Executive Summary

Nutrition labelling is the provision of information about the nutritional content of individual food products. It is most commonly applied to pre-packaged food and beverage products, but comes in a variety of formats. Variables include: the type and number of nutrients labelled, the reference values used, whether the information appears on front-of-pack (FOP) or back-of-pack (BOP) and whether the label gives any interpretive guidance to the consumer.

The rise of overweight and obesity has focused policymakers’ attention on the provision of nutrition information as it is hailed as an important instrument in promoting healthier eating habits. In some countries, government regulations for nutrition labelling have been in place for many years; others have only recently developed a statutory framework for the provision of nutrition information. In both circumstances, the provision of nutrition information on the FOP is becoming an increasingly prominent policy issue. Meanwhile, voluntary FOP nutrition labelling initiatives proliferate.

A number of studies in recent years have examined how consumers perceive and use nutrition labels and assessed consumer preferences for different nutrition labelling schemes. This Global Update seeks to provide a comprehensive overview of the state of play on the issue today: What are the major nutrition labelling initiatives adopted or in the pipeline to date? How do they work? What do the various stakeholders say? Where is the debate heading? What does the research show? The key objectives are as follows:

- To give an up-to-date, comprehensive snapshot of the situation worldwide.
- To evaluate research and practical experiences to date, so as to identify examples of best practice.
- To highlight emerging trends and remaining knowledge gaps.
- To suggest ways forward, particularly with respect to consumer research.

SNAPSHOT OF GLOBAL TRENDS

At the national level, countries can be grouped into two broad
categories based on their statutory regulations on BOP nutrition labelling:

- **Mandatory**: Those which make nutrition labelling mandatory (United States, Canada, Mexico, Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay, Uruguay, European Union (EU) Member States, Russia, Israel, Gulf Cooperation Council members, Nigeria, India, Hong Kong, China, Japan, South Korea, Malaysia, Taiwan, Thailand, Philippines, Indonesia, Vietnam, Australia and New Zealand), even in the absence of a nutrition or health claim. They define which nutrients must be listed and on what basis (e.g. per 100 g/per serving). They also allow voluntary initiatives to provide additional nutrition information.

- **Voluntary**: Those which provide state-sponsored guidelines to be followed voluntarily (Venezuela, Turkey, Switzerland, Morocco, Lebanon, Jordan, Singapore, Brunei, Myanmar, Vietnam, Kenya, Mauritius and South Africa). They define which nutrients should be listed and on what basis, but labelling is not mandatory unless a health or nutrition claim is made or unless the food is for special dietary uses.

**MANDATORY NUTRITION LABELLING TREND**

In recent years, the global trend has been a move toward mandatory nutrition labelling regardless of whether a health or nutrition claim is made. In reflection of this trend, the Codex guidelines were amended in 2012 to recommend that nutrition labelling should be mandatory even in the absence of health claims (Codex Alimentarius Commission, 2012). In addition, many countries that had a voluntary approach to nutrition labelling have adopted measures to make nutrition labelling mandatory. The EU, China, Japan, Indonesia, the Philippines, Vietnam, Nigeria and Saudi Arabia have all moved in this direction. The inconsistent presence of nutrition labelling on food and drink products fuelled the European debate. An EU-funded research project, FLABEL, found that in the then 27 EU Member States and Turkey 85% of products in 5 product categories carried BOP labels and 48% carried FOP labels (Storcksdieck genannt Bonsmann et al., 2010). 84% of products displayed information in a tabular or linear format, while only 1% displayed health logos. Among FOP schemes, Guideline Daily Amounts (GDAs) and nutrition claims were most widespread, but both the prevalence of labelling and the type of label varied by country. A similar situation has developed in Asia, with a wide variety of labelling formats in place and an emerging trend toward standardisation, particularly in ASEAN countries. In this regard, Codex Alimentarius guidelines are often used as a basis.
As a large number of countries have introduced some form of BOP nutrition labelling and many have had several years of experience in implementing it, countries have begun making adjustments to the labelling in place. Most recently, the U.S. and Canada revised the BOP nutrition panel. In the U.S., the changes included amending portion sizes, displaying calories more prominently, removing calories from fat, and including amounts of added sugars (U.S. Federal Register, 2017). Canada’s revision of the Nutrition Facts Table, includes revised serving sizes; updated font size of serving sizes and calories and a bold line under the calories; revised percent daily values and a new percent daily value for total sugars; other adjustments to the list of nutrients and an explanatory footnote regarding percentages (Government of Canada, 2017a). China is also revising its national standard for nutrition labelling (NHFPC, 2016) and the revised draft is expected to be ready in June 2018.

STANDARDISATION OF FRONT-OF-PACK LABELS

A variety of FOP labels have been launched by international organisations, NGOs, industry associations and individual companies, prompting governments to consider harmonising FOP labels.

An EU regulation adopted in 2011 harmonises nutrition labelling but allows EU Member States to promote voluntary additional forms of expression and presentation. Member States are now taking advantage of these provisions in order to set up nation-wide, government-backed voluntary FOP labels. However, concerns over the impact of such additional forms of expression on the EU Single Market have been raised and one such scheme, the government-endorsed UK traffic light label, is under scrutiny by the European Commission. Similar concerns were raised by various stakeholders over the colour-coded label adopted in France, which ranks the nutritional value of products based on 100gr/ml using a palette of five colours ranging from green to red and the letters A to E. The label was notified to the European Commission, which prompted six EU Member States to raise objections, related to concerns over barriers to trade and the impact on traditional products (EU Food Policy, 2017b and c). The Commission itself, however, believes that although the label could pose difficulties for the Single Market, it is justified on public health grounds.

In accordance with the 2011 Food Information to Consumers (FIC) Regulation, the Commission was expected to evaluate additional forms of expression by the end of 2017. However, the report has been delayed until the end of 2018, in order
to be able to cover the French scheme, as well as the one in the UK. The Nordic Keyhole will also be included in the report, although it is not considered an additional form of expression under the FIC Regulation. A literature review on the public health benefits of the different schemes, which will be conducted by the European Commission’s Joint Research Centre, will also feed into the report (European Parliament Environment Committee, 2017). However, there would be little scope for action for the current Commission following the publication of the report, given that its political leadership will change toward the end of 2019.

Colour-coded schemes may come under consideration also in Portugal, Poland and Ireland, while the new government in Germany plans to develop an understandable and comparable FOP label, but has not elaborated on the format. The Netherlands had used the Choices logo for years, but decided to move away from using health symbols on pack and provide nutrition information via a smartphone app.

On a regional level, the Scottish Food Commission is recommending warning messages for “unhealthy” food and traffic light labelling for dishes in cafes and restaurants (The National, 2018).

In view of these developments, a number of food manufacturers have decided to voluntarily use a traffic light label across the EU. Their “Evolved Nutrition Label” is similar to the UK traffic lights but expresses nutrition values per portion instead of per 100g/ml (The Grocer, 2017).

FOP labelling has also been a prominent issue in Asia for a number of years. In May 2011, Thailand became the first country to introduce mandatory FOP nutrition labels, which initially applied to five snack categories, but were subsequently extended to all snack foods, chocolate, bakery products and other categories. Also in 2011, South Korea was the first Asian country to press ahead with recommendations for voluntary traffic light labels on children’s food. A warning statement is in place in Indonesia, while Sri Lanka has introduced a red label for soft drinks with high sugar content.

Colour-coded labels are also under consideration in India. The Food Safety and Standards Authority of India (FSSAI) is proposing “Food Safety and Standards (Labelling and Display) Regulations, 2018”, which would require the provision of information (in grams for nutrients and kcal for energy and as a percentage of the “recommended dietary allowances” - RDA) on energy, total fat, trans fat, total sugar and salt (sodium chloride) per serving on the FOP of pre-packaged
products. For products high in these nutrients, the portion of the label representing the percent RDA will be coloured in red. The regulations also contain a provision on out-of-home eating, requiring a warning message on premises where foods high in sugar, salt and/or fat are sold. The draft regulations are subject to public consultation (FSSAI, 2018).

A number of Asian countries are also using health logos. **Singapore, Thailand** and **Malaysia** have opted for the Healthier Choice Symbol, while the Philippines has introduced its own “Wise Eat” logo and **Vietnam** has chosen a logo based on the Choices system. Health logos were most recently introduced in China and Hong Kong. In **China**, a positive FOP logo based on nutrient profiling was launched in November 2017 by the Chinese Nutrition Society and is largely aligned with the Choices criteria and approach. A “Salt/Sugar” Label was introduced in **Hong Kong** in October 2017 to designate the products with low content of these ingredients.

Given this proliferation of labels within the continent, an ASEAN regional initiative, supported by the ASEAN Food and Beverage Alliance (AFBA) and Food Industry Asia (FIA), aimed to introduce a level of consistency by implementing FOP GDA labelling guidelines, based on the guidelines used by FoodDrinkEurope. An industry toolkit, consistent with IFBA (International Food and Beverage Alliance) recommendations, was developed in the beginning of 2014. As a result, FIA members committed to roll out GDA labels for energy on FOP by the end of 2016 and AFBA and its member associations committed to promote the scheme among their members. In 2016, FIA released a study on GDA nutrition labelling, which revealed that out of the 13 FIA members surveyed across 19 Asian markets, 85% had rolled out GDAs (FIA, 2016).

Government-endorsed FOP nutrition labels are also being considered and/or implemented in several other countries (e.g. **Australia, New Zealand, Canada, Colombia, Uruguay, South Africa, Israel**). Key considerations are whether to make FOP labels mandatory and if so, whether they should emphasise a judgement of nutritional quality. In this respect, **Australia** and **New Zealand**, for example, have opted for a star rating system, combined with a nutrient icon component, and applied voluntarily. However, the five-year review of the system, launched in 2016, has revealed disagreement over whether the scheme should remain voluntary. The review, which also covers concerns over added sugars, the weighting of positive nutrients, challenges for specific categories, and other topics, is expected to be completed in 2019 (Government of Australia, 2017).
Other countries have chosen to use traffic lights or other colour-coded labelling. A draft regulation in South Africa sets requirements for a voluntary traffic light label for energy (in kJ), total sugar, fat, saturated fat and total sodium or salt equivalent per serving. Israel is also looking at colour-coded labels—consisting of a negative (red) label for products with high quantities of sugar, saturated fat and sodium and a positive (green) label for products conforming to the recommendations of the Ministry of Health. The red label will apply in two stages, starting on 1 January 2020 and 1 January 2021 (Haaretz, 2017). Meanwhile other countries, such as Nigeria, Zimbabwe and Zambia, have introduced various health logos.

“High in...” and other warning statements are gaining popularity in South and increasingly North America. They are already in place in Chile, Peru and Venezuela and under consideration in Colombia and Uruguay. By contrast, Mexico opted for GDAs and Ecuador for a colour-coded scheme, while voluntary FOP labelling schemes using colour coding have been developed by the food industry in Argentina and Brazil.

However, in Mexico, some stakeholders are pushing for warning messages. In addition, in Canada, the Health Minister proposed FOP warnings for products high in sugar, sodium and/or saturated fats in February 2018. Health Canada has held a public consultation on four possible symbols and if the regulations are adopted, food manufacturers will have to comply by December 2022 (National Post, 2018).

In the U.S., the Food and Drug Administration’s priority was to review the Nutrition Facts Panel (NFP) on BOP before making recommendations on FOP labels. The reform is now complete which leaves scope for new work on FOP labels. For the moment, there have been no recent developments on national level, but warning statements for sugar-sweetened beverages have been proposed at the state level in California, Hawaii, New York, Washington and Vermont, and at the city level in Baltimore and Maryland (Kick the Can, 2017).

While most countries globally have opted for voluntary FOP labelling, the labels in Mexico, Ecuador, Chile and Peru are mandatory, thereby further increasing the inconsistency between labelling requirements in the region.

Overall, there is a tendency for countries within the same geographical region to pick similar labels, while adapting certain aspects to national circumstances. Harmonization across borders therefore remains challenging.
THE WAY FORWARD

The debate over which nutrition labelling scheme is the most effective is likely to continue for the foreseeable future. More research, particularly if based on actual use of nutrition labels by consumers, would be valuable in informing these discussions.

Governments, NGOs, food manufacturers and retailers have all explored which scheme consumers might prefer, for what reasons and how certain schemes impact purchasing behaviour and balanced choices. While some evidence has emerged on several of these issues, there remains no consensus among stakeholders on the way forward. Evidence on the impact of the various schemes on purchasing behaviour, and therefore on their relative effectiveness in helping consumers make balanced choices, also remains limited, partly because of the relative novelty of interpretive guidance schemes in the marketplace.

In the EU, the question of how nutrition labelling affects trade within the Single Market is likely to remain on the agenda, but trade issues and in particular non-tariff barriers to trade have arisen in other regions too and at the WTO. Standardisation of FOP labels can therefore be expected to remain on the agenda despite the increasing proliferation of labelling systems. In this context, Codex Alimentarius is in the process of drafting global guidelines on FOP labelling, to be released in January 2019.

The discussion of the impact of various nutrition labels on traditional foods that are largely considered part of a healthy diet also continues in Europe and has been taken up in Canada, especially by the dairy sector. As countries opt for interpretive labels, focusing on specific nutrients, the debate over whether labels should rather focus on the overall nutritional quality of products is likely to continue.

The increased use of new technologies is also gaining prominence with FOP labelling apps for smartphones being developed in various countries. Their take-up by regulators has been slow until now but if their popularity grows, research on their effectiveness would also be useful.

Despite wide-spread disagreement about the effectiveness of the different FOP labels, there is broad agreement that the mandatory Nutrition Facts Panel/Table on the BOP is a useful public health tool that is intended to assist consumers in making informed and healthful food choices in the EU, the United States, Canada, Hong Kong, Malaysia, Australia, New
Zealand and India.

In addition, nutrition labelling is increasingly moving beyond packaged goods, particularly in North & South America and Asia. Menu labelling in restaurant chains with over 20 locations, selling substantially the same items and operating under the same name, is now mandatory in the U.S. Meanwhile, the city of New York requires chain restaurants with 15 or more locations nationwide to display a warning icon and statement on menu items with high salt content (over 2300mg of sodium). Proposals are currently on the table also in Scotland and India.

While menu labelling research has proliferated in recent years, only a few studies look at the effect on purchasing behaviour in real-world situations and do so with conflicting results. There is some evidence of an effect on parents’ decisions, but follow-up research, factoring in children’s choices and influence on their parents in real-life situations, is needed. Furthermore, some research has considered the relationship between eating disorders and weight-related concerns and the use of menu labelling. More in-depth research into how menu labelling affects food choices would be useful in this debate, which is likely to continue, especially in countries with a higher proportion of out-of-home eating.

Overall, by providing nutrition information about the nutrient content of foods, nutrition labelling allows for—but does not necessarily cause—more healthful food choices. Recent studies have found that the presence of nutrition labels can improve subjective understanding of labelling, but did not note a significant difference in impact between the different types of labels. Furthermore, some research suggests that FOP labels are more effective in guiding consumer perception of products that are clearly healthy or unhealthy, regardless of format, whereas the results for products in the middle of the scale are more ambiguous, indicating a possible area for future research.

Studies have also found that use of nutrition labels is increasing across geographical regions, while differences based on gender, age, income and education levels persist. In order to understand these differences and strengthen the impact of labels on actual purchasing decisions, corollary issues related to consumer motivation need to be considered: What factors underlie consumer motivation to make changes in their diets? How can appropriate and meaningful nutrition information be provided on the food label so that motivated consumers can act on their desire to improve their diets?
SUMMARY POINTS

· Policy decisions should fundamentally be based on science: the key question is which labelling scheme gives the best guidance from a nutritional point of view. In this respect, it is clear that what matters is the overall diet, not the consumption of an individual product.

· Nutrition labelling policy should take into account consumer use, interpretation and understanding of different nutrition labelling schemes, but ultimately it is the impact on purchasing decisions and overall diets that matters. The consumer research section of this report showed that these factors vary from country to country and between consumer segments. Most research on FOP formats has been conducted in Europe, North & South America, Australia and New Zealand. Given the potential for variance, studies in other regions are needed to understand better local consumer attitudes. Research from South Africa (Koen et al., 2016) specifically highlights the need to conduct studies in developing countries as a priority. Overall, most studies indicate that FOP labels are helpful in guiding consumer choices, but often find no significant difference in impact between the different labels. Emerging research on the Australian Health Star Rating seems to indicate a very positive impact, but has nevertheless not been able to clearly demonstrate higher effectiveness than other labels. Crucially, other factors, such as price, familiarity with a product, consumer motivation and nutrition knowledge, have been shown to significantly influence purchasing decisions. It has also been highlighted that laboratory interventions usually show better results than interventions in real settings, making it more difficult to judge the impact of nutrition labels based on currently available research.

Further consumer research seems to be needed in particular on the following questions:

· Do consumers make long-term healthier food choices as a result of having used nutrition information on food packaging? Some research has shown that consumers understand and know how to use accurately various nutrition labels should they choose to do so, but studies in Europe (e.g. Boztug, 2011; Sacks et al., 2009; ANSES, 2017) and Mexico (Gobierno de México, 2016) have shown no or little demonstrable short-term effect on purchasing decisions. Little is known about whether consumers make long-term healthier food choices as a result of having used nutrition information. If healthier food choices cannot be traced to nutrition information, other factors that motivate healthier food choices should be identified.
To what extent do nutrition labelling schemes have to be standardised to help consumers cultivate healthy eating habits? Research by FLABEL, EUFIC and the Surrey Food Consumer Behaviour and Health Research Centre in Europe and by the Australian Heart Foundation in Australia suggests that different labelling schemes can be equally effective in helping consumers identify healthy options, yet many groups assert that standardised nutrition labels are imperative. Further comparative studies of different types of labelling would be useful. Similarly, the European Commission’s upcoming report on additional forms of expression introduced by EU Member States and the five-year review of the Australian star rating system would be insightful.

How can consumers best be helped to make good use of nutrition labels to make better food choices? Research suggests that good use of nutrition labels is related to better nutrition knowledge, and that overall use is linked to health motivation. How can consumers be motivated to eat healthier? What awareness raising and education initiatives are most effective? Who should be the primary target of which information and education initiatives – parents, children, others? How can new technologies be used in this context?

Is nutrition labelling beyond packaged foods useful? The menu labelling debate has moved beyond the United States to Canada, the UK, Ireland, Australia and Asia. Menu labelling research has proliferated in recent years, but is limited chiefly to Europe, North America and Australia. While studies have not delivered a clear message on the effect on food choice, some have attempted to explore the effect on the meals offered by restaurants. In addition, some research has considered how eating disorders and weight-related concerns influence the use of menu labelling. Further studies on all of these issues are needed to fully gauge the impact of nutrition labelling beyond packaged foods.

How can new technologies best be used to encourage healthy food choices? Research shows that online shopping is here to stay but consumers are less likely to check nutrition information online than in-store. It would therefore be useful to conduct further research on reading, using and understanding of food labels during online shopping. In addition, food labelling apps are now available in a large number of countries, but few studies exist on their uptake, understanding and use by consumers. Further research on nutrition labelling through new technologies would therefore be useful and should be conducted in more geographical regions.
References

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The prevailing view is that standardised labels are preferable to a multitude of different nutrition labels, not only within each country but also within tightly integrated regions such as the EU. While there remains disagreement over what format is most effective on the FOP, different options, based on new technologies, are emerging and beginning to attract attention from policy-makers.

While the U.S. and the majority of EU Member States have opted for labels based on reference intakes, some countries in Europe, South America and the Asia-Pacific region have chosen FOP schemes based on a judgment of nutritional quality.

The debate over which nutrition labelling scheme is the most effective is likely to continue for the foreseeable future and more research would be useful to inform these discussions.