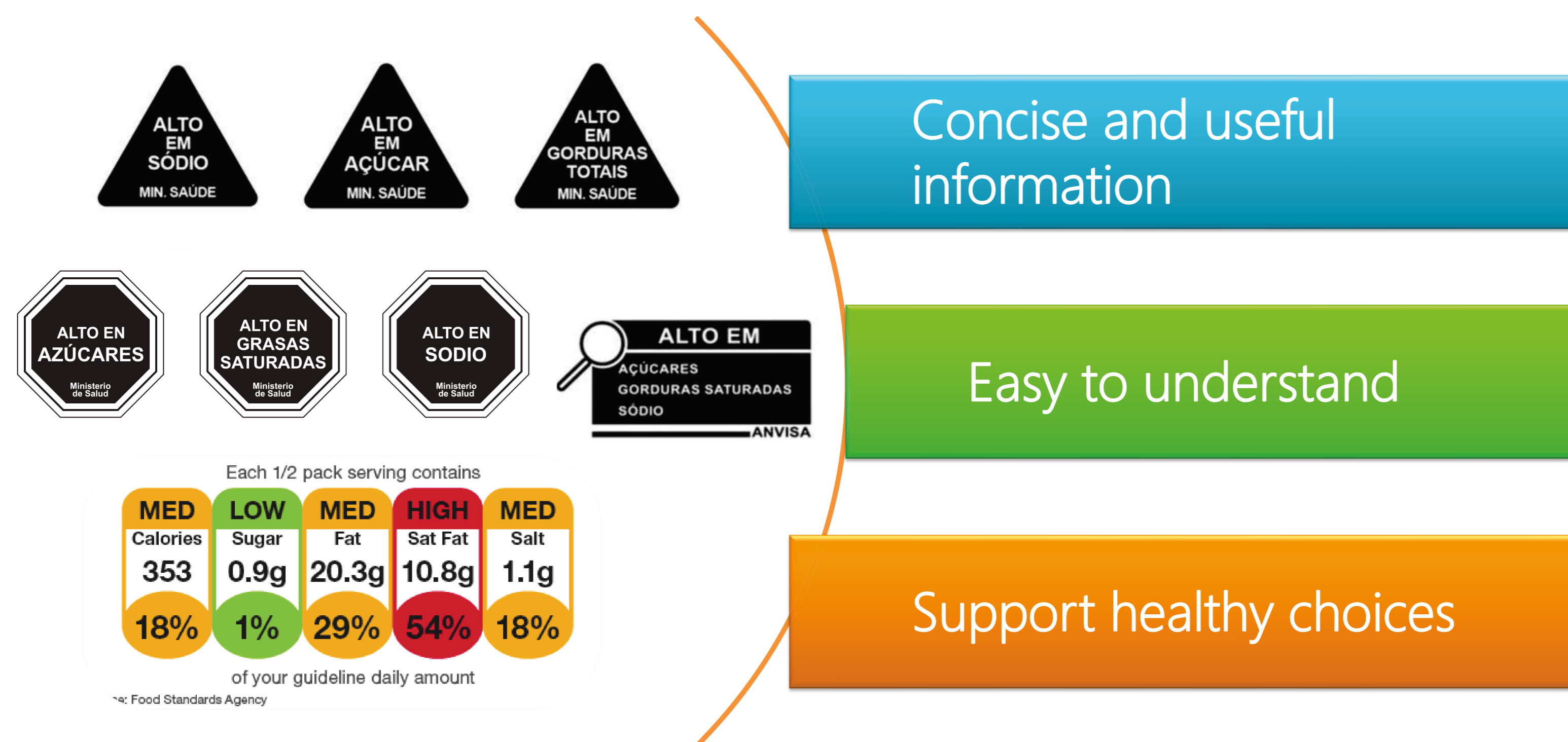




# Comparison of nutrient profiling systems for implementing new front-of-package nutrition labeling in Brazil

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## INTRODUCTION



**Figure 1.** Front-of-package label models.

Although front-of-package (FOP) labels are effective in helping consumers discriminate between healthier and less healthy options, particularly related to excessive amounts of critical nutrients such as sugar, fats and sodium (1,2), a strong nutrient profiling model (NPM) needs to accompany them (3). They should be objective, transparent and reproducible, in order to be used in various regulatory strategies, such as nutritional labeling, food marketing restriction, taxation of unhealthy food products, as well as the regulation of school environments.

## OBJECTIVE

To compare the extent of the coverage of a new FOP nutrition labeling currently under discussion in Brazil using different NPM.

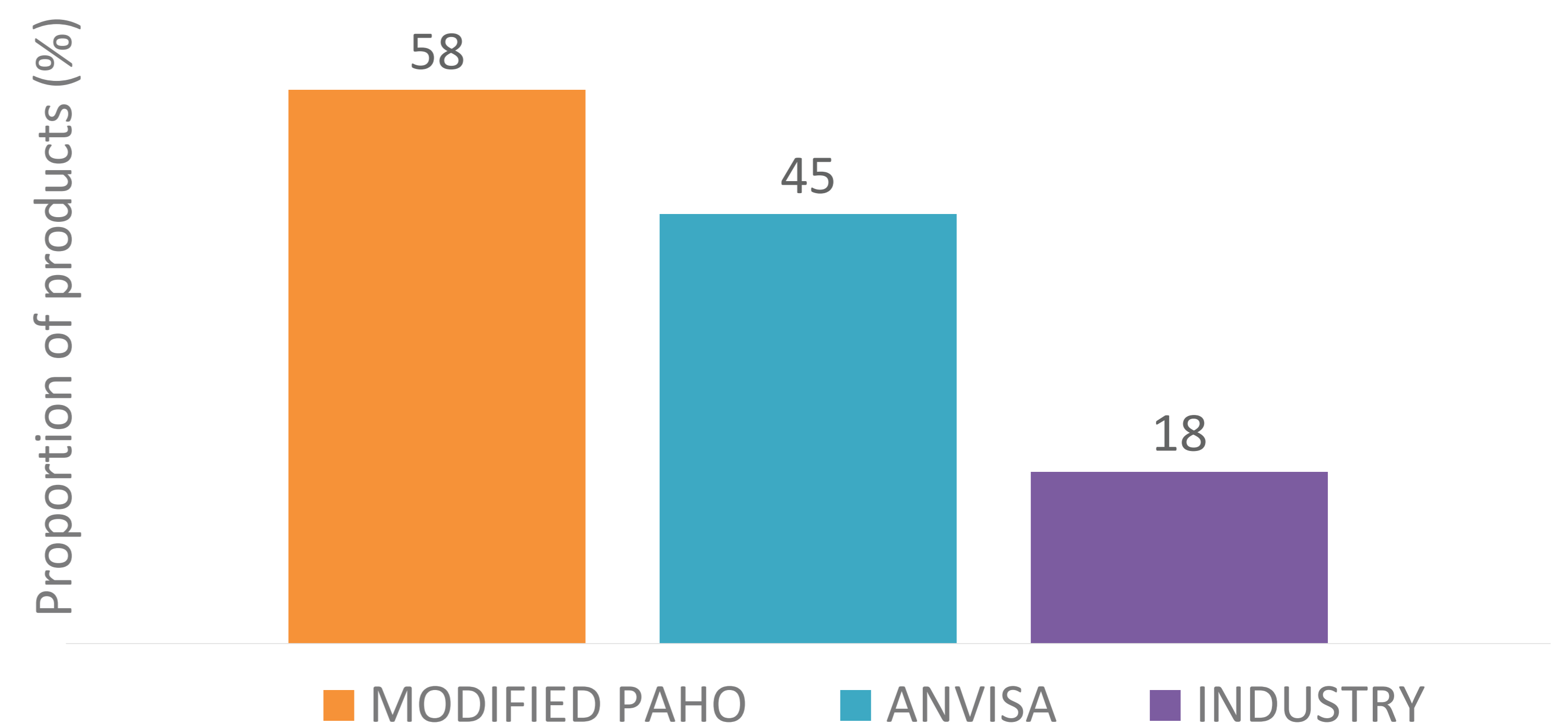
## METHODS

We collected nutrition labeling information on all prepackaged foods and beverages available in the stores of the five largest food retailers in Brazil, located in low- and high-income neighborhoods, from April to July 2017 (n=11,434 prepackaged foods and beverages). Then, we used three different NPM to compare the extent of the coverage of a FOP labeling: a modified version of the Pan American Health Organization (modified-PAHO) model, a model proposed by the Brazilian National Health Surveillance Agency (Anvisa), and a model proposed by food and beverage industry representatives. The number and the proportion of foods that would be eligible for displaying a FOP labeling was calculated with the use of each model, overall and by food category.

## RESULTS

The modified-PAHO's model was overall stricter as compared with Anvisa's proposed NPM and food and beverage industry representatives.

Warning label for high content of critical nutrients using different NPM



Some important disagreements were found in groups of foods in which the majority of the item were ultra-processed foods.

Proportion of items with warning label in specific food groups:

### Biscuits

Modified-PAHO: 93%  
Anvisa: 83%  
Food industry: 21%



### Carbonated beverages

Modified-PAHO: 58%  
Anvisa: 25%  
Food industry: 26%



## CONCLUSION

The degree of strictness vary between NPM applicable to FOP labeling. The discrepancies highlight the importance for policy makers to carefully evaluate such models when trying to identify a suitable model to implement labeling regulations.

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