

# Addressing Noncommunicable Diseases through Front-of-Pack Labels

Front-of-pack labeling (FOPL) policies can effectively address the over-consumption of ultra-processed food products (UPF) and thereby reduce the prevalence of noncommunicable diseases (NCDs), the leading cause of death in the Philippines.

## Unhealthy diets, increased risks

NCDs are the leading cause of death globally, accounting for over 40 million deaths in 2019. Various reports and a growing body of research list the consumption of UPFs as part of an unhealthy diet and as a significant factor to developing cardiovascular diseases (17, 863,827 deaths in 2019), diabetes mellitus (1,496,094), stroke (6,193,978), hypertension (1,148,939), and chronic kidney disease (457,973). Simultaneously, the World Obesity Federation estimates that majority of the global population, over 4 billion people, will be living with either overweight or obesity by 2035.

Poor and unhealthy diets characterized by the high consumption of UPFs are strongly and significantly linked to the increased risk of developing NCDs, overweight, and obesity. Currently, one in every eight people in the world is considered either overweight or obese. By 2030, around one-third of the global population will be obese or overweight should there be no policy action taken to address the obesity epidemic. In the study done by the Food and Agriculture Organization (FAO) of the United Nations, peer-reviewed literature on the effects of UPF on health outcomes show significant association of UPF consumption and NCD incidence, including obesity and obesity-related outcomes, cardiovascular and metabolic diseases, breast and all cancers, depression, gastrointestinal disorders, frailty in the elderly, and also premature mortality.

## What does it mean?

International agencies like the World Health Organization (WHO), the Food and Agriculture Organization (FAO), the United Nations Children's Fund (UNICEF), and the Pan American Health Organization (PAHO) recommend Front-of-Pack Labeling (FOPL) as an integral part of an effective policy package to limit the consumption of UPFs and to curb the rising prevalence of NCDs by promoting healthier food choices and limiting the consumption of UPFs.

## What are Ultra-Processed Food products (UPF)?

UPFs are industrially manufactured products that are calorie-dense, highly palatable, cheap, and ubiquitous. They contain excess amounts of sugar, sodium, saturated or trans fats, and preservatives to ensure a long shelf-life. By design, UPFs are highly profitable: they use low-cost ingredients, and they are highly-branded and enjoy robust marketing mechanisms to ensure familiarity by consumers. Due to their prevalence in the food environment, UPFs are also convenient, appearing as ready-to-consume food products that are easier to access compared to healthier food alternatives.



Some examples: instant noodles, 3-in-1 coffee mixes, carbonated soft drinks, powdered milk, hotdogs, fries, potato chips, ham, bread, biscuits, instant soups, and ready-made meals.


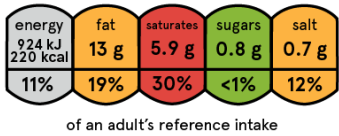

### What is NPM?

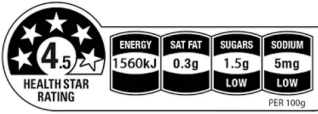


A Nutrient profile model (NPM) is a scientific way to classify or rank food according to their nutritional composition based on identified nutrient criteria, in support of public health goals. Through an NPM, food products are classed as either more or less healthy based on their caloric density, saturated fat or trans fat, sugar, or sodium content. Some systems rank food according to the amount of individual nutrients present in food, or by looking at the overall nutrition profile of the food. Nutrients of concern often refer to trans fat, saturated fat, sugar, and salt because of their link to diet-related NCDs. The NPM can become a tool to guide the implementation of UPF regulatory measures including taxation, front-of-pack labeling, marketing restrictions, school food regulation, and public procurement.

### What is Front-of-Pack labeling?

Front-of-Pack Labels (FOPL) are a set of logos or symbols prominently displayed on the front packaging of food products. The logos or systems are simple and easy to understand. They communicate nutrition information about the packaged food so that consumers can make informed choices about their food purchases. The earliest FOPL simply endorse products that have valid health claims. Front-of-Pack Warning Labels, the black octagonal warning labels also referred to as Chilean labels, are considered current global best practices and are used to mark out products with excessive levels of nutrients like salt, sugar, trans fat, and saturated fat. Other FOPL help consumers compare different food products with one another by displaying a grade that represents the product's overall nutrition value. FOPL policies usually have several goals or objectives: to promote healthier food, to encourage consumers to eat less healthy food, and to empower consumers to compare the nutritional quality of food towards making better choices.

# Kinds of Front-of-Pack Labels

Type of FOPL	Pros	Cons	Countries
<b>Nutrient-Specific</b> Nutrient Specific: Highlights individual nutrients that exceed the nutrient thresholds provided by NPM			
<b>Warning Label</b> 	<p>Aid in avoiding less healthy food products</p> <p>Easy to understand and to read in a fast-paced purchasing environment</p> <p>Quickly identifies unhealthy products</p> <p>Improves consumers' understanding of excess nutrients</p> <p>Decreases consumer intent to purchase high-in products</p>	<p>Will encounter significant pushback from the food industry</p>	<p>Mandatory Implementation in Mexico, Colombia, Peru, Chile, Brazil, Uruguay, Argentina, Venezuela, and Canada</p>
<b>Traffic Light Labels</b> 	<p>Built-in options informed by individual needs, experience, and dietician propositions.</p> <p>Uses familiar coding system: red for high levels of a certain nutrient, amber or orange for medium, and green for low</p> <p>Improves consumers' understanding about the nutrition composition of products</p>	<p>Green-red is the most common form of color blindness, which will affect the efficacy of this label</p> <p>Provides conflicting information where products can be high in one nutrient but low in another, which may lead to confusion</p> <p>Less effective in changing consumer intent to purchase or purchasing behavior</p>	<p>Mandatory implementation in Sri Lanka</p> <p>Voluntary implementation in the UK, Saudi Arabia, United Arab Emirates</p>
<b>Guideline Daily Amount</b> 	<p>Presents the amount of some nutrients and their percent contribution to daily intake</p>	<p>Reproduces the same back-of-pack nutrition facts in a graphic format</p> <p>Does not provide an interpretation of the nutrient information to help lessen consumers' cognitive load</p>	<p>Mandatory implementation in Thailand</p>

Type of FOPL	Pros	Cons	Countries
<b>Summary Indicator</b> Evaluates the overall nutritional quality of food items			
<b>Health Star Rating</b> 	Aid in comparing nutritional quality of food products	<p>Summary ratings may confuse consumers and encourage consumption of UPFs with excessive amounts of sugar, sodium, and/or fats through fortification</p> <p>Does not identify products containing excessive amounts of specific nutrients of concern</p>	Voluntary implementation in Australia and New Zealand
<b>Endorsement systems</b> 	<p>Promoting better or healthier products</p> <p>Increases the purchase of endorsed products</p>	<p>Does not guide consumers in identifying excessive nutrients in endorsed products</p>	<p>Voluntary implementation in Norway, Sweden, Iceland, Denmark, Lithuania, Macedonia.</p> <p>Healthy choice and similar check-mark symbols voluntary implementation in Czech Republic, Poland, China, Indonesia, Brunei, Malaysia, Thailand</p> <p>Heart endorsement symbols used in Zambia, Nigeria, Zimbabwe, South Africa, Slovenia</p>
<b>Nutri-Score</b> 	<p>Aid in comparing the overall nutritional quality of food products across categories</p> <p>Provides useful information to help rank food by their relative healthfulness or unhealthfulness</p>	<p>Does not guide consumers in identifying excessive nutrients in endorsed products, similar to the Health Star Rating</p> <p>Green-red is the most common form of color blindness, which will affect the efficacy of this label</p> <p>Used voluntarily, and are less effective at signposting unhealthy food products</p>	Mandatory implementation in Singapore, Portugal, Spain, Austria, Belgium, France, Germany, Luxembourg, Switzerland, Netherlands





## Summary of FOPL implementation worldwide

FOPL policies can either be voluntarily implemented or mandated by the government. Countries implementing a voluntary FOPL system tend to favor traffic-light labels (TLL) and different endorsement logos. For example, France, Spain, Germany, and Portugal all use the Nutri-Score system. Countries on the African continent tend to favor endorsement logos, such as the South African Heart Mark, and the Nigerian Heart Foundation logo. Southeast Asian countries join this trend, highly favoring voluntary implementation of FOPL. In Indonesia, Malaysia, and Singapore, variations of a Healthier Choice logo promote healthier products.

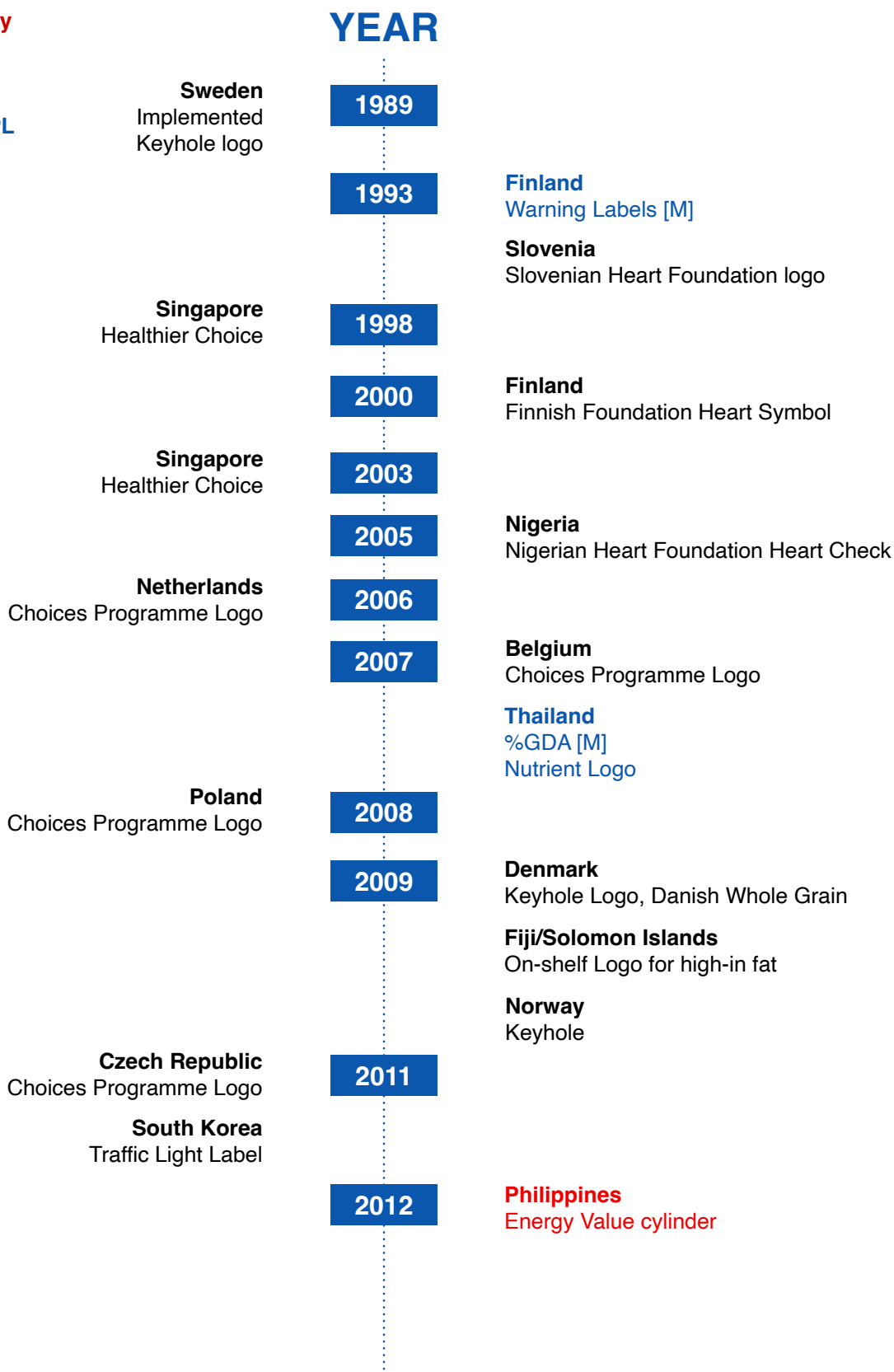
Warning labels are favored by countries in South America, where FOPL policies are mandatory. Chile, Peru, and Argentina all use the same black octagon warning labels for food with nutrients that exceed set thresholds. Studies have shown that the high-in octagon warning labels are most effective in promoting healthier diets, improving customer understanding of nutritional information, and have encouraged food companies to reformulate their products.

## A timeline of FOPL implementation worldwide

The following timeline provides a brief tour of the world's current implementation of FOPL policies and systems. The Philippines lags behind international and Southeast Asian counterparts by several years while Chile leads the world in their continuous review and implementation of a strict, mandatory warning label system, which is enjoying greater adoption from other nations from 2020 onwards.

### Philippine policy action

### Countries with mandatory FOPL policies



## YEAR

2013

**Ecuador**  
Traffic Light Label

**Lithuania**  
Keyhole

**United Kingdom**  
Traffic Light Label

2014

**Mexico**  
%GDA [M]  
Nutrition Seal

**Australia**  
Health Star Rating

**New Zealand**  
Health Star Rating

2015

**Chile**  
Approval of regulatory norms for the implementation of the Chilean Law of Food Labeling and Advertising

**Croatia**  
Healthy Living Logo

**Denmark**  
Keyhole

**Iceland**  
Keyhole

**Iran**  
Traffic Light Label

**Mexico**  
%GDA [M]

**Peru**  
Approval of technical parameters for labeling sugar, sodium, saturated fat, and trans fat

**Singapore**  
Healthier Choice

**United Arab Emirates**  
Weqaya Logo

2016

**Chile**  
Warning Label [M]

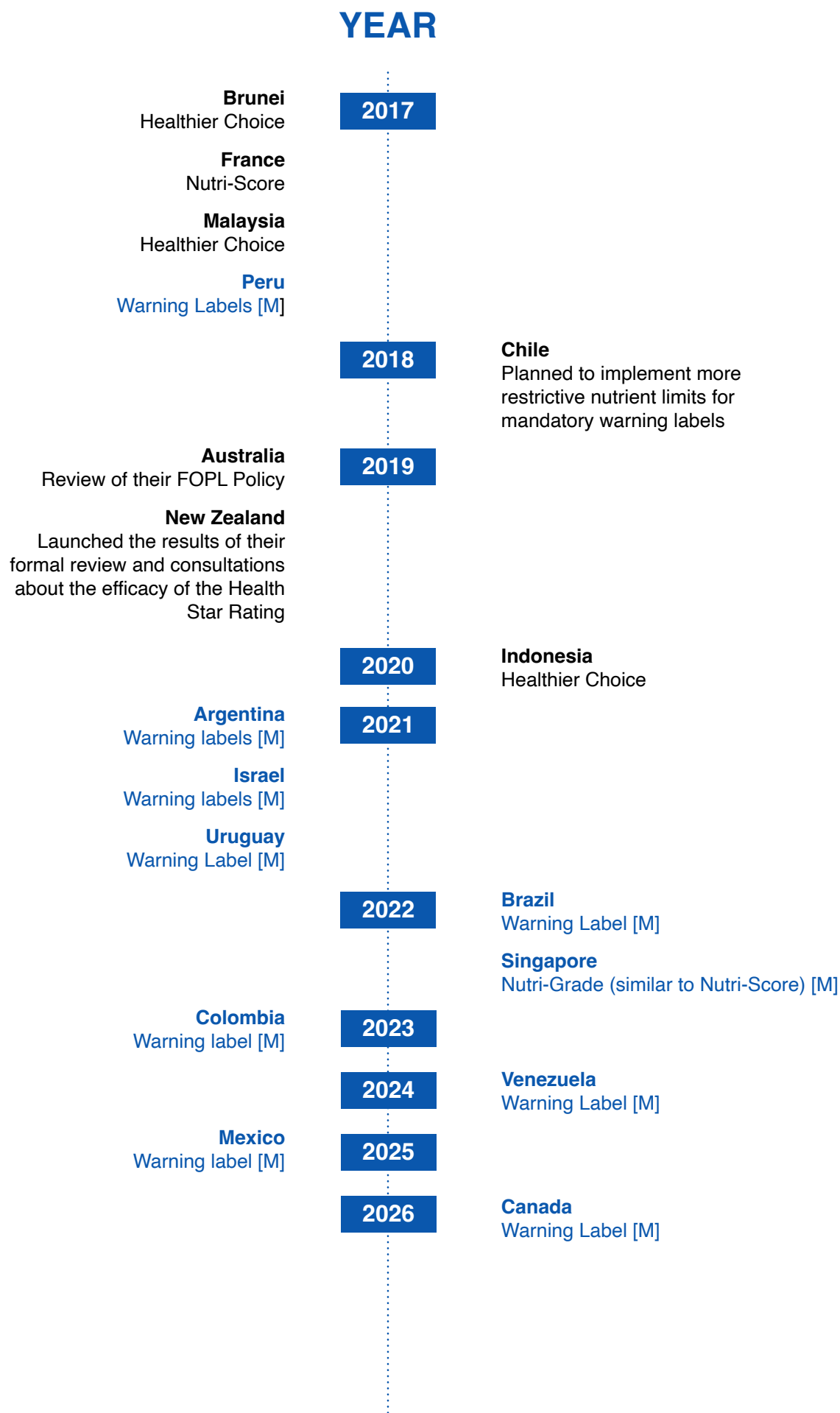
**Canada**  
Held a consortium for proposed warning labels for sugar, saturated fat, and sodium

**Israel**  
Proposed warning labels for high-in sodium, total sugar, and saturated fat

**Sri Lanka**  
Traffic Light Label [M]

**Thailand**  
Healthier Choice label





# Which FOPL is most effective?

## Case Study 1: Guideline Daily Amount in Mexico

In Mexico, the mandatory Guideline Daily Amount (GDA) FOPL was developed and supported by members of the food industry in an effort to provide an alternative labeling scheme. Although the GDA was selected to promote better dietary choices, this FOPL has not been proven to be effective. Studies have shown that despite a high awareness of the GDA in Mexico, the label is little used. Less than 20% of study participants report using the GDA to help make food choices because the label is difficult to understand, and even more difficult to interpret. Due to its format, participants rarely took the GDA into account when making purchase decisions: the label was too small, the colors were unpleasant, and the percentage information included was too complicated to interpret. Mexican consumers report difficulty interpreting the meaning of the percentages, which ultimately hinders rather than aids the efficacy of the label. Consumers also report spending at least 30 seconds to read the GDA label. Other studies confirm these findings, also reporting that GDA labels were the least effective at communicating a product's relative healthfulness.

Other studies confirm that GDA is not helpful for groups who are most nutritionally-at-risk, which include individuals and groups with low health literacy levels. Health literacy refers to the ability to understand, evaluate, and apply health-related information to make decisions about one's individual health. The Mexican consumer study is particularly important for Filipino consideration because it simulates the efficacy of GDA and other FOPL systems in lower-and-middle-income countries. Studies in the Mexican context include participants from diverse socioeconomic status.

## Case Study 2: Nutri-Score in France and Germany

The Nutri-Score has enjoyed wide voluntary implementation in Europe since its launch in France in 2017. While studies report its efficacy in increasing healthier food selections for adults in several countries, the same can be said for other types of FOPL, including warning labels and the Health Star Rating system. This FOPL is most effective at aiding consumers to compare the overall nutritional quality of food products across their respective categories, and identify healthier products. A study of its impact in the German context reports that while consumers are very familiar with the Nutri-Score system, only 26% actively used the rating system to compare products. As in other European nations, Germany practices a voluntary implementation of the Nutri-Score system. The same study finds that the mere presence of the FOPL therefore is actually more impactful than the grade that it provides.

In France, the voluntary implementation of the Nutri-Score benefitted from centralized information campaigns to boost consumer familiarity. However, three years after its initial implementation, a study of the FOPL impact reports that only 18% of the study participants use the Nutri-Score to assess the nutritional quality of products despite widespread support of the FOPL. In terms of changes in consumer purchasing behavior, the same study reports only 34% of consumers limited the purchase of products showing lower Nutri-Score ratings, and 39% reported changing brands of the same product due to its Nutri-Score rating.

## Case Study 3: Warning Labels in Chile

Front-of-Pack Warning Labels are the most effective system to date. Studies about the implementation of warning labels in low-and-middle-income (LMIC) countries in South America report their efficacy in changing purchasing behavior, and their potential to nudge food producers towards product reformulation. These results are useful for developing best practices for similar or equivalent contexts, such as the Philippines. Warning labels are easy to read at a glance, and they present interpretative information that is quickly understood by individuals from low socioeconomic status and education. In these contexts, warning labels have also enjoyed strong public support.

In Brazil, warning labels have reduced the perception of healthfulness of products with high-in labels. These studies have also found that users exhibited improved understanding of nutrient content of the





products they encountered. Warning labels also help consumers make more accurate judgments given the market selection where the label only appears on products that fit the eligibility criteria.

Chile's implementation of their Law of Food Labeling and Advertising provides compelling evidence on the efficacy of warning labels, and their impact on their food environment. The Chilean FOPL policy is part of a comprehensive policy package that includes restrictions on child-directed marketing, and a ban on food and beverage sales in schools for products that exceed set thresholds on added sugar, sodium, and saturated fat. After just a year of implementation, studies show high awareness and acceptance of the warning labels by Chilean consumers. The implementation of a mandatory FOPL effectively reduced the consumption of sugar-sweetened beverages by 23.7%, including fruit drinks and dairy-based beverages. Research on the impact of the FOPL also reports that Chilean consumers actively use the warning labels to help make better food purchasing decisions, resulting to a shift in social norms toward improved intake of healthier food. In this context, the warning labels work across populations of diverse socioeconomic and educational status, and has contributed to the reformulation of high-in products.

### An FOPL policy for the Philippine context

The Philippines follows global trends in terms of NCD-caused deaths. According to the WHO, in 2019, 511,700 deaths were caused by NCDs, including cardiovascular diseases (250,000 deaths), ischemic heart disease (130,000), stroke (74,200), cancer (69,000), diabetes (32,300), and chronic kidney disease (16,700).

*WHO Global Health Estimates – Cause of death by select NCDs, Philippines (2019v2015) in '000s.*

Disease	Number of deaths-2019 (total: 108,117)	Number of deaths-2015 (total: 102,113)
NCD	511.7	417.7
Cancer	69.0	59.6
Colon and Rectum Cancer	8.1	6.9
Liver Cancer	7.7	6.8
Breast Cancer	9.8	8.4
Diabetes Mellitus	32.3	22.4
Cardiovascular Diseases	250.0	205.6
Hypertension	34.5	28.6
Ischemic Heart Disease	130.0	105.1
Stroke	74.2	62.4
Chronic Kidney Diseases	16.7	12.2

The WHO reports that 31% of the Southeast Asian population is considered as living with overweight or obesity. In the Philippines, the results of the most recent national nutrition survey found that 40.2% of Filipino adults aged between 20 to 59 years old are overweight or obese, as are a significant minority of elderly Filipinos aged 60 years and above (31.6%), adolescents (13%), and school-aged children (14%). The environment is a significant risk factor: more children in urban areas are overweight (17.3%) than those residing in rural areas (11.7%), and overall, Filipino women living in urban areas are the most at risk of developing obesity.

FOPL is an essential policy tool to decrease the consumption of UPF and to combat NCDs. Eating more nutritious, and healthier food will improve Filipino health overall. Front-of-Pack Labels enable better food choices in a crowded and fast-paced purchasing environment, which will lessen the prevalence of cardiovascular diseases, ischemic heart disease, stroke, cancer, diabetes, and chronic kidney disease.

The nutrition label that appears on the back of packaged food products are often hard to read and harder to interpret. Similar to research findings from South American nations and other LMICs, Filipinos rarely read the nutrition facts on packaged food. A study by the DOST-Food and Nutrition Research Institute (FNRI) found that only one in every five adult Filipinos reads food product labels consistently. Filipinos are discouraged from reading nutrition labels because the print is too small, the information is too technical, and there is a lack of trust about the accuracy of the information. FOPL can help Filipinos who have trouble understanding health information and nutrition facts: this system is designed to be easily understood, and easy to read to encourage changes in purchase behavior.

### Checklist for FOPL policies in LMICs

- ☒ FOPL system to be implemented as part of a comprehensive policy package that includes marketing restrictions, public awareness, and information campaigns
- ☒ Consistently implemented across food categories through mandatory implementation
- ☒ Interpretative and evaluative FOPL design to lessen cognitive load
- ☒ Appealing logotype or graphic design that is easy to understand at a glance
- ☒ Provides clear information about nutrients of concern

## Common Arguments by Industry & How to Respond

Argument	Response
Implementation of Front-of-Pack labeling will be expensive, and the cost will be passed down to consumers in the form of increased retail prices.	Printing new labels often occurs regularly, in particular during seasonal promotions. This means that design and printing costs are not restrictive. In the long-run, these prices will be offset by decreased spending on healthcare.
FOPL will only be effective if the consumers understand them.	On the contrary, FOPL has been proven to increase health and nutrition literacy and to improve consumers' overall understanding of a product's nutritional value.
Industry-led FOPL are already in-use.	Guideline Daily Amount (GDA) and other industry-backed FOPL are designed against best practices. The GDA, for example, is ineffective because it is difficult to use and difficult to understand. Evidence-backed best practices in LMICs consistently recommend the use of warning labels for their clarity, and potential to communicate effectively in real purchasing environments.
There is not enough convincing evidence to support the implementation of FOPL.	Best practices compiled and recommended by international organizations such as the WHO, FAO, UNICEF, and PAHO point to the use of FOPL as part of a suite of policies to decrease the consumption of UPFs to combat the rise of NCDs.

