



Nutri-Score: Identified strengths and weaknesses in a Norwegian context



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Objective

Evaluate the newly updated Nutri-Score algorithms in a Norwegian setting in order to suggest areas for potential revisions, ensuring better alignment with the Norwegian food-based dietary guidelines (FBDGs).

Methods

Initially, we analyzed 1782 foods from a Norwegian food database, examining the discriminatory ability by assessing Nutri-Score's distribution within food categories and its alignment with the FBDGs. Subsequently, we collected written responses on advantages and disadvantages with the updated Nutri-Score algorithms among a selection of Norwegian food system actors in the NewTools-project, representing food industry, civil society, and research and education. This included Nutri-Score's performance in ranking foods according to FBDGs and nutritional challenges in Norway.

Results

Based on evaluation of 1782 foods, Nutri-Score discriminated the nutritional quality of foods within categories and in most cases it classified foods in accordance with the Norwegian FBDGs. However, challenges with its ability to distinguish between some foods concerning their fat content, specifically in meat and dairy products, and in differentiating whole grain from refined grain products were identified (Figure 1).

Food system actors expressed concerns about several aspects, e.g., excessive penalty of salt content, unreasonable scoring across food categories, inconsistencies with national nutrition policies such as increased fish consumption, and that Nutri-Score may stimulate to increased food processing (Figure 2).

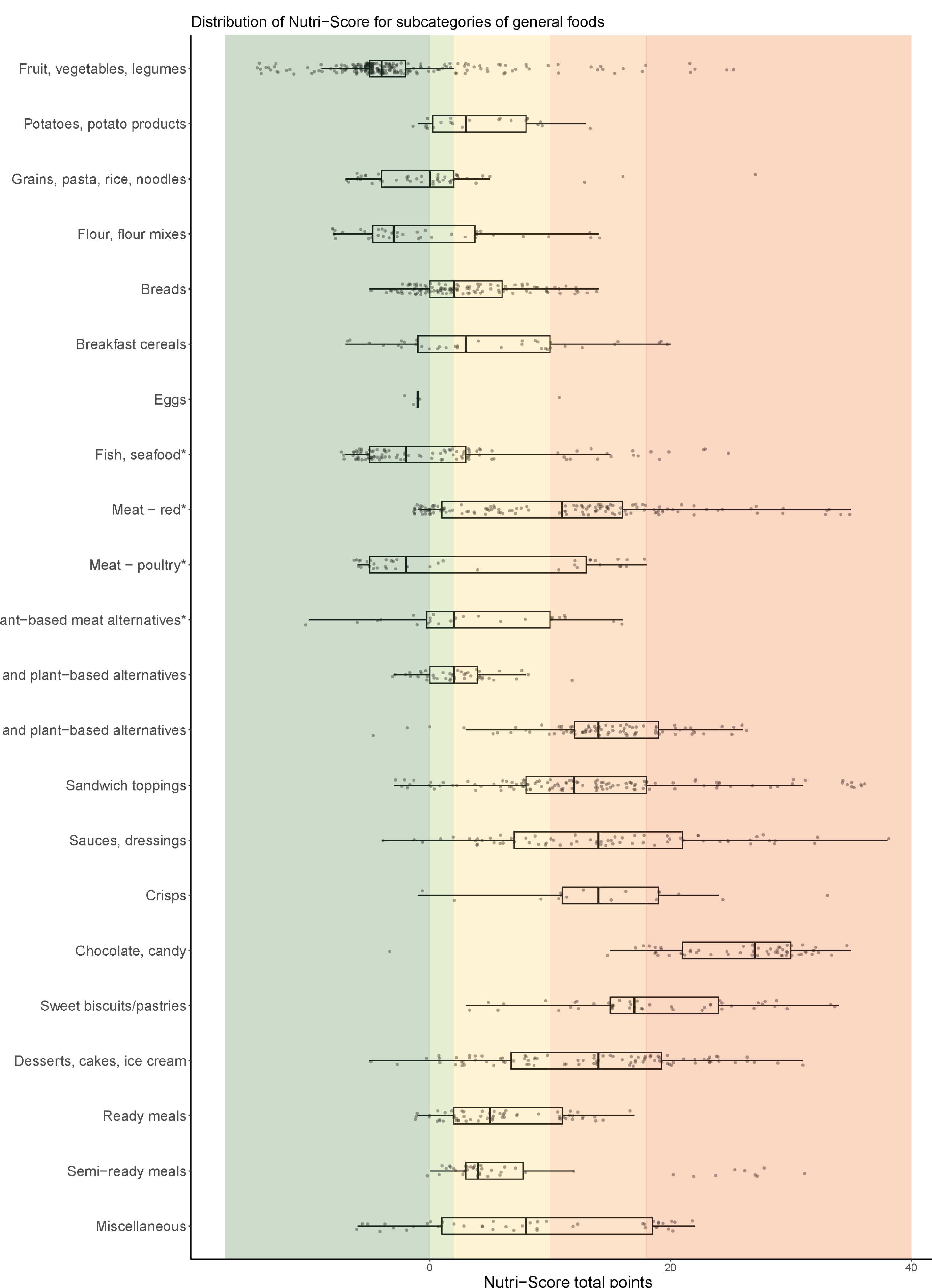
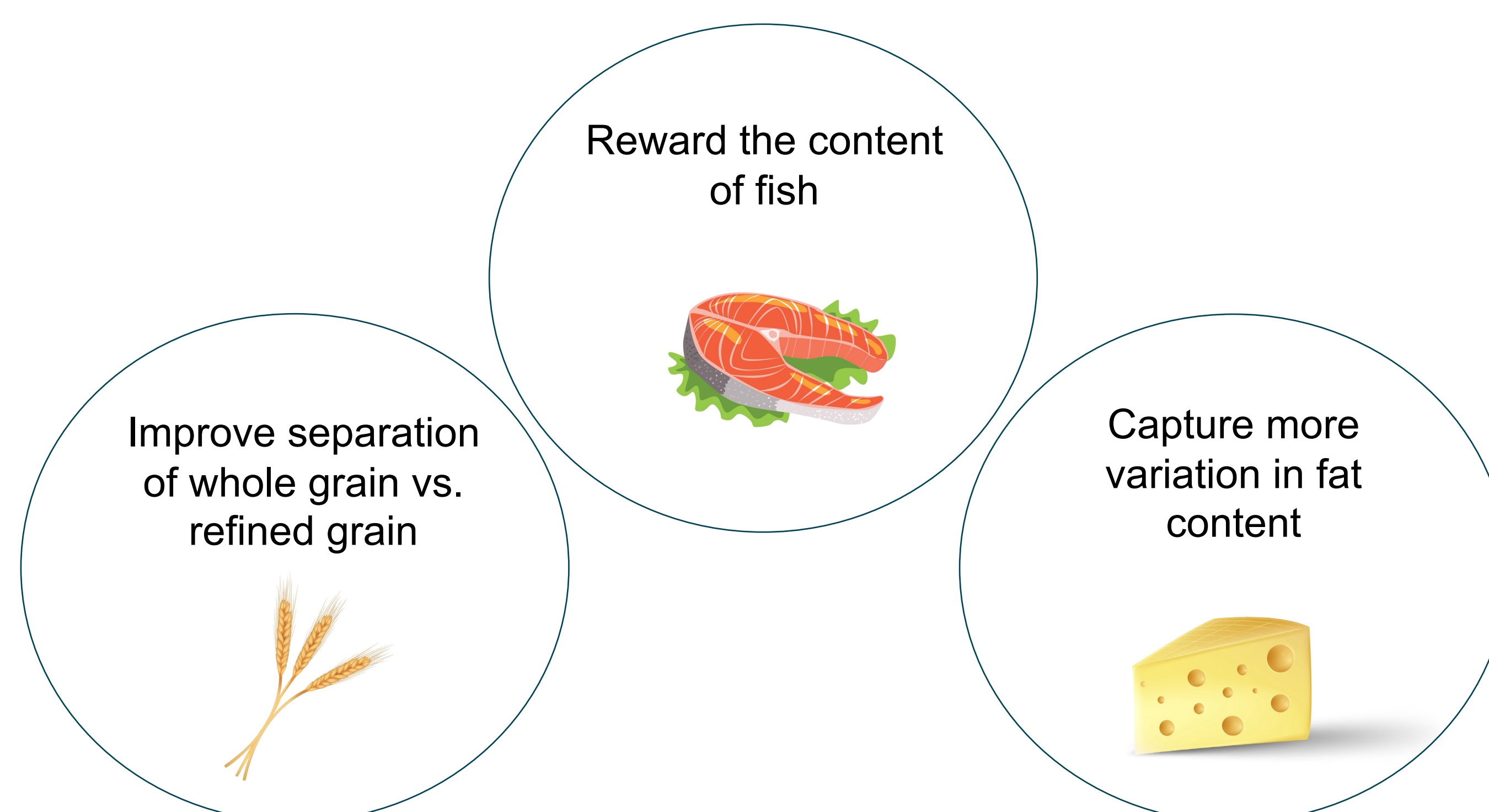


Figure 1 Classification of food groups according to Nutri-Score categories for general foods A-E (dark green to dark orange)

Suggested revisions

Calculations and components	Dietary challenges	Categorization and comparisons	The scientific evidence	Policy-related issues
<p>Challenges with calculating and weighting nutrients and other components. Particularly salt and saturated fat.</p> <p>May stimulate to increased food processing.</p> <p>Foods are more than the sum of nutrients.</p>	<p>Intake of nutrients that are challenging in parts of the population may be reduced as a consequence of a poor Nutri-Score. E.g. Iron in red meat and calcium in milk.</p> <p>Fish is relevant in a Norwegian setting, as it is recommended to increase consumption in the population.</p>	<p>The updated Nutri-Score categorize products better than the previous algorithm.</p> <p>Challenging to compare foods across categories.</p> <p>Lack of differentiation between portion sizes, single products and full meals.</p>	<p>Not evidence-based to «punish» protein based on the source.</p> <p>Whole grain should be considered as a component due to substantial evidence for beneficial health effects.</p>	<p>Ongoing discussions and critique of Nutri-Score in Europe.</p> <p>Misalignment between Nutri-Score and nutrition policies:</p> <ul style="list-style-type: none"> • Keyhole label • Food-based dietary guidelines • Partnership for a healthier diet

Figure 2 Responses to the updated Nutri-Score in a Norwegian context from actors in the NewTools-project



References:
Øvrebo et al. Behav Nutr Phys Act. 2023;20(1):122.
Paulsen et al. Submitted to Food & Nutrition Research 2024.

