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Nutrient Warnings on Unhealthy Foods

Marissa G. Hall, PhD[1,2]; Anna H. Grummon, PhD[3,4]

» Author Affiliations | Article Information

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Poor diet is one of the leading contributing factors for death in the US and worldwide.[1] Unhealthy diets, characterized by overconsumption of ultraprocessed foods and sugary drinks, increase the risk of obesity, type 2 diabetes, and heart disease.[1] A nutrient warning policy is a common sense response to rising rates of diet-related disease. The US should require prominent warning labels on the front of product packaging to alert consumers when food products contain high levels of unhealthy nutrients.

Since 2016, 5 countries (Chile, Israel, Mexico, Peru, and Uruguay) have passed legislation requiring nutrient warnings with the goal of addressing obesity and other diet-related chronic diseases. These policies focus on products with excessive levels of unhealthy nutrients and require that these products display front-of-package warning labels, such as "WARNING: High in added sugar" or "WARNING: High in sodium," to inform consumers of the high content of potentially unhealthy nutrients. These simple, prominent warnings contrast with the status quo in the US, in which most nutrition information is communicated via the Nutrition Facts Label. This label is required by the US Food and Drug Administration (FDA); is usually located on the back or side of product packaging; and is an elaborate, numeric label with small print that is difficult for most people to understand.

Mounting experimental and observational data suggest that nutrient warnings inform consumers and could help them make healthier choices. Meta-analyses of experimental studies show that warnings on unhealthy foods[2] and sugary drinks[3] help people understand which products are unhealthy and choose healthier options. Warnings also could be applied widely and permanently, in contrast to educational

campaigns and weight loss programs, which are typically individually focused and temporary. Evidence from countries that have already implemented nutrient warning policies supports the effectiveness of warnings. For example, in Chile, sugary drink purchases decreased from 122 mL per capita per day in 2015 to 2016 to 86 mL per capita per day in 2017 (1 year after implementation of nutrient warnings), a 24% reduction relative to expected purchases.[4]

Given the recent implementation of the law, it is not yet known whether these behavior changes will affect prevalence of obesity or type 2 diabetes. However, research on the physiology of weight loss indicates that even modest sustained reductions in calorie intake (about 55 calories/d) can lead to meaningful weight loss (about 1 lb after 1 year).[5] These changes could yield substantial benefits at the population level. For example, a modeling study estimated that implementing a national warning policy for sugary drinks could reduce US adults' calorie intake by about 30 calories per day, yielding a projected reduction in obesity prevalence of 3.1 percentage points (from 40.7% to 37.6%) over 5 years.[6] It is possible that benefits could be more substantial if warnings were applied not only to sugary drinks, but also across many unhealthy foods and beverages.

The benefits of warnings could also extend to the food supply, because warning policies could prompt manufacturers to reformulate products to make them healthy enough to avoid mandated warnings. A 2020 analysis of Chile's front-of-package nutrient warnings found that the percentage of products high in unhealthy nutrients (ie, above the thresholds that trigger a mandatory warning under the law) decreased by 7 percentage points in the year after the warnings were implemented, from 51% in 2015 to 2016 to 44% in 2017.[7] These changes to the food supply are important because they can potentially improve public health without consumers needing to notice or be influenced by food labels.

Nutrient warnings may be an important step toward ensuring equitable access to nutrition information. Many consumers have difficulty understanding the quantitative information presented on the Nutrition Facts Label, which is currently the primary source of nutrition information about foods. In contrast, studies have demonstrated that warnings work well across diverse populations; simple, prominent nutrient warnings could therefore enhance equitable access to nutrition information. Warnings accompanied by icons or other images could be particularly useful for individuals with lower literacy or limited English-language proficiency. Moreover, warnings may help to counteract industry marketing of unhealthy foods, which is disproportionately targeted toward Black and Latino communities. For example, 2017 data showed that Black children (aged 2-11 years) were exposed to 86% more food advertisements on television than their White counterparts (16.4 vs 8.8 per day), as estimated using Nielsen gross rating points.[8]

When crafting a new nutrient labeling regulation, US regulatory agencies could benefit from existing international examples to develop the specifics of the law. The FDA would likely oversee this rulemaking process, similar to the agency's role in regulating warnings for cigarette packs and advertisements and the Nutrition Facts Label for foods and beverages. First, the FDA would decide which nutrients to target. The

existing laws in Chile, Israel, Mexico, Peru, and Uruguay all require warnings for products with high levels of added sugar, sodium, and saturated fat, given the strong evidence that consuming foods with high levels of these nutrients contributes to chronic disease risk.[1] Some of the existing laws also include warnings about calories or trans fats. Second, the FDA would need to establish the nutrient thresholds above which a warning would be required. To set these thresholds, the FDA could apply one of several available international nutrient profile models that specify unhealthy amounts of specific nutrients. The FDA could also consider their existing guidance that products are considered "high" in a given nutrient when they contain 20% or more of the daily value of that nutrient.[9] Third, the FDA could issue a clear timeline and compliance strategy for the food industry to follow, as they did in 2016 with new requirements for the Nutrition Facts Label.

Health warning policies in the US have encountered legal challenges from industry on First Amendment grounds. Warnings are considered "compelled commercial speech," meaning that, to be legally viable, they must meet certain requirements. One requirement is that warnings must be reasonably related to government interests.[10] A Ninth Circuit ruling in 2017 on San Francisco's sugary drink warning ordinance provides case law to suggest that nutrient warnings are likely to be deemed as advancing the government's interests of informing consumers and improving health.[10] Warnings must also be factual and uncontroversial.[10] There is reason to be optimistic that nutrient warnings would be judged by the courts as factual and uncontroversial because the warnings would be applied using objective, quantitative nutrient thresholds, and because warnings' thresholds can be linked with existing regulations and guidelines. Moreover, nutrient warnings do not make claims about disease risk that industry can contest in legal battles. In addition, to be allowable, warnings must be unduly burdensome and avoid "chilling" protected commercial speech[10]; the FDA could examine recent case law from sugary drink and tobacco warnings to design nutrient warnings that are effective without being unduly burdensome.

Congress should authorize the FDA to require nutrient warnings, just as they did in 2009 for graphic warnings on cigarette packs and advertisements and in 2010 for calorie labels on restaurant menus. Action on warnings is beginning at the local and state levels, promising efforts that should be complemented by action at the federal level. Although it would be challenging, the federal pathway would offer several important benefits. First, a federal policy would reach all people living in the US, instead of only those who live in cities and states with local requirements in place. Second, the federal pathway would be the simplest option for industry because companies would not have to comply with a patchwork system of local and state policies. This could reduce administrative costs, ultimately making the policy more cost-effective. Third, in contrast with state and local laws, which are subject to preemption, a federal policy would not have to confront preemption challenges. Any federal policy could also include language allowing complementary warning approaches at the state and local level.

Requiring simple, prominent nutrient warnings is a common sense policy. Whether this approach will be effective in the US is not yet known, but the increase in diet-related disease is an important health

challenge in the US. Given the magnitude of diet-related diseases, no single policy is likely to be the sole answer to solving poor diet and obesity. Instead, multiple interventions across many sectors are needed. Nutrient warnings are an important strategy that should be leveraged as soon as possible. Nutrient warnings could help inform consumers, encourage the food industry to make healthier products, benefit public health, counteract certain industry marketing practices, and potentially improve health equity.

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Corresponding Author: Anna H. Grummon, PhD, Harvard Center for Population and Development Studies, 9 Bow St, Room 306, Cambridge, MA 02138 (agrummon@hsph.harvard.edu).

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