

Evaluation of the Nutri-Score algorithm

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Executive summary

Health Council of the Netherlands



In the 2018 National Prevention Agreement it was agreed to introduce a front-of-pack nutrition label in the Netherlands. The aim of this is to help consumers make healthy choices and to encourage producers to improve their products. The Ministry of Health, Welfare and Sport has chosen the Nutri-Score as a means of doing this, provided that this label complies sufficiently with dietary recommendations in the Netherlands. As of February 2021, an international committee of scientists (*Scientific committee of the Nutri-Score*) has been working on improving the algorithm of the Nutri-Score. The revised algorithm was published at the end of July 2022, although the section on drinks has not yet been published. The State Secretary of Health, Welfare and Sport asked the Health Council of the Netherlands to evaluate the extent to which the revised algorithm is an improvement, to reflect on how the Nutri-Score fits in with dietary recommendations in the Netherlands and to advise on any further adjustments. The Committee on Nutrition considered these questions.

Comparison with Dutch dietary guidelines and Wheel of Five

The Nutri-Score is a label on the front of the packaging of foods and translates information on the label of a product into a colour and a letter, from the dark green A to the red E. The score is based on the amount of energy, salt, saturated fat, fibre, protein and the quantity of vegetables, fruit and legumes. Using the Nutri-Score, the consumer can compare the composition of products. The Committee calculated for each product group what Nutri-Scores products in the supermarket would get and compared those scores with the recommendations of the Dutch dietary guidelines (*Richtlijnen goede voeding*) of the Health Council of the Netherlands and the Wheel of Five (*in Dutch: Schijf van Vijf*) of the Netherlands Nutrition Centre. These will never correspond fully, not least because the Dutch dietary guidelines, Wheel of Five and the Nutri-Score differ in terms of their objectives and the systems they use. However, too many discrepancies are undesirable. The Committee

sees a discrepancy if the Nutri-Score is green (A or B) whereas the product is not recommended in the Dutch dietary guidelines or is not included in the Wheel of Five, or alternatively if a product that is correctly recommended is given a C, D or E score (hereinafter referred to as 'red scores').

Nutri-Score has improved; red scores correspond largely with dietary recommendations

The Committee has established that the revised algorithm represents an improvement compared to the current algorithm. In particular, the Nutri-Score clearly identifies which products have a less healthy composition, and these are given a red score. These include product groups such as sauces, cakes, pastries, sweets, chocolate, crisps, salts, various snacks and a range of spreads. Within these product groups, the label also distinguishes between products with a slightly unfavourable composition (C) and those with a very unfavourable composition (E).



In particular, green scores are not always in line with dietary recommendations

With the product groups that are given a green score, the Nutri-Score and the Dutch dietary recommendations usually line up quite well, but that is not always the case. For instance, within such a product group the Nutri-Score will not always make enough of a distinction between products that are healthier or less healthy in terms of their composition. As a result, white and brown rice get the same Nutri-Scores, just like refined and whole grain pasta. This does not fit with the dietary guidelines, which recommend the high-fibre varieties. In addition, more vegetable oils and soft margarines and low-fat margarines should get a green Nutri-Score than is currently the case, due to their better fatty acid composition. A greater distinction between products with a healthier and less healthy composition would also be desirable for cheese and meat.

Algorithm offers too much scope for adding salt and sugar

Due to the algorithm of the Nutri-Score, there is relatively much room for unhealthy additives such as salt and sugar to products in the green category in particular, such as fruit, vegetables, legumes and meals based on these. This can have undesirable effects (for example adding more salt or sugar while the Nutri-Score remains unchanged, or taking away incentives to lower salt, sugar and saturated fat). The Committee believes that it is important to counter this as much as possible. The addition of salt to canned greens and legumes with a B Nutri-Score is a particular point of concern. Although canned vegetables are on average consumed less than fresh vegetables, these products can on an individual level contribute significantly to the overall salt intake on a given day. Sugar added to canned fruit is also a point of interest: a relatively large amount of sugar can be added without the product losing its A Nutri-Score.

Limit Nutri-Score for meal kits to the contents of the package

The Committee believes that the Nutri-Score for meal kits should be based solely on the products contained in the package and not on products that the consumer may add independently (apart from water). The Nutri-Score can now be based on the preparation instructions on the packaging, which may include, for example, the addition of vegetables or meat. It is possible that the Consumer may not follow the preparation instructions and, for example, adds less vegetables or replaces the chicken specified in the preparation instructions with sausage. The Nutri-Score for such a package is then too positive.

Nutri-Score has added value besides existing nutritional information

A front-of-pack nutrition label is intended as an addition to the existing nutritional information. It can help consumers make a healthier choice as they can easily compare the composition of foods. Taking everything into consideration, the



Committee recognises the added value of the Nutri-Score in this respect. This is particularly true for people with limited knowledge of nutrition who may be hard to reach with current nutritional information and who more often have an unhealthy diet. The Nutri-Score is an intuitive and visually powerful label that also has a level of recognition as the logo is already on a number of products. In addition, it has been introduced in the countries immediately around the Netherlands and is arriving on the Dutch market via these countries.

Further improvement and monitoring essential

The logo is not perfect, but the Committee sees sufficient possibilities for further improvement of the label. Furthermore, the Committee believes that it is unlikely that a front-of-pack nutrition label will become available that does fully meet requirements. The Committee believes that it is essential that the areas where the Nutri-Score does not line up with the dietary recommendations are being resolved. It recommends

focusing on ensuring that the Scientific Committee of the Nutri-Score makes progress on enacting recommendations. At the same time, it is important for the Netherlands to actively push for adaptation of European regulations and legislation regarding labelling and front-of-pack nutrition labels, as not all areas for consideration can be solved with the algorithm alone. On the introduction of the label, the Committee believes that it is essential to examine the effect it has on the behaviour of consumers and producers to consider to what extent it is actually contributing to healthier diets.

Broader nutritional information remains important

Nutritional information is carefully compiled in the Netherlands using the Dutch dietary guidelines, dietary reference values and the Wheel of Five. This information focuses on nutritional completeness, sustainability and safety. The Committee believes that it is important that communication with consumers clearly states that the Nutri-Score represents an

addition to the existing nutritional information, with the label allowing the composition of products to be compared while shopping. A healthy diet is more than merely a choice of products with a green score. The Committee believes that clear explanations are important to prevent the Nutri-Score (or another label) from detracting from the importance of broader nutritional information. The Committee is aware of the challenge posed in particular by clarifying the scores that are not sufficiently in line with dietary recommendations.



The Health Council of the Netherlands, established in 1902, is an independent scientific advisory body. Its remit is “to advise the government and Parliament on the current level of knowledge with respect to public health issues and health (services) research...” (Section 22, Health Act).

The Health Council receives most requests for advice from the Ministers of Health, Welfare and Sport, Infrastructure and Water Management, Social Affairs and Employment, and Agriculture, Nature and Food Quality. The Council can publish advisory reports on its own initiative. It usually does this in order to ask attention for developments or trends that are thought to be relevant to government policy.

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