

Proven ways to reduce consumption of unhealthy food, improve health, increase government revenue, and reduce health care costs

Bottom Line: Four linked, evidence-based policies are a triple win. Linking front-of-package labeling with taxes, bans on marketing, and bans on purchase with public funds or service/sale on public property, can address obesity — and improve health, increase government revenue and reduce health care costs.

1 Core policies: In addition to increasing taxes on sugary beverages, implement effective front-of-package labels that are simple, easy to understand, and discourage unhealthy choices. Nutrient warning labels (usually octagonal or triangular) consistently outperform all other label types. These labels are the most effective at helping consumers identify harmful products, reducing purchases of harmful food foods, and increasing purchases of healthier foods. For example, after implementation of Chile's policy (octagonal warning labels), Chileans bought 20% less sugar, 14% less sodium, 10% less saturated fat and 8% fewer total calories overall. Reduced consumption of excess sodium, sugar, and fat prevents heart attacks and strokes. Effective front-of-package labeling empowers people of all socioeconomic and education levels. Well-implemented front-of-package warning labeling systems backed by a strong Nutrient Profile Model based on WHO dietary intake goals drive manufacturers to reformulate their products Model based to healthier consumer choices, resulting in large reductions in the consumption of unhealthy foods.



Synergistic policies to further reduce unhealthy food intake.

- 2 Tax products with warning labels. Colombia recently introduced a 20% tax on products with one or more nutrient warning labels, generating approximately \$800 million annually. In Mexico, taxes on unhealthy foods generated \$2.07 billion in 2023 and led to a 5.1% reduction in taxed food purchases in the first year of implementation, with low-income groups benefitting the most. In Hungary, in the first year after implementation of an unhealthy food tax, 25-35% of prior consumers purchased fewer taxed products.
- 3 Ban marketing and promotion of products with warning labels. Warning labels can be used to identify products that cannot be marketed or promoted to children. Chile prohibited advertising of products with warning labels on TV (between 6am and 10pm), and on websites, radio and magazines with an audience of greater than 20% children. Chile also banned cartoon characters and other

figures appealing to children on packages of products with warning labels. After implementation of Chile's policy, unhealthy food ads decreased 73% across all programming and 90% across programming appealing to children.²² Although not tied to warning labels, United Kingdom recently announced new marketing restrictions banning TV ads for unhealthy food products before 9pm and banning paid online unhealthy food ads. The new regulations are estimated to remove up to 7.2 billion calories from children's diets per year and help prevent around 20,000 cases of childhood obesity; and the health benefits are estimated at around £2 billion.²³ Analogous tobacco advertising bans substantially reduce current smoking and smoking initiation.²⁴

- 4 Enact healthy public food procurement and service policies. Government institutions such as schools, hospitals and prisons can ban the sale or service of any product with a warning label. Additional healthy nutrition standards can be established for food preparation and service in public settings. After products with warning labels were banned in Chile's schools, children's consumption of sugars, saturated fat, and sodium in schools decreased by 11.8%, 1.1%, and 10.3 mg/100kcal, respectively. England's 2008 requirement for healthy food procurement standards in public primary schools reduced consumption of processed foods high in sodium, fat, and/or sugar by 12%. Following implementation, purchase of fruits, vegetables, and salads in cafeterias increased by 15%. Public sector procurement of nutritious foods can strengthen urban-rural supply connections and bolsters local agriculture. To the sale of the s
- Song, J., Brown, M. K., Tan, M., MacGregor, G. A., Webster, J., Campbell, N. R. C., Trieu, K., Ni Mhurchu, C., Cobb, L. K., & He, F. J. (2021). Impact of color-coded and warning nutrition labelling schemes: A systematic review and network meta-analysis. PLoS medicine, 18(10), e1003765. https://doi.org/10.1371/journal.pmed.1003765
- Croker H, Packer J, Russell SJ, Stansfield C, Viner RM. Front of pack nutritional labelling schemes: a systematic review and meta-analysis of recent evidence relating to objectively measured consumption and purchasing. Journal of Human Nutrition and Dietetics. 2020 Aug;33(4):518-37.
- Mora-Plazas M, Aida Higgins IC, Gomez LF, Hall M, Parra MF, Bercholz M, Murukutla N, Taillie LS. Impact of nutrient warning labels on choice of ultraprocessed food and drinks high in sugar, sodium, and saturated fat in Colombia: A randomized controlled trial. PloS one. 2022 Feb 10;17(2):e0263324.
- Arrúa A, Machín L, Curutchet MR, Martínez J, Antúnez L, Alcaire F, Giménez A, Ares G. Warnings as a directive front-of-pack nutrition labelling scheme: comparison with the Guideline Daily Amount and traffic-light systems. Public health nutrition. 2017 Sep;20(13):2308-17.
- Bopape M, De Man J, Taillie LS, Ng SW, Murukutla N, Swart R. Effect of different front-of-package food labels on identification of unhealthy products and intention to purchase the products-A randomised controlled trial in South Africa. Appetite. 2022 Dec 1;179:106283.
- Hock K, Acton RB, Jáuregui A, Vanderlee L, White CM, Hammond D. Experimental study of front-of-package nutrition labels' efficacy on perceived healthfulness of sugar-sweetened beverages among youth in six countries. Preventive Medicine Reports. 2021;24:101577. doi: https://doi.org/10.1016/j.pmedr.2021.101577
- White-Barrow V, Gomes FS, Eyre S, et al. Effects of front-of-package nutrition labelling systems on understanding and purchase intention in Jamaica: results from a multiarm randomised controlled trial. BMJ Open. 2023;13(4):e065620.
- de Alcantara M, Ares G, Deliza R. How Do Nutritional Warnings Work on Commercial Products? Results From a Hypothetical Choice Experiment. Frontiers in Nutrition. 2022;9:921515.
- Jáuregui A, White CM, Vanderlee L, et al. Impact of front-of-pack labels on the perceived healthfulness of a sweetened fruit drink: a randomised experiment in five countries. Public Health Nutrition. 2022;25(4):1094-1104.
- Zhang X, Ouyang Y, Yin X, et al. Consumers' Perceptions of the Design of Front-ofPackage Warning Labels — A Qualitative Study in China. Nutrients. 2023;15(2):415.
- 11. Kroker-Lobos MF, Morales-Juárez A, Pérez W, et al. Efficacy of front-of-pack warning label system versus guideline for daily amount on healthfulness perception, purchase intention and objective understanding of nutrient content of food products in Guatemala: a crossover cluster randomized controlled experiment. Archives of Public Health. 2023;81(1):108
- Kelly B, Jewell J. What is the evidence on the policy specifications, development processes and effectiveness of existing front-of-pack food labelling policies in the WHO European Region? World Health Organization, Health Perceptions of the Design of Front-of Evidence Network. Accessed March 5, 2025. https://www.ncbi.nlm.nih.gov/books/ NBK534354/
- Taillie LS, Bercholz M, Popkin B, Rebolledo N, Reyes M, Corvalán C. Decreases in purchases of energy, sodium, sugar, and saturated fat 3 years after implementation of the Chilean food labeling and marketing law: An interrupted time series analysis. PLoS Med. 2024. 21(9): e1004463. https://doi.org/10.1371/ journal.pmed.1004463

- 14. Anand SS, Hawkes C, De Souza RJ, Mente A, Dehghan M, Nugent R, Zulyniak MA, Weis T, Bernstein AM, Krauss RM, Kromhout D. Food consumption and its impact on cardiovascular disease: importance of solutions focused on the globalized food system: a report from the workshop convened by the World Heart Federation. Journal of the American College of Cardiology. 2015 Oct 6;66(14):1590-614.
- Goodman S, et al. The impact of front-of-package label design on consumer understanding of nutrient amounts. Nutrients. 2018;10:1624.
- 16. Rebolledo, N., Ferrer-Rosende, P., Reyes, M., Smith Taillie, L., & Corvalán, C. (2025). Changes in the critical nutrient content of packaged foods and beverages after the full implementation of the Chilean Food Labelling and Advertising Law: a repeated cross-sectional study. BMC medicine, 23(1), 46
- Saavedra-Garcia, L., Meza-Hernández, M., Diez-Canseco, F., & Taillie, L. S. (2022). Reformulation of Top-Selling Processed and Ultra-Processed Foods and Beverages in the Peruvian Food Supply after Front-of-Package Warning Label Policy. International Journal of Environmental Research and Public Health, 20(1). doi:10.3390/ijerph20010424
- Salgado, J. C., Pedraza, L. S., Contreras-Manzano, A., Aburto, T. C., Tolentino-Mayo, L., & Barquera, S. (2025). Product reformulation in non-alcoholic beverages and foods after the implementation of front-of-pack warning labels in Mexico. PLoS medicine, 22(3), e1004533.
- DIAN: Dirección de Impuestos y Aduanas Nacionales. Subdirectorate of Economic Studies, Directorate of Strategic Management and Analytics. Annual Tax Revenue Statistics for Taxes Administered by DIAN, 1970–2025p. Bogotá, Colombia: DIAN. Available: https://www.dian.gov.co/dian/cifras/EstadisticasRecaudo/Estadisticas-de-recaudo-mensual-por-tipo-de-impuesto-2000-2025.zip.
- Batis, C., Rivera, J. A., Popkin, B. M., & Taillie, L. S. (2016). First-year evaluation of Mexico's tax on nonessential energy-dense foods: an observational study. PLoS medicine, 13(7), e1002057.
- 21. National Institute of Pharmacy and Nutrition (OGYEI). (2019). The Hungarian Public Health Product Tax. Brussel, June 20th, 2019. Available here: https://health.ec.europa.eu/system/files/2019-07/ev_201906201_co012_en_0.pdf
- Dillman Carpentier, F. R., Mediano Stoltze, F., Reyes, M., Taillie, L. S., Corvalán, C., & Correa, T. (2023). Restricting child-directed ads is effective, but adding a time-based ban is better: evaluating a multi-phase regulation to protect children from unhealthy food marketing on television. International Journal of Behavioral Nutrition and Physical Activity, 20(1), 62.
- 23. United Kingdom Government Department of Health and Social Care. 2024. Here are the facts about our junk food advertising ban. Press release. https://healthmedia.blog.gov.uk/2024/12/06/here-are-the-facts-about-our-junk-food-ban/
- 24. Saad C, Takamizawa R, Thakur A, Lee CW, Leung L, Veerman JL, Aminde LN. Effectiveness of tobacco advertising, promotion and sponsorship bans on smoking prevalence, initiation and cessation: a systematic review and metaanalysis. Tobacco Control. 2025 Jan 3.
- Fretes, G., Corvalán, C., Reyes, M. et al. Changes in children's and adolescents' dietary intake after the implementation of Chile's law of food labeling, advertising and sales in schools: a longitudinal study. Int J Behav Nutr Phys Act 20, 40 (2023). https://doi.org/10.1186/s12966-023-01445-x
- 26. Rees R. School food trust, eat better do better. Revista de nutrición práctica.
- 27. Swensson LF, Hunter D, Schneider S, Tartanac F, editors. Public food procurement for sustainable food systems and healthy diets-Volume 1. 2021.