

THE GOOD FOOD INSTITUTE EUROPE - WRITTEN EVIDENCE (FDO0054)

Introduction

The [Good Food Institute Europe](#) welcomes the opportunity to contribute to the House of Lords Select Committee on Food, Diet and Obesity call for evidence. This submission will aim to address the following two points from the call for evidence, through the specific lens of animal-based foods and the plant-based foods designed to replace them:

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

This submission was prepared by the Good Food Institute Europe, a think tank and non-profit organisation working to build a more sustainable, secure and just food system by transforming meat production. We work with scientists, businesses and policymakers to advance plant-based, fermentation-made and cultivated meat, eggs, dairy and seafood – making them delicious, affordable and nutritious across Europe. We believe that making meat from plants and cultivating it from animal cells is fundamental to addressing climate change, improving food security and public health and reducing biodiversity loss. GFI Europe is funded entirely by philanthropy.

Overview

Diet-related ill health is an urgent and growing problem in the UK. Much attention has been paid to the role of increasingly unhealthy food environments as a driver of this, and several frameworks have emerged seeking to characterise those foods driving spiralling rates of obesity, heart disease, type-two diabetes and more diet-related health problems.

It is against this backdrop that the Nova classification system and the concept of Ultra Processed Foods (UPFs) have emerged. The UPF category spans an incredibly large and disparate selection of foods, many of which are high in calories, sugar, salt and fat and low in nutrients and fibre. However, while this is surely true for **many** foodstuffs within this group, it is not true for **all** of them – and certain UPF subgroups could actually offer significant opportunities to improve diet quality in the UK.

One such example, and the focus of this submission, is plant-based alternatives to animal-source foods such as plant-based milk and meat. The majority of these foods would be considered Nova 4 (ultra-processed). Yet several randomised controlled trials exploring their relative health impacts compared to conventional animal products have found that they could reduce risk of heart disease,^{1,2} improve gut health,^{3,4} and help maintain a healthy weight.⁵

As such, any policy intended to target over-consumption of UPF foods should be sure to target the food groups most associated with diet-related ill-health, and avoid inadvertently penalising foods that offer healthy, convenient and sustainable food choices.

¹ Gibbs, Joshua, and Gah-Kai Leung. 2023. "The Effect of Plant-Based and Mycoprotein-Based Meat Substitute Consumption on Cardiometabolic Risk Factors: A Systematic Review and Meta-Analysis of Controlled Intervention Trials." *Dietetics* 2 (1): 104–22.

² Crimarco, Anthony, Sparkle Springfield, Christina Petlura, Taylor Streaty, Kristen Cunanan, Justin Lee, Priya Fielding-Singh, et al. 2020. "A Randomized Crossover Trial on the Effect of Plant-Based Compared with Animal-Based Meat on Trimethylamine-N-Oxide and Cardiovascular Disease Risk Factors in Generally Healthy Adults: Study With Appetizing Plantfood-Meat Eating Alternative Trial (SWAP-MEAT)." *The American Journal of Clinical Nutrition* 112 (5): 1188–99.

³ Farsi, Dominic N., Jose Lara Gallegos, Georgios Koutsidis, Andrew Nelson, Tim J. A. Finnigan, William Cheung, Jose L. Muñoz-Muñoz, and Daniel M. Commane. 2023. "Substituting Meat for Mycoprotein Reduces Genotoxicity and Increases the Abundance of Beneficial Microbes in the Gut: Mycomeat, a Randomised Crossover Control Trial." *European Journal of Nutrition* 62 (3): 1479–92.

⁴ Toribio-Mateas, Miguel A., Adri Bester, and Natalia Klimenko. 2021. "Impact of Plant-Based Meat Alternatives on the Gut Microbiota of Consumers: A Real-World Study." *Foods* (Basel, Switzerland) 10 (9). <https://doi.org/10.3390/foods10092040>.

⁵ Bottin, Jeanne H., Jonathan R. Swann, Eleanor Cropp, Edward S. Chambers, Heather E. Ford, Mohammed A. Ghatei, and Gary S. Frost. 2016. "Mycoprotein Reduces Energy Intake and Postprandial Insulin Release without Altering Glucagon-like Peptide-1 and Peptide Tyrosine-Tyrosine Concentrations in Healthy Overweight and Obese Adults: A Randomised-Controlled Trial." *The British Journal of Nutrition* 116 (2): 360–74.

What is the evidence of the health benefits of plant-based meat and milk?

1. Plant-based meat products are often of a higher or equivalent processing level compared with conventional meat products, and yet several randomised controlled trials have suggested replacing conventional meat with plant-based options could confer health benefits:
 - 1.1. **Reduced risk of heart disease and obesity.** Several randomised controlled trials have been conducted to explore the impact of swapping plant-based for conventional meat on endpoints associated with heart health and obesity, validated by health organisations:
 - 1.1.1. A four-week randomised controlled trial with a cohort of 72 overweight adults delivered meals containing either mycoprotein⁶ (study group) or meat/fish (control group) found a 10% reduction in LDL (bad cholesterol) in the study group, while no change was observed in the control. Mean blood glucose and c-peptide (biomarkers associated with type 2 diabetes) were also lower in the study group (3.7 mmol.L and 779 respectively) compared to the control group (4.3 mmol.L and 1064 respectively) at the end of the trial period.⁷
 - 1.1.2. An eight-week randomised crossover trial in 36 healthy adults provided participants with either plant-based or conventional meat, and instructed participants to consume at least two servings per day over an 8 week period, after which point they switched and continued for another 8 weeks. Several biomarkers were measured at the beginning and end of the trial period and compared. Mean LDL cholesterol (109.9mg/dL vs 120.7 mg/dL) and weight (78.7kg vs 79.6kg) were both found to be lower during the plant-based phase.⁸

⁶ Mycoprotein is a protein ingredient made from fungi. It is most commonly available in products from British company Quorn.

⁷ Pavis, George F., Raquel Revuelta Iniesta, Holly Roper, Hannah E. Theobald, Emma J. Derbyshire, Tim J. A. Finnigan, Francis B. Stephens, and Benjamin T. Wall. 2024. "A Four-Week Dietary Intervention with Mycoprotein-Containing Food Products Reduces Serum Cholesterol Concentrations in Community-Dwelling, Overweight Adults: A Randomised Controlled Trial." *Clinical Nutrition* 43 (3): 649–59.

⁸ Crimarco, Anthony, Sparkle Springfield, Christina Petlura, Taylor Streaty, Kristen

- 1.1.3. Two randomised controlled trials in 55 overweight adults provided participants meals containing either low, medium or high mycoprotein content for the study group, and calorie matched meals containing chicken for the control group. Mycoprotein reduced energy intake by 10% in the high mycoprotein meals compared to the high chicken meals, and all mycoprotein meals reduced blood insulin concentrations compared to chicken. There was no significant difference in other endpoints measured.⁹
 - 1.1.4. The American Heart Association has certified several plant-based meat products from the company Beyond Meat with their Heart Check programme.¹⁰
 - 1.2. **Microbiome and gut health.** This is a relatively new area of research, so more evidence is sorely needed across the board. However, two small randomised controlled trials have so far been conducted on plant-based meat and the microbiome specifically:
 - 1.2.1. One randomised controlled crossover trial with 20 healthy adult males allocated participants to 240g of red and processed meat or mycoprotein over a two week period, after which there was a two week washout and groups swapped. Participants in the mycoprotein phase showed reductions in genotoxic chemicals in their faeces, and increases in the abundance of beneficial gut bacteria, while participants showed increased faecal genotoxicity and nitroso compounds during the red and processed meat phase.¹¹

Cunanan, Justin Lee, Priya Fielding-Singh, et al. 2020. "A Randomized Crossover Trial on the Effect of Plant-Based Compared with Animal-Based Meat on Trimethylamine-N-Oxide and Cardiovascular Disease Risk Factors in Generally Healthy Adults: Study With Appetizing Plantfood-Meat Eating Alternative Trial (SWAP-MEAT)." *The American Journal of Clinical Nutrition* 112 (5): 1188–99.

⁹ Bottin, Jeanne H., Jonathan R. Swann, Eleanor Cropp, Edward S. Chambers, Heather E. Ford, Mohammed A. Ghatei, and Gary S. Frost. 2016. "Mycoprotein Reduces Energy Intake and Postprandial Insulin Release without Altering Glucagon-like Peptide-1 and Peptide Tyrosine-Tyrosine Concentrations in Healthy Overweight and Obese Adults: A Randomised-Controlled Trial." *The British Journal of Nutrition* 116 (2): 360–74.

¹⁰ Beyond Meat, Beyond Steak by Beyond Meat Is Now Certified by the American Heart Association's Heart-Check Program. <https://www.globenewswire.com/news-release/2023/05/09/2664496/0/en/Beyond-Steak-by-Beyond-Meat-Is-Now-Certified-by-the-American-Heart-Association-s-Heart-Check-Program.html> Accessed 4 April 2024.

¹¹ Farsi, Dominic N., Jose Lara Gallegos, Georgios Koutsidis, Andrew Nelson, Tim J. A.

- 1.2.2. Another randomised controlled trial explored the effects of replacing conventional meat with plant-based meat in 20 participants in a real-world setting for several meals per week over a four week period. The study found small but statistically significant positive changes in the microbiomes of study participants.¹²
- 1.3. **Meeting nutritional needs of those with allergies and intolerances.** The British Dieticians Association in their guidance for those with dairy allergies and intolerances highlights fortified plant-based dairy products for their usefulness in adding “nutrition and taste” to dairy-free diets.¹³
- 1.4. To summarise, there is a small but growing body of evidence, based on randomised controlled trials, showing that plant-based meat, particularly when used to replace red and processed meat, shows promise as a convenient option which could help people reduce their risk of various diet-related diseases. This is the case even though these products typically technically fall in the UPF category.

To what extent do findings of research into UPF apply to plant-based meat and milk?

2. Plant-based meat has very little in common nutritionally with the vast majority of foodstuffs in the UPF Nova 4 category. This is important because it is therefore unlikely that research into the large basket of products comprising UPFs as a whole can tell us anything meaningful about the specific implications of UPF plant-based products for health.
 - 2.1. As seen in the below figure comparing conventional processed meat and plant-based meat against several standard features given of UPFs, plant-based meat is very much a non-standard example of the group.¹⁴ *Note, these comparisons are based on*

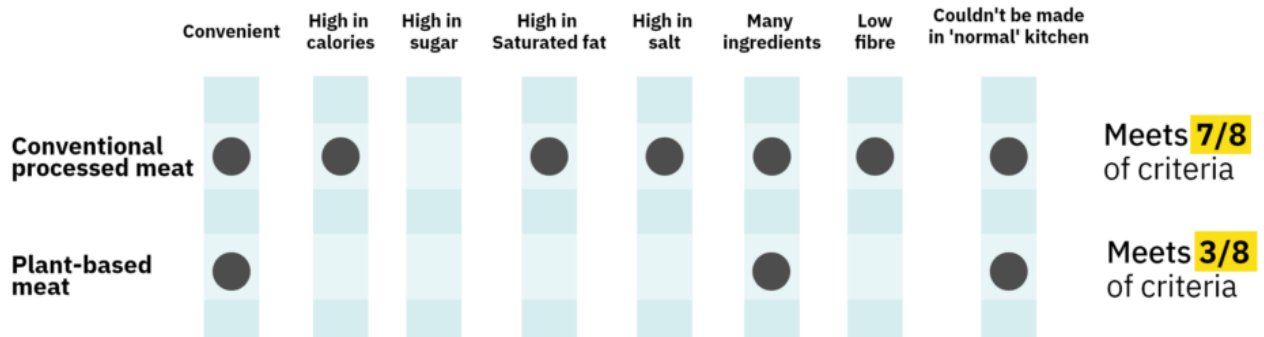
Finnigan, William Cheung, Jose L. Muñoz-Muñoz, and Daniel M. Commane. 2023. “Substituting Meat for Mycoprotein Reduces Genotoxicity and Increases the Abundance of Beneficial Microbes in the Gut: Mycomeat, a Randomised Crossover Control Trial.” *European Journal of Nutrition* 62 (3): 1479–92.

¹² Toribio-Mateas, Miguel A., Adri Bester, and Natalia Klimenko. 2021. “Impact of Plant-Based Meat Alternatives on the Gut Microbiota of Consumers: A Real-World Study.” *Foods* (Basel, Switzerland) 10 (9). <https://doi.org/10.3390/foods10092040>.

¹³ British Dietetic Association, Milk allergy. <https://www.bda.uk.com/resource/milk-allergy.html>. Accessed 4 April 2024.

¹⁴ Good Food Institute Europe, Plant-based meat and health in Europe (2023). Accessed 4

median data from studies into the macronutrient profiles of processed meat and plant-based meat in Spain, the Netherlands, Sweden, the UK and Germany. Subjective categories of 'convenient' and 'could not be made in a conventional kitchen' were determined based on standard Nova definitions.



- 2.2. **In the only randomised controlled trial published to date on UPF, plant-based meat was not included in any of the meals provided to participants in the study.**¹⁵
- 2.3. In the observational studies making up the bulk of the body of evidence to date on UPF, plant-based meat comprised a vanishingly small proportion of the UPF eaten, while processed conventional meat (which plant-based meat typically replaces) and dairy made up a considerable proportion of UPF foods eaten. Several studies that reported a breakdown of UPF consumption by food group are outlined below.

Study	Proportion of UPFs eaten by study participants that are derived from animal-	Proportion of UPFs eaten by study participants that are plant-based
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April 2024.

¹⁵ Hall KD, Ayuketah A, Brychta R, et. al. Ultra-Processed Diets Cause Excess Calorie Intake and Weight Gain: An Inpatient Randomized Controlled Trial of Ad Libitum Food Intake. Cell Metab. 2019 Jul 2;30(1):67-77.e3. doi: 10.1016/j.cmet.2019.05.008. Epub 2019 May 16. Erratum in: Cell Metab. 2019 Jul 2;30(1):226. Erratum in: Cell Metab. 2020 Oct 6;32(4):690. PMID: 31105044; PMCID: PMC7946062.

	source foods	alternatives to animal-source foods
Ultra-processed food intake and risk of cardiovascular disease: prospective cohort study (NutriNet-Santé)¹⁶	Meat, fish and eggs 11%, Dairy products 8% (measured in proportion of calories)	Not mentioned as a food group
Association between consumption of ultra-processed foods and all cause mortality: SUN prospective cohort study¹⁷	Processed meat 15% (largest single category). Dairy products 12% (measured in proportion of calories)	Not mentioned as a food group
Food processing and cancer risk in Europe: results from the prospective EPIC cohort study¹⁸	Processed meat 10%, dairy products 12% (measured by weight).	Meat alternatives 0.2%, dairy alternatives 0.9% (measured by weight).

2.4. Studies exploring relative risks from different types of UPF foods have identified UPF meat products to be associated with particularly large increased health risks relative to other UPF groups, while UPFs containing fibre and fortification (as plant-

¹⁶ Srouf B, Fezeu L K, Kesse-Guyot E, Allès B, MÃ©jean C, Andrianasolo R M et al. Ultra-processed food intake and risk of cardiovascular disease: prospective cohort study (NutriNet-Santé) *BMJ* 2019; 365 :l1451 doi:10.1136/bmj.l1451

¹⁷ Rico-CampÃ A, MartÃ­nez-GonzÃ¡lez M A, Alvarez-Alvarez I, MendonÃ§a R d D, de la Fuente-Arrillaga C, GÃ³mez-Donoso C et al. Association between consumption of ultra-processed foods and all cause mortality: SUN prospective cohort study *BMJ* 2019; 365 :l1949 doi:10.1136/bmj.l1949

¹⁸ Kliemann N., Rauber F., Bertazzi R. et al. Food processing and cancer risk in Europe: results from the prospective EPIC cohort study. *Lancet Planetary Health*. March (2023) [https://doi.org/10.1016/S2542-5196\(23\)00021-9](https://doi.org/10.1016/S2542-5196(23)00021-9).

based meat often does) were actually associated with reduced risk.

- 2.4.1. In one such study, the authors found while consumption of UPFs overall was associated with increased risk of cancer and cardiometabolic disease, much of this association was driven by particularly strong associations with high consumption of animal-based products and artificially and sugar-sweetened beverages. Other groups such as wholemeal bread, fortified cereals, and meat alternatives were not associated with increased risk of cancer or cardiometabolic multimorbidity and were even in some instances associated with reduced risk. This was suggested by the authors to be linked to their fibre content and/or fortification.¹⁹
- 2.4.2. A systematic review and meta analysis of UPF studies looking at all-cause mortality found a similar risk reduction associated with higher consumption of UPF breakfast cereals, although meat alternatives were not mentioned in the analysis. It also found increased risk of all-cause mortality associated with sugar-sweetened beverages, artificially sweetened beverages, processed meat, and processed red meat.²⁰

The public health burden of current levels of meat consumption, and how conventional meat products align with UPF and HFSS categorisations

3. The meat intake of many people in the UK currently exceeds the limit recommended by national dietary guidelines,²¹ which is associated with various public health concerns.

¹⁹ Cordova R., Viallon V., Fontvieille E., et al. Consumption of ultra-processed foods and risk of multimorbidity of cancer and cardiometabolic diseases: a multinational cohort study. *Lancet Regional Health*. VOLUME 35, 100771, DECEMBER 2023.

²⁰ Petek Eylul Taneri, Faina Wehrli, Zayne M Roa-Díaz, Oche Adam Itodo, Dante Salvador, Hamidreza Raeisi-Dehkordi, Lia Bally, Beatrice Minder, Jessica C Kiefte-de Jong, Jessica E Laine, Arjola Bano, Marija Glisic, Taulant Muka, Association Between Ultra-Processed Food Intake and All-Cause Mortality: A Systematic Review and Meta-Analysis, *American Journal of Epidemiology*, Volume 191, Issue 7, July 2022, Pages 1323–1335, <https://doi.org/10.1093/aje/kwac039>

²¹ Stewart, Cristina, Carmen Piernas, Brian Cook, and Susan A. Jebb. 2021. "Trends in UK Meat Consumption: Analysis of Data from Years 1-11 (2008-09 to 2018-19) of the National Diet and Nutrition Survey Rolling Programme." *The Lancet. Planetary Health* 5 (10): e699–

- 3.1. The National Food Strategy and a large body of academic literature suggest the need to reduce the consumption of animal-source foods in the UK to improve the nation's health. There is a growing body of evidence that overconsumption of meat drives several growing causes of diet-related ill health in the UK, and second-order effects from meat production are also significant considerations for public health:
- 3.1.1. Overconsumption of red and processed meat is significantly associated with increased risk of colorectal cancer.²² Research by Cancer Research UK has found that colorectal cancer is the second largest cause of cancer death in the UK, accounting for 10% of cancer deaths.²³
 - 3.1.2. Overconsumption of red and in particular processed meat is associated with an increased risk of ischaemic heart disease (IHD).²⁴ The Office for National Statistics estimates that IHD was responsible for around 10% of all UK deaths in 2019.²⁵
 - 3.1.3. The UK has made reasonable progress in reducing the use of antibiotics in farmed animals, but the proliferation of antimicrobial resistance represents a significant public health threat, and animal agriculture remains responsible for a large proportion of antibiotic use in the UK²⁶. Antibiotic use in farmed animals has been clearly linked to the proliferation of antimicrobial resistance.^{27,28} No

708.

²² Di, Y., Ding, L., Gao, L. et al. Association of meat consumption with the risk of gastrointestinal cancers: a systematic review and meta-analysis. *BMC Cancer*. 23:782 (2023). <https://doi.org/10.1186/s12885-023-11218-1>

²³ Cancer Research UK, Cancer mortality for common cancers. Accessed 3 April 2024. <https://www.cancerresearchuk.org/health-professional/cancer-statistics/mortality/common-cancers-compared#heading-Zero>

²⁴Papier, K., Knuppel A., Syam N. et al. Meat consumption and risk of ischemic heart disease: A systematic review and meta-analysis. *Critical Reviews in Food Science and Nutrition*. 63:3 (2023) 426–437 <https://doi.org/10.1080/10408398.2021.1949575>

²⁵ Office for National Statistics, Ischaemic heart diseases deaths including comorbidities, England and Wales: 2019 registrations. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/ischaemicheartdiseasesdeathsincludingcomorbiditiesenglandandwales/2019registrations>. Accessed 3 April 2024.

²⁶ Alliance to Save Our Antibiotics <https://www.saveourantibiotics.org/news/press-release/government-fails-to-live-up-to-its-commitments-on-farm-antibiotic-use/>. Accessed 3 April 2024.

²⁷ Pokharel, S., Shrestha, P. & Adhikari, B. Antimicrobial use in food animals and human

antibiotics are needed in the production of plant-based meat, meaning it could help reduce reliance on these life-saving medicines.

- 3.1.4. Animal farming has also been associated with increased pandemic risk.²⁹ In the context of the ongoing bird flu pandemic,^{30,31,32} reducing reliance on animal-source foods could help minimise exposure of humans to the disease and safeguard food security against losses of farmed animals through infection.
- 3.2. As such, there is good evidence that many people in the UK could benefit from reducing their meat consumption to recommended levels, but frameworks based on processing levels such as Nova fail to accurately capture the relative risks of different meat and meat alternative products, and could even discourage healthier choices.
 - 3.2.1. The broader body of evidence looking at meat rather than just processing level finds that negative associations are seen in processed meat and unprocessed red meat alike.^{33,34}

health: time to implement 'One Health' approach. *Antimicrob Resist Infect Control* 9, 181 (2020). <https://doi.org/10.1186/s13756-020-00847-x>

²⁸ Bureau of Investigative Journalism, Swimming in superbugs: MRSA and E coli found in British rivers <https://www.thebureauinvestigates.com/stories/2022-11-22/swimming-in-superbugs-mrsa-and-e-coli-found-in-british-rivers/#:~:text=In%20the%20Wye%20Valley%2C%20the,used%20in%20the%20chicken%20industry.Accessed> 3 April 2024.

²⁹ European Food Safety Authority, Drivers for a pandemic due to avian influenza and options for One Health mitigation measures. https://www.ecdc.europa.eu/sites/default/files/documents/EFS2_8735_0.pdf. Accessed 3 April 2024.

³⁰ European Food Safety Authority, Avian influenza overview September–December 2023. <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2023.8539> Accessed 3 April 2023.

³¹The Guardian, Texas egg facility halts production after bird flu found in chickens. <https://www.theguardian.com/us-news/2024/apr/03/bird-flu-texas-egg-plant-chicken>. Accessed 3 April 2024.

³² The Telegraph, Person catches bird flu from cow raising infection concerns, <https://www.telegraph.co.uk/global-health/science-and-disease/us-alert-h5n1-bird-flu-person-exposed-infected-cattle-cow/>. Accessed 3 April 2024.

³³ Di, Y., Ding, L., Gao, L. et al. Association of meat consumption with the risk of gastrointestinal cancers: a systematic review and meta-analysis. *BMC Cancer*. 23:782 (2023). <https://doi.org/10.1186/s12885-023-11218-1>

³⁴Papier, K., Knuppel A., Syam N. et al. Meat consumption and risk of ischemic heart disease: A systematic review and meta-analysis. *Critical Reviews in Food Science and Nutrition*. 63:3 (2023) 426–437 <https://doi.org/10.1080/10408398.2021.1949575>

Likewise, the term 'processed meat' applies to a spectrum of products spanning Nova 3 and Nova 4.

- 3.2.2. Interventions that depend on HFSS definitions are more useful in describing and assessing such products, as red meat is generally higher in fat and saturated fat than lean meats or plant-based alternatives which are likely healthier choices. Likewise, processed meats across Nova categories 3 and 4 tend to be high in salt and saturated fat, and so would be captured by HFSS definitions.

How does the conversation around UPF affect public perceptions of plant-based products?

4. While the public is generally concerned about ultra-processed foods, few people have a strong understanding of how to identify them. Among UPFs plant-based meat is one of the most commonly recognised as such, even though the evidence does not suggest it carries the same health risks as the average UPF product.
 - 4.1. Defining and categorising UPFs is a challenge even among health and nutrition experts: a study asking nutrition and food experts to categorise foods into their respective Nova groups found only 32-34% agreement between the experts' categorisations.³⁵
 - 4.2. A British Nutrition Foundation survey via YouGov in 2023 found that plant-based meat was the second most likely food to be categorised as ultra-processed by consumers – ahead of shop-bought burgers, sugary breakfast cereals and shop-bought sausages.³⁶ Ready meals were the food group most likely to be categorised as UPF.
 - 4.3. Evidence is severely lacking on how people interpret and apply guidance to reduce their intake of UPFs in a real-world context, and given the widespread confusion surrounding the topic there is a risk that such actions would not effectively target the most unhealthy foods.

³⁵ Braesco, V., Souchon, I., Sauvant, P. et al. Ultra-processed foods: how functional is the NOVA system?. *Eur J Clin Nutr* 76, 1245–1253 (2022). <https://doi.org/10.1038/s41430-022-01099-1>

³⁶ .Food Manufacture. Ultra-processed foods can still be part of a healthy, balanced diet, according to the British Nutrition Foundation (BNF). Accessed 4 April 2024. <https://www.foodmanufacture.co.uk/Article/2023/04/26/ultra-processed-foods-can-be-part-of-a-balance-diet-bnf>

What are the key considerations for policy interventions against UPF consumption for plant-based meat and dairy?

5. An exclusive focus on processing level – whether in product development, policy decisions or media narratives – risks misrepresenting the relative ‘healthiness’ of various meat and meat alternative products. This could make it more difficult for the public to make informed food choices.
 - 5.1. There are several considerations associated with the definition and usefulness of UPF when it comes to different types of meat and meat-alternative products, and definitions based on HFSS (because they are based on objective measurements) can be much more consistently defined by the public, policy instruments, and health professionals alike.
 - 5.2. There is good evidence that many people in the UK could benefit from reducing their meat consumption to recommended levels, but frameworks based on processing levels such as Nova fail to accurately capture the relative risks of different meat and meat alternative products, and could even discourage healthier choices, meaning caution is needed.
 - 5.3. Designations based on nutritional makeup such as HFSS would more accurately capture the inter-group variation between different food types than UPF and the Nova framework. In other words, policymakers *could* use a UPF framework as an indirect mechanism for designing policy to target HFSS foods – but it would be an unwieldy way of doing so, since it would have negative spillover impacts on healthy, climate-beneficial foods such as plant-based meat.
 - 5.4. Plant-based whole foods like fruits, vegetables, beans, nuts and whole grains are very healthy and more work is needed to support their incorporation into the UK’s diet. However, even though many plant-based whole foods have long been cheap and readily available, poor diet and overconsumption of meat remains a problem. Alongside increasing consumption of whole plant foods, options like plant-based meat can also play a crucial role as they are easier for people to incorporate into their diets on the path to more plant-based ways of eating.

5.5. To be clear, policymakers must take a much more firm stance on addressing diet-related ill-health in the UK – and do so with real urgency. However, any policy intended to target over-consumption of UPF foods should be sure to target specific food groups most associated with diet-related ill-health, and avoid inadvertently penalising foods that offer healthy, convenient and sustainable food choices.

5 April 2024