ALTERNATIVE PROTEINS ASSOCIATION - WRITTEN EVIDENCE (FDO0059)

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1. EXECUTIVE SUMMARY

2. The definition of 'ultra-processed food' (UPF) is contested and vague, with experts highlighting its inconsistencies. The recently popular book *Ultra-Processed People* defines UPF as something 'wrapped in plastic' and containing ingredients you 'don't typically find in a domestic kitchen'.

3. High in fat, sugar and salt (HFSS) is a more informative standard to assess food nutrition. Unlike UPF, HFSS is understood by consumers and has an objective link to a food's nutritional profile.

4. The limitations of UPF classifications risks steering consumers unknowingly to food products with worse health outcomes. For example, plant-based meat alternatives – despite being categorised as UPF – are typically lower in calorie density and saturated fat while being higher in fibre compared to meat from animals – defined as unprocessed.

5. INTRODUCTION

6. The Alternative Proteins Association (APA) is the leading voice of Britain's fast-growing alternative proteins industry. The APA is the largest industry association of its kind in Europe, promoting the value of plant-based, cultivated, and fermentation-based foods in the UK. Our members include British food manufacturers such as Quorn, Tofoo Co., and Ivy Farms, as well as international companies such as Mosa Meat and Aleph Farms.

7. We believe that our members would be adversely and unfairly affected by any legislation based on the degree of food processing, since many of their products (a) are classified as ultra-processed within the NOVA system, and yet (b) are healthier than the animal products they displace.

8. TOPIC 5: The definition of a) ultra-processed food (UPF) and b) foods high in fat, sugar and salt (HFSS) and their usefulness as terminologies for describing and assessing such products.

9. 'Ultra-processed foods' are those in Category 4 of the NOVA classification system. The NOVA system (simply 'new' in Portuguese) has been widely misunderstood as a framework for health and nutrition, when it is in fact a sociopolitical framework[1]. Carlos Monteiro developed the NOVA system to classify foods according to their degree of processing, and explicitly discounts nutrition from the definition of NOVA categories[2]. Instead, the definition of ultra-processed foods includes factors like being manufactured by big companies, being highly profitable, having attractive packaging, and being marketed intensively[3,4].

10. The definition of 'ultra-processed food' is contested, with many food and nutrition scientists criticising the NOVA classification system as containing 'major inconsistencies and mistakes'[5]. An article published in the European Journal of Clinical Nutrition states: *"On the one hand, "yogurt with no added sugar or artificial sweeteners" is specifically cited as an example of a NOVA1 food. On the other hand, it is clearly stated that non-alcoholic fermentation, the process by which yogurt is made (i.e., lactic fermentation), is characteristic of NOVA3 foods. It is further mentioned that "substances […], such as casein, lactose, whey"—ingredients often present in yogurt—are "only found in ultra-processed products," meaning NOVA4 foods."*[6]

11. One definition is offered by Dr Chris van Tulleken in his book 'Ultra-Processed People: *"...if something is wrapped in plastic and contains an ingredient that you don't typically find in a domestic kitchen, then it's almost certainly an ultra-processed food."*[7] It is not clear that either (a) being wrapped in plastic, or (b) containing ingredients not typically found in a domestic kitchen, have any implications for human health. It could easily be the case that the healthiest ingredients are not found in domestic kitchens, as is the case for added vitamins and minerals. Dr Van Tulleken's definition would include vitamin tablets, protein powder, and a range of other health-promoting processed foods.

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[1] https://media.churchillfellowship.org/documents/JChapman_-_Processing_the_discourse.pdf
[2] https://pubmed.ncbi.nlm.nih.gov/19366466/
[3] https://pubmed.ncbi.nlm.nih.gov/28322183/
[4] https://pubmed.ncbi.nlm.nih.gov/19366466/
[5] https://www.sciencedirect.com/science/article/pii/S0924224421004970
[6] https://www.nature.com/articles/s41430-022-01099-1
[7] Van Tulleken, C. (2023). *Ultra-Processed People.* New York: Norton & Company.

12. Just as processed foods are not necessarily unhealthy, unprocessed foods are not necessarily healthy. There are countless plants, animals, and fungi which would constitute completely unprocessed foods, but would be deadly to consume. Red meat (NOVA category 1) is associated with increased risk of heart disease and cancer[8,9,10]. Some foods – like raw milk – carry health threats if they are *not* processed (i.e. pasteurised)[11] .

13. Unlike UPF, HFSS is a clearly-defined category based on foods' nutritional content with reliable implications for human health.

14. It is paramount to consider the incentives created by adopting either the UPF category or the HFSS category as a basis for restrictive regulation. Whereas UPFs will always be ultra-processed, HFSS foods can be reformulated to improve their nutritional profile. Creating regulation which restricts HFSS foods will incentivise food producers to innovate and improve the nutritional profile of their products by reducing fat, sugar, and salt – this may entail additional processing to achieve. However, creating regulation which restricts UPFs will simply incentivise less processing of food, regardless of the impact of said processing on nutritional profile. UPF restrictions would lead to less processed food – HFSS restrictions would lead to more nutritious food.

15. TOPIC 6: How consumers can recognise UPF and HFSS foods, including the role of labelling, packaging and advertising.

16. Due to the inconsistent and unclear definitions offered for UPF, there is a very low degree of public understanding of UPF. One survey found that just 2 in 5 consumers said they understand what 'ultra-processed' means[12]. Another study found low consistency in how different people categorise foods, concluding that 'current NOVA criteria do not allow for robust and functional food assignments'[13].

17. There are subjective and ill-defined aspects to the NOVA categorization system. One criticism concludes: '*The classification systems embody socio-cultural elements and subjective terms, including*

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[8] https://www.bmj.com/content/371/bmj.m4141
[9] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5669970/
[10] https://www.tandfonline.com/doi/full/10.1080/10408398.2021.1949575
[11] https://www.food.gov.uk/safety-hygiene/raw-drinking-milk
[12] https://igdfiles.igd.com/websiteassets/Portals/0/downloads/Content/Ultra-processed-foods-one-page -overview.pdf
[13] https://www.nature.com/articles/s41430-022-01099-1

home cooking and naturalness. Hence, "processing" is a chaotic conception, not only concerned with technical processes. Most classification systems do not include quantitative measures but, instead, imply correlation between "processing" and nutrition."[14]

18. Unlike UPFs, HFSS foods are immediately evident to consumers in the UK, since high levels of fat, sugar, and salt are indicated on the front of food packaging through the traffic light system, as well as detailed on the nutritional labels. Unlike the degree of processing, the nutritional content of a food is objectively quantifiable.

19. Indeed, it is recognised that processing may reduce fat, sugar, or salt content – for example, in the case of sugar-free sweeteners, which count as ultra-processed, but can reduce sugar, or plant-based meat alternatives, which count as ultra-processed, but can reduce fat compared to meat from animals. In such cases, the UPF and HFSS categories could lead to directly conflicting prescriptions – the UPF category would favour the 'natural' sugar or meat, whereas the HFSS category would favour the nutritionally superior (though processed) sugar-free sweetener and meat alternative. Therefore, the consideration of the UPF category creates an uneven playing field for assessing foods' healthiness, which ought to be measured on the basis of their nutritional profiles.

20. In tackling obesity and other nutrition-related issues, policymakers should therefore prioritise HFSS classifications over UPF. HFSS is better understood by consumers and has an objective link to a food's nutritional profile.

21. TOPIC 7: The cost and availability of a) UPF and b) HFSS foods and their impact on health outcomes.

22. While there is evidence that increased consumption of UPFs is associated with negative health outcomes, this is not the case for all UPFs. One study found that plant-based UPFs, in particular, were not associated with increased risk of multimorbidity, whereas animal-based UPFs were associated with increased risk[15]. Some UPFs – in particular breads and cereals – appeared to be associated with *decreased* risk.

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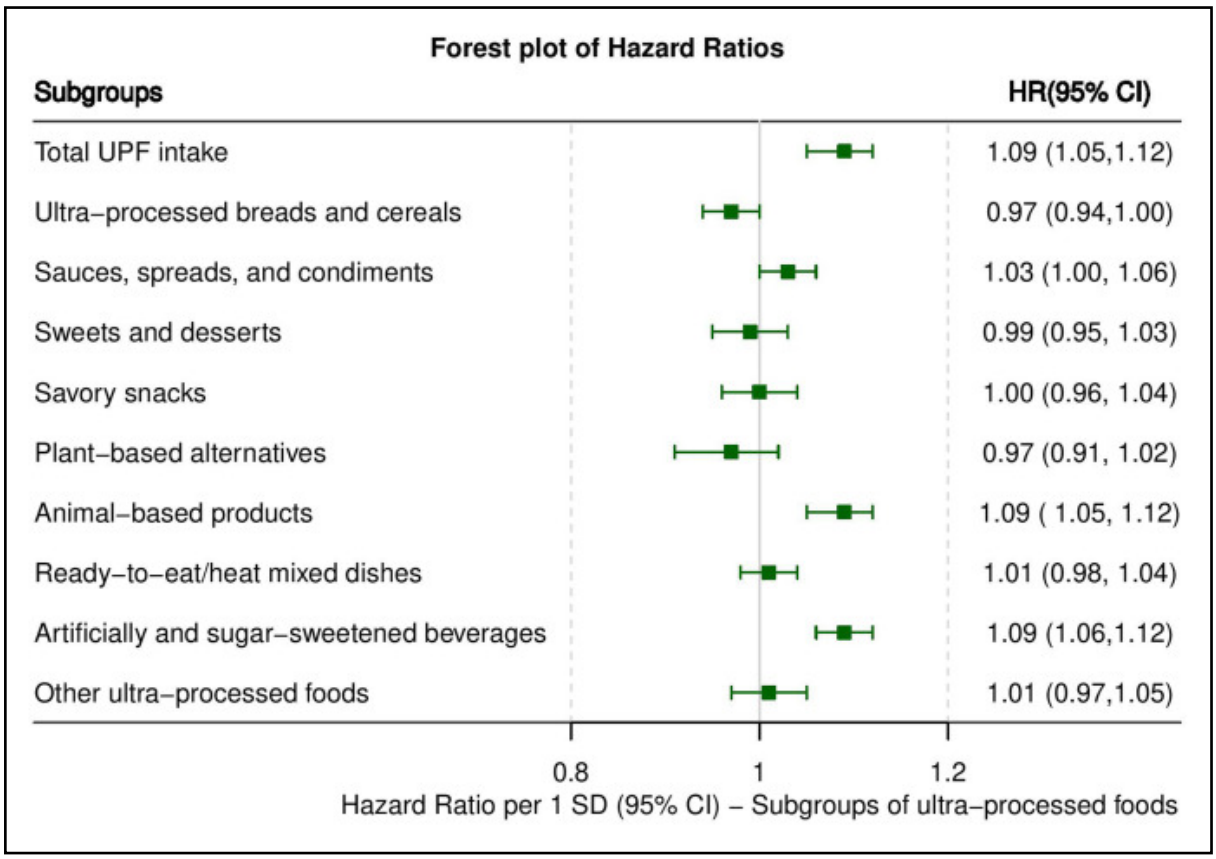
[14] https://www.sciencedirect.com/science/article/pii/S0924224421001667
[15] https://www.thelancet.com/journals/lanepe/article/PIIS2666-7762(23)00190-4/fulltext



23. Plant-based meat alternatives (NOVA category 4) are typically lower in calorie density and saturated fat while being higher in fibre compared to meat from animals (NOVA category 1)[16]. These are all nutritional qualities that are especially important with respect to reducing obesity.

24. Indeed, there is evidence that plant-based meats can aid in weight loss. One study assigned overweight individuals to eat either chicken or mycoprotein (i.e. Quorn), and observed that the mycoprotein group consumed significantly fewer calories (10%)[17]. Another study – a randomised crossover trial conducted at Stanford University School of Medicine – had participants eat 2 meals a day which were meat- or plant-based. They found that participants in the plant phase weighed significantly less (1kg on average) compared to the meat phase[18].

25. Many UK health and nutrition authorities have criticised UPF as a classification system. The British Dietetic Association calls the concept of UPFs 'overly broad and ill-defined'[19]. The British Nutrition Foundation says

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[16] https://www.sciencedirect.com/science/article/pii/S2666833522000612

[17] https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/mycoprotein-reduces- energy-intake-and-postprandial-insulin-release-without-altering-glucagonlike-peptide1-and-peptide-tyrosinetyrosine-concentrations-in-healthy-overweight-and-obese-adults-a-randomisedcontrolled-trial/0F85EC98A2F1AF815C504AB0677643B3

[18] https://pubmed.ncbi.nlm.nih.gov/32780794/

that there is a 'lack of agreed definition' of UPF and 'concern about its usefulness as a tool to identify healthier products'[20]. The Scientific Advisory Committee on Nutrition highlighted 'limitations in the NOVA classification system' including 'the potential for confounding'[21]. Professor Robin May, the Chief Scientific Advisor to the FSA, has warned against 'throwing the baby out with the bathwater' in terms of healthy processed foods like sweeteners, whole grain bread, and fortified cereal.

26. TOPIC 8: The role of the food and drink industry in driving food and diet trends and on the policymaking process.

27. There has been a concerted effort to push the idea that 'ultra-processed' food is unhealthy in political circles, in particular by representatives of the livestock industry. For example, the Center for Consumer Freedom has been taking out high-profile advertisements attacking meat alternatives as overly processed on behalf of the meat industry since 2019[22,23]. To the extent that industry influencing policy and discourse is an issue, it is disproportionately the livestock industries who are responsible in the case of ultra-processed foods.

28. In the UK, the evidence of the livestock industry on policy is evident. Dairy UK has been leading attempts to increase restrictions on plant-based product labelling in the UK. Inherited EU legislation already prohibits the use of the term 'oat milk', and now Trading Standards are considering enforcing further restrictions, which would make the UK the most restrictive country in Europe, and would ban a product named 'This Is Not Milk' on the basis that consumers might confuse it as milk[24,25].

29. TOPIC 9: Lessons learned from international policy and practice, and from the devolved administrations, on diet-related obesity prevention

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[19] https://www.bda.uk.com/resource/processed-foods-overly-broad-and-ill-defined.html
[20] https://www.nutrition.org.uk/news/2023/position-statement-on-the-concept-of-ultra-processed-foods- upf/
[21] https://www.gov.uk/government/publications/sacn-statement-on-processed-foods-and-health
[22] https://www.washingtonpost.com/business/2022/02/12/valentines-plant-proteins-meat-fight/
[23] https://www.reuters.com/article/us-meat-super-bowl/advocacy-group-takes-plant-based-meat-fight -to-super-bowl-in-ad-idUSKBN1ZX07H
[24] https://www.thegrocer.co.uk/plant-based/plant-based-brands-in-the-dark-on-potential-labelling-rule -changes/688054.article
[25] https://unearthed.greenpeace.org/2023/05/20/plant-based-dairy-marketing-lobbying/

30. A report commissioned by the Conservative Animal Welfare Foundation estimated the impact of meat reduction on a range of health outcomes in the UK, including obesity. According to the analysis, a 10% reduction in UK meat consumption would save the NHS over £600 million annually, with over £5 million in obesity-related costs saved for every 1% reduction in meat[26]. These figures concur closely with a similar analysis by the Office of Health Economics, which estimated that a 100% adoption of plant-based diets would save the NHS £6.7 billion annually (although their model did not include obesity)[27].

31. One intervention considered in the report is adopting plant-based defaults in public catering. This policy has been adopted by hospitals in New York City with the stated aim of reducing the incidence of lifestyle-related diseases including obesity[28]. The plant-based default policy is a classic example of a non-intrusive 'nudge', and is widely supported in New York[29].

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[26] https://www.conservativeanimalwelfarefoundation.org/resources/the-2-billion-nhs-windfall-why-meat -reduction-matters/
[27] https://www.medrxiv.org/content/10.1101/2023.12.26.23300536v1.full.pdf
[28] https://www.nychealthandhospitals.org/pressrelease/nyc-health-hospitals-now-serving-plant-based -meals-as-primary-dinner-option-for-inpatients-at-all-of-its-11-public-hospitals/
[29] https://bryantresearch.co.uk/insight-items/nyc-support-plantbased/