Evidence Sheet: Front-of-Package Labeling

Updated February 2025

What are front-of-package labels?

Front-of-package labels are recognized by the public health community as a cost-effective policy to promote healthy diets. The principal aim for this policy is to provide convenient, relevant and readily understood nutrition information on packaged foods to help all consumers make informed food purchases and healthier eating choices. Front-of-package labels should be applied to all pre-packaged, processed foods based on a Nutrient Profile Model. (1)

Front-of-package labeling systems can be either interpretive or reductive. (2) Interpretive systems provide judgment on nutrients (with measurement based upon a nutrient profile model) and include designs such as multiple traffic-light labels, nutrition-content claims, health claims and warning labels. Reductive systems offer information only, without judgment or recommendation. Examples include nutrition facts panels, Facts Up Front and Guideline Daily Amounts.

Why are front-of-package labels needed?

Ultra-processed food or drink products (UPPs)[1] are ready-to-heat or ready-to-eat foods containing food additives that make the final product more palatable or hyperpalatable, and usually have excess amounts of sugar, sodium, saturated fat — referred to as nutrients of concern — as well as presence of non-sugar sweeteners (NSS) and trans fatty acids. Increased consumption of UPPs has contributed significantly to the global health epidemic of overweight, obesity and diet-related diseases. (3-12)

However, these nutrients of concern are not exclusive to UPPs and are prevalent in many other food products. However, consumers around the world exceed recommended intake levels, contributing to the burden of diet-related non-communicable diseases (NCDs). (13-17) As such, the World Health Organization (WHO) recommends reducing consumption of nutrients of concern. (14) Excessive intake of these nutrients is largely driven by widespread availability and affordability of UPPs, coupled with insufficient information about their health risks, driving excessive consumption and also contributing to malnutrition in all forms. (18)

[1] According to the NOVA classification system, UPPs are a formulation of ingredients, mostly of exclusive industrial use, that result from a series of industrial processes. Contain cosmetic additives. Usually high in sodium, sugars, and fats.

While many countries have mandated nutritional information panels on packaged food, this information is often hard to understand. Research shows consumers have challenges accessing, understanding and evaluating traditional nutrition labeling information when making food choices, especially when labeling is not mandated or is incomplete on product packaging. Additionally, most consumers do not spend much time choosing foods based on nutritional value when food shopping. Nutritional or health claims and other marketing strategies on product packaging lead to further confusion for consumers, as the claims often contradict the actual nutrition values due to lack of regulation. (19)

What is the most effective type of front-of-package labeling?

Evidence has shown that front-of-package warning labeling (FOPWL) is the most effective in helping consumers clearly and accurately identify products high in nutrients of concern including sugars, fats and sodium. (19) FOPWL is interpretive, providing judgment on the product's nutrient levels based on established thresholds for nutrients and ingredients of concern as defined in a Nutrient Profile Model (NPM). A NPM provides a standardized way to assess a food's nutritional quality. FOPWL typically states a product is "high in" (Figures 1, 3 and 4) or has "excessive" (Figure 2) amounts of nutrients of concern. (20-23) The effectiveness of FOPWL is closely tied to the strength of the NPM; without a robust NPM, the foundation for a strong FOPWL is lacking.

Front-of-package warning labels — also known as "warning labels'' or "high in"/"excess" warnings — clearly identify products with high levels of nutrients of concern. These warning labels, compared with the absence of or other types of front-of-package labeling, are especially effective in helping consumers quickly identify less-healthy foods and increasing consumer knowledge about the risks of consuming such foods and beverages. (24)

Evidence to date shows that FOPWL:

- Has proven effective at reducing consumers' perceptions of healthfulness on products with high levels of nutrients of concern compared with other front-of-package labeling types; (25, 26)
- Reduces consumers' intentions of purchasing products containing high levels of nutrients of concern; (27-30)
- Policies reduce the percentage of products on the market with high levels of nutrients of concern (i.e., sugars, sodium, & saturated fat) within the first year of their implementation, and lead to product reformulation and improved diets; (31-38) and
- Significantly reduces children's exposure to "high in" labeled food and beverage advertising, which marketing of products with warning labels is also restricted. In Chile, for example, the percentage of child-directed ads for "high in" food products decreased from 42 percent pre-regulation to 15 percent post-regulation. (39)

As of August 2024, 10 countries (Argentina, Brazil, Canada, Chile, Colombia, Israel, Mexico, Peru,

Uruguay and Venezuela) have adopted or enacted mandatory FOPWL laws (Figure 5). (24, 40-43)

Figure 1: Front-of-package warning labels used in Chile that include a Ministry of Health endorsement [left to right: “high in sugar,” “high in calories,” “high in saturated fats” and “high in sodium”]:

Figure 2: Front-of-package warning labels used in Mexico that include a Secretary of Health endorsement [top, left to right: “excess calories,” “excess sugar,” “excess saturated fats,” “excess trans-fats” and “excess sodium;” middle: “Contains sweeteners, not recommended for children;” bottom: “Contains caffeine—avoid in children”]:

Figure 3: Front-of-package warning labels used in Canada that include a Health Canada endorsement [“high in saturated fat,” “high in sugars” and “high in sodium”]:

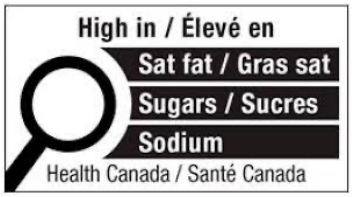
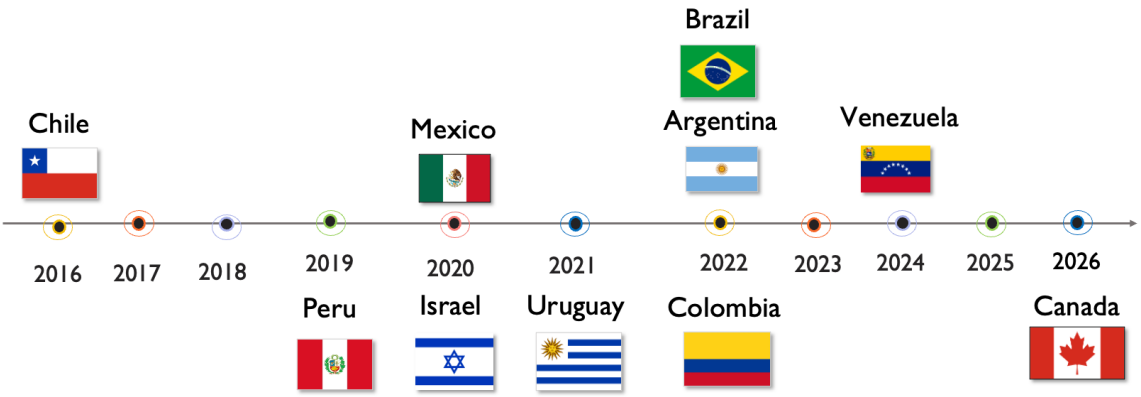


Figure 4: Front-of-package warning labels proposed in South Africa:

Figure 5: Timeline of mandatory FOPWL policy implementation, by country:



FOPWL is needed because it informs consumers simply and quickly about high content of sugar, sodium, saturated fat, trans fats and non-sugar sweeteners in food and drink products. FOPWL discourages the purchase of unhealthy packaged food and encourages consumers to choose healthier food options.

Global Best Practices on FOPWL

- FOPWL must be a mandatory government policy that applies to all packaged products; voluntary front-of-package labeling by the food and beverage industry has not proven effective. (44-46)
- Implementing a mandatory best practice nutrition facts table policy which includes all nutrients and ingredients of concern. If a country already has a nutrition facts table policy, it must declare all nutrients and ingredients of concern to facilitate FOPWL policy enforcement and monitoring. (47)
- FOPWL must be guided by a strong, evidence-based NPM. (48)

- NPMs that inform FOPWL should include NSS, which is particularly important for educating consumers and preventing consumption by children. In 2023, WHO published its NSS guideline recommending against the use of NSS to control body weight or reduce the risk of NCDs. (49)

- FOPWL should highlight only nutrients of concern, and should not contain or include positive seals or labels as per the NPM. Positive seals or labels send mixed messages, confusing customers about overall healthiness of a product. (50)
- FOPWL should include an endorsement from a government or scientific organization to increase its credibility. (51)
- The food and beverage industry should not have a seat at the table to inform FOPWL policies, and the policy process should be free of conflicts of interest for other actors. (52)
- FOPWL should be interpretative, simple and easily visible, with established size minimums for all types of packaging and straightforward formats, colors and icons. (53-55)
- FOPWL should be implemented alongside a suite of other healthy food policies, including but not limited to sweetened beverage and UPP taxes, marketing restrictions and school food policies. (33, 56)
- FOPWL should be implemented alongside restrictions on any health and nutrition claims. (26, 57, 58)
- The government, academic sector, or civil society organizations (without conflict of interest) should evaluate and monitor the effectiveness of the FOPWL following implementation. (59, 60)

The Role of Nutrient Profile Models (NPMs)

FOPWL, among other healthy food policies, should be guided by a robust, evidence-based NPM, which delineates whether a food product has high levels of nutrients of concern. (48) NPMs dictate which foods are included in regulations or policies and establishes standardized thresholds for each nutrient of concern. They can either follow a WHO regional format or be decided by local experts free of conflicts of interest, if available, based on the country's dietary guideline recommendations.

In February 2024, GHAI published a position paper that presents best practices for defining and using effective NPMs that discourage the consumption of unhealthy products excessive in nutrients of concern. The best practices recommendations are that NPMs should:

- Be consistent with WHO recommendations for nutrients to limit:
- Be relevant across populations;
- Be ingredient- and nutrient-specific;
- Be applied to two categories — solids and liquids — rather than multiple, product-specific categories;
- Establish one threshold for each nutrient and ingredient of concern;
- Be applied to only processed products and UPPs to limit their consumption;
- Be robust and based on strong scientific evidence free of conflicts of interest; and

- Not include nutrients to encourage – like micro and macro nutrients (e.g., vitamins, minerals, fiber and protein).

Key Messages on FOPWL

- Globally, there has been an increase in the availability of UPPs, most recently in low- and middle-income countries. At the same time, countries have experienced rising rates of diet-related diseases due to unhealthy diets.
- Nutrition facts panels, where they exist, are difficult to interpret and understand. Clear, evidence-based FOPWL helps consumers quickly make better food purchasing decisions.
- Growing evidence from countries with strong FOPWL, like Chile and Mexico, has shown these warning labels lead to a decrease in purchases of unhealthy food and increased recognition about which foods are healthy.

Front-of-Package Warning Labeling:
Industry Arguments and Evidence-Based Counter-Messages

This document contains common arguments against FOPWL from the food and beverage industry and effective counterarguments backed by the latest research.

INDUSTRY CLAIM #1: **FOPWL is not an effective solution to public health problems.**

INDUSTRY CLAIM #2: **Individuals can make personal choices about what they eat and are responsible for their own health.**

INDUSTRY CLAIM #3A: **The traffic-light label is preferred by consumers.**

INDUSTRY CLAIM #3B: **The Guideline Daily Amounts (GDA) label effectively informs consumers.**

INDUSTRY CLAIM #4: **FOPWL is trying to scare consumers from buying certain food and beverage products.**

INDUSTRY CLAIM #5: **FOPWL does not provide adequate information to consumers.**

INDUSTRY CLAIM #6: **Non-legal measures, such as self-regulation and public education, are an effective first step to addressing public health issues.**

INDUSTRY CLAIM #7: **Front-of-package labeling violates Codex Alimentarius (Codex) and other international trade agreements.**

INDUSTRY CLAIM #8: **Front-of-package labeling will impact trade if different countries have different requirements.**

INDUSTRY CLAIM #9: **Front-of-package labeling will harm the economy and lead to job losses for workers in the food, imports and retail businesses.**

INDUSTRY CLAIM #10: **FOPWL has not been proven to help consumers with different literacy levels.**

INDUSTRY CLAIM #11: **Front-of-package labeling should be voluntarily implemented.**

INDUSTRY CLAIM #1:
FOPWL is not an effective solution to public health problems.

The industry claims:	The evidence shows:
▪ "FOPWL does not reduce overweight or obesity." ▪ "There is not enough evidence to show that implementing FOPWL is associated with reduced obesity."	▪ FOPWL, as implemented in several countries, has led to decreased purchases, reduced misperceptions of healthfulness, and in some cases, reformulation of products high in nutrients of concern. Consuming unhealthy products is linked to increased obesity and diet-related diseases; thus, FOPWL may help prevention and treatment of obesity and diet-related diseases.

Counter Messages:

- Numerous studies have connected diets high in sugars, sodium and fats — which are often found in UPPs — to obesity and diet-related diseases. In fact, more and more literature indicate significant impacts of UPPs on the most important dimensions of child and adult

health and survival, including the association between consuming UPPs and over 30 health conditions causing pre-mature morbidity and mortality.

- The obesity epidemic is a complex challenge that requires long-term commitment and intervention to address, as the effects of dietary changes on body weight and overall health outcomes may not be immediately visible.
- FOPWL empowers consumers to make healthier decisions by providing clear guidance about the content of nutrients of concern in food and beverage products while reducing the public's intentions to purchase products high in nutrients of concern.

Counter Evidence:

- Increased consumption of UPPs— which often have high levels of nutrients of concern — has contributed significantly to the rise of overweight, obesity and diet-related diseases. (3-8, 16, 61, 62)
  - Multiple studies indicate a strong association between consumption of ultra-processed foods, cardiovascular disease and premature death. (9-11)
- A systematic review of studies on front-of-package labeling types showed that FOPWL, compared to no front-of-package labeling, led to significant reductions in the sugar, calorie and sodium content of food and beverage purchases. (20)
- FOPWL is associated with decreased probability that a consumer will purchase sugary beverages and decreased perceptions of product healthfulness. (28, 29)
- A 2020 study of Chile's mandatory "high in" FOPWL policy found a significant decrease in the proportion of products available on the market with high levels of sugar and sodium in the first year of the policy. (31) *More details here: English, Spanish, Portuguese*
- A 2019 review of warning labels' effectiveness on sweetened beverages (SBs) found the presence of an SB warning label was associated with a 51 percent reduction in the odds of consumers choosing SBs compared to those SBs without warning labels. The review also showed consumers had a slight, though significant, reduction in intention to purchase SBs with warnings in comparison to a no-label control. (27)
- An experiment in five countries (Australia, Canada, Mexico, United Kingdom and United States) testing the effectiveness of different types of front-of-package labeling found FOPWL had the greatest impact in lowering participants' perceived healthfulness ratings of sweetened fruit drinks, compared with no labels, across all five countries. (63)
- An experiment in India testing which front-of-package label was the most effective found warning labels had the biggest impact in correctly identifying products high in nutrients of concern, compared with the traffic-light label, GDA, Health Star Rating and the control (barcode). (64)
- Researchers in South Africa conducted a qualitative study in which they held focus groups with 44 parents under the age of 16. Parents were shown mock-up images of products (e.g., chips, SBs, etc.) with warning labels. Parents said the warning labels made them think about future health impacts if their children continued eating ultra-processed foods high in sodium, sugar and saturated fat. (65)
- A randomized control trial in South Africa investigated the performance of different front-of-package labels among a representative sample of South Africans. The study measured

which label led to the correct identification of unhealthy products high in nutrients of concern (i.e., saturated fats, sugar and sodium) and which label reduced intentions to purchase unhealthy products. The study concluded that, compared with other labels tested (traffic-light and GDA), nutrient warning labels led participants to correctly identify unhealthy products high in nutrients of concern and led to a stronger reduction of participants' intentions to purchase products. More details can be found here. (66)

- A randomized control trial compared common front-of-package marketing tactics (i.e., 100 percent vitamin C claims and fruit imagery), nutrition disclosures (i.e., teaspoons of sugar/serving and percentage of juice content) and high sugar warnings on parents' beverage selection for their young children. Participants were randomized to view high-in sugar beverages throughout the survey, with one of seven front-of-package label designs: (1) claim and imagery; (2) no claim; (3) no imagery; (4) no claim or imagery; (5) claim, imagery and percentage juice disclosure; (6) claim, imagery and warning; or (7) claim, imagery, warning and teaspoons of sugar disclosure. The study found the warning label alone led to a 13.4 percent reduction in parents selecting high-in sugar beverages for their children. (67)
- A 2023 Canadian modeling study assessed the potential impact of the mandatory "high in "label on Canadian adults' diets and NCD-related deaths. Researchers used data from the 2015 nationally representative health and nutrition survey. The study employed front-of-package labeling counterfactual scenarios based on recent observational and experimental data. The scenarios considered consumer behavior shifts, such as food substitutions and reduced consumption of "high in" foods. Using the counterfactual, researchers estimated typical intake levels of sodium, sugars, saturated fats and calories among adults. Researchers projected that implementing front-of-package labeling with "high in" labels could notably diminish sodium, sugar and fat consumption, potentially preventing or delaying between 2,183 and 8,907 diet-related NCD deaths in Canada, mostly from cardiovascular diseases. (43)
- A modeling study in Barbados investigated the potential impact of FOPWL on improving diets and preventing deaths caused by NCDs. The findings revealed significant benefits associated with implementing FOPWL. The study compared no label as the baseline scenario against a FOPWL scenario. For men, introducing FOPWL resulted in a reduction of mean energy intake by 6 percent, mean salt intake by 35 percent, mean fat intake by 23 percent, mean saturated fat intake by 20 percent and mean sugars intake by 13 percent, compared with the status quo. Similarly, for women, FOPWL led to a reduction in mean energy intake by 5 percent, mean salt intake by 34 percent, mean fat intake by 27 percent and mean saturated fat intake by 21 percent, compared with the status quo. These findings highlight the potential benefits of FOPWL in improving dietary choices and public health outcomes, especially in reducing NCD-related mortality and associated economic burdens. (68)

INDUSTRY CLAIM #2:

Individuals can make personal choices about what they eat and are responsible for their own health.

The industry claims:	The evidence shows:
▪ "FOPWL is not the solution to address overweight, obesity and diabetes. The solution is for adults and parents to make the right choices."	▪ Consumers have trouble understanding back-of-package nutrition facts panels, and need a simpler and more effective way to choose healthier products when presented with several options.
▪ "FOPWL is not necessary. Adults and parents can responsibly purchase and consume healthy foods."	▪ FOPWL is a policy option that has population-level impacts, while physical activity is an individual-level behavior.
▪ "Physical activity and exercise are more impactful to improving health outcomes or managing weight than front-of-package labeling."	▪ Governments are obligated to create policies to correct market failures and the negative externalities they produce.
▪ "Governments should not intervene in individuals' consumption decisions."	▪ Market failures show why governments should step in to ensure healthy food environments, as they result in inefficient resource allocation and unequal access to nutritious food, worsening overall social welfare.

Counter Messages:

- Back-of-package nutrition facts panels, when they exist, are difficult for consumers to understand. Easy-to-understand, mandatory FOPWL on packaged foods and beverages would help consumers make healthier choices.
- FOPWL on packaged foods and beverages effectively discourages consumers from purchasing these products compared to products with no warning labels.
- Nutrition claims (such as "100% Vitamin C"), on the other hand, may make consumers believe a product is healthy, even if it is high in nutrients of concern.

Counter Evidence:

- Multiple studies show back-of-package nutrition labels are difficult for shoppers to understand. On the other hand, simple front-of-package warning labels are immediately visible and require less time and do not require as advanced nutrition literacy to understand. (69-72)

- The Institute of Medicine Committee of United States reviewed nutrition labels and found consumers, regardless of reading level and mathematical ability, struggle to interpret them correctly. (70)
- Focus groups conducted with Chilean mothers found that mothers relied on FOPWL while shopping for groceries and subsequently changed their purchasing habits. They reported the "high in" octagonal labels demonstrated many products they had considered healthy (e.g., breakfast cereals, cereal bars and yogurts) were less healthy than they thought. (73)
- A review of research from 20 countries in the Global South found consumers consistently received low scores when evaluated on their comprehension of back-of-package nutrition labels. Shoppers also noted they often rely on manufacturers' front-of-package claims as their main source of nutrition information. (71)

- A review of studies found nutrition claims backed by industry and containing positive messaging related to fat, sugar or energy content can shape consumers' perceptions of healthfulness and impact their purchasing intentions. (74)
  - Consumers who saw a fruit juice with a "100% Vitamin C" label thought the beverage was healthier than those shown a bottle with no label or a "high in sugar" label. When shown alongside the "100% Vitamin C" label, the "high in" warning label prevented perceptions of healthfulness. (25) *More details here: English, Spanish, Portuguese*
  - Unhealthy products with both nutrient claims and front-of-package warning labels were considered healthier than products with only warning labels. Positive nutrient claims related to fiber or "whole grain "content led to higher intentions among consumers to recommend and purchase the product, including buying it for a child. (50) *More details here: English, Spanish*
  - Evidence has shown nutrition claims are often used as marketing tools. (75) For instance, a study in the United Kingdom found among food products marketed to adults and children, 32 percent carried a nutrition claim and 15 percent carried a health claim. (76)
- Market failures occur when the free market does not efficiently allocate goods and services. This inefficiency often arises because of individual choices, influenced by incomplete or misleading information, leading to less optimal outcomes for society. In the context of FOPWL, market failures occur when UPP supply is higher than the supply of fresh foods.
  - As an example, the industry claims that front-of-package labels limit people's individual choices. In economic theory, fully informed consumers make choices about what they eat based on what provides them with the greatest benefit; they consider factors such as food quality, income and product price to make their decisions. But because of market failures (lack of front-of-package labels), people cannot be fully informed and therefore cannot make the food choices that are the best for them. Governments need to implement front-of-package labeling and other policies to help fix these market failures and guide people toward healthier choices.(77)
- While people can alter their behaviors to achieve better health, policies are needed to create an optimal food environment.

- Education and information campaigns are important, but they are not substitutes for front-of-package labeling and other mandatory policies. Education alone does not enable consumers to easily identify which products have high levels of nutrients of concern , which is the key purpose of FOPWL. (78)
- The industry creates the narrative that physical activity is one of the only solutions to curb obesity rates and NCDs.
  - A study analyzed emails between the vice president of the Coca-Cola Company and prominent public health figures in relation to the 2012 and 2014 International Congresses of Physical Activity and Public Health. The findings showed that the Coca-Cola Company requested that their sponsored researchers present topics at the Congresses that would shift blame for the rising incidence of obesity and diet-related diseases away from consumption of Coca-Cola products onto physical activity and individual choice. (79)
  - A study examined whether research funded by big food companies like Coca-Cola and Mars is biased. Researchers reviewed scientific papers about human health from these companies, analyzing whether they focus more on things that benefit the companies, like exercise, or whether they consider unhealthy foods. Many papers discussed exercise (40.7 percent), while only a few mentioned unhealthy processed foods (10.8 percent). The study suggests these companies are pushing research that makes their products look healthy while pulling focus away from unhealthy foods. (80)
  - An analysis of almost 400 research articles funded by Coca-Cola revealed most emphasize the importance of physical activity and disregard the role of diet in obesity. (81)

INDUSTRY CLAIM #3A:
The traffic-light label is preferred by consumers.

The industry claims:	The evidence shows:
▪ "The traffic-light label is preferred by consumers, and the colors help facilitate consumer choice and understanding."	▪ Research shows the traffic-light label does not change purchase decisions and is worse than front-of-package warning labels at helping consumers identify unhealthy foods.
▪ "Consumers prefer the traffic-light label; it is more attractive and easier to understand. The colors help facilitate consumer choice and understanding."	▪ Front-of-package warning labels helps consumers more quickly identify products with high levels of nutrients of concern, compared with the traffic-light label,

which consumers have difficulty understanding.

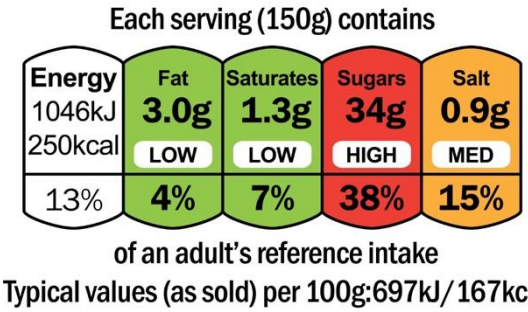


Figure 6: The multiple traffic-light labeling system uses color codes to indicate low (green), moderate (amber) or high (red) levels of nutrients of concern in specific products. This figure represents the UK variant of the traffic-light label, one of several versions of system in use globally. (30)

Counter Messages:

- Many studies have the traffic-light label (Figure 6) is more confusing and ineffective at helping consumers understand and identify products with high levels of nutrients of concern, compared with other front-of-package labeling types, like warning labels.
- The traffic-light system has been primarily adopted voluntarily because companies realize they can increase sales of non-recommended (less healthy) products since they can choose what products are labeled (i.e., healthier products).
- Consumers can get confused when exposed to traffic-light labels simultaneously showing high (red), medium (amber) and/or low (green) levels of different nutrients.
- When products carry both green and red traffic-light labels, the presence of a green traffic-light may be enough to encourage consumers to purchase these products, resulting in increased consumption of products high in nutrients of concern, causing no positive change in increased consumption and purchase of healthy foods.

Counter Evidence:

- In the United Kingdom, a study of shopping habits found no significant difference in the relative healthfulness (as measured by the traffic-light label NPM) of shoppers' purchases in the four week before and after the traffic-light label was introduced. (82)
- In Australia, researchers found incorporating traffic-light labels on a grocery store's online ordering site did not change sales of healthier products compared to the same items with no label at all. (83)
- Consumers have difficulty understanding the traffic-light label. Its use of colors to indicate whether a product has low (green), moderate (amber) or high (red) levels of

nutrients of concern is difficult for consumers to understand and make informed decisions.

- Two experimental studies showed that it took consumers longer to process traffic-light labels than "high in" warning labels. (84)
- When presented with a traffic-light label, consumers failed to identify products with high levels of nutrients of concern; consumers perceived products with "high in" warning labels as less healthy than the same products presented with traffic-light labels. (84)
- In Mexico, qualitative research found traffic-light labels confused consumers, who found the multiple colors difficult to compare across products and the amber/intermediate color particularly hard to interpret as an indicator of product healthfulness. The traffic-light label and GDA were the least-understandable types of front-of-package labeling, due to overall incomprehension of nutrition information. (85)

- In Brazil, a study of adults found that FOPWL improved consumers' ability to identify healthier products and to understand whether a product contains excess nutrients of concern. When compared with no label, front-of-package warning labels increased consumers' intentions to purchase healthier products by 16 percent, while the traffic-light label increased intentions by only 10 percent. Between the two types of labels, front-of-package warning labels were consistently superior to the traffic-light label in consumer understanding of excess nutrient content, and correct perception of healthfulness. (21)
  - Another study of 2,400 Brazilian adults found "high in" warning labels, compared with no labels and traffic-light labels, were significantly better at improving consumers' understanding of nutritional content, as well as reducing perception of healthfulness and intention to buy foods high in sugars, saturated fats and sodium. (86)

INDUSTRY CLAIM #3B:

The Guideline Daily Amounts (GDA) label type effectively informs consumers.

The industry claims:	The evidence shows:
▪ "GDA labels effectively inform consumers about nutrient content." ▪ "Many food companies are already informing consumers about nutrient content through GDA labels. This is a familiar labeling system for consumers, and introducing	▪ GDAs are difficult to understand and have not proven effective in encouraging consumers to make healthier choices. ▪ Research shows GDAs are among the least impactful front-of-package labeling types used globally.

something new would cause confusion."	

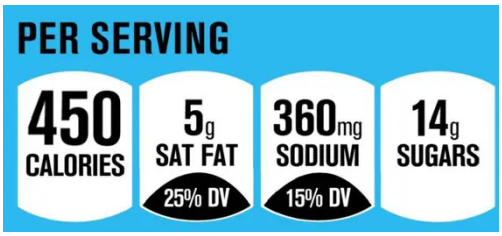


Figure 7: The GDA labeling system is a reductive label that applies a smaller summary of the nutrition facts panel including the daily value[2] percentage.

Counter Messages:

- Multiple studies have shown that GDA labels (Figure 7) are a less effective labeling system compared with other systems, including front-of-package warning labels, traffic-light labels and Nutri-Score (also known as the 5-Color Nutrition Label).
- The GDA system includes numbers many consumers find hard to understand and interpret.
- Multiple studies have found GDAs are confusing and do not help consumers make healthier food choices.
- The food industry prefers the GDA system and promotes this model.

Counter Evidence:

- Multiple studies without conflict of interest compared GDA labels with other systems (traffic-light labels, Nutri-Score, Positive Choices (check mark label) and Health Star Rating), show GDAs are less effective in encouraging consumers to make healthier choices. (87-89)
- In Mexico, a study of adults participating in a virtual shopping scenario were randomly shown the traffic-light label, GDA or front-of-package warning labels. Shoppers improved the nutritional quality of purchases and reduced their amount of shopping time when exposed to a warning label or traffic-light label versus when they were exposed to GDAs. (88)
- A cross-sectional study examined the differences in consumer awareness and use of nutrition labels across five countries (Australia, Canada, Mexico, the United Kingdom and the United States). The study explored between-country differences in back- or side-of-package nutrition facts tables (NFt) and front-of-package labeling use and awareness. The study concluded that Mexico's mandatory GDA labeling was ineffective, since consumers reported low levels of use despite high levels of awareness. FOP use was higher among those with a "high likelihood of limited literacy." (90)

[2] Daily Value is how much of a nutrient a person should consume each day based on a 2,000-calorie diet.

- Consumers are less successful in understanding GDAs compared with other labeling approaches.
  - In Mexico, a study among nutrition students showed even this population, with its specialized training, had trouble comprehending GDAs. When shown the GDA label, only 31.7 percent could correctly identify the caloric content of the product. (91)
  - Qualitative research in Mexico found GDAs and traffic-light labels were the least-understandable and least consumer-friendly type of front-of-package labeling, due to overall incomprehension of nutrition information. (85)
- A study using eye-tracking technology showed GDA labels are less effective at getting consumers' attention and therefore less able to help consumers identify whether a product is unhealthy compared with "high in" warning labels. (92)
- GDA labels have not proven to help consumers reduce consumption of unhealthy products. In the United Kingdom, a study of consumer purchases before and after the GDA was implemented showed there was no change in purchases of healthy or unhealthy foods following the introduction of the labels. (93)
- A study of the impact of front-of-package labeling on perceived healthfulness of sweetened beverages (SBs) among youth in six countries (Australia, Canada, Chile, Mexico, United Kingdom and United States) found front-of-package warning labels were the most effective at helping youth identify SBs as unhealthy, compared with all other labels tested. GDAs and Nutri-Score labels demonstrated the lowest impact across all countries. (94)
- In Mexico, an experimental study evaluated understanding of two nutritional labeling systems (GDA labels, previously used in Mexico, and warning labels, currently used in Mexico) among adult consumers with NCDs. The study showed participants using the warning label were twice as likely to correctly classify food products than consumers using GDAs. (95)
- In Guatemala, a study evaluated the efficacy of front-of-package warning labels versus GDA labels on the perception of product healthfulness, purchase intention and consumer understanding of nutrient content. Participants were children 8 to 12 years old and adults in rural and urban areas, randomly assigned to evaluate either octagonal warning labels or GDAs. Participants first assessed products with no labels, then evaluated the labels only, and finally assessed the same products with labels. Overall, FOPWL significantly improved consumer understanding of which products were high in nutrients of concern. Additionally, adults and children exposed to FOPWL on food products high in nutrients of concern reported lower intention to purchase such products and correctly identified the products as less healthy compared to when adults were exposed to the same products with GDAs. (96)

INDUSTRY CLAIM #4:

FOPWL is trying to scare consumers out of buying certain food and beverage products.

The industry claims:	The evidence shows:
▪ "FOPWL is too harsh and will make consumers anxious due to its complexity and comprehension difficulty."	▪ FOPWL is evidence-based and easy to identify. ▪ Consumers do not find FOPWL to be harsh. ▪ FOPWL helps consumers to easily compare products within the same food category and make informed choices and opt for healthier alternatives.

Counter Messages:

- FOPWL provides consumers with simple, easy to understand and accurate information about food and beverage products, empowering consumers to make informed decisions while grocery shopping or selecting foods and beverages to eat or drink.

Counter Evidence:

- In an independent study in Canada comparing different front-of-package warning label designs — including text only, a stop sign and a triangle — 88% of respondents indicated that the symbols were "about right" or "not harsh enough" when asked to evaluate the degree of harshness. (97)

Industry Claim #5:

FOPWL does not provide adequate information to consumers.

The industry claims:	The evidence shows:
▪ "FOPWL does not provide enough information for consumers on the health benefits of foods. These types of warnings unfairly label certain foods." ▪ "FOPWL doesn't provide consumers with enough information to choose 'healthy	▪ Compared with other labeling systems, front-of-package warning labels have proven to help consumers make better-informed food choices. ▪ Nutrition and/or health claims can undermine FOPWL and make it more challenging for consumers to identify unhealthy food.

foods;' they show consumers only which foods are unhealthy."

- "We have reformulated our products to make them healthier, yet our products still bear warning labels." (98)

Counter Messages:

- Whereas traditional nutritional labeling (e.g., GDAs, traffic-light labels) is difficult to understand, FOPWL provides information that helps consumers clearly and accurately identify products high in sugar, sodium and fats. Consumers can use this guidance to make informed choices about what foods and beverages to purchase.
- Labels presenting positive claims (such as "contains vitamin C") about a product high in nutrients of concern often mislead people into thinking such products are healthier than they are.
- FOPWL targets specific nutrients that are drivers of unhealthy diets when consumed in excess, including saturated fats, trans-fats, sodium and sugar.

Counter Evidence:

- A review of experimental studies on front-of-package labeling showed that FOPWL helped consumers identify relatively unhealthy products (high in nutrients of concern), compared to products with no label. Font-of-package warning labels also improved consumers' ability to identify relatively healthy products, compared with traffic-light labels or no label. (24)
  - In Brazil, a study of adults showed FOPWL improved consumers' ability to identify healthier products and to understand whether a product contained excess nutrients of concern. When compared with no label, front-of-package warning labels increased consumers' intentions to purchase healthier products by 16 percent, while traffic-light labels increased intentions by only 10 percent. (21)
  - A study of Colombian adults showed that when given the choice of two fruit drinks, FOPWL helped a higher percentage of participants identify which fruit drink was higher in sugar (77-83 percent) compared with the control (32 percent), and reduced participants' intent to purchase those products (21-24 percent) compared with the control (54 percent). (99) *More details here: English, Spanish*
- Studies evaluating the first year of Chile's Law of Food Labeling and Advertising have shown success in changing consumers' purchasing and consumption behaviors. Early analysis of the implementation of a package of Chile's healthy food policies – including FOPWL, restrictions to child-directed marketing and a sales ban on unhealthy foods in schools – provided evidence that a package of policies may be a more effective approach to affecting unhealthy food purchases and dietary intake than single, standalone policies. (33)

- Focus groups conducted with Chilean mothers found that mothers relied on FOPWL while shopping for groceries and changed purchasing habits because of front-of-package warning labels. Mothers reported the warning labels demonstrated that many products considered healthy (e.g., breakfast cereals, cereal bars, yogurts) were in fact less healthy than they thought. (73)
- After the implementation of the comprehensive Chilean food policy — which included octagonal front-of-package warning labels — purchases of beverages high in sugar fell by 23.7 percent by volume (-22.8 mL per person per day). (33) *More details here: English*
- Another evaluation of the first year of Chile's food policies found significant declines in purchases of products with excessive calories, sugar, saturated fat and sodium, driven by decreases in purchases of unhealthy products with "high in" labels. (32) *More details here: English, Spanish, Portuguese*

- In Chile, daily purchases per person of nutrients of concern from "high in" foods and beverages fell by 23 percent for calories, 37 percent for sugar, 18 percent for saturated fat and 22 percent for sodium. (100)
- A study tested the salience[3] of various FOPWL styles found that respondents were more likely to correctly identify products high in nutrients of concern when shown a symbol incorporating the text "high in." Additionally, intuitive warning signals (an octagon and triangle with an exclamation mark) were found to be the most effective symbols to inform consumers that a product is high in saturated fat or sugar. (101)
- American adults who saw "high in" warning labels on fruit drinks perceived them to be less healthy and were less interested in drinking the fruit drinks. The "high in" warning label prevented perceptions of healthfulness even when a "100 percent Vitamin C" label was also shown on the product. (102) *More details here: English, Spanish, Portuguese*
- Research on positive nutrition claims on product labels finds such claims can reduce the efficacy of FOPWL and make it more difficult for consumers to correctly identify healthy or unhealthy products.
  - In Canada, a study of adults showed that voluntary, positive nutrition claims on a product label (such as a "reduced sodium" claim) can influence a consumer's understanding of mandatory front-of-package warning label. When a product label featured both a "reduced" claim as well as a "high in" warning for the same nutrient, consumers were significantly less likely to correctly identify the product as high in the nutrient of concern. (57)
  - In Brazil, a study on nutritional warnings and claims on frequently consumed foods showed that products featuring positive nutrition claims (such as "rich in zinc" or "source of fiber") were perceived as more healthful than products without these claims. This study also found that nutrition warnings can help consumers identify unhealthy products and override the positive healthfulness perception created by nutrition claims. (26)

[3] Studies examining how noticeable or attention-grabbing something is.

- A systematic review and meta-analysis examining the impacts of different types of labels on consumers' purchasing behavior found nutrient warning labels were associated with a 26 percent increase in the overall healthfulness of products purchased, compared with Nutri-Score labels (7.9 percent). (30)

- A multi-methods Brazilian study evaluated the effect of exposure to different sugar labels on consumers' understanding of the sugar content of foods and their food choices. The study showed that warning labels quickly got customers' attention and facilitated quick interpretation of products' sugar content, compared with other front-of-package label types. (103)
- A Colombian study testing the efficacy of warning labels found that warning labels helped participants correctly identify "high in" products and had the highest perceived effectiveness when compared with other front-of-package labels (GDA and Nutri-Score). The study concluded that FOPWL was consistently the most effective label type in identifying products with excess sugar, saturated fat and sodium. (104)
  - A study tested whether FOPWL can improve understanding and food choice outcomes among consumers who demonstrated a preference for unhealthy foods. Survey data was collected from almost 3,700 participants from 18 countries who ranked food products based on nutritional quality. The study concluded that consumers who initially made suboptimal nutrition-quality and food-choice decisions improved their food-quality assessments once exposed to front-of-package warning labels compared with other label types (i.e., Health Star Rating, multiple traffic-light, Nutri-Score, and reference intakes[4]). (105)
  - In Jamaica, a randomized control trial involving 1,206 adult shoppers evaluated the effects of three front-of-package labeling types on participants' nutritional information understanding and purchase intentions. Participants were assigned to one of four groups: black octagonal "high in" labels; black magnifying glass "high in" single icon labels; traffic-light labeling; or a control group (nutrition facts only). The study showed the octagonal warning labels group had 107 percent higher chance of correctly selecting the least harmful option, compared with the control group. In contrast, the magnifying glass "high in" single icon was not effective in improving this outcome. Octagonal warning labels also helped consumers to correctly identify products with excessive sugars, sodium or saturated fats, and encouraged their reported intention to purchase either the least harmful option or no product. (106)

INDUSTRY CLAIM #6:

Non-legal measures, such as self-regulation and public education, are an effective first step to addressing public health issues.

[4] Reference Intake (RI) is an estimate of the daily amount of nutrients and energy necessary for a healthy diet.

The industry claims:	The evidence shows:
▪ "We are providing additional, alternative solutions to the NCD epidemic that are more effective than implementing front-of-package labeling." (107) ▪ "We support all training, education and information programs aimed at improving the dietary habits of the population." ▪ "FOPWL is not the least burdensome measure possible. Alternative measures can be used." ▪ "Non-legal measures, such as self-regulation and public education, an effective first step to addressing public health issues."	▪ Self-regulation activities often lead to lack of compliance because there is no enforcement or incentive to comply. Compulsory measures are more effective. ▪ Industry-created self-regulation standards for labeling are often vague and use less-effective front-of-package labeling systems, such as GDA, and others.

Counter Messages:

- Compared with government regulations, industry self-regulations are not based on credible evidence and are weakly implemented, lacking enforcement and lacking penalties strong enough to ensure compliance.
- Industry groups and companies benefit from self-regulation as a public relations tool; it allows them to signal corporate social responsibility and position themselves as "part of the solution," while avoiding or delaying more strict and effective mandatory solutions by governments.
- Human Rights monitoring bodies indicated that self-regulation is not enough to comply with obligations related to human rights to health and food.
- When adopting voluntary labeling, food and beverage companies often use systems that are not as effective as warnings. Studies evaluating the efficacy of industry labeling self-regulation have found such systems to be poorly implemented by companies.

Counter Evidence:

- A 2014 literature review of food industry attempts at nutrition labeling and marketing found self-regulation efforts are ineffective, as industry commitments tend to be relatively

vague. Therefore, stronger tools – like government regulation – are needed to regulate industry practices.(44)

- Industry commitments to reduce unhealthy nutrients – such as sodium, fats and sugar – in their products (also known as reformulation) often result in only slight improvements and even setbacks in public health progress. (103, 108)
  - In 2011, the United Kingdom launched the Public Health Responsibility Deal (RD), a public-private partnership aimed at bringing together government and private companies to address certain public health issues, including reformulating, introducing healthier products or encouraging the consumption of fruits and vegetables. This deal was found to be largely ineffective at addressing food issues. (109-111)
  - The RD gave food companies greater freedom to set and monitor targets for salt intake, superseding a previous strategy by the Food Standards Agency to reduce salt intake. A 2019 evaluation of RD found that from 2011 to 2018, it contributed to an additional 9,900 cases of cardiovascular diseases and 1,500 more cases of gastric cancer because it significantly slowed the progress made to reduce sodium intake. (109)
- In a 2016 report, the UN Rapporteur on the right to health stated, "recognizing that industry self-regulation is ineffective, Governments should impose strong regulatory systems to ensure that the food industry does not violate citizens' human rights to adequate food and nutrition."(112)
- The tobacco industry made arguments similar to the food industry supporting voluntary education campaigns as an alternative measure to mandatory labeling regulations, insisting education was a less trade-restrictive measure. The courts responded, deeming education a *complementary* measure, not an *alternative* measure. (113)
  - Voluntary education campaigns should not be used as alternatives to mandatory, evidence-based policies, such as labeling. Rather, a comprehensive suite of measures is the most effective approach to achieve desired public health outcomes. (114, 115)

INDUSTRY CLAIM #7:

Front-of-package labeling violates Codex Alimentarius (Codex) and other international trade agreements.

The industry claims:	The evidence shows:
▪ "Mandatory front-of-package labels are not allowed by Codex." ▪ "FOPWL does not align with Codex."	▪ Mandatory front-of-package labels do not violate Codex. Codex does not prevent countries from adopting evidence-based front-of-package labeling measures to protect public health. Codex's guidelines

▪ "Countries have failed to follow Codex's front-of-package labeling guidelines."	on nutrition labeling include general principles and standards applicable to front-of-package labeling.

Counter Messages:

- Mandatory front-of-package labeling does not violate Codex. The Codex guidelines do not prevent a country from moving forward with a strong, mandatory front-of-package labeling measure. The current guidelines state that front-of-package labeling can be mandatory and should be government-led with consultation from other sectors.
- Codex has adopted front-of-package labeling guidelines as of November 2021 (see Annex 2 of the Guidelines on Nutrition Labeling), which include general principles for developing front-of-package labeling systems. The guidelines do not require countries to adopt any particular style of front-of-package labeling.

Further Information:

- Codex is an inter-governmental body that establishes international food standards, guidelines and other recommendations. WHO and the Food and Agriculture Organization (FAO) established Codex and its two core mandates: to protect public health and to facilitate harmonization in international trade. One key area of Codex's work is supporting harmonized laws and regulations around food.
  - The Codex Commission sets international food standards that serve as a guideline for packaging and food safety. Codex instruments currently include standards on back-of-package nutrition labels, as well as guidelines on health claims, food supplements and infant formula, among others.
- In 2012, the Codex Commission recommended that nutrient declarations be mandatory on packaged food. (52)
- In November 2021, Codex adopted FOPL guidelines as an annex to the existing Guidelines on Food Labeling (CAC/GL-1985). The FOPL guidelines provide very overarching principles to guide countries in developing FOPL. They do not prescribe the use of any particular FOPL style; rather, they let countries pursue evidence-based FOPL measures. The guidelines explicitly state that FOPL can be mandatory. They also explain that FOPL development should be government-led with consultation from other sectors. (116)
- Codex guidelines are not mandatory. In particular, the WTO Agreement on Technical Barriers to Trade encourages WTO members to use international standards (e.g., Codex guidelines) as a basis for their technical regulations unless the standards represent an ineffective or inappropriate means for achieving a specific policy objective. It is therefore essential to demonstrate that a particular front-of-package labeling measure is evidence-based. Governments should document all alternatives — including policy options and

front-of-package labeling systems – considered to address a particular public health problem and why they are not appropriate. (117)

INDUSTRY CLAIM #8:

Different types of front-of-package labeling could increase costs for producers.

The industry claims:

- "Front-of-package labeling is trade-restrictive because it is costly and time-consuming to implement."
- "Front-of-package nutrition labeling will have financial implications for industry, including manufacturers, importers and retailers."
- "Small companies will require more time to comply with mandatory front-of-package labeling policies."
- "Front-of-package labeling will impact trade if different countries have different requirements."

For more information on trade arguments and trade restrictiveness, see the "Front-of-pack labeling – preparing for and responding to international trade law arguments" factsheet linked here.

The evidence shows:

- Companies can change their packaging at will, and already do so for different countries and markets.
- Once a policy is in effect, stickers can be allowed as a temporary solution to address cost concerns and ensure policy compliance while companies repackage their products.
- Any costs incurred by industry have the potential to be outweighed by the savings in health care costs.
- The labeling costs for both large and small companies are diluted over time and are not typically higher than their marketing spend.

Counter Messages:

- The Food and beverage industry—either directly or through governments-- regularly uses trade threats to oppose or delay country efforts to introduce FOPL measures. To this date, many governments raised concerns over proposed FOPL measures within the Committee on Technical Barriers to Trade, within the World Trade Organization. All the governments proposing FOPL have strongly responded those concerns with evidence that proves that FOPL has a legitimate public health objective, is justified to achieve the public health objective and it is not discriminatory and thus is in accordance with WTO rules. None of

those concerns evolved to be a dispute under the formal mechanism to settle disputes under WTO. *More details here.*

Further Information:

- Manufacturers have proven they are able to (and do) change packaging at will.
  - For example, in response to COVID-19, food companies quickly changed packaging and logos. (118)
- The major trade agreements used by the Caribbean Community (CARICOM) – including the CARICOM Single Market and Economy, the CARIFORUM-EU Economic Partnerships Agreement and relevant World Trade Organization agreements – contain exception clauses which allow for "trade-inconsistent" action for public health reasons. These clauses allow some opportunity to address public health concerns, including through front-of-package labeling. (119)
- A Pan American Health Organization (PAHO) report states that front-of-package labeling stickers may be used temporarily. For instance, if a significant amount of a product with an extended expiration date has already been manufactured and labeled, then manufacturers can add FOPL stickers to comply with new regulations. (78)
- Costs incurred by the industry in implementing front-of-package labeling may be outweighed by public health gains and health care savings.
  - A 2019 study shows that mandatory front-of-package labeling on SBs in the United States would reduce obesity prevalence by 3.1 percent in five years. (120)
  - A 2020 modeling study from Mexico showed that FOPWL could prevent 1.3 million cases of obesity (a 14.7 percent reduction in prevalence) and save $1.8 billion USD ($1.1 billion in health care costs and $742 million in indirect costs). (42) *More details here: English, Spanish, Portuguese*
  - In Barbados, a 2023 modeling study investigated the potential impact of FOPWL on improving diets and preventing deaths caused by NCDs. The study estimated that implementing FOPWL in Barbados would avert or delay about 16 percent of deaths attributed to NCDs, saving an approximate $732.8 million USD in mortality costs. (68)
  - A German modeling study assessed how front-of-package labeling might impact dental caries (i.e., tooth decay or cavities). Researchers examined various front-of-package labels, including warning labels, traffic-light labels, health logos and Nutri-Score. The study compared the impact of such labels – versus no labeling policy – on oral health and dental treatment costs. Researchers projected that over a 10-year period (2017-2027), front-of-package labeling could prevent about 2,370,715 dental caries, avert 677.62 disability-adjusted life years, save around €175.67 million ($185.92 million USD) in dental treatment costs and reduce productivity losses by about €27.33 million ($28.92 million USD). (121)

INDUSTRY CLAIM #9:

Front-of-package labeling will harm the economy

and lead to job losses for workers in the food industry, importing and retail.

The industry claims:	The evidence shows:
▪ "Mandating front-of-package labeling may negatively impact employees of related sectors, subsequently damaging the country's economy."	▪ In the countries where mandatory FOPWL has been implemented, there is no evidence of any negative impact on employment in the food (or related) industries, retail stores or national economies overall.

Counter Messages:

- When front-of-package labeling is implemented on products high in nutrients of concern, consumption shifts to other goods (i.e., ones low in nutrients of concern), resulting in little to no impact on the economy. UPPs typically have elastic demand, meaning they can be substituted with other products, such as minimally processed or unprocessed foods and beverages.

Counter Evidence

- Evidence from Chile shows its package of policies including FOPWL decreased expected sales of products with two labels and increased the expected sales of products with one or no label. This demonstrates that the policy helps consumers choose healthier options, leading to changes in the types of products offered on the market. (122-124)
- Studies show that FOPWL hasn't hurt employment or the economy. In fact, front-of-package labeling can help businesses grow by promoting healthier foods. As an example, an FAO study using the Comparative Interrupted Time Series[5] found no employment changes in labeling versus non-labeling groups in the manufacturing sector. (78, 125)
- According to the Organization for Economic Co-operation and Development (OECD), overnutrition leading to excess weight is forecasted to result in an annual decrease of about 54 million full-time workers across 52 OECD countries, with a projected increase in absenteeism affecting around eight million full-time workers. Furthermore, obesity's prevalence is tied to reduced life expectancy, hindrances in social progress and a 3.3 percent GDP reduction across OECD nations. These statistics suggest it is not the policies themselves that reduce the number of workers, but rather the adverse health effects in the absence of these policies that contribute to a diminished workforce. (133)

[5] The Comparative Interrupted Time Series technique compares how interventions or events affect outcomes over time by analyzing trends in multiple datasets before and after an interruption, similar to a difference-in-difference design.

- Analyses of wage and employment data in Chile found that a year and a half after the implementation of the country's Law of Food Labeling and Advertising, which included mandatory FOPL among other food policies, there was no significant impact on either employment or wages in the food and beverage sector.(126) (Research alert available here: English, Spanish)
    - An evaluation of Chile law's saw that in the first three years of implementation, the law did not impact employment, wages, or gross profit margins in the food and beverage industry, despite large declines in purchases of unhealthy foods.(127)

INDUSTRY CLAIM #10:

Front-of-package labeling may not effectively cater to consumers with different levels of literacy.

The industry claims:	The evidence shows:
▪ "Front-of-package labels may not effectively cater to consumers with different levels of literacy."	▪ FOPWL includes visual elements (such as icons), simplified formats, standardized information and supplemental educational campaigns, all of which benefit consumers with different literacy levels.

Counter Messages:

- Front-of-package labeling is an effective tool to help consumers from varying literacy levels easily identify foods high in nutrients of concern and make healthier food choices.

Counter Evidence:

- A Canadian study measured whether "high in" nutrient-specific front-of-package labeling approaches can improve consumers' ability to identify food high in nutrients of concern (sugar, sodium and saturated fat). Consumers with varying levels of health literacy were divided into either a control group (with current labeling but no front-of-package labeling) or one of four front-of-package labeling designs. They then underwent six shopping tasks designed to regulate internal motivations. The study showed the "high in" nutrient-specific front-of-package labels helped consumers of varying literacy levels make healthier food choices and easily identify foods high in nutrients of concern. (128)
- A South African study explored consumers' perceptions of FOPWL on foods and non-alcoholic beverages and their insights into features that could influence the effectiveness of FOPWL. Researchers found that consumers thought that FOPWL icons are clearly understandable and can be understood by the less literate, young people, and the elderly.

Further, researchers found that the combination of triangle and icons (see figure 5) graded participants attention and increased their interest in the FOPWL. (129)

INDUSTRY CLAIM #11:

Front-of-package labeling should be voluntarily implemented.

The industry claims:	The evidence shows:
▪ "Government should enact voluntary labeling regulations." ▪ "Voluntary systems provide us with more time to comply with these policies."	▪ Voluntary regulations do not serve the public health purpose of front-of-package labeling because these regulations are typically weakly implemented — such as by applying labels to only the healthiest foods. Compulsory measures are more effective.

Counter Messages:

- With voluntary labeling, governments allow companies to simply choose not to put labels on unhealthy products, reducing their incentive to reformulate and leaving consumers without information on which products contain high levels of nutrients of concern.
- Voluntary labeling allows companies to choose what products they want to be labeled. Companies often choose to label healthier products over those products high in nutrients of concern.

Counter Evidence:

- A systematic review studied the effect of implementing front-of-package labeling on food manufacturers' practices. The review found that mandatory policies had higher and more consistent effects on product reformulation compared with voluntary approaches. Voluntary approaches produced low coverage and tended to be applied to healthier products rather than unhealthy products. (130)
- When adopting a voluntary front-of-package labeling system, food and beverage companies often use the GDA system. Studies evaluating the effectiveness of industry labeling self-regulation have found such systems are poorly implemented by companies.
    - The Australian food industry adopted a voluntary front-of-package labeling system in 2006. Companies use a Daily Intake Guide system (DIG), which is similar to GDA. An independent audit of DIG labeling used on energy-dense, nutrient-poor snacks found that while 66 percent of such products displayed front-of-package labeling, most (74 percent) did not display saturated fat and sugar contents, a practice which contradicted the industry's commitment to implement DIG. (131)

- Another study examined how the Health Star Rating label affected food companies' decisions to make their products healthier. Researchers collected data from 2013 to 2019 in Auckland, New Zealand, and from 2014 to 2018 in Sydney, Australia, focusing on 58,905 different products in major supermarkets. They found that more than 35 percent of products with four stars or more (healthier) showed the Health Star Rating label, compared with less than 15 percent of products with two stars or fewer (less healthy). (132)

Resources

:: For more information on **FOPWL**, please consult the following resources:

- The resources page from the Global Food Research Program at the University of North Carolina at Chapel Hill, which includes:
  - ◊ Map of Front-of-Package Labeling Around the World
  - ◊ Factsheet: Front-of-Package Labeling: Empowering Consumers to Make Healthy Choices (English)
  - ◊ Ultra-Processed Foods: A Global Threat to Public Health
- Research alerts created by the Food Policy Program at the Global Health Advocacy Incubator

:: For more information on **FOPWL policy around the world**, please consult the factsheet *FOPWL Regulations Around The Globe*, or contact the GHAI legal team.

:: For more information on **industry influence on front-of-package labeling policy**, please consult the report *Behind the Labels: Big Food's War on Healthy Food Policies*.

:: For more information on **trade arguments and other legal efforts against front-of-package labeling**, please consult the factsheet *Front-of-Package Labeling – Preparing for and Responding to International Trade Law Arguments*, or contact the GHAI legal team.

:: For more information on **legal factors for developing FOPWL regulations,** plus consult the report *Key Legal factors: For Developing Front-of-Package Warning Labeling Regulations*, or contact the GHAI legal team.

:: **Brazil**

- *Food and beverages eligible for front-of-pack warning labels in Brazil are contingent on the nutrient profile model adopted (English, Spanish, Portuguese)*

:: **Chile**

- *No negative economic impact from Chile's food policy law – jobs and wages not reduced (English, Spanish)*
- *Positive nutrient claims on packages mislead consumers into thinking products are healthier than they are (English, Spanish)*
- *Chilean food and beverage law led to fewer foods and beverages with high levels of unhealth nutrients (English, Spanish, Portuguese)*
- *Comprehensive Chilean policy package significantly reduced purchases of sugary beverages (English)*
- *Chile's Package of Healthy Food Policies reduced unhealthy food purchases (English)*

:: **Colombia**

- *Octagonal warning labels most effective at discouraging ultra-processed food consumption in Colombia (English, Spanish)*

- *Front-of-package warning labels would be effective in discouraging consumption of unhealthy foods in Colombia; octagonal warning labels most effective (English, Spanish)*
- *New study finds that most Colombian packages food would require health warning labels (English)*

:: **Mexico**

- *First study of its kind shows front of package warning labels on unhealthy foods in Mexico could prevent 1.3 million cases of obesity and save US$1.8 billion (English, Spanish, Portuguese)*

:: **South Africa**

- *Parents make healthier food purchases when ultra-processed foods include warning labels (English)*
- *Warning labels discourage consumers from purchasing unhealthy products (English)*

:: **United States**

- *Label graphics influence consumer attitudes about sweetened fruit beverages (English, Spanish, Portuguese)*

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