



Implementing Front-of-pack nutrition labelling regulations: Considerations for European policymakers

The present briefing has been written to support policymakers, civil society organisations (CSOs) and other stakeholders regarding the implementation of front-of-pack nutrition labelling policies in Europe. It supplements the evidence on available nutrition labelling and necessary considerations provided by systematic reviews, cost studies, case studies and other resources and guidelines that have been compiled in the World Obesity Federation's policy dossier, available [here](https://www.worldobesity.org/resources/policy-dossiers/pd-7); a webinar hosted by World Obesity held on November 14, 2019; and other guidelines and reports that have been published on the topic. It presents a summary of the evidence highlighting necessary steps and considerations to ensure the appropriate implementation of nutrition labelling regulations, as well as showcasing some case studies from Europe. More information can be found at <https://www.worldobesity.org/resources/policy-dossiers/pd-7>

INTRODUCTION

The global burden of non-communicable diseases (NCDs) including obesity is high, both from a societal and financial perspective. Poor diet has been identified as one of the leading causes of mortality and morbidity globally. The World Health Organization (WHO) identified nutrition labelling as "one of the policy tools that can support healthy diets, both in stimulating consumers to make informed healthier food choices and in driving manufacturers to reformulate products to avoid making unfavourable nutrient content disclosure." [1]

Front-of-pack nutrition labelling (FOPL) has been identified as a potentially effective policy tool to help promote positive food environments and support consumers in making better and informed food choices through the presentation of nutritional information. [1] In addition, it has been shown to promote reformulation of food products. FOPL has been recognised as a cost-effective policy to address the growth of obesity prevalence as well as other NCDs. [2][3] A study by the OECD suggests that population-wide interventions including food labelling have the largest health gains globally. [4]

Food labelling is "any written, printed or graphic matter that is present on the label, accompanies the food, or is displayed near the food, including that for the purpose of promoting its sale or disposal." [5]

The WHO first proposed FOPL in 2004 as part of a comprehensive policy to improve diet and health as a response to the global epidemic of obesity and diet-related NCDs. [6] The WHO European Food and Nutrition Action Plan 2015-2020 and the EU Action Plan on Childhood Obesity 2014-2020 recommend the creation of positive nutritional environments and recommends the implementation of clear and user-friendly front-of-pack labelling. [7][8]

NUTRITION LABELLING IN THE EU

Article 35 of the EU Food Information for Consumers Regulation (FIR) [9] currently restricts EU Member States from implementing a mandatory FOPL, in part to reduce trade barriers between EU Member

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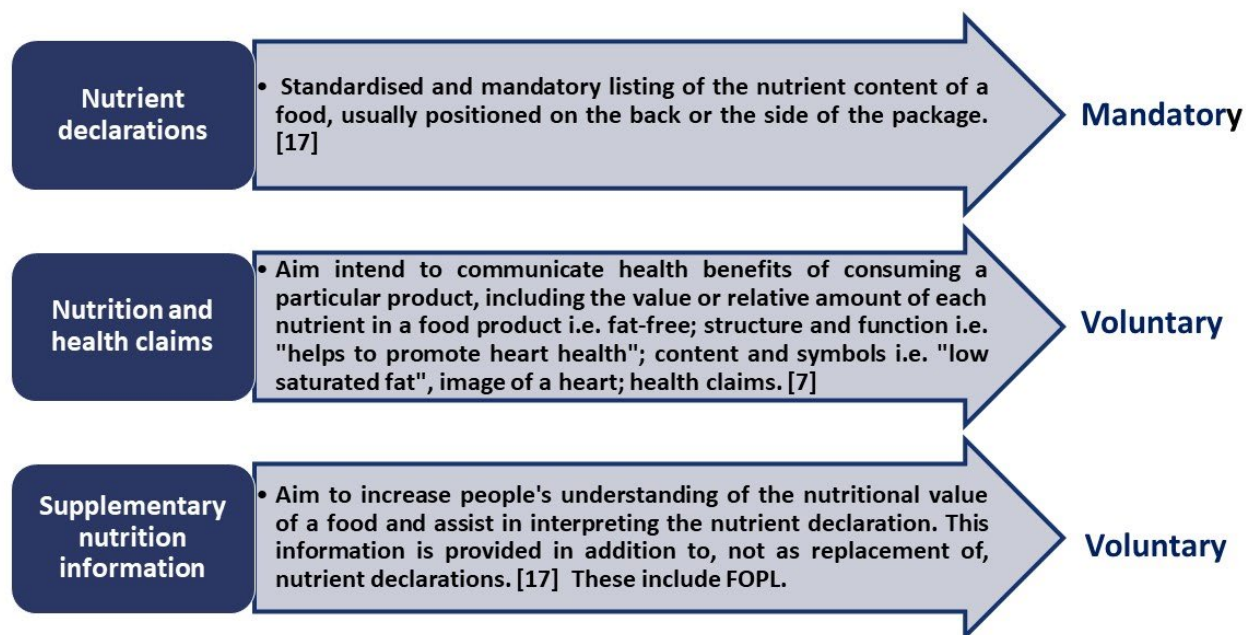
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States.[10] As a result, there is a lack of harmonisation across the EU and Europe, both in terms of the format and implementation of schemes. For consumers, this can lead to confusion regarding the interpretation of labels as well as complicate the nutritional comparison of products. The lack of formal regulations regarding FOPL across also results in reduced usage and selective placement of the label on specific products.[11][12]

EU countries are also subject to International Food standards and guidelines set by The Codex Alimentarius Commission (Codex) which supports national policy development and trade.[13] Codex categorises nutrition labelling into three types: nutrient declarations; nutrition and health claims; and supplementary nutrition information (Figure 1).[14][15] Codex is currently developing a set of guiding principles for FOPL and nutrition information in order to help consumers choose healthier choices.[16] While not endorsing any scheme in particular, the Codex aims to provide an overall reference framework for the design and implementation FOPL.

Figure 1. Codex categories of nutrition labelling.

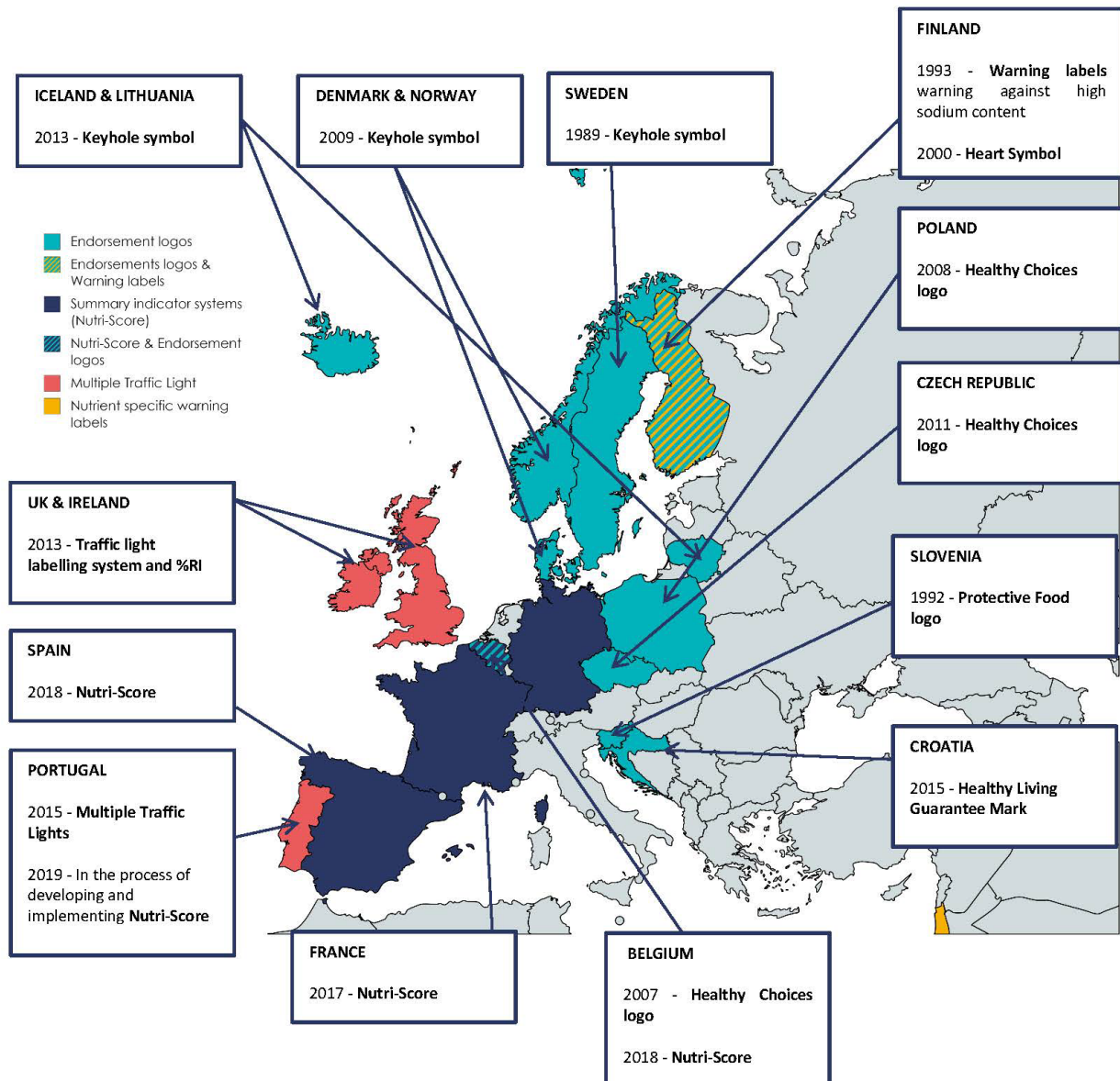


Sources: Kaur, A., Scarborough, P. and Rayner, M. (2019).[17] World Health Organization (2014).[7]

Implementation and examples of front-of-pack labelling

A number of different FOPL have been implemented across the EU. Today, 16 countries across the region have a government endorsed FOPL scheme.

Figure 2. Variation of FOPL schemes currently endorsed by governments across the EU.



Source: Hedengren, M. and Wassenius, M. (2015).[18] Finish Hearth Association (2000). World Health Organization (2013).[19] Kelly B. and Jewell, J. (2018).[14] Michail, N. (2018).[20]

A number of similarities can be seen in the development and implementation process of FOPL. These common steps include the establishment of FOPL as a nutrition policy priority, engagement with stakeholders and public consultation, and the collection of formative evidence to inform the design of a system that will best support the public health objectives of the labelling.[14] Overall, studies have shown that FOPL can simultaneously impact consumers' purchasing and nutritional behaviours and encourage product reformulation among the industry.[14]

As highlighted in Figure 2, FOPL across the EU varies in a number of ways. Underpinning these differences is the design, nutrition criteria used, products covered, extent of usage across countries, amongst others.[11][14]

There are two major categories of FOPL:

- **Non-interpretive systems** are numerical based (percentage reference intakes, for example). However, some evidence suggest that these are less helpful, particularly for groups with low levels of food and nutrition literacy.[21]
- **Interpretive systems** include endorsement logos, summary indicator systems, nutrient specific warning labels and nutrient-specific interpretive label.[14]

Endorsement logos

Endorsement logos signpost better-for-you choices. As the most commonly used FOPL system, endorsement logos are approved by 14 countries in the EU¹ (Figure 3).[14] These are voluntary schemes and identify how healthy a product is.[22] However, these labels offer a limited amount of information on a product and fail to provide nutrient-specific information.

¹ Approved by Belgium, Croatia, Czechia, Denmark, Finland, Iceland, Israel, Lithuania, Norway, Poland, Slovenia, Sweden, Spain, Germany. While the Netherlands initiated the Choices logo, it was discontinued in 2016.

Figure 3. Examples of approved endorsement logos across the EU.



Source: Choices Programme (1997).[23], Swedish Food Agency (1989).[24], Miklavec, K. et. al (1992).[25] Croatian Institute of Public Health (2015).[26], Finish Hearth Association (2000).[27]

Graded summary indicator systems

Summary indicator systems use a set of pre-established criteria and apply algorithms to establish an indicator of the overall nutrition profile of a food product.[15][21] This FOPL includes the French Nutri-Score (Figure 4), the German 'Waben-Sterne Label' (proposed but not approved) (Figure 5) and the Health Star Rating (HSR) applied in Australia and New Zealand (Figure 6). They are considered an accessible and understandable FOPL system.[28][29]

Figure 4. Nutri-Score.



Figure 5. Waben-Sterne Label.



Figure 6. HSR.



Sources: Julia, C. and Herberg, S. (2017).[30], Max Rubner Institute (2019).[31], Mhurchu, CN. et. al (2017).[32]

Nutrient-specific warning labels

Nutrient-specific warning labels aim to facilitate the identification of unhealthy products.[33] These are easy to interpret, target noncore products and discourage the purchase or consumption of products that include high concentrations of sugar, saturated fat, salt or calories, and are more likely to encourage product reformulation.[11]

The first example of such a label was implemented in Chile in 2016 (Figure 7). While warning labels are absent from the European food market, the Chilean experience suggests that these could discourage the purchase and consumption of the noncore food items which have the label, often indicative of unhealthy diets.[11][33][34]

Figure 7. Chilean nutritional warning labels.

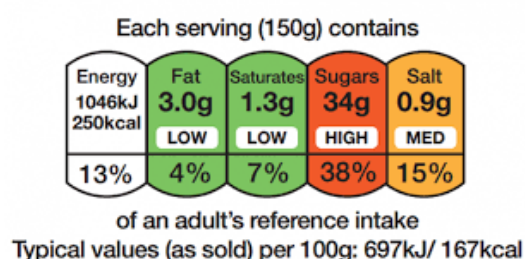


Source: Dos-Santos, MA. et al. (2019).[35]

Nutrient-specific interpretive systems

Based on national guidelines, traffic light labelling is a thresholds-based nutrient-specific FOPL (Figure 8).[21] Evidence suggests that the uniform colour coded interpretative labelling can improve people's ability to understand nutritional information and make healthier food choices, as well as allow for quick product comparison.[36][37]

Figure 8. Multiple traffic light labelling system.



Source: Department of Health (2016).[38]

Voluntary FOPL schemes have been shown to have a worse uptake compared to mandatory labels.[39]. Furthermore, weak or non-existent monitoring and evaluation frameworks commonly seen for voluntary regulations make it difficult to assess the impact and scope of the FOPL.[39]

International implementation experiences suggest that countries could benefit from mandatory FOPL regulations. For instance, Chile led the movement through the mandatory display of warning labels on noncore foods with unhealthy profiles to discourage their purchase and consumption. While the success of the Chilean experience is also due to the combined implementation of a number of policies including taxation, marketing restrictions as well as purchase regulations in schools,[11] the results highlight the potential impact of regulatory policies.

Due to the voluntary nature of FOPL across the EU and the resulting lack of harmonisation and implementation, there remains some interest in getting mandatory FOPL across the EU. Recently, seven consumers associations² launched the 'Pro-Nutriscore' initiative.[40] This initiative has three key objectives: (i) to simplify nutritional labelling, (ii) to encourage the industry to improve the nutritional composition of their products and (iii) to encourage the harmonisation of FOPL across the EU.[40] The initiative also calls on the European Commission to "impose simplified 'Nutriscore' labelling on food products." [40] However, resistance is anticipated from countries which already have a FOPL systems in place as well as others who are opposed to the implementation of a unified FOPL across Europe.[41]

KEY CONSIDERATIONS FOR THE DEVELOPMENT OF NUTRITIONAL LABELLING POLICIES IN EUROPE

The current EU framework does not support mandatory FOPL regulations. However, nationally-endorsed schemes are recommended and momentum has been growing among certain groups to reconsider mandatory FOPL regulations. In this section, we highlight a series of considerations for policymakers, CSOs and other stakeholders for the development and implementation of FOPL policies:

- 1. Consider the context:** Assess the current dietary patterns, nutritional and health status of the population. Consider the legal framework under which FOPL would be introduced to account for potential interferences with other legislations and existing nutrition policies.[21] Given the EU regulatory environment, mandatory FOPL is prohibited but national governments are still able to encourage companies to adopt nationally-endorsed schemes to ensure harmonisation at a national level.[10] In addition, consider the socio-economic status of the population.
- 2. Develop or adapt a nutrient profiling model:** Define the nutritional quality of individual foods or food products by classifying them based on their nutrient composition. Apply the nutrient profiling model in a wider way for public health promotion and in other food, trade and marketing policies.[42]
- 3. Adopt a standardised FOPL:** A single system should be developed to improve the impact of the FOPL system and avoid confusion.[21] In-line with the European Food and Nutrition Action Plan 2015-2020, "easy-to-understand or interpretative, consumer friendly labelling on the front of

² UFC-Que Choisir (France), Test-Achat (Belgium), VZBV (Germany), Consumentenbond (The Netherlands), OCU (Spain), Federacja Konsumentow (Poland) and EKPIZO (Greece).[60]

packages” should be seen as a policy priority.[1][7] Recent evidence suggests that warning labels and summary indicator approaches (e.g. Nutri Score) are associated with healthier purchases and more likely to have an impact among lower socio-economic groups, compared with other forms of labelling. [43][44]

4. **Use the best available evidence of efficacy:** FOPL schemes should be government-led and developed based on independent scientific evidence and best practices.[45][46] In a number of cases, industry has developed and supported alternative schemes, despite evidence that they are not as effective or easily understood by consumers. This can delay progress towards harmonisation of schemes.
5. **Engage stakeholders, but safeguard processes from conflicts of interest:** Different stakeholders, particularly academia and civil society organisations, can bring useful expertise and insight to the policy development process on issues such as the type of FOPL to be used, which products it should be applied to as well as to what nutrient thresholds should be used. However such engagement should be done under a transparent, well-defined and conflict-of-interest-free framework.[45][46][10]
6. **Dissemination and education of FOPL:** Adopt appropriate communication strategies and educational campaigns to improve awareness and understanding of the selected FOPL scheme among the population.[47]
7. **Develop monitoring and evaluation frameworks:** Ensure comprehensive and independent monitoring and evaluation of the FOPL policy to assess its implementation, impact and effectiveness.[21] The International Network for Food and Obesity/NCDs Research, Monitoring and Action Support (INFORMAS) has developed methods and indicators to measure and compare food environments and policies across countries.[39] The World Cancer Research Fund collects examples of nutrition policies implemented globally in its NOURISHING database.[10]
8. **Use FOPL as part of a comprehensive policy portfolio:** FOPL policies should be developed and implemented as part of a comprehensive package of policies.[39][42] This will increase the impact of the policies and encourage a multi-sectorial approach to health and nutrition policies.

CONCLUSION

The aim of this policy brief is to provide guidance to policymakers, CSOs and other key stakeholders to ensure the successful design and implementation of FOPL regulations to help address rising prevalence of obesity and other NCDs. It is complementary to the information available through the World Obesity’s [policy dossier](#) and webinar. The compiled evidence highlights the need to develop a uniform, user-friendly FOPL system across Europe. Furthermore, the evidence calls for the need to implement stricter design and implementation regulations. In order to ensure the wide-usage and proper implementation of a selective FOPL scheme, political will and government initiatives seem to be key strategies. However, food labelling should be implemented in conjunction with other nutritional policies and regulations.

CASE STUDIES

Across Europe, nutritional labelling policies are increasingly being developed and implemented. Below are some case studies showcasing different examples of nutritional labelling systems.

United Kingdom: Front-of-pack traffic labelling system and %RI

Why was the FOPL implemented?

Nearly 1 in 4 children lives with overweight or obesity by the time they are 5 years old. This increases to 1 in 3 by the time they turn 11 years old. In 2013, the UK introduced a voluntary FOPL scheme in 2013 to facilitate consumers' understanding of nutrition information and help people make healthier choices.[48]

What are the key components of the FOPL?

The FOPL showcases energy value in kilojoules (KJ) and kilocalories (kcal) per 100g/ml for a specific portion of the product. It provides quantity of nutrients in grams of fat, saturated fats, sugars, salt. It also provides % RI information for adults based on the quantity of each nutrient and energy value in a portion of the food and colour coding of the nutrient content of the food (high-red, medium-amber and low-green) (Figure 9).[48]

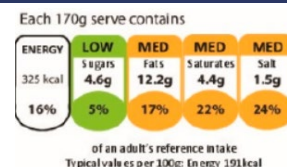


Figure 9. Established food thresholds for the UK FOPL scheme.

Table 1. Thresholds used in the UK front-of-pack labelling scheme. The thresholds shown are those for foods; different thresholds apply for drinks⁽⁶⁾

Text	LOW Green	MEDIUM Amber	HIGH Red
Colour code	Green	Amber	Red
Fat	≤ 3.0/100 g	>3.0 g to ≤ 17.5/100 g	>17.5/100 g
Saturates	≤ 1.5/100 g	>1.5 g to ≤ 5.0/100 g	>5.0/100 g
(Total) Sugars	≤ 5.0/100 g	>5.0 g to ≤ 22.5/100 g	>22.5/100 g
Salt	≤ 0.3/100 g	>0.3 g to ≤ 1.5/100 g	>1.5/100 g

For foods in the red category, in portions or servings of <100 g, cut-off points between amber and red for each nutrient (e.g. fat) have been set at 25 % of the reference intake (RI). For portions/servings bigger than this, the cut-off points have been set at 30 % of the RI.

Source: Buttriss, J. (2018).[49]

What are some important next steps?

'Action on Salt' is running a campaign to promote the compulsory FOPL on all food products and the Department of Health & Social Care is attempting to introduce mandatory calorie labelling in the out-of-home sector.[50][51] The UK sugar reduction programme challenged the food and beverage industry to reduce the amount of sugar by 20% by 2020. Since the introduction of the traffic light labelling in 2013, soft drink companies have reduced sugars from their products by 19%.[52] However, given the voluntary nature of FOPL, monitoring and evaluation of uptake and impact could be challenging.

Sweden: The Keyhole logo



Why was the FOPL implemented?

The Keyhole is a logo used in some Nordic countries. It has two main objectives:

1. To help consumers make healthier food choices at the point of purchase
2. To stimulate manufacturers in healthy reformulation by reducing sugar and salt levels on increasing wholegrain content.[53]

What are the key components of the FOPL?

First implemented in 1989, the Keyhole is a voluntary labelling scheme. It aims to provide a single, simple symbol to help consumers identify healthier options when buying food and encourage manufacturers to reformulate their products.[18] The Keyhole criteria are based on threshold values and expressed per 100g or 100 mL per and include both qualifying and disqualifying components that identify healthier food products. Packed foods eligible to carry the Keyhole label must fulfil a set of pre-defined criteria including specific amounts of fat, sugars, salt, dietary fibre, wholegrain, fruit and vegetables a product contain. However, it excludes sweets and snacks.

What are some important next steps?

The impact and influence of the Keyhole logo has decreased over the years, highlighting a need to review and update it. While the food sector believes that a major investment in the brand is needed, the Swedish Food Agency is responsible for strengthening the logo's position in the market and is thought to have a key role to play in terms of influencing the political agenda. To strengthen this existing FOPL, there needs to be a shift in perspective as well as increased political commitment.

France: Nutri-Score system



Why was the FOPL implemented?

In France, more than 1 in 7 adults lives with obesity.[54] NCDs, including cardiovascular diseases and cancer, are the leading cause of death in France and it was estimated that 9.7% of the overall burden of disease in France in 2015 (measured in terms of DALYs) could be attributed to dietary risks.[54] To address this public health challenge, the French Public Health Agency and French public authorities developed Nutri-Score and were the first to implement it as the country's FOPL scheme.

What are the key components of the FOPL?

Following a 4-years development process, Nutri-Score was approved in 2017 by the French Government as a voluntary national policy. [55][30] It applies algorithms for food product's overall nutrition profile. It uses the nutrient content per 100 g for food and beverages and allocates positive points (0-10) for energy, total sugar, saturated fatty acids and sodium content. And negative points (0-5) are allocated for fruit, vegetables and nuts, fibre and protein content. The score is based on a discrete continuous scale from -15 (most healthy) to +40 (least healthy).

In France, a number of validation studies led by independent research teams were conducted looking at various aspects of the label and giving strong scientific support to a public health nutrition initiative.[11] Nutri-Score allows consumers to compare the nutritional quality of foods from different categories i.e. biscuits, dairy products, beverages; compare products belonging to the same category i.e. breakfast cereals; and compare the same product offered by different brands.

What are some important next steps?

Since the Nutri-Score scheme was approved, 183 food companies adopted it. By September 2019, 8,214 (out of more than 60,000 listed product references) products had Nutri-Score featured on their packaging.[56][57] Following the implementation success in France, Belgian, Spanish, Portuguese and German governments as well as the European Commission and the WHO recommend the adoption of Nutri-Score.[58][59]

An evaluation of Nutri-Score is planned for 2021. As societal demand for simplified FOPL systems is growing, France through launched two petitions on the platform change.org, ultimately asking retailers and manufacturers to adopt the scheme.[15] This has now escalated to the EU level through the 'Pro-Nutriscore' citizens' initiative calling to harmonise nutritional information at European level. The initiative is ongoing collecting signatures until 8 May 2020.[59]

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