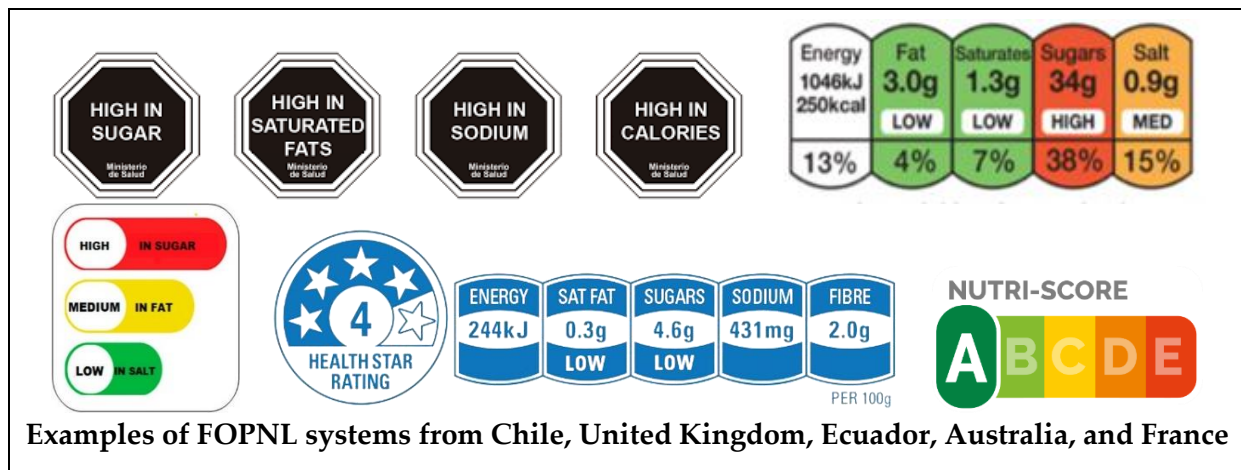# Front-of-Package Nutrition Labeling
Leveraging food labels to inform consumers and promote public health

Dozens of countries have adopted front-of-package nutrition labeling (FOPNL) systems, which empower consumers to make healthy choices and prompt food manufacturers and retailers to offer healthier foods.[1] The United States lacks this critical public health tool despite having higher rates of diet-related diseases compared to other high-income nations.[2]

It's time to adopt evidence-based policies to improve diets, including mandatory FOPNL.

What is front-of-package nutrition labeling?

FOPNL aims to quickly give consumers key information about the healthfulness of foods in a format that is simple and easy to understand. These systems typically use interpretive aids like symbols, colors, or letter grades to communicate a food's nutritional content. Some labels identify whether a food is low or high in nutrients of concern like sodium, sugars, and saturated fat, while others summarize the food's overall healthfulness with a numerical score or letter grade. Some countries have mandatory FOPNL policies that require all qualifying foods to be appropriately labeled, while others have voluntary government-endorsed FOPNL systems that allow manufacturers to opt in.[3]

Examples of FOPNL systems from Chile, United Kingdom, Ecuador, Australia, and France

Does front-of-package nutrition labeling work?

There is extensive scientific evidence demonstrating that FOPNL systems can improve consumer understanding, encourage healthier diets, and even improve the quality of the national food supply.

A systematic review and meta-analysis of experimental studies,[4] published in 2021, reviewed the effects of four different types of FOPNL:

- **nutrient warnings**, which are used on foods that are high in nutrients of concern like sodium, sugar, and saturated fat
- **traffic light labels**, which are used on all foods and assign colors (red, yellow, or green) to individual nutrients based on their levels (high, medium, or low)
- **NutriScore**, which assigns foods a letter grade (A, B, C, D, or E) based on their overall nutrient composition
- **health warnings**, which alert consumers to the potential health harms of consuming a food

All four systems led to statistically significant improvements for at least one purchasing outcome, but nutrient warnings appear to have the largest effect on most outcomes (see table below).

Summary of findings from Song et al. (2021) comparing effects of FOPNL on purchasing outcomes

Outcome	Nutrient Warnings	Traffic Light	Nutri-Score	Health Warnings
Probability of choosing more healthful options	OR=3.6*	OR=1.5*	OR=1.4	OR=1.6*
Probability of choosing less healthful options	OR=0.62*	OR=0.90	OR=0.64*	OR=0.64*
Overall healthfulness of selected foods (RMD)	+26%*	+3%	+7%*	NA
Calories (RMD)	-13%*	-6%*	-5%*	-2%
Sugar (RMD)	-7%	-3%	-3%	0%
Saturated fat (RMD)	-12%	-14%*	-17%*	NA
Sodium (RMD)	-8%	NA	-3%	NA
*statistically significant; RMD=relative mean difference; OR=odds ratio; NA=insufficient data for meta-analysis Dark green=statistically significant favorable effect; Light green=not significant but trending favorable; Red=no effect				

There is also evidence of real-world success from countries that have implemented FOPNL policies. An evaluation study from Chile, where the government requires nutrient warnings on packaged foods, found significant declines in daily per capita purchases of calories (-3.5%), calories from sugar (-10.2%) and saturated fat (-3.9%), and mg of sodium (-4.7%) from packaged foods after the passage of the policy.[5]

Studies of packaged foods and beverages sold in Chile also found improvements in the healthfulness of the food supply. After FOPNL was implemented, the proportion of foods and beverages requiring at least one label indicating that the product was high in an undesired nutrient decreased from 51% to 44%.[6]

Why should front-of-package nutrition labeling be <u>mandatory</u>?

Mandatory labeling policies ensure that consumers consistently have the information they need to make healthy decisions for themselves and their families. But when compliance is left up to industry, FOPNL are present on some products but missing from others. For example, five

years after Australia enacted the voluntary Health Star Rating system, only 41% of products displayed the labels.[7]

There is also evidence that food companies selectively apply labels to healthier foods while leaving them off less healthy foods, co-opting the labels for marketing purposes and curbing their capacity to promote nutrition.[8]

Finally, with voluntary labels, when products are unlabeled, consumers cannot be certain why the labels are absent. Is the product not high enough in salt to bear a sodium warning? Or did the company just opt not to apply the label?

Why should front-of-package nutrition labeling be <u>interpretive</u>?

Interpretive labels leverage recognizable imagery like traffic lights, caution signs, and stars, to send intuitive signals about the healthfulness of foods, thereby highlighting information that might otherwise get lost in conventional nutrition labels. Importantly, these cues may make nutrition information more accessible to youth and to adults with less education, lower literacy, or limited English.[9]

Non-interpretive labels that exclusively use numbers and text require greater nutritional knowledge, English proficiency, literacy, and numeracy skills to interpret and are infrequently used by consumers. Only 41% of U.S. adults report consistently using the Nutrition Facts panel when deciding to buy a food product and individuals with lower levels of educational attainment, income, or English proficiency are even less likely to regularly use the labels.[10]

Studies also show that interpretive FOPNL systems are more effective than non-interpretive systems like Facts Up Front, which simply puts information from the Nutrition Facts label on the front of package without any additional interpretive signals. Facts Up Front-style labels have significantly weaker effects on consumer knowledge, including the ability to identify products that are more healthful, compared to nutrient warnings or traffic light labels.[11,12,13,14,15] And studies of Facts Up Front-style labels show they have no effect on consumer behavior.[16,17,18,19]

Why should front-of-package nutrition labeling be <u>nutrient-specific</u>?

Per the Supreme Court ruling in *Zauderer v. Office of Disciplinary Counsel of Supreme Court*, it is constitutional under the First Amendment for the government to require disclosures so long as they are 1) factual and uncontroversial in their description of a commercial product, 2) reasonably related to a legitimate government interest, and 3) not unjustified or unduly burdensome.[20] Labels that objectively interpret the levels of specific nutrients in a food in order to facilitate consumer understanding would satisfy each of these prongs.

Courts have already held that nutrient warnings are factual and uncontroversial.[21] On the other hand, FOPNL systems that include scores or letter grades and rely on algorithms to rate or rank foods based on composite healthfulness scores have yet to be vetted by the courts. Such systems would only be legally viable if they can be shown to be "factual and uncontroversial," a

standard that may be challenging for complex scoring systems to meet. Labeling systems that fail the *Zauderer* test cannot be required, meaning participation would be voluntary. Given the benefits of mandatory labeling previously described, the United States should adopt a mandatory, nutrient-specific system.

Which nutrients should front-of-package nutrition labeling include?

Every day, the average American adult consumes 50% more sodium, 40% more added sugars, and 40% more saturated fat than is recommended.[22,23] Meanwhile, approximately 47% of adults have hypertension,[24] 9% of adults have cardiovascular diseases,[25] and 13% of the population has diabetes, with Type 2 diabetes accounting for approximately 90-95% of these cases.[26] Each of these conditions is strongly linked to excess intake of salt, added sugar, or saturated fat, and the Dietary Guidelines for Americans recommends limiting their consumption.[27] Therefore, the United States should adopt a FOPNL system that highlights excess levels of these three nutrients and encourages consumers to choose products that are lower in them.

FDA and Congress must act to implement accessible, mandatory front-of-package nutrition labeling!

For more information, please contact the Center for Science in the Public Interest at policy@cspinet.org.

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