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Written Comment: Reagan-Udall Public Meeting on Front-of-Package Food Labeling

We support FDA's pursuit of requiring interpretive front-of-package (FOP) labels that will let Americans make informed, food choices. We believe it is critical that FDA move forward quickly so that consumers can reap the benefits of interpretive FOP labels without delay. FOP labels can inform consumers, as shown by extensive peer-reviewed research. We applaud the FDA for pursuing mandatory, interpretive FOP labels to inform US consumers.

The average American adult consumes 50% more sodium, 40% more added sugars, and 40% more saturated fat than recommended daily,[1,2] contributing to high rates of hypertension, type 2 diabetes, and heart disease.[3] Reducing consumption of foods that are high in sodium, added sugars, and saturated fat could assist consumers in achieving healthy eating patterns and optimal health, as well as reduce the health care costs of obesity, estimated at more than 260 billion per year.[4] However, many consumers—especially those with lower levels of education or limited English proficiency—are not able to identify such foods using only the Nutrition Facts labels, highlighting the need for interpretive FOP labeling to help.

In reality our diet and diet-related obesity are killing and disabling America. We believe it is critical for FDA to take bold action and create an effective FOP labeling system that will impact our shopping behavior. Below, we describe recommendations for FDA based on our team's and others' research studies.

Recommendation 1. FOP labels should include visuals to increase comprehension. Use of visuals (such as icons, symbols, or illustrations) could facilitate better comprehension in general, and among populations with limited English proficiency and lower literacy. Examples of visuals to be included in FOP labels appear in Figure 1. Only one of the labels that FDA tested in their most recent experimental study used an interpretive visual element (i.e., a label with the magnifying glass), despite evidence showing that including visual elements in labels makes the labels much more effective at changing a range of desirable outcomes.[5-10]

In a recent unpublished experiment, we used eye tracking technology to measure visual attention to front-of-package food labels. We recruited 63 adults identifying as Latino to participate in a within-subjects eye tracking experiment; 48% of participants had limited English proficiency. Participants viewed four types of labels: a barcode control label, a text-only high-in label, an icon high-in label, and a pictorial high-in label, displayed in random order. The text-only, icon, and pictorial high-in labels read: "WARNING: High in sodium." The icon label displayed a yellow triangle icon with an exclamation point, and the pictorial label displayed a photograph of a saltshaker. All labels were displayed on the front of a can of soup. Tobii eye trackers measured how long participants viewed each label (primary outcome). The study found that participants viewed the pictorial label for the longest amount of time (mean=2.58 seconds (s)), followed by the icon label (mean=2.34s), the text-only label (mean=1.94s), and the control label (mean=.96s). These results suggest that front-of-package "high-in" labels can successfully

elicit visual attention among Latino populations, and the labels with visuals (pictures or icons) were best able to attract attention.

Our focus groups and research evaluating the Chilean FOP warning label showed these two sets of key results:

- Chilean evaluation found large and statistically significant declines in purchases of added sodium, added sugar, energy, and saturated fat.[11]
- Chilean focus groups and purchasing analysis showed us that mothers purchased much less of foods with 2 or more warning labels compared to one warning label.[12]

Mexico and Colombia have built upon the Chilean FOP approach to correct gaps found in Chile and Israel. The US should look to these countries regulations and laws which we can readily share with the FDA.

Additionally, our experimental study (n=1,078, 48% Latino ethnicity, 13% limited English proficiency), which was not cited in FDA's literature review, evaluated FOP food labels with text and images compared to text-only labels, finding that labels with text and images out-performed text-only labels overall.[7] English proficiency moderated this effect such that the benefit of the images was larger for those with limited English proficiency. These findings suggest that visuals could make labels more effective, especially among people with limited English proficiency.[7] It is worth noting that, based on 2020 US Census data, 25.5 million people (8.2% of the population) in the US have limited English proficiency.[13] Labels without visuals could leave these 25.5 million people behind, and over time could widen the many disparities in obesity that already exist.[14,15] Therefore, there is a strong equity argument for the use of interpretive icons on FOP labels.

Finally, an experimental study of prescription drug labels found that participants with marginal or low literacy were better able to correctly interpret drug warning labels with visuals and text, compared to labels with text alone.[9] Additionally, lower literacy predicted greater misinterpretation of drug labels in this study. Thus, including visuals in labels could be an important step for increasing comprehension of labels among lower literacy populations.[9] Additionally, FDA should consider using contrasting colors as another way of heightening attention to labels. Research demonstrates that black, yellow, and red are promising colors for FOP labels.[16-19]

Figure 1. Examples of visuals that could help draw attention to front-of-package food labels

Recommendation 2. FDA should consider using single-nutrient octagonal labels to maximize consumers' ability to quickly and accurately identify products high in nutrients of concern (Figure 2). As shown in Figure 2, this proposed octagonal design is similar to labels that are now required in Chile, Mexico, Peru, Argentina, and Uruguay.[20] Our assessment of the

research literature is that octagonal labels have the strongest evidence base to date, compared to other labeling systems. Our team's evaluation found a 24% reduction in sugary drink purchases following the implementation of Chile's Law of Food Labeling and Advertising which included octagonal labels along with restrictions on child-directed marketing and a ban on sale of certain foods in schools.[21] Our team's experimental research manipulating shape (octagon vs. square) suggests that the octagon shape is more effective at making people think about the harms of the product than a square shaped label.[16] Several experimental studies have found that octagonal labels consistently out-perform competing label types[17,22-25] including magnifying-glass labels similar to those used in Canada and Brazil and proposed for testing by FDA.[17,24]

Figure 2. Example of single-nutrient octagonal labels

We suggest that FDA consider an FOP labeling scheme with single, separated nutrient labels (instead of listing all of the nutrients in one label). It is possible that single nutrient labels could facilitate better understanding among consumers by separating out the information and using more space on the packaging to communicate information to consumers. Indeed, in a recent study conducted in Mexico, the majority (86%) of the sample answered correctly that a product with one warning is healthier than a product with three warnings. Additionally, 74% stated that they thought the labels are easy to understand. Most (65%) reported comparing the number of labels on products. These findings suggest that the use of multiple individual labels could facilitate better understanding of a front-of-package labeling system.[26]

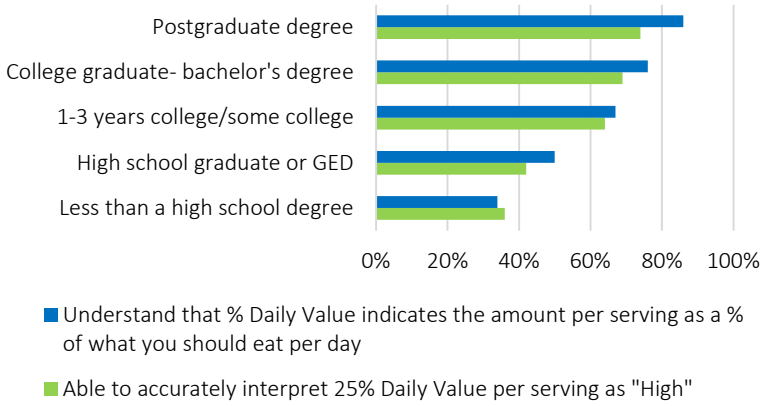
FDA could also consider placing labels within a larger box (i.e., holding strip) to help labels stand out more. South Africa has proposed this kind of label, which mirrors some of the elements of Mexico's FOPL (Figure 3).

Moreover, because products that contain excessive amounts of several nutrients will have significantly more space taken up with these single-nutrient labels, it is expected that this approach will better encourage manufacturers to reduce the amount of such nutrients in their products to minimize the number of single-nutrient labels. We found evidence of this in the case of Chile for example.[27]

Figure 3. Example of "holding strip" with labels inside

Recommendation 3. FDA should avoid using FOP labels that include information about the percent of the daily value (% DV). Consumers often struggle to understand numerical nutrition information, particularly those with lower education levels.[28-30] FDA's Food Safety and Nutrition Survey,[31] fielded in 2019, asked 4,398 respondents if they would consider one serving of a food with 25% DV of sodium to have a low, medium, or high amount of sodium (for reference, FDA defines "high" as 20% DV or more per serving). Only 36% of people with less than a high school degree and 42% of high school graduates with no college education were aware that this food is high in sodium, compared with 69% of college graduates and 74% of people with postgraduate degrees (Figure 4). These findings track closely with the results of another question in the survey assessing whether respondents could accurately interpret what it means if a product's Nutrition Facts label shows that the product contains 7% DV for Total Fat per serving. Based on these findings, and consistent recommendations from research to limit or avoid numerical information on warning labels,[32] we are concerned that labels focused on the % DV on a FOP label that is meant to be interpretive would only be truly informative for individuals with higher education levels, thus widening existing disparities in comprehension of nutritional information and ultimately contribute to disparities in obesity.[14,15]

Figure 4. Comprehension of % Daily Value, by Educational Attainment (FSANS 2019)



Thank you for considering these recommendations and for your commitment to developing an evidence-based FOP labeling system for packaged foods in the US.

Sincerely,

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The views expressed in this comment letter are those of its authors only. This letter is not submitted on behalf of The University of North Carolina at Chapel Hill.

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