



Can Food Labeling Policy Advance Health Equity?

by Eva Greenthal & Sarah Sorscher

Federal food labeling policies have been used to improve the health of the U.S. population since passage of the Nutrition Labeling and Education Act (NLEA) in 1990. In passing the NLEA, Congress specifically articulated that food labels should play a role in helping consumers achieve healthier diets and reducing the incidence of diet-related diseases.¹ The law resulted in the adoption of the

Nutrition Facts panel across nearly all packaged foods sold in the United States, widely regarded as a major success for public health. Studies conducted in the years following adoption of the Nutrition Facts label suggested that—on average, across the population—the label had a positive impact on the healthfulness of purchased foods.² However, the label’s impact across different so-



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ciodemographic groups was not central in early assessments of its success.³

Today, with increasing recognition that diet quality and related health outcomes are unjustly poorer for groups with less social privilege, food labeling interventions—namely, the adoption of front-of-package nutrition labeling systems—have been proposed as a means for tackling health disparities.^{4,5} This article explores the potential for food labeling to advance health equity. First, we discuss the deficiencies of past and proposed labeling initiatives designed without equity in mind. Next, we discuss opportunities to consider equity in the design of future labeling policies in the United States. We conclude with a critical analysis of the limited potential for food labeling policy to advance health equity and issue a call for interventions aimed at dismantling the structural barriers that produce health disparities.

Unintended Consequences of Food Labeling Policies that Fail to Center Equity

The Nutrition Facts label has come under scrutiny as studies have revealed differences in utilization of the label by education and income. For example, a study from 2006 using a nationally representative sample of 1,139 adults found that adults with a college education are three times more likely than those with less than a high school degree to self-report ‘always’ or ‘almost always’ using the Nutrition Facts label (this study did not look at income).⁶ A 2018 study of 1,817 young adults ages 25–36 found that frequent use of the Nutrition Facts label was statistically significantly associated with having higher education and income.⁷ These findings suggest that the Nutrition Facts label has the unintended effect of promoting unequal access to nutrition information and provides less benefit to

sociodemographic groups with less social privilege (groups that face poorer quality diets and higher rates of chronic disease) than it does to more privileged groups.^{8,9} Therefore, even if the Nutrition Facts label is successful at improving diet quality across the population,¹⁰ it is not likely to help combat existing disparities in diet or health associated with income or education. In fact, as an intervention that may disproportionately benefit groups that already experience better outcomes related to diet and disease, the Nutrition Facts label may even serve to exacerbate disparities.

The complexity of the Nutrition Facts label, which requires nutrition literacy and numeracy skills to interpret and utilize,¹¹ may account for its lower utilization among people with less education. Differences in utilization of the Nutrition Facts label by income are not well understood, but could relate to the different stressors and constraints on food choice faced by people with low incomes. For example, individuals with low incomes report cost and convenience as relatively more important drivers of food choice compared to those with higher incomes.¹²

To increase equitable access to nutrition information, health advocates have called for the U.S. Food and Drug Administration (FDA) to develop a simple front-of-package nutrition labeling (FOPNL) system that would provide interpretive information about the healthfulness of foods. FOPNL can take a variety of forms, such as endorsement logos that appear only on the healthiest packaged foods; traffic light labels, star ratings, and “Guideline Daily Amount” labels that appear on all foods, regardless of nutritional properties; as well as warning signs that appear only on products with high levels of calories or

unhealthful nutrients.

The Center for Science in the Public Interest (CSPI) first petitioned FDA to develop such a FOPNL system for the United States in 2006, urging the agency to “supplement the [Nutrition Facts label] with a simple, easy to understand symbol(s) on the [principal display panel] that would readily communicate information to consumers about the healthfulness of foods.”¹³ Despite accumulating evidence that FOPNL can help improve consumers’ food choices,¹⁴ and adoption of FOPNL systems in dozens of countries,¹⁵ the U.S. government has not yet adopted such a system.

However, in 2018, former FDA Commissioner Scott Gottlieb announced FDA’s interest in developing a symbol to indicate that a packaged food product meets FDA’s definition of “healthy.”¹⁶ A “healthy” symbol would effectively be the first government-endorsed FOPNL system in the United States. Unfortunately, as with the Nutrition Facts label, a “healthy” symbol could present unintended consequences with respect to equity.

FDA’s proposed “healthy” symbol would function similarly to the Choices logo in the Netherlands and the Keyhole logo in Denmark. All three systems involve endorsement logos that identify relatively healthier packaged foods. Data from these two countries suggest that the Choices and Keyhole logos were associated with higher food prices, raising concerns that a “healthy” logo could increase the price of healthier foods.¹⁷

Based on these same concerns, the World Health Organization (WHO)’s Regional Office for Europe issued a report on FOPNL which cautions that the adoption of endorsement logos “may engender a price premium, which may have implications for low socioeconomic groups.”¹⁸

If a “healthy” logo causes healthier products to become more expensive, this would counteract the benefits of FOPNL and may target any benefits of the policy towards higher-income Americans.

It is troubling that FDA would choose to supplement the Nutrition Facts label with a new label that raises similar issues with respect to equity and access as its existing labels. To avoid exacerbating disparities, the United States needs food labels that make nutrition information equally accessible across all sociodemographic groups.

Opportunities to Design More Equitable Food Labels

Warning labels that alert consumers when foods are “high in” overconsumed nutrients linked to adverse health outcomes, including sodium, added sugars, and saturated fat, are another approach to providing accessible nutrition information on the front-of-package. Evidence suggests that nutrient warning labels may be effective at improving diets. In experimental studies, “high in” warnings statistically significantly decreased the calories, sugar, and sodium purchased by participants and performed better than other types of FOPNL at reducing purchases of these nutrients.¹⁹

Nutrient warning labels are already required on packaged foods sold in Chile, Peru, Mexico, Uruguay, and Israel.²⁰ Studies evaluating the impact of Chile’s Law of Food Labeling and Advertising provide further evidence that nutrient warnings labels can affect consumption. One before-and-after study found a statistically significant 24% decline in the purchase volume of “high in” beverages after the law was implemented.²¹ Another found a statistically significant 7% reduction in products that were high in calories, sugar, sodium, or saturated fat

across the country’s food supply, with the highest percent reduction found in total sugar (-15% between 2013 and 2019).²²

Rather than making healthier foods more appealing (thereby facilitating price increases and reducing access), these labels aim to make certain foods less appealing. Therefore, warning labels would not be expected to engender the same price premiums as endorsement logos such as the Choices, Keyhole, and “healthy” logos.

Warnings labels may also promote increased access to nutrition information if, unlike the Nutrition Facts label, they are equally understood and utilized across higher and lower income and education strata. Current evidence is limited, but some studies suggest warning labels are at least as accessible for people with lower versus higher levels of education and income. One study of nutrient warning labels on sugar-sweetened beverages in the United States found no differences in perceived message effectiveness by income or education level.²³ Another study from Uruguay found that a traffic light labeling system (which included a “high in” warning for products with high levels of sugar, total fat, or sodium) had a greater effect on perceived product healthfulness and perceived recommended consumption frequency of various ultra-processed foods for respondents with low incomes compared to those with middle and high incomes.²⁴ However, a large study of 11,617 adults from Canada, the United States, Australia, and the United Kingdom found that participants with less education were less likely to have a functional understanding of warning labels than those with more education.²⁵

Nutrient warning labels could present one potentially promising opportunity to partially ameliorate the information

imbalance created by the Nutrition Facts label, but further research is needed to explore their accessibility across groups.

Limits to the Role of Food Labeling in Advancing Health Equity

Some have posited that nutrient warning labels on sugar-sweetened beverages could advance health equity. The thinking is as follows: Since people with lower incomes and less education are more likely to consume sugary drinks at baseline,²⁶ and nutrient warning labels may be equally accessible across groups,²⁷ the implementation of nutrient warning labels on these products will have a greater impact on these higher-consumption groups. Reducing consumption of sugary drinks has been a key area of public health interest due to their association with type 2 diabetes, heart disease, and other health problems.^{28,29} People in the United States with low incomes face higher rates of type 2 diabetes and heart disease,^{30,31} and less educational attainment is also associated with higher rates of type 2 diabetes.³² Thus, efforts to reduce sugary drink consumption by applying nutrient warning labels could help close gaps in rates of these diseases by socioeconomic status. In addition, to the extent that access to nutrition information affects food choices, more accessible labeling systems may promote healthier diets among groups with less income and education who have lower utilization of the current labels.

One study modeled the impact of sugary drink warnings and predicted greater reductions in obesity prevalence among adults with lower educational attainment and/or income compared to those with more, concluding that sugary drink warnings could help narrow obesity disparities.³³

Yet predictions that warning labels could advance health equity have yet to be documented in real-world settings. The first real-world study to test this hypothesis evaluated dietary changes associated with the implementation of nutrient warning labels in Chile and found that warnings produced similar absolute reductions in sugary drink consumption across socioeconomic groups (approximately 27 mL/capita/day), and higher-educated and higher-income households (who had lower baseline consumption of sugary drinks) actually saw greater relative declines than less-educated and lower-income households (29% versus 22% decline among higher versus lower educated households; 26% versus 22% decline among households in the highest versus lowest tier of assets).³⁴ The result was dramatically lower sugar-sweetened beverages consumption across the population but a persistent (if not heightened) disparity by socioeconomic status.

One possible explanation for this is that increased access to nutrition information may be less likely to influence the food choices of people facing other constraints, such as availability, cost, stress, and time poverty. In order to address health disparities and advance health equity, policies must address these structural barriers that impede people's ability to act on enhanced nutrition understanding.

Existing evidence appears to demonstrate that food labeling policies aimed at shifting individual consumption behaviors can be beneficial at the population level and can have widespread benefits across subpopulations, but may be insufficient for addressing disparities when not accompanied by additional interventions to address underlying structural barriers to nutrition access.

Addressing Structural Barriers that Produce Health Disparities

Food labeling interventions typically center around the principle that consumers who are adequately equipped with nutrition information will make healthier choices. But policies that exclusively center on information access and personal choice cannot address the underlying constraints that reduce individual agency and make certain “choices” more challenging for some than others.

Policies that target health behaviors must therefore incorporate attention to equity to minimize inequitable distribution of benefits; but interventions that focus on the individual level alone fall short of addressing the root causes of health inequities, which are grounded in systemic inequities and structural racism.

The path towards health equity will require cross-cutting interventions that strategically target the barriers to health present at each level of the socio-ecological model of health—the individual, interpersonal, organizational, community, and policy levels. Further, these interventions will need to be tailored according to the needs of different populations, and target populations should be asked what changes could help enable them to lead healthier lives.

Food labels can be designed to enhance equal access to information but cannot address the root causes of health inequities. Dismantling the structural barriers that create inequities and facilitate health disparities will require public health advocates to not only re-examine the policy tools we hope to utilize to improve health at the population level, but also to engage meaningfully in broader efforts for coordinated and sustained social and economic change for those affected by systemic inequities. **△**

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