



European Medical Students' Association

Association Européenne des Étudiants en Médecine
emsa-europe.eu | Rue Guimard 15, 1040 Brussels | info@emsa-europe.eu

This policy was adopted by the **34th EMSA Autumn** Assembly in **Porto (Portugal)** on **12th of October 2024**. Valid until: **12th of October 2028**

Nutrition Labeling and Consumer Education

Authors: Philip Nentwig

The European Medical Students' Association (EMSA) represents medical students across Europe. We envision a healthy and solidary Europe in which medical students actively promote health. EMSA empowers medical students to advocate health in all policies, excellence in medical research, interprofessional healthcare education and the protection of human rights across Europe.



Problem statement.

Nutrition labeling and consumer education play critical roles in promoting public health and empowering individuals to make informed decisions about their dietary choices. Both are effective public health policy tools to reduce individual burden and economic costs of diet-related illnesses (Moore, 2018. Shangguan et.al., 2019).

Reasons for unhealthy diets


Currently, many consumers rely on convenience, taste and costs to guide their food choices (Drewnowski, 2020). Similarly, marketing tactics employed by food companies contribute to consumer confusion and misinformation about nutrition, competing with public health advertising campaigns for the consumers' attention. Industry advertisement often targets vulnerable populations, e.g. children, creating a high exposure to food groups of low nutritional value, with rare focus on fruits and vegetables (Ponce-Blandón et.al., 2020) Further, food marketing to children has expanded beyond television to encompass various digital platforms, often evading parental and regulatory oversight. This misinformation often leads to diets high in processed foods, sugar, and unhealthy fat (Moz-Christofoletti, 2021). At the same time, the amount of sugars, saturated fat and salt being sold in the European Region through these products is not declining rapidly to meet public health objectives (Ibid.).

Consequences of unhealthy diets

Among numerous risk factors, unhealthy diets significantly contribute to the high prevalence of overweight and obesity in the EU (NHS, 2023). Increased weight significantly increases the risk of developing a non-communicable disease (i.e. cardiovascular disease, type-2 diabetes, hypertension, coronary heart diseases, cancer etc.) (Eurostat, 2024) leading to a reduction in life expectancy and quality of life (WHO Regional Office for Europe, 2010). On a societal level, those effects of dietary related, non-communicable illnesses constitute the most common cause of death in the EU (WHO Regional Office for Europe, 2021). Consequently, the associated healthcare costs strain healthcare systems and contribute to economic burdens at personal and national levels (Wang et al., 2011).

Nutrition labeling practices

Food labeling practices exhibit variation in format, content and placement. There are Nutrition Facts Panels, a mandatory standard format in the EU, providing essential nutritional details like serving size, calories, and macronutrients. Front-of-Package Labels (FoPL), placed prominently to highlight nutritional attributes, like the “Nutri-Score” system, use color-coded gradations to indicate overall nutritional quality. FoPL are found to be highly effective in giving consumers a clear guidance about



the normative health value of respective food products (Pettigrew et.al., 2023). Additional labeling types include Health Claims, Ingredient Lists, Allergen Information, Country of Origin Labeling and Organic Certification Labels. While regulation of nearly all of the mentioned labeling types are harmonized across the EU (Regulation No 1169/2011, 2011), various labeling types and degree of enforcement are currently present for FoPL (European Commission, 2020). This is partly due to industry influence in regulation as well as a lack of consensus in determining the most effective labeling type (Ibid.). The asymmetric information provision causes consumers to be held back from making more informed choices while manufacturers face increased costs and skewed competition through fragmented markets.

Impact of consumer education

Consumer education refers to the provision of resources and information aimed at empowering consumers to make informed decisions in the free market economy. It complements nutrition labeling by equipping individuals with the necessary knowledge to effectively utilize nutritional information and to ensure healthy diets. (European Innovation Council and SMEs Executive Agency (EISMEA), 2023) However, currently more than one third of the WHO European Region countries lack dietary studies of their population (Rippin et al., 2018).

Educational programs

Education programs in schools are an effective way to inform children about nutrition and a healthy diets. However, there is an inadequate emphasis on and frequent omission of nutrition education in schools across the EU (EISMEA, 2023). While some countries may have nutrition education programs in place, they are often neither standardized nor consistently implemented throughout the country or the region (Mackenbach, 2013). Thus, there is a high variability in as well as lack of coherent European strategy to equip the general population with the knowledge and skills necessary to make informed food choices. Similarly, many current education programs, including back-of-package labeling, focus on provision of information. However, linking consumer education to concrete calls for action rather than knowledge only (Contento, 2016). This supports evaluative FoPL labeling, as it clearly categorizes food products and gives a normative value at a glance.

Education of Medical Professionals

Medical professionals are seen as a reliable source of nutrition information by the public (Chung et al., 2014). At the same time, medical students and professionals are underprepared to take on public education responsibilities regarding nutrition as nutrition education is insufficiently included and differently emphasized in medical curricula across the EU (Cuerda et. al., 2019). This lack of professional advice is increasingly compensated with other potentially misleading sources of information. Notably, internet sources are often of low reliability and accuracy (Denniss, 2023). With

an ongoing trend towards personalized nutrition, the one-advice-fits-all approach of national dietary guidelines is additionally subverted by the medical community and industry stakeholders (Rottger-Wirtz, 2021).

Our view. Aim

The European Medical Students' Association aims to foster the establishment of a unified strategy across the EU to address a major contributor to healthcare burden: Diet-induced non-communicable diseases. To reduce their prevalence, root causes of unhealthy diets have to be tackled. Hereby, consumer education with a focus on nutrition labeling plays an important role in equipping people with the ability to identify unhealthy food products (Shangguan et.al., 2019), without reducing consumer choice. Nutrition labeling should be utilized to empower consumers to make healthier choices by providing easy-to-understand nutritional information on the front of food packaging, aligning with the EU's consumer and health protection strategies. Harmonizing public nutrition policy across the EU will standardize labeling practices, reduce costs for manufacturers and ensure fair competition among stakeholders. As a result, it will assist Member States in tackling obesity and diet-related diseases by resolving regulatory fragmentation, ensuring the internal market functions effectively, maintaining standards of consumer and health protection, while adhering to international commitments to promote healthier food environments. EMSA envisions a future in which educational institutions across the continent teach the aspects of a healthy diet to a new generation. Similarly, EMSA aims to equip medical practitioners as recognized professionals in nutrition with expertise and communication strategies to convey criteria of healthy diets to patients and the broader public. Expanding efforts to combat unhealthy eating habits yields advantages not only for those directly impacted but also generates positive externalities for the broader population by lowering healthcare expenses.

Recommendations

EMSA calls on Medical Schools and Universities to:

- conduct systematic research on:
 - incorporation of cultural traditions into front-of-package labeling categorization;
 - the effectiveness of various types of front-of-package labeling and public health policies related to nutrition;
 - the impacts of nutrition on health, particularly the adverse effects of foods high in saturated fatty acids, sugar, and/or salt;
 - the current level of understanding of nutrition education among students at all levels of education, including medical students.

- advise regulatory bodies to improve evidence-based public health policy; ● enhance nutrition education by:
 - providing healthcare students with comprehensive teaching on nutrition and non-communicable diseases;
 - specializing teaching staff through training in medical nutrition education;
 - incorporating dietary planning and effective communication training into the medical curriculum to promote the transfer of nutritional advice to future patients.
- sensitize students and medical staff to the prevalence of unhealthy diets in the health sector.

EMSA calls on healthcare providers and medical practitioners to:

- ensure employee health by encouraging the availability of healthy food options to lead by example and foster equity;
- improve patient nutrition by:
 - displaying educational material in waiting rooms and healthcare premises;
 - offering patients dietary guidelines tailored to their health condition, medication intake and environment to promote recovery through better eating habits;
 - utilizing digital health tools such as mobile apps, online resources and telehealth platforms to deliver nutrition education and track dietary habits;
- respect patients' dietary preferences, cultural backgrounds and demographic variations when offering nutritional guidance to promote equity.

EMSA calls on regulatory bodies of EU institutions and National Governments to:

- increase policy effectiveness by mandating:
 - a simplified design and vocabulary of nutrition labels to make key information more accessible to consumers across the socioeconomic spectrum;
 - separate front-of-package labels that flag foods, which have a high concentration of saturated fats, sugars and/or salt;
 - standardized front-of-package labeling systems that use symbols and color-coding, e.g. „Nutri-Score“, to indicate the normative nutritional quality of foods at a glance;
- focus on supply-side stakeholders by:
 - harmonizing nutrition labeling standards across EU member states to facilitate trade and ensure consistency in package design;

- create incentives for producers to adhere to standardized labeling practices, e.g. through preferential market access or financial support for certification procedures;
- regulating advertising to minimize visibility of unhealthy foods and fostering more informed eating habits, especially focusing a advertisement exposition to young people;
- reduce industry influence on public policy decision by relying on and emphasizing expert guided criteria;
- exempt loose produce from regulatory labeling requirements to reduce administrative burden to small businesses, support food supply through farmers' markets and favor diets high in vegetable intake;
- draft and implement strategies to increase nutrition education in schools and higher education;
- suggest an increased focus on nutritional issues in programs of EU member states' public broadcasters such as educational-cooking, product-review or nutritional science programs;
- consider the ecological impacts of unhealthy nutritional habits in policy making and include these aspects in public communication;
- provide funding and grants for research regarding nutrition and the effectiveness of public health strategies;
- ensure international and interdisciplinary participation in the policy-making process to prevent the implementation of discriminatory measures and promote equity;
- establish a mechanism for periodic review and update of labeling standards to adapt to changing scientific consensus on nutritional guidelines.

EMSA calls on EMSA Faculty Member Organisations (FMO), EMSA members and European medical students to:

- to inspire interest among fellow students in the search for more information about nutrition and health through local FMO work;
- promote collaboration between organizations with common public health nutrition goals, such as regulators, medical and mental health professionals, educational institutions and environmental groups to promote a healthy lifestyle;
- develop nutrition and health educational programmes and trainings for medical students as well as the general public;
- lead by example in adopting a healthy nutritional intake;

- support student initiatives which stress the risk of unhealthy diets as well as aim to integrate nutritional education in medical curricula.

References

1. Chung, M., van Buul, V. J., Wilms, E., Nellessen, N., & Brouns, F. J.. (2014). Nutrition education in European medical schools: results of an international survey. *European journal of clinical nutrition*, 68(7), 844-846. <https://doi.org/10.1038/ejcn.2014.75>
2. Contento, I. R. (2016). *Nutrition education: linking research, theory, and practice*. Jones & Bartlett Learning. Retrieved April 19, 2024 from: <https://pubmed.ncbi.nlm.nih.gov/18296331/>
3. Cuerda, C., Muscaritoli, M., Donini, L. M., Baque, P., Barazzoni, R., Gaudio, E., Jezek, D., Krznaric, Z., Pirlich, M., Schetgen, M., Schneider, S., Vargas, J. A., & Van Gossum, A. (2019). Nutrition education in medical schools (NEMS). An ESPEN position paper. *Clinical nutrition (Edinburgh, Scotland)*, 38(3), 969-974. <https://doi.org/10.1016/j.clnu.2019.02.001>
4. Denniss, E., Lindberg, R., McNaughton, S.A.. (2023). Quality and accuracy of online nutrition-related information: a systematic review of content analysis studies. Retrieved March 24, 2024 from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10346027/>
5. Drewnowski, A., Monsivais, P.. (2020). Chapter 10 - Taste, cost, convenience, and food choices. Editor(s): Bernadette P. Marriott, Diane F. Birt, Virginia A. Stallings, Allison A. Yates. *Present Knowledge in Nutrition (Eleventh Edition)*, Academic Press. Pages 185-200, ISBN 9780128184608. <https://doi.org/10.1016/B978-0-12-818460-8.00010-1>.
6. European Commission. (2020). Report from the Commission to the European Parliament and the Council regarding the use of additional forms of expression and presentation of the nutrition declaration. Retrieved March 24, 2024 from: https://food.ec.europa.eu/document/download/310ad7a1-aa8b-49f6-babf-55ec572f0f75_en?filename=labelling-nutrition_fop-report-2020-207_en.pdf
7. European Innovation Council and SMEs Executive Agency (EISMEA). (October 2023). Study of consumer education initiatives in EU Member States; Final report.
8. Eurostat (7 February 2024). Overweight and Obesity - BMI statistics. Retrieved 4 March 2024 from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Overweight_and_obesity_-_BMI_statistics
9. Mackenbach, J.P., McKee, M. (2013). A comparative analysis of health policy performance in 43 European countries, *European Journal of Public Health*, 23(2), 195-201. <https://doi.org/10.1093/eurpub/cks192>
14. Moz-Christofolletti, M.A., Wollgast, J. (2021) Sugars, Salt, Saturated Fat and Fibre purchased through Packaged Food and Soft Drinks in Europe 2015-2018: Are We Making Progress? 13, 2416. <https://doi.org/10.3390/nu13072416>



15. NHS. Obesity - Causes. (15 February 2023) Retrieved April 14, 2024 from:
<https://www.nhs.uk/conditions/obesity/causes/>
16. Pettigrew S., Jongenelis M. I., Jones A., Hercberg S., Julia C.. (2023) An 18-country analysis of the effectiveness of five front-of-pack nutrition labels. *Food Quality and Preference*, Volume 104. <https://doi.org/10.1016/j.foodqual.2022.104691>.
17. Regulation No 1169/2011. 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. Retrieved March 6, 2024 from <https://eur-lex.europa.eu/eli/reg/2011/1169/2018-01-01>
<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX%3A32011R1169>
18. Rippin, H.L., Hutchinson, J., Evans, C.E.L., Jewell, J., Breda, J.J., Cade, J.E. (2018). National nutrition surveys in Europe: a review on the current status in the 53 countries of the WHO European region. doi: 10.29219/fnr.v62.1362.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5917420/>
19. Ponce-Blandón, J.A., Pabón-Carrasco, M., Romero-Castillo, R., Romero-Martín, M., Jiménez-Picón, N., Lomas-Campos, M.L.M.. (2020) Effects of Advertising on Food Consumption Preferences in Children. doi: 10.3390/nu12113337.
20. Rottger-Wirtz, S. and Alie De Boer, A. (2021). Personalised Nutrition: The EU's Fragmented Legal Landscape and the Overlooked Implications of EU Food Law. *European Journal of Risk Regulation*. Retrieved March 28, 2024 from: <https://www.cambridge.org/core/journals/european-journal-of-risk-regulation/article/personalised-nutrition-the-eus-fragmented-legal-landscape-and-the-overlooked-implications-of-eu-food-law/B285FA84E4E7EC5C28F7DF83928F22C5>
21. Shangguan S., Afshin A., Shulkin M., Ma W., Marsden D., Smith, J., Saheb-Kashaf M., Shi P., Micha R., Imamura F., Mozaffarian D.. (2019). Food PRICE (Policy Review and Intervention Cost-Effectiveness) Project. A Meta-Analysis of Food Labeling Effects on Consumer Diet Behaviors and Industry Practices. doi: 10.1016/j.amepre.2018.09.024.
22. Wang, Y. C., McPherson, K., Marsh, T., Gortmaker, S. L., & Brown, M. (2011). Health and economic burden of the projected obesity trends in the USA and the UK. *The Lancet*. | <https://pubmed.ncbi.nlm.nih.gov/21872750/>
23. WHO Regional Office for Europe. (2010). Nutrition. Retrieved March 6 2024 from https://www.who.int/europe/health-topics/nutrition#tab=tab_1
24. WHO Regional Office for Europe. (2021). Monitoring noncommunicable disease commitments in Europe 2021: are we on track to reach targets 10 years after the Moscow Declaration and First United Nations High-Level Meeting? Copenhagen. Retrieved March 24, 2024 from: <https://iris.who.int/bitstream/handle/10665/350457/WHO-EURO-2021-4479-44242-62494-eng.pdf?sequence=1>



25. Moore, S.G., Donnelly, J.K., Jones, S., Cade, J.E.. (2018) Effect of Educational Interventions on Understanding and Use of Nutrition Labels: A Systematic Review. *Nutrients*. 10(10):1432. doi: 10.3390/nu10101432.