigid parameters with respect to the current ones.

Thus, the Chilean regulation, which seemed terribly severe at the time of its implementation, has evolved in subsequent legal forms from being tendentially one of the most rigid (with respect to front-of-pack labelling models other than octagons) to be tendentially with a lower level of exigency with respect to the others that adopt the same octagonal warning system, by values or criteria. This is a clear example of the evolution and function of legal transplants which tend to aim, by means of gradual modifications, at a perfection of the system, although sometimes there may be imbalances or delays due to the need to give effect to legal pronouncements that move on late perspectives within the normative/legislative evolution that has existed. In this sense, no recrimination can be made against the Chilean legislator, given that they have paved the way without having had (useful and multiple) previous points of reference in the creation of their models. So, whoever decides to transplant, in a kind of legal Darwinism, tends to evolve and improve the model, although some mishaps may occur⁹⁶. In this context, political and economic decisions also

⁽⁹²⁾ Corte Suprema de Justicia de la República, Sala de Derecho Constitucional y Social Permanente, 26 august 2021, filled on 9 november 2021, n. PROC. 11811-2017, Acción popular n. 27461-2018.

⁽⁹³⁾ Technically, it is one of the first, as the 2012 project subsequently merges with two earlier ones submitted in 2011: *proyecto* n. 00774/2011-CR: “*Ley de prevención y control de los riesgos del consumo de comidas o alimentos con altos contenidos de nutrientes y exceso de calorías*” and *Proyecto ley* n. 00775/2011-CR, that “*Prohíbe la venta de comida chatarra en los colegios públicos y privados*”, at https://www2.congreso.gob.pe/sicr/tradocestproc/Expvirt_2011.nsf/visbusqptramdoc/01038?opendocument.

⁽⁹⁴⁾ These values are expressly provided for in Art. 2 of *Proyecto ley 01038/2011-CR*, “*Ley de promoción de la salud para la protección de los consumidores niños, niñas y adolescentes*”, submitted by Congressman Jaime Delgado, on 23 april 2012, [https://www2.congreso.gob.pe/Sicr/TraDocEstProc/Contdoc01_2011.nsf/d99575da99ebfbc305256f2e006d1cf0/4c7b0a67574bd175052579e900711141/\\$FILE/PL01038230412.pdf](https://www2.congreso.gob.pe/Sicr/TraDocEstProc/Contdoc01_2011.nsf/d99575da99ebfbc305256f2e006d1cf0/4c7b0a67574bd175052579e900711141/$FILE/PL01038230412.pdf).

⁽⁹⁵⁾ Recommendation n. 10.2.b establish that “Do not exceed the following amounts of sugars, saturated fats, trans fatty acids (TFA), or salt”: • total sugars: ≤ 5.0 gr / 100 gr of solid food or ≤ 2.5 gr / 100 ml of beverage, • Saturated fats: ≤ 1.5 gr / 100 gr of solid food or ≤ 0.75 gr / 100 ml of beverage, • Trans fatty acids (industrially produced TFA): 0.0 gr / 100 gr of solid food or 100 ml of beverage, • Salt ≤ 300 mg / 100 gr of solid food or 100 ml of beverage”, naturally occurring nutrients such as sugar and saturated fat in milk products do not count against these limits set. The recommendation also provide that beverages containing noncaloric sweeteners cannot be advertised to children.: PAHO, *Recommendations*, cit., p. 13 et ss.

⁽⁹⁶⁾ In this sense the values for example, although there is the same octagon, the results may be different because the reference standards are quantified differently. For some critical considerations, reference is made to Ferrante, *El etiquetado frontal...*, cit., p. 141 et ss.

necessarily interact, which in this case, as we have seen, are also manifested in adopting or choosing certain octagons and excluding others (*see supra*).

5.- (continued) exclusions of certain foods

Adopting the PAHO nutrient profile model also means automatically excluding certain foods from the labelling profile assessment. The PAHO system is based on the NOVA food classification (derived from the Brazilian "new"),⁹⁷ which classifies foods in four groups: group 1. Unprocessed or minimally processed foods, group 2. Processed culinary ingredients, group 3. Processed foods, group 4. Ultra-processed foods⁹⁸. Here, importance is given to the profiling of critical foods, the first two groups are excluded and the third and fourth groups are taken as a reference and the use of sweeteners in food and beverages is considered as a negative factor⁹⁹.

It is true that PAHO nutritional model is one of the most rigid and demanding, and in this sense it mainly protects the consumer by differentiating between ultra-processed and non-ultra-processed products, an aspect that is not present in the Nutri-score or NutriInform Battery¹⁰⁰. In the latter, the exemption is based on criteria relating to certain products or the size of the packaging (*see above*). This measure is completely antithetical to the Mexican measure, which aims to protect consumers even in the case of small packages by

introducing numerical labelling. Therefore, the front-of-pack labelling associated with PAHO nutrient profile seems to considerably narrow the scope for economic freedoms in relation to the less healthy products, which are essentially processed and ultra-processed products, at least according to the NOVA classification.

The rigidity of the model can be seen for example in the case of the reference to sodium amounts. Both the Italian NutriInform model and the PAHO nutrient profile are based on the measurement of sodium over a total daily intake of 2,000 kcal, however the ratio is nevertheless different since for the PAHO nutrient profile the amount of sodium (mg) in any given amount of product and energy (kcal) is equal or greater than 1:1 and should therefore be 2 grams¹⁰¹, while for the Italian model it is 2.4 grams per day. Indeed, the conclusion that 6 grams per day is allowed under Italian law should not be misleading, as it refers to salt and not sodium¹⁰². Given that the Italian regulations adopt the values of Regulation n. 1169/2011, it should be borne in mind that "salt" means the salt equivalent content calculated using the formula: salt = sodium × 2,5" (annex I), same ratio as adopted by the PAHO nutrient profile¹⁰³.

Therefore, applying the ratio would mean that the 6 grams of salt per day of the Italian model is equivalent to 2.4 grams of sodium. In other words, the Italian model still allows a higher sodium intake than the other models, but not as much as it seemed. As can be seen, the comparisons are

⁽⁹⁷⁾ PAHO, *Nutrient profile models*, *cit.*, p. 12 et ss.

⁽⁹⁸⁾ See C.A. Monteiro, R. Bertazzi Levy, R. M. Claro, I.R. R. Castro, J. Cannon, *A new classification of foods based on the extent and purpose of food processing*, in *Cadernos de Saúde Pública*, vol. 26, No 11, 2010, p. 2039 et seq; C.A. Monteiro, J. Cannon, J. C. Moubarac, R. Bertazzi Levy, M. L. Louzada, P. Constante Jaime, *The UN Decade of Nutrition, the NOVA food classification and the trouble with ultra-processing*, in *Public Health Nutr.* 2018 Jan; vol. 21, No 1, p. 5 et seq; C.A. Monteiro, J. Cannon, JR. Bertazzi Levy, C. Moubarac, P. Constante Jaime, A. P. Martins, D. Canella, M.L. Louzada, D. Parra, *Food classification, public health. NOVA, the star shines bright*, in *World Nutrition*, vol. 7, No 1-3, 2016, p. 28 et seq.

⁽⁹⁹⁾ CEPEA, *Perfiles nutricionales...*, *cit.*, p. 17.

⁽¹⁰⁰⁾ Anyway see Annex V Regulation No 1169/2011, *cit.*

⁽¹⁰¹⁾ Paho, *Nutrient profile models*, *cit.*, p. 18. The criteria are less than mg of sodium per 1 kcal, 30% f total energy from total fat; less than 10% of total energy from saturated fat, less than 1% of total energy from trans fat, less than 10% of total energy from free sugars.

⁽¹⁰²⁾ Anexo A, Decreto 19 nov 2020, *cit.*

⁽¹⁰³⁾ PAHO, *Nutrient profile models*, *cit.*, p. 23.

not simple and sometimes not clear¹⁰⁴. Complementing the example, in the Chilean and Peruvian cases the sodium values should not be less than or equal to 400 mg/100 g in solid food and less than or equal to 100 mg/100 ml in beverages.¹⁰⁵ However, it should be recalled that the exclusions of foods subject to the regulation are different in the Chilean and Peruvian case as they do not adopt the NOVA classification. In Chile, for example, natural foods without the addition of these nutrients and others are excluded¹⁰⁶. Without dwelling on this issue, some considerations should be made, given that the Peruvian Supreme Court has expressly ordered that the so-called breast-milk substitutes be subject to the warning labelling regime. In this regard, Supreme Court established that the exceptions provided for in the Peruvian law¹⁰⁷ do not allow for “undefined exceptions¹⁰⁸” and that therefore, in accordance with Article 4 of the *Reglamento*¹⁰⁹, as these processed foods must be included. Therefore, the first supplementary transitional provision of the *Reglamento* of the Law¹¹⁰ is considered void insofar as it expressly provided for exclusion of breast-milk substitutes¹¹¹.

The Supreme Court has thus considered that the

regulation violated the Law, denaturalizing it, a constitutionally prohibited aspect¹¹². The Peruvian regulation excludes from the warning system foods and non-alcoholic beverages in their natural state not subject to industrialization processes, foods of primary or minimal processing, foods for culinary preparation and foods of special diets subject to the Codex Alimentarius¹¹³.

For these reasons it can be observed that the front-of-pack labelling models move on complicated technical profiles that even make it difficult to understand at a comparative level given the heterogeneity of possible scenarios.

6.- *A necessary awareness of a “private food law” and the need for interdisciplinary harmony*

Front-of-pack labelling was born out of several demands, one of which was the idea of being able to contribute to reducing non-communicable diseases¹¹⁴, first and foremost obesity and with particular attention to obesity in children, although this last aspect seems to have been more of a concern for Latin America. The normative regulation of this phenomenon has to deal with different

⁽¹⁰⁴⁾ Sometimes the interpretation of the same Regulation (EU) No 1169/2011 is not clear, since art. 30 of the regulation states that “Where appropriate, a statement indicating that the salt content is exclusively due to the presence of naturally occurring sodium may appear in close proximity to the nutrition declaration”.

The problem is further complicated by the fact that in Regulation (EC) No 1924/2006 the values between sodium and salt in Regulation 1924/2006 seem to be different since “A claim that a food is sodium-free or salt-free, and any claim likely to have the same meaning for the consumer, may only be made where the product contains no more than 0,005 g of sodium, or the equivalent value for salt, per 100 g”: Annex Regulation (EC) No 1924/2006 *cit*.

⁽¹⁰⁵⁾ According to the new technical parameters elaborated by the Peruvian Ministry of Health and in force since March 2022: <https://cdn.www.gob.pe/uploads/document/file/2182469/Comunicado.pdf.pdf> cf. art. 4 Decreto Supremo n. 017-2017-SA.

⁽¹⁰⁶⁾ Art.120 *bis* let. A-D RgSA, *cit.*, in relation to infant food see, in particular, point C.

⁽¹⁰⁷⁾ Art. 2 Ley 30021/2012, *cit*.

⁽¹⁰⁸⁾ Literally it is stated that Art. 2 of the law “no abarca supuestos indeterminados”: point 4.8) Corte Suprema, 26 august 2021, *cit*.

⁽¹⁰⁹⁾ Art. 4 Decreto Supremo n. 017-2017-SA, *cit*.

⁽¹¹⁰⁾ First Supplementary Transitional Provision Ley n. 30021/2012, *cit*.

⁽¹¹¹⁾ It does not matter if the reform of the regulation in 2019 (dated 15 June 2019) led to a change in the wording of the provision by replacing the reference to such substitutes with “foods of special diets subject to the Codex Alimentarius”.

⁽¹¹²⁾ Pursuant to art. 118 n. 8 Peruvian Constitution: points 4.9 et seq Corte Suprema, 26 august 2021, *cit*.

⁽¹¹³⁾ First Supplementary Transitional Provision. Decreto Supremo n. 017-2017-SA, *cit*.

⁽¹¹⁴⁾ See e.g. PAHO, *Front-of-Package Labeling as a Policy Tool for the Prevention of Noncommunicable Diseases in the Americas*, Document Number PAHO/NMH/RF/20-0033, 2020, in <https://iris.paho.org/handle/10665.2/52740>. On interaction of parental behaviours in relation to the meals provided to children: A. Musio, *Scelte alimentari dei genitori e interesse del minore*, in this Riv. www.rivistadirittoalimentare.it, No 2-2017, p. 4 et ss.

factors where, alongside lawyers, doctors, nutritionists, statisticians, psychologists, economists and politicians, among others, play a key role. In this context, the front-of-pack labelling and food law in general must necessarily help consumers to better understand the information so that they can consciously enter into certain contractual transactions without indirect pressure. This is often biased or altered by certain behaviors in order to promote the products themselves in a more appropriate way. For example, the need to foresee appropriate regulations concerning the "food environment" where products are sold has also been mentioned. Thus, the practice of hiding the front-of-pack labelling of the product on the shelf, the low placement of products with more warning labels or the creation of imaginary figures of people (prohibited on the packages) by placing the products on the shelves has become evident, as very interestingly has been evidenced¹¹⁵. For this reason, commercial law and private law need to be harmonised, given that the regulation of labelling or labelling or advertising aspects often do not have an adequate dialogue because they are supervised by different structures or bodies that do not always dialogue coherently with each other. This is also because such behavior clearly also leads to unfair competition practices between companies. This is why an adequate and coherent "private food law" is necessary, i.e., to predispose a private law that - in its commercial, civil and consumer facets - operates efficiently. It is for this reason that the Argentine legislator expressly refers to the integration of the rules of

the Law for the Promotion of Healthy Nutrition with the Consumer Law and the Decree on Fair Trade¹¹⁶ and the need to harmonize the Argentine Food Code properly¹¹⁷. The pending regulation (Reglamento) of the new law¹¹⁸ will be a great opportunity to hopefully balance many of these aspects.

7.- Conclusion

Different front-of-pack labelling models have been reviewed and it is true that, depending on the culinary culture of each country or the influence of the multidisciplinary factors outlined above, each country may try to tailor the model to its own needs.

However, I believe that the Nutri-score model, although it seems to be tending to consolidate in Europe, should necessarily make a critical effort to confront itself with other emerging models, such as NutriInform Battery and even more with the octagonal warning model, which seems not only to consolidate but also to be gradually refined. In this sense, self-reported studies (see above) should broaden their critical vision¹¹⁹. So too should the European Union, which, for the moment, does not seem to have taken Latin American models into consideration.

If an effective front-of-pack labelling model to achieve an adequate reduction of non-communicable diseases is to be effectively incorporated, it must necessarily begin to broaden a broader viewpoint and approach. In this sense, the feasi-

⁽¹¹⁵⁾ Barquera, *Etiquetado de advertencia...*, cit.

⁽¹¹⁶⁾ Reference is made respectively to the Ley n. 24.240 and to Decreto n. 274/2019: arts. 15, 16 Ley n. 27642/2021, cit., cf vg.r. arts. 7 y 8 Regulation n. 1169/2011, cit. More generally from the Italian perspective v.gr. L. Bairati, E. Grasso, *Indicazioni in etichetta e messaggi fuorvianti nell'informazione del consumatore di alimenti*, in *Revista Bioética y Derecho*, 2018, n. 42, p. 33 et seq.

⁽¹¹⁷⁾ Art. 22 Ley n. 27642/2021, cit.. In particular, action is to be taken in Chapter V on the labelling and advertising of foodstuffs of *Código alimentario argentino*. Also see *Resolución conjunta Secretaría de Políticas, Regulación y Relaciones Sanitarias (SPRyRS) n. 149/2005* and *Resolución Secretaría de Agricultura, Ganadería, Pesca y Alimentos (SAGPyA) n. 683/2005*, see also *Resolución Grupo Mercado Común n. 26/03 "Reglamento Técnico Mercosur para Rotulación de Alimentos Envasados"*; *Resolución Grupo Mercado Común n. 46/03 "Reglamento Técnico Mercosur sobre el rotulado nutricional de Alimentos Envasados"*.

⁽¹¹⁸⁾ The *reglamento* of Law n. 27642/2021 must be enacted within ninety days of its promulgation: art. 23 Ley n. 27642/2021, cit.

⁽¹¹⁹⁾ Important is the broader comparative work being carried out in Taillie, Bercholz, Popkin et al., *Changes in food purchases after the Chilean policies...*, cit.

bility of a model similar to the octagon-shaped labels model could also be studied, albeit with the necessary adaptations.

Using the system based on 100 g or cubic centimeters (cc) as the unit of measurement means disregarding the age of the consumer, be it a minor or an adult, while the unit system based on Kcal, such as the PAHO or Italian system, is based on the calorie model needed for an average adult.

However, the analysis carried out on the model analysed is inherently relative to the type of person who is consuming the product and their daily life habits, as a sedentary person has different demands than a sportsperson.

Responsible consumption applies in any case. Although it cannot be dealt with here, it should be noted that some regulations have developed specific educational activities, especially in the case of minors, in order to raise awareness of a healthy lifestyle¹²⁰. Perhaps there is also a need for measures of labor law that would allow for a less frenetic lifestyle and a relaxed and leisurely eating environment.

It is worth remembering here that the "Mediterranean diet", as recognised by Unesco, does not refer exclusively to culinary aspects but is manifested in a certain way of eating and living, which requires appropriate physical exercise and the dedication of adequate time to eat together, as the saying goes "a tavola non si invecchia" (sit-

ting at the table you don't get old).

Undoubtedly there is still much to be done, apparently more so in Europe than in Latin America, where new models of mandatory front-of-pack labelling have been born and are under criticism for improvement.

ABSTRACT

L'A. propone uno studio comparativo sul consolidamento del modello cileno di etichettatura frontale e della sua implementazione in altri Paesi. In contrasto con la progressiva stabilizzazione e il miglioramento di questo modello, c'è ancora una visione poco chiara in Europa, dove si tenta di imporre modelli come il Nutri-score o il modello italiano di NutriInform Battery, che sembrano meno rigidi quando si tratta di valutare certi parametri.

A comparative study is carried out on the consolidation of the Chilean front-of-pack labelling model and its implementation in other countries. In contrast to the progressive stabilization and improvement of this model, there is still an unclear vision in Europe, where there is a desire to impose models such as the Nutri-score or Italian model of NutriInform Battery, which seem less rigid when it comes to assessing certain parameters.

□

⁽¹²⁰⁾ For example, in Peru, see the National School Feeding Programme Qali Warma (*Programa Nacional de Alimentación Escolar Qali Warma*) (<https://www.gob.pe/qaliwarma>) and the educational website <https://www.julietachecalaetiqueta.pe/home>.