Front of Package Labelling
All You Need To Know About

The World Health Organisation (WHO) recommends the implementation of Front of Package Labelling (FoPL) as one of the 'best-buy' measures to help prevent non-communicable diseases (NCDs). India has been seriously considering implementing mandatory FoPL past few years and even conducted stakeholder consultations in this regard.

However, it has been noted that except for a handful of stakeholders, most people in India, including food safety officials across various states, health experts, industry representatives and even consumers, are unaware of what FoPL stands for, what are the different types of FoPL and how they play a significant role in promoting healthier diets?.

In this context, this Briefing Paper attempts to educate interested stakeholders about FoPL and how this tool aids us consumers in identifying healthier food choices.

High blood pressure, high blood sugar levels, and overweight/obesity are India's top five risk factors for mortality. The prevalence of overweight and obesity is growing so faster than the world average that it is projected it will reach 30.5 percent and 9.5 percent among men, and 27.4 percent and 13.9 percent among women, respectively, by 2040.[1]

In fact, NCDs are now responsible for more than 65 percent of all deaths in the country, or approximately six million-plus deaths. Between 1990 and 2016, the contribution of NCDs increased from 37 to 61 percent of all deaths in the country.[2]

The World Economic Forum and Harvard School of Public Health had earlier highlighted the economic burden of NCDs in India in their study wherein it states that India stands to incur a cost of US$4.58tn between 2012 and 2030 due to NCDs and mental health conditions.[3]

Of this amount, cardiovascular disease (CVDs) alone would cost US$.17tn, covering up almost most of the economic loss. The study further states that while several nations have implemented stronger regulations on salt content in food products and subsequently seen lower rates of CVDs, no such restrictions are in place in India.

Similar findings of numerous studies point out that the burden of NCD keeps rising in India primarily due to excessive consumption of calorie-dense foods and beverages containing high levels of saturated fats, trans-fatty acids, and sugars salts. Consumer's changing preference to ready-to-eat foods, bakery products, frozen foods and other ultra-processed pre-packaged foods over healthy alternatives have increased substantially over the years and nothing much changed even during the pandemic.[4]

The packaged food market is expected to double to US$70bn by 2025, and the Indian processed food market is projected to expand to US$470bn by 2025 from the current US$263bn.[5]

But what is worrisome are the findings of a few reputed organisations on processed food and its impacts on human health. One of the leading universities in Australia recently published a study on ultra-processed foods and beverages sales in 80 countries. Findings of that study showed that from 2009-2019, the rate of sales growth of ultra-processed food and beverages was highest in lower-middle-income regions of Asia compared to the rest of the world.[6]

Among the Asian countries, India was topping the list at 7.8 percent, while the growth was close to stagnant in high-income countries like the US and Germany.

Various institutions, including WHO, Food and Agriculture Organisation (FAO), and United Nations Children's Fund (UNICEF) have again advocated for avoiding such unhealthy foods from people's diet. The findings of such studies can easily be correlated to the rise in NCDs among the population in India.

The Health of the Nation 2021 report released by a leading chain of hospitals in India shows India's growing trends in NCDs during the past few years. It has been revealed that NCDs have contributed to a staggering 64.9 percent of total deaths in the country.[7] The report also cautioned that individuals with NCDs have a greater mortality risk during the ongoing pandemic crisis.

The 2030 agenda for sustainable development adopted by the United Nations (UN) considers NCDs as a significant challenge for sustainable development to reduce premature mortality from NCDs by one-third by 2030. This becomes even more challenging as highly processed, packaged foods that tend to be high in fats, sugars and salt are often less expensive than fresh and nutritious foods.

NCDs and FoPL

WHO recommends the implementation of FoPL as one of the 'best-buy' measures to help prevent NCDs. It readily informs consumers about the relative healthiness of a food product, thereby warning them when products are excessive in added sugars, total fat, saturated fats, trans fats and sodium, which are the critical nutrients associated with NCDs.

Such labels provide simplified nutritional information in the form of symbols, colours, or words to help consumers easily identify the nutritional quality of foods, thereby encouraging them towards healthier food choices at the point of purchase. Therefore, FoPL stands different from the existing nutrition labels on the back or side of food packs that appear complex with numerical information in small print size.
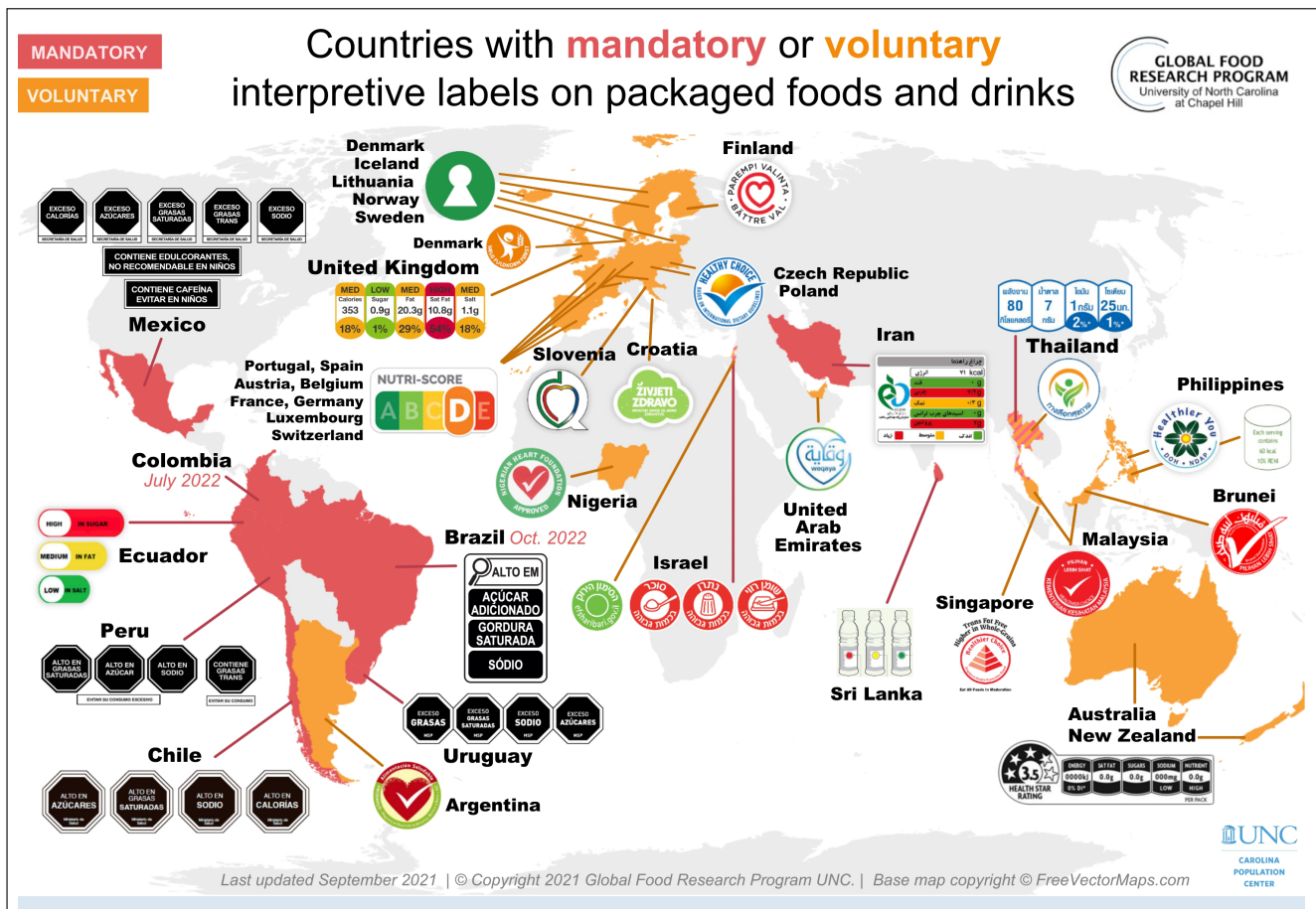
What is FOPL?

According to the WHO definition[8], FoPL refers to nutrition labelling systems that:
- are presented on the front of food packages (in the principal field of vision) and can be applied across the packaged retail food supply;
- comprise an underpinning nutrient profile model that considers the overall nutrition quality of the product or the nutrients of concern for NCDs (or both); and
- present simple, often visual information on the nutrient content or nutritional quality of products to complement the more detailed nutrient declarations usually provided on the back of food packages.

A significant number of countries have implemented FoPL but in different formats and there is no global consensus on a particular type of FoPL. Every country has chosen the label based on its needs and situation.

Back of Pack Label Vs Front of Pack Label

Countries with **mandatory** or **voluntary** interpretive labels on packaged foods and drinks

MANDATORY
VOLUNTARY

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Denmark, Iceland, Lithuania, Norway, Sweden
Denmark
United Kingdom
Mexico — EXCESO CALORÍAS, EXCESO AZÚCARES, EXCESO GRASAS SATURADAS, EXCESO GRASAS TRANS, EXCESO SODIO; CONTIENE EDULCORANTES, NO RECOMENDABLE EN NIÑOS; CONTIENE CAFEÍNA EVITAR EN NIÑOS
Portugal, Spain, Austria, Belgium, France, Germany, Luxembourg, Switzerland — NUTRI-SCORE A B C D E
Colombia July 2022
Ecuador — HIGH IN SUGAR, MEDIUM IN FAT, LOW IN SALT
Peru — ALTO EN GRASAS SATURADAS, ALTO EN AZÚCAR, ALTO EN SODIO, CONTIENE GRASAS TRANS
Chile — ALTO EN AZÚCARES, ALTO EN GRASAS SATURADAS, ALTO EN SODIO, ALTO EN CALORÍAS
Finland
Czech Republic, Poland
Slovenia
Croatia — ŽIVJETI ZDRAVO
Nigeria
Brazil Oct. 2022 — ALTO EM AÇÚCAR ADICIONADO, GORDURA SATURADA, SÓDIO
Israel
United Arab Emirates
Iran
Sri Lanka
Uruguay — EXCESO GRASAS, EXCESO GRASAS SATURADAS, EXCESO SODIO, EXCESO AZÚCARES
Argentina
Thailand
Philippines — Healthier You
Brunei
Malaysia
Singapore
Australia, New Zealand — HEALTH STAR RATING

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An effective FoPL will:

- Easily attract consumers' attention through eye-catching graphic design, colours and contrast;
- Guide consumers to make informed food purchases;
- Allow consumers to compare products in the same category as well as products belonging to different categories; and
- Support public health policies to reduce the incidence of chronic diseases among the population.

Types of FoPL

FoPL are of two major types - the interpretive and the non-interpretive labels. The non-interpretive nutritional label is numeric and requires the consumer to self-interpret. Therefore, consumers need adequate literacy skills to understand such labels and are generally perceived to be less helpful, particularly for groups with low food and nutrition literacy levels.

At the same time, the interpretive nutritional label indicates the product's healthiness, usually graphically, for the consumer. They have proved to be the most useful to consumers for showing the nutritional quality and even simplifying the nutritional information available at the back of the pack.

These two broad categories are further classified into different groups like the nutrient-based systems, summary indicator systems, endorsement logos, nutrient-based warning labels, etc. All these are designed and proposed with different purposes.[9] Below is the summary of different types of such labels:

The *endorsement logos* on products meet specific nutrition standards using symbols like a tick, a heart symbol, and a green keyhole. It provides no direct information to indicate if a product is unhealthful and consumers may misunderstand logos to represent healthier choices overall. These types are most prevalent in European countries like Belgium, Croatia, Denmark, Finland, Iceland, Sweden, etc.

Choice Logo

Keyhole Logo

Summary indicator systems provide an overall summary score about the healthfulness or unhealthfulness of the product. The French Nutri-Score FOPL is the best example. Traffic light colour coding (from dark green to dark red) with
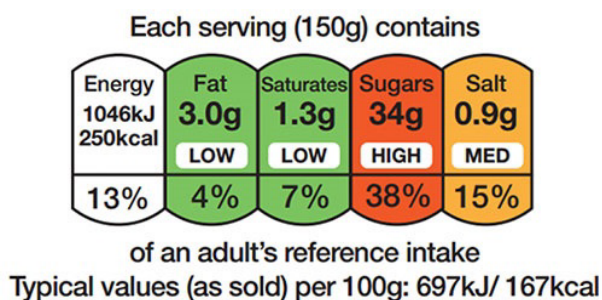
NUTRI-SCORE

corresponding letters (from A to E) provides a five-item scale of product healthfulness. The letters are included to ensure better visibility of the label, especially for people who have difficulties with colour.
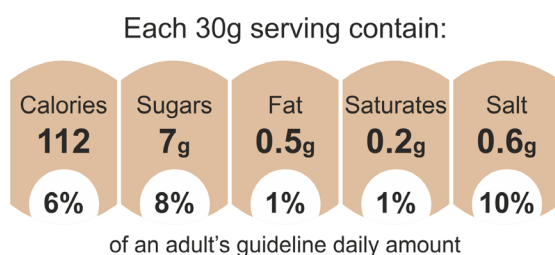
The Health Star rating system introduced by Australia and New Zealand is another example of summary system. It is quite similar to the energy rating label used on our electrical appliances.

Colour-coded *GDA or Reference Intake* FOPL systems use three colors corresponding to traffic light road signs, depending on the nutrient content level. The GDA miniature cells are filled with three colours: red for a high nutrient content level, amber for medium, or green for low.

Each serving (150g) contains

| Energy 1046kJ 250kcal | Fat 3.0g LOW | Saturates 1.3g LOW | Sugars 34g HIGH | Salt 0.9g MED |
| 13% | 4% | 7% | 38% | 15% |

of an adult's reference intake
Typical values (as sold) per 100g: 697kJ/ 167kcal

Monochromatic guidelines for daily amounts (GDA) systems apply a miniature reproduction of the nutrition facts panel as a FoPL containing calorie count.

Each 30g serving contain:

| Calories 112 | Sugars 7g | Fat 0.5g | Saturates 0.2g | Salt 0.6g |
| 6% | 8% | 1% | 1% | 10% |

of an adult's guideline daily amount

Nutrient-specific textual and colour-coded systems, also known as traffic-light systems, use multiple textual information associated with colour codes to indicate the level of concentration of specific nutrients.

Warning Labels use front-of-package text-based seals to inform consumers when a product contains excessive amounts of critical nutrients. Such a simple, interpretive label has proven helpful to all consumers' categories regardless of their age, literacy proficiency, or socioeconomic strata. Further, as the nutritional values declared are for 100 g or 100ml of the food product instead of the serving size, the warning label restricts manufacturers from controlling the nutritional profile as desired.

Warning FOPL

High Sodium Level   High Sugar Level   High Saturated Fat Level

Challenges in Implementing FoPL

FoPL is a cost-effective means to check marketing claims at the point of purchase, and it can empower consumers and promote the production of healthy foods and food products. However, the governments face several barriers before bringing out such regulation and even while implementing once it is in force. The primary challenge most countries face is

bringing on board the food manufacturers who are generally seen opposing the creation of government-endorsed FoPL systems across the globe.

The industries across any sector have always been more vocal in their opposition to mandatory labeling programmes rather than voluntary. Given their power of influence and stronghold, governments are forced to enact unclear and hollow provisions to benefit the industries at large.

Even if such a regulation is brought into effect, the next big hurdle would be to ensure its effective implementation and monitoring. The labelling must be uniformly applied, actively monitored and enforced, and regularly reviewed and evaluated for improvements or adjustments. The initial few year's should be devoted to analysing and tracking the effectiveness of the regulation, the depth of consumer acceptance, changes in the nutritional quality of people's diets, the ambit of nutrient threshold and food products, etc. There is a need for better coordination of regulators at the Centre and states. For this to happen, adequate funds are required.

Another practical challenge most developing countries face is the significant lack of law enforcement capacity, including shortages of food safety officers. This is despite the rapid growth of the food market since the economic reforms. The massive gap between the size of the food market and the government's capacity to supervise and manage this sector has always remained a concern in developing economies.

Steps should also be taken to constantly develop the capacities of food safety officers by providing them with appropriate training and expertise, and their enforcement activities should be backed with speedy and effective trials. More importantly, to create seriousness among the manufacturers, efforts should be taken to ensure prompt collection of imposed penalties, if any.

Likewise, as always pointed out by different stakeholders, efforts should also be taken to increase the capacity of food laboratories. Even the Comptroller and Auditor General (CAG) of India's Food Safety and Standards Authority of India (FSSAI) audit, conducted in 2017, highlighted this requirement. Despite adequate support and modernisation, most of the food laboratories in India lack technical manpower and often, essential food testing equipment is either unavailable or non-functional.

Besides, many state food laboratories and referral laboratories to which FSSAI and state food safety authorities sent food samples for testing do not possess National Accreditation Board for Testing & Calibration Laboratories (NABL) accreditation. Such a shortage of qualified manpower and functional food testing equipment in state and referral laboratories often results in deficient food samples testing.

Early engagement with key stakeholders by FSSAI on the issue of FoPL is a welcome move as this should ensure a smooth implementation. However, poor awareness of consumers in general and the increased probability of failing in generating adequate awareness to understand the nutrient content of the label should never be overseen.
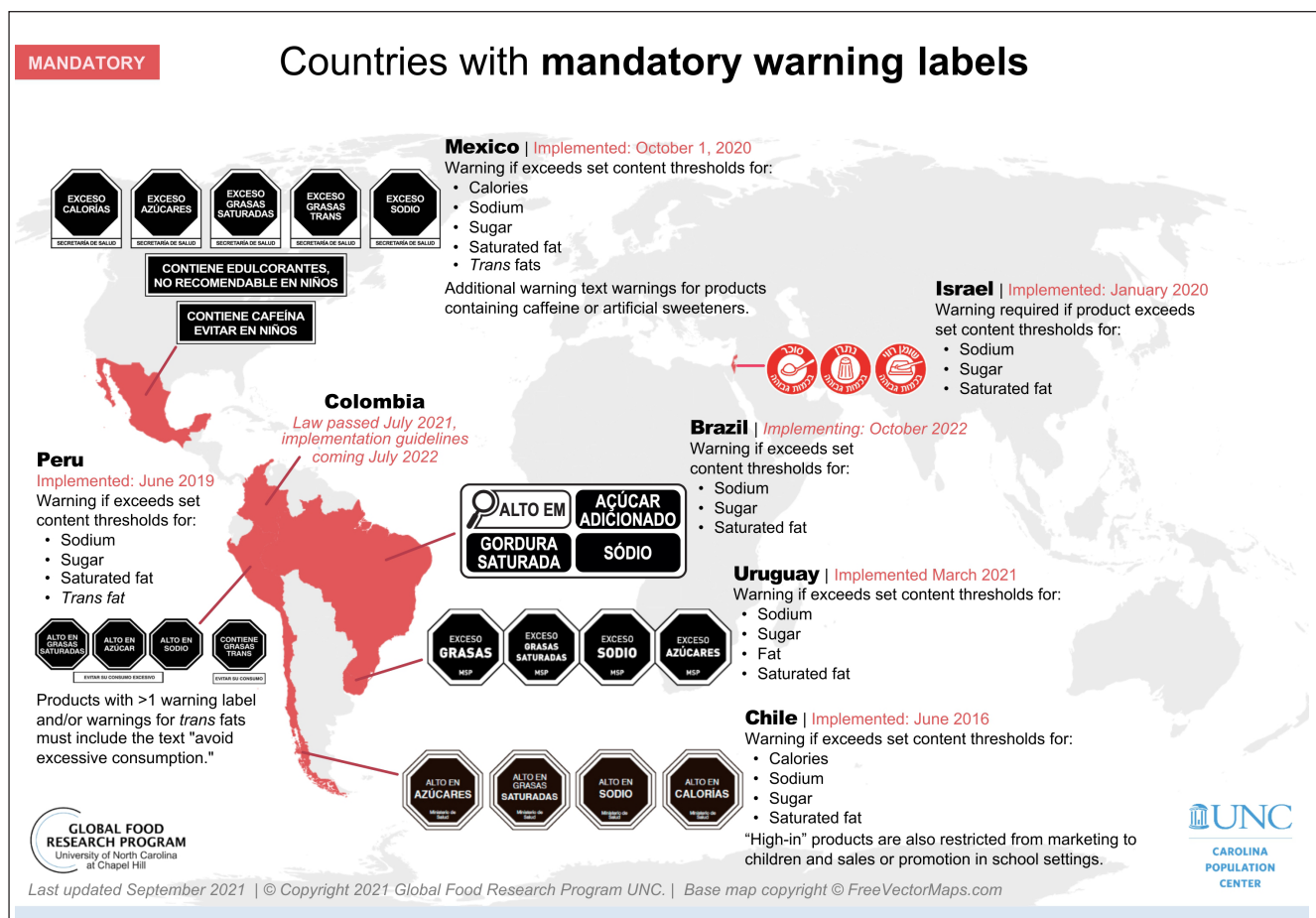
Regardless of the FoPL system chosen, efforts must be put forth for consumer education programmes to encourage its understanding and use. While public awareness of aspects of food hygiene has significantly been enhanced during the pandemic, knowledge about nutritious and safe food has not seen many positive changes. The lockdown only saw an increased purchase of junk foods and companies coming up with innovative ways to sell such junk foods to consumers.

Hence, well-resourced and targeted public education campaigns are vital to helping raise public awareness on safe and nutritious foods and how FoPL can be used as an effective tool during their purchase.

Warning Label Most Desirable as per Studies

Many FoPL exist with different approaches and designs interpreting the nutrition present. Still, negative warning labels that efficiently help identify unhealthy products have proved to be most effective for discouraging junk food and ultra-processed food choices. They are simple enough to understand and can be used without sustained investments in educational campaigns.

Such simple, interpretive labels are adopted in countries like Chile, Canada, Israel, Peru, Mexico, Brazil, Uruguay, etc., and have played a crucial role in shaping consumer-level food behaviour. Such a warning label would be ideal for our country as it has proven useful to all consumers' categories regardless of their age, literacy proficiency, or socioeconomic strata.

Countries with **mandatory warning labels**

MANDATORY

Mexico | Implemented: October 1, 2020
Warning if exceeds set content thresholds for:
• Calories
• Sodium
• Sugar
• Saturated fat
• Trans fats
Additional warning text warnings for products containing caffeine or artificial sweeteners.

Israel | Implemented: January 2020
Warning required if product exceeds set content thresholds for:
• Sodium
• Sugar
• Saturated fat

Colombia
Law passed July 2021, implementation guidelines coming July 2022

Brazil | Implementing: October 2022
Warning if exceeds set content thresholds for:
• Sodium
• Sugar
• Saturated fat

Peru
Implemented: June 2019
Warning if exceeds set content thresholds for:
• Sodium
• Sugar
• Saturated fat
• Trans fat

Products with >1 warning label and/or warnings for trans fats must include the text "avoid excessive consumption."

Uruguay | Implemented March 2021
Warning if exceeds set content thresholds for:
• Sodium
• Sugar
• Fat
• Saturated fat

Chile | Implemented: June 2016
Warning if exceeds set content thresholds for:
• Calories
• Sodium
• Sugar
• Saturated fat
"High-in" products are also restricted from marketing to children and sales or promotion in school settings.

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More importantly, it would act as an efficient tool to guide those consumers who are medically advised to reduce the intake of fat, sugar, or salt in their diet, thereby encouraging them towards a healthy eating habit. Further, as the nutritional values declared are for 100 g or 100ml of the food product instead of the serving size, the warning label restricts manufacturers from controlling the nutritional profile as desired.

There are many experiments, surveys, and study reports that justify the stand for a warning label compared to the other types. Last year a meta-analysis of 14 experimental studies that scrutinised existing FoPLs in force found that only warning labels significantly reduced the sodium content of purchases, as did the traffic light labels to some extent. Still, no effects on purchasing were found for Health Star Rating, NutriScore, or Guideline Daily Amount (GDA) labels.[10]

Likewise, in 2017 a study comparing warning labels to traffic light labels and industry GDA-style labels found that in Uruguay, warning labels were better able to help consumers correctly identify products with high content of unhealthy nutrients. Such a label on snack foods had a more significant relative impact on children's choices than other labels. Consumers perceived products bearing warning labels as less healthy than the same products featuring GDA or traffic light labels. It also showed that warning labels were more effective in encouraging reformulation of ultra-processed products than the other two labels.

Another study published in 2019 in the International Journal of Behavioral Nutrition and Physical Activity claims that in an experimental study, Canadian consumers who saw 'high in' nutrient warning labels purchased fewer calories, sugar, and saturated fat from beverages and less calories and sodium from foods. Also, warning labels outperformed traffic lights, Health Star, and nutrition grade labels.[11]

Recent studies have found that warning labels significantly outperform traffic light labels and GDAs in capturing consumers' attention in Brazil. It improves their ability to identify healthier products

and products high in nutrients of concern and increases their intention to buy a relatively more nutritious option.

In 2019 an extensive survey of parents from four Latin American countries found that the most vulnerable parents with low education and overweight preferred a warning label over other labels.[12] In the same year, a survey of adults from Mexico and the US to analyse consumers' understanding of four different FoPL types, including the warning labels, GDAs, multiple traffic lights, and Health Star Ratings, showed that warning labels were the easiest for consumers to understand.[13]

In a recent study, George Institute for Global Health has dismissed Australia and New Zealand's health star food rating system as flawed. It found that the loopholes in the system are facilitating food products high in salt, sugar and fats, scoring higher ratings and misleading the consumers.[14]

Countries that took the bold stand, such as Brazil and Mexico, which have low and middle-income populations like ours with low literacy rates and a greater burden of diet-related diseases, are ideal cases for us to rely upon. They adopted warning labels despite strict opposition from the industry sector, keeping the more significant interest of consumers and human health in mind.

Conclusion

No single action will change the consumer's preference for unhealthy diets and the growing NCD crisis in the country, multiple actions need to be taken by the government in close cooperation with stakeholders. Regulation for a robust mandatory front of packaging label without any further delay is a must. The existing detailed nutritional summary provided at the back of the product never served the purpose due to the language barrier and consumer ignorance about its objective.

Hence, FoPL in India should always be simple and easily interpretable by consumers, which would help them to identify unhealthy products.

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