



Making Sense of Ultra-processed foods public dialogue

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Declaration of interest

I have **no interests** to declare in presenting to the *Making Sense of Ultra-processed foods* public dialogue.

I declare a **research consultancy** project with **Cherrypick**© to assist in classifying the foods available on their platform into ultra-processed and non-ultra-processed categories, using the Nova food classification system. This project aimed to inform customers about the proportion of ultra-processed foods in their baskets. This past **collaboration does not influence the content, analysis, or conclusions of my research or of this presentation.**



UNIVERSITY OF
CAMBRIDGE

Research Associate

UPF and youth
Epidemiology



2024...

2022-2024

Research Fellow

Food Policy
Placement regulations of
HFSS foods



CITY
ST GEORGE'S
UNIVERSITY OF LONDON

**Centre for
Food Policy**

Shaping an effective food system

PhD

Postdoc @ Cambridge

Disclaimer

- UPF as a **concept** – beyond a classification system
- Food is **political** and tremendously **complex**
- **Power** imbalances
- Health **inequalities**, poverty
- This is not about **choice** for many people
- Hype in the **media** has increased consumer's concerns, beliefs and behaviours around ultra-processed foods

PRICE AND AFFORDABILITY



Cost of more sustainable options P26

More sustainable, plant-based milk alternatives in supermarkets are on average 55% more expensive than dairy milk.



Cost of healthy food P28

On average, healthier foods are more than twice as expensive per calorie as less healthy foods, with healthier food increasing in price at twice the rate in the past two years.



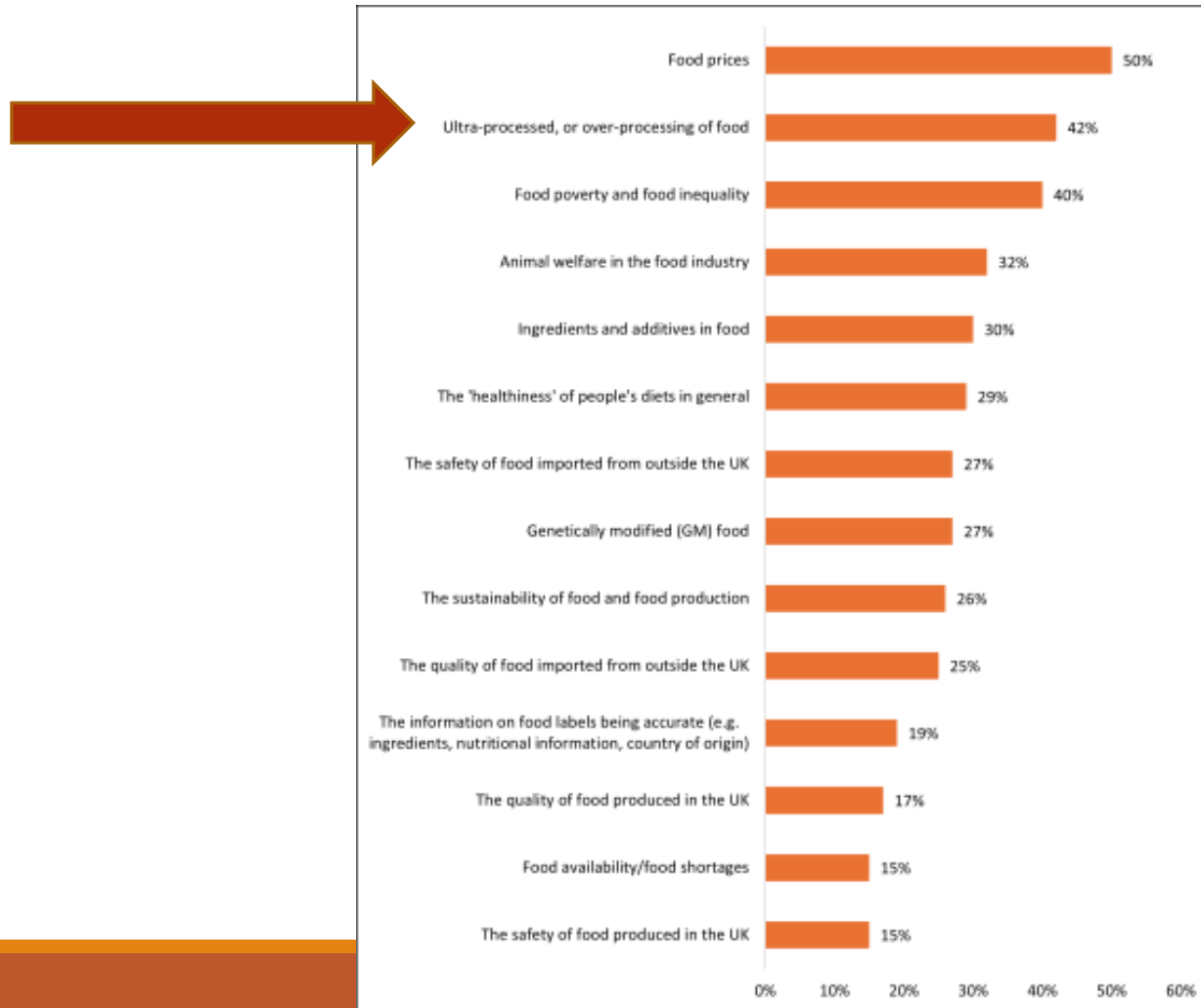
Affordability of a healthy diet P30

To afford the government-recommended healthy diet, the most deprived fifth of the population would need to spend 45% of their disposable income on food, rising to 70% for those households with children.

WHAT NEEDS TO HAPPEN

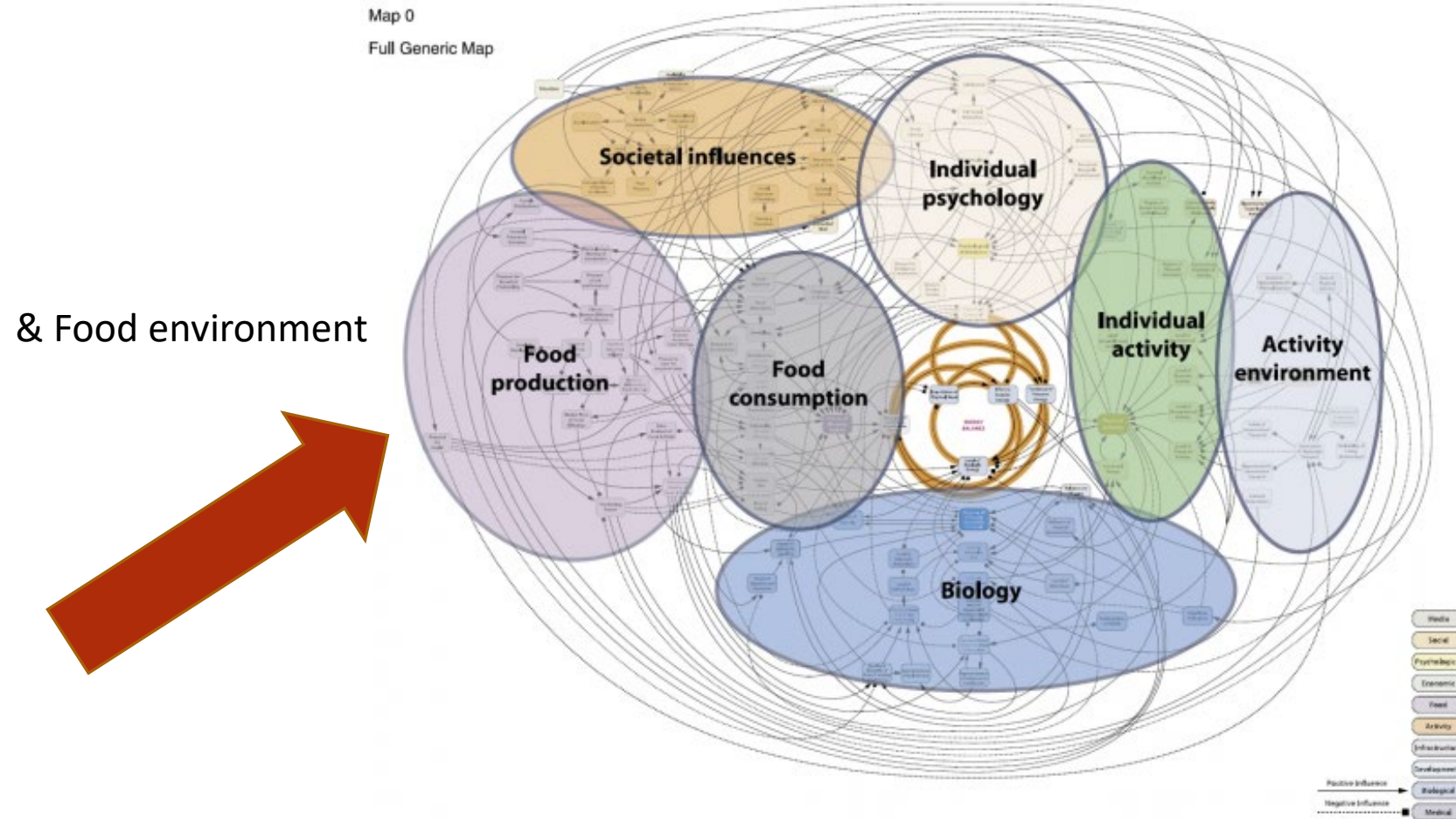
- Ensure everyone has sufficient income to afford to eat a healthy and sustainable diet.
- Rebalance the cost of food so healthy and sustainable options are the most affordable.

Proportion of consumers highly concerned about food issues, June 2024



[Advisory committee for social science \(2024\)
https://acss.food.gov.uk/Consumer%20concerns%2C%20beliefs%20and%20behaviours%20around%20ultra-processed%20foods](https://acss.food.gov.uk/Consumer%20concerns%2C%20beliefs%20and%20behaviours%20around%20ultra-processed%20foods)

Food choices are easy to understand, right?



Government Office for Science (2007)

Foresight Obesity System Map

Power of food companies influence on the food system



This infographic was designed by Bite Back as part of the Fuel Us, Don't Fool us research series. Inspired by Oxfam's Behind the Brands campaign

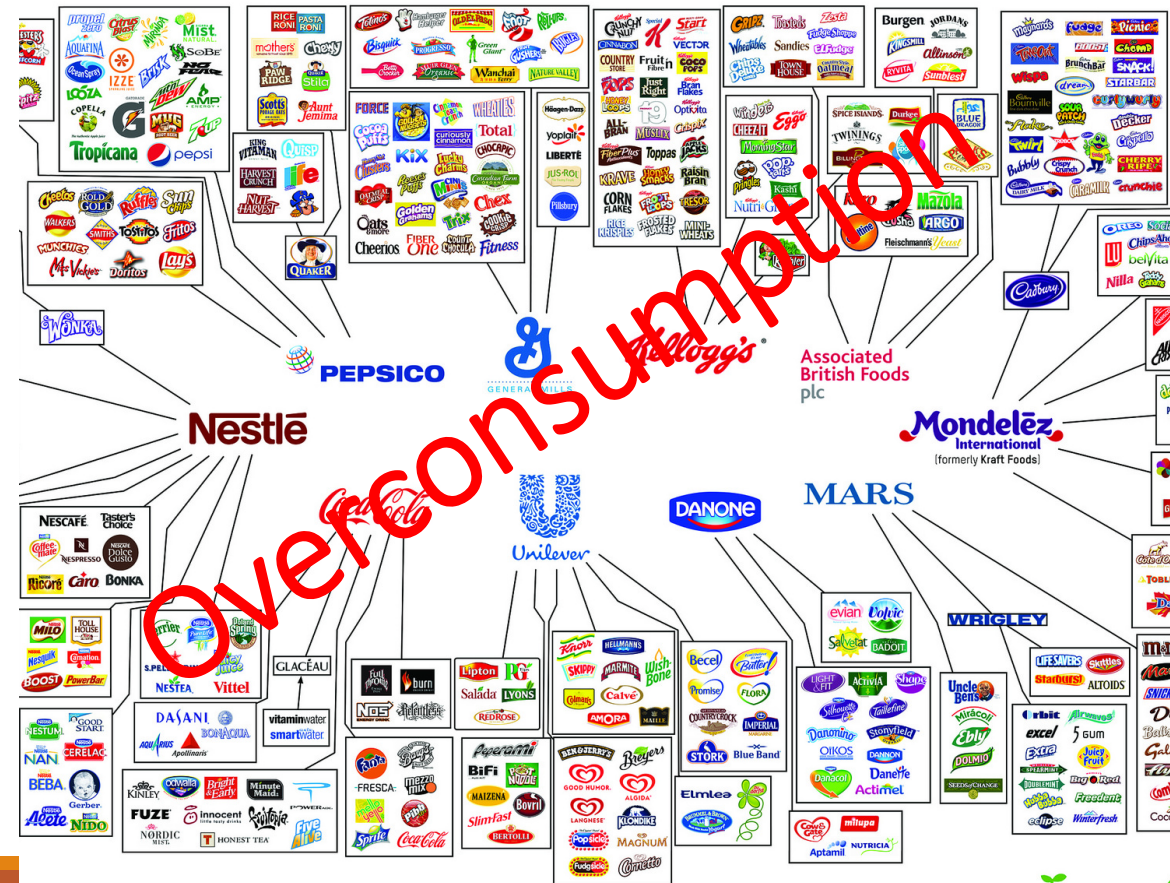
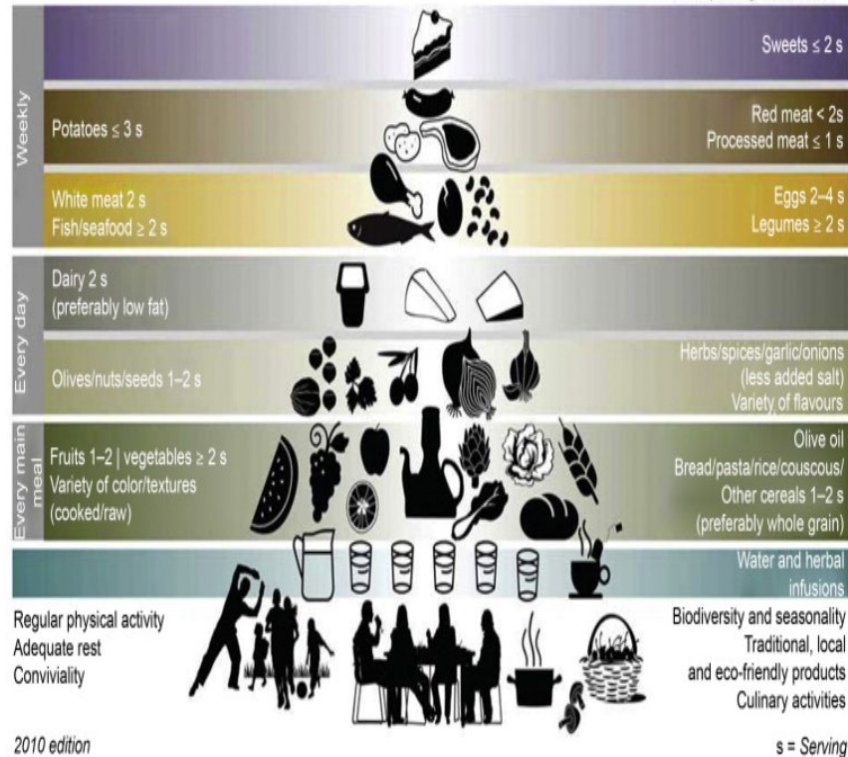
[Bite Back 2030 \(2024\) Fuel Us, Don't Fool Us Brand Map](#), adapted from [Oxfam Briefing Paper \(2013\) 'Behind the Brands: Food justice and the 'Big 10' food and beverage companies'](#)

《 Displacement of foods & purpose of processing 》 Convenience and cost

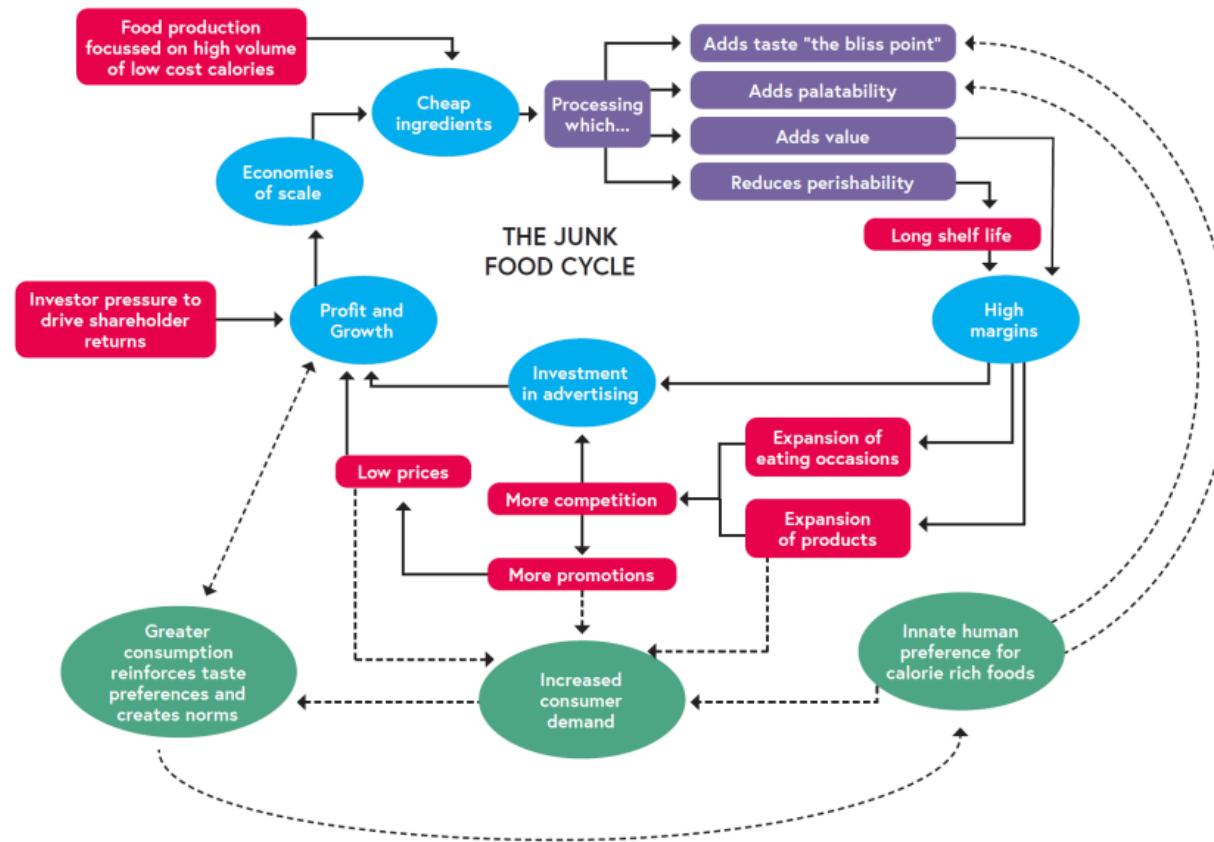
Mediterranean diet pyramid: a lifestyle for today
guidelines for adult population

Serving size based on frugality
and local habits

Wine in moderation
and respecting social beliefs



Incentives in the food system and The Junk Food Cycle



Nutritional science - Classifying foods & links to health



Nutrients



Food groups



Dietary patterns

A note – Not all processing is bad...



Enriched
breads



Enriched
flours



Enriched
pastas



Enriched
rice



Enriched
cornmeal



Fortified corn
masa flour



Fortified
breakfast
cereals



How does research classify food?

the Nova food classification system



Group 1 Unprocessed or Minimally Processed Foods

Fresh, dry, or frozen vegetables or fruit, grains, legumes, meat, fish, eggs, nuts and seeds.



Processing includes removal of inedible/unwanted parts. Does not add substances to the original food.

Group 2 Processed Culinary Ingredients

Plant oils (e.g., olive oil, coconut oil), animal fats (e.g., cream, butter, lard), maple syrup, sugar, honey, and salt.



Substances derived from Group 1 foods or from nature by processes including pressing, refining, grinding, milling, and drying.

Group 3 Processed Foods

Canned/pickled vegetables, meat, fish, or fruit, artisanal bread, cheese, salted meats, wine, beer, and cider.



Processing of foods from Group 1 or 2 with the addition of oil, salt, or sugar by means of canning, pickling, smoking, curing, or fermentation.

Group 4 Ultra-Processed Foods

Sugar sweetened beverages, sweet and savory packaged snacks, reconstituted meat products, pre-prepared frozen dishes, canned/instant soups, chicken nuggets, ice cream.



Formulations made from a series of processes including extraction and chemical modification. Includes very little intact Group 1 foods.

Increasing Level of Processing

Ultra-processed ~~foods~~ products in focus



Industrial **formulations**

Chemically **modified** parts of food

Usually with **additives**

Little if any **whole** food remaining

Ingredients your (great)**grandma** wouldn't recognise

UPF vs other Nova food groups

- UPFs created with the **aim** to obtain:
 - **Convenient**
 - **Tasteful**
 - Highly **profitable** and relatively affordable products
 - They **displace** all other Nova food groups.
 - Can be consumed **any time**, anywhere.
 - Aggressive branding and **marketing** - strong market advantage vs other Nova food groups.

Group 1 :
unprocessed or
minimally
processed foods

Group 2 :
processed
culinary
ingredients

Group 3 :
processed foods

Group 4 : ultra-
processed food
and drink
products





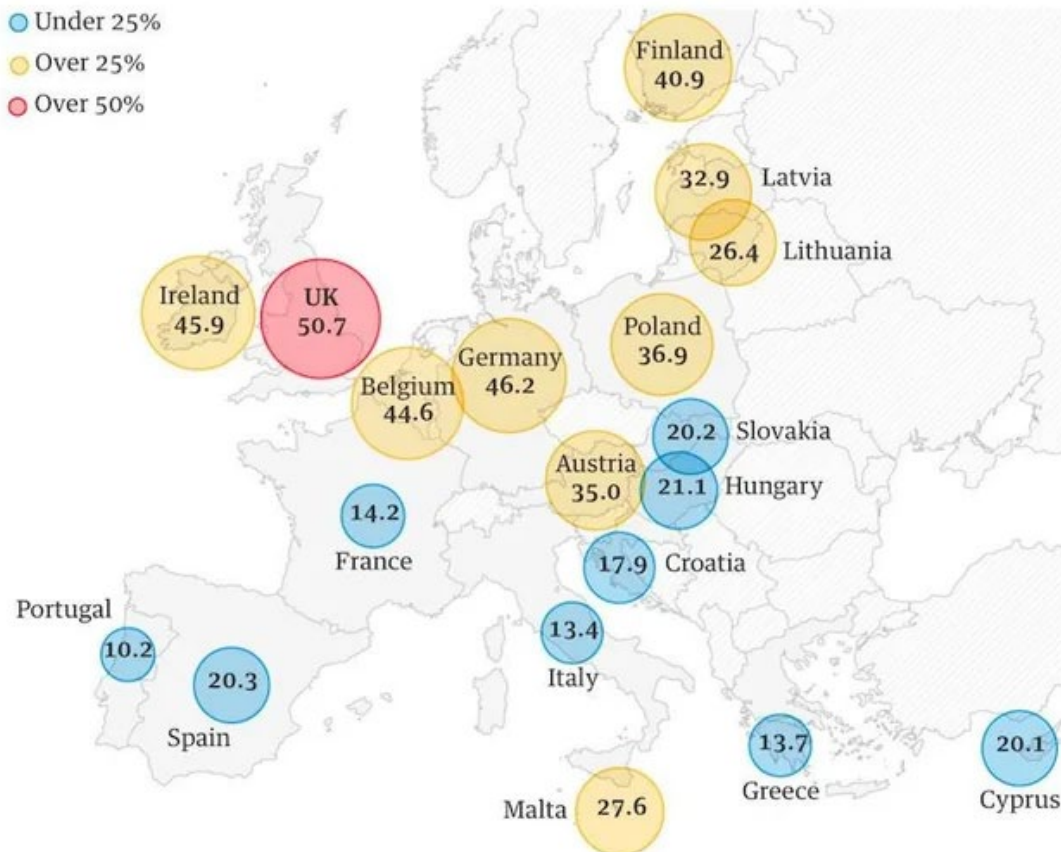
^ Ingredients

Corn(Maize), Rapeseed Oil, Cool Original Flavour ^Flavouring (contains **Milk**),Salt, Glucose Syrup, Sugar, Onion Powder, Potassium Chloride, Cheese powder (from **Milk**), Garlic Powder, Tomato Powder, Flavour Enhancers (Monosodium glutamate, Disodium 5'-ribonucleotides), Acidity Regulators (Malic acid, Sodium acetates, Citric acid), Colour (Annatto bixin), **Milk** Protein, Spice], Antioxidants (Rosemary Extract, Ascorbic Acid, Tocopherol Rich Extract, Citric Acid)

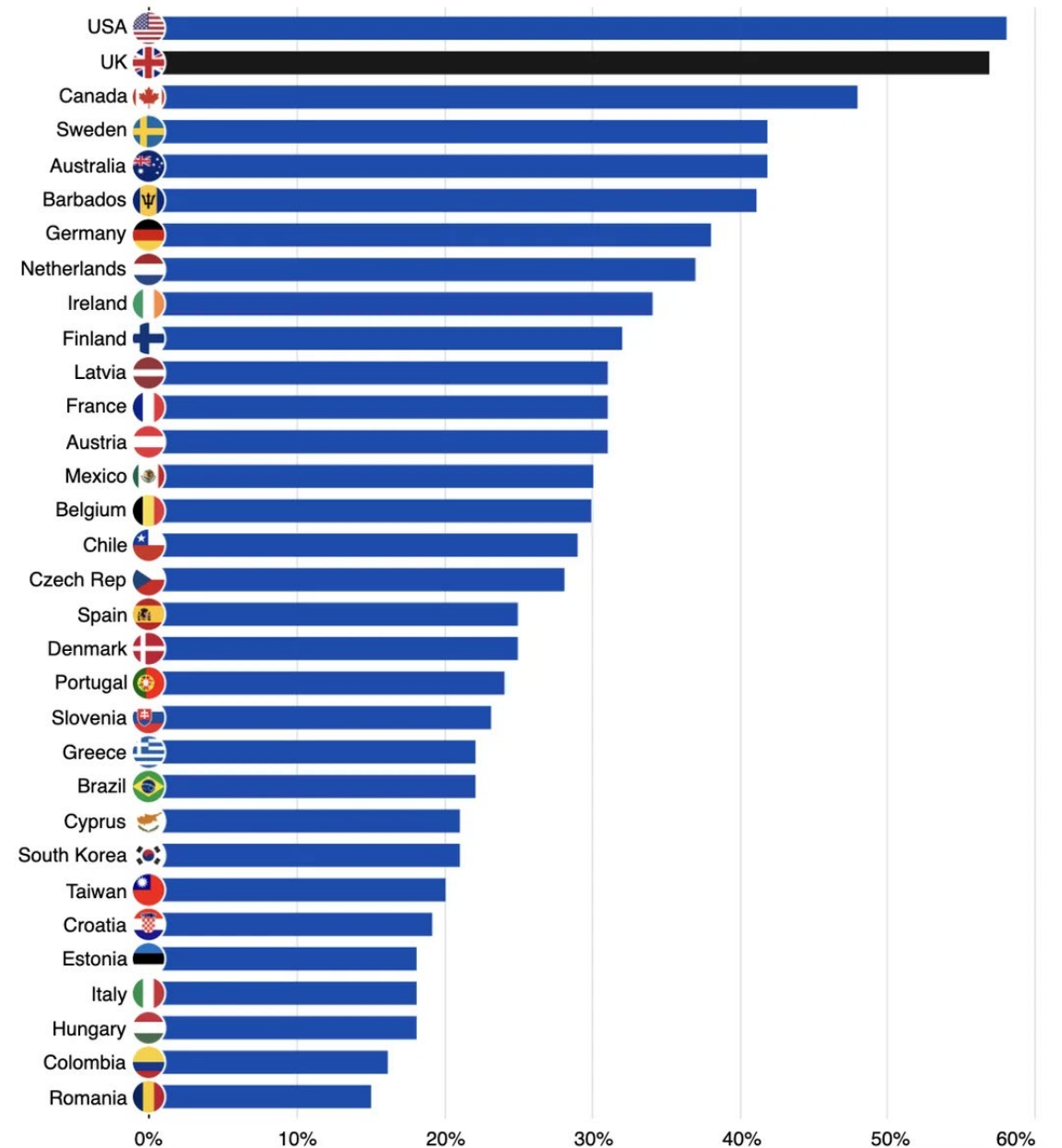
UPF consumption

Ultra-processed food as a % of household purchases

- Under 25%
- Over 25%
- Over 50%



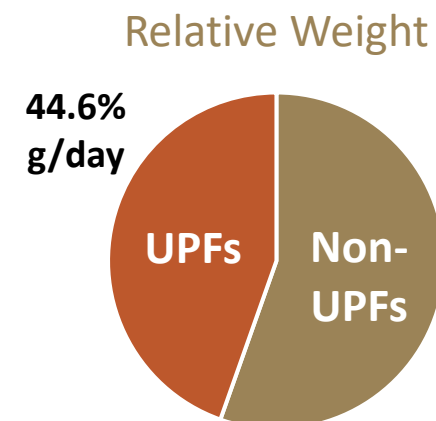
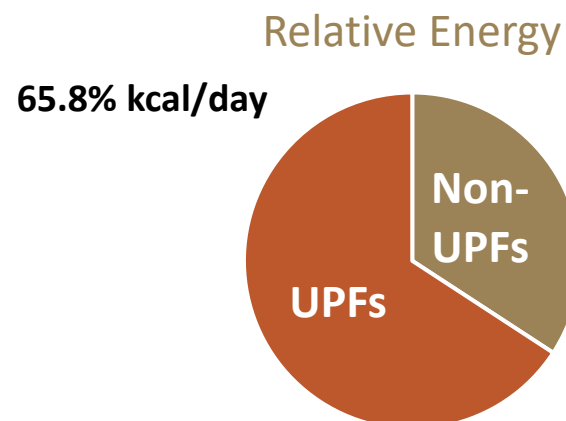
Guardian graphic. Source: Public Health Nutrition



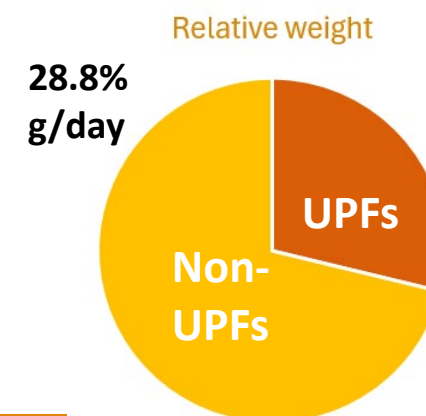
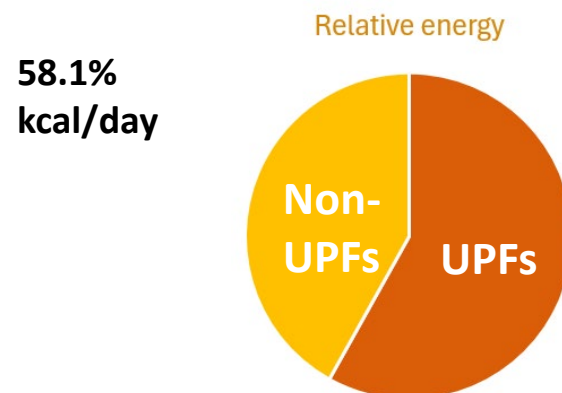


UPF consumption in the UK

In adolescents



In adults



Other factors?

Additives
Colours
Flavours
Emulsifiers
Thickeners
Sweeteners
Glazing agents

Cocktail effect



Ongoing: dyes, glutamate and preservatives

UPF impact on health: the food additives trail

Very detailed assessment of dietary exposure: repeated 24h records including brands of industrial products



Food additive nitrites / nitrates

- Cancer risk: *Chazelas et al, Int J Epidemiol, 2022*
- Type 2 diabetes risk: *Srour et al, Plos Medicine, 2022*
- Risk of hypertension: *Srour et al, JAMA 2023*

Artificial sweeteners

- Cancer risk: *Debras et al, Plos Medicine, 2022*
- Cardiovascular disease risk: *Debras et al, BMJ 2022*
- Type 2 diabetes risk: *Debras et al, Diabetes Care, 2023*

Food additive emulsifiers

- Cardiovascular disease risk: *Sellem et al, BMJ 2023*
- Cancer risk: *Sellem&srour et al, Plos Medicine 2024*
- Type 2 diabetes risk: *Salame et al, Lancet Diabetes and Endocrinology 2024*

Key contribution to the re-evaluation of the safety of food additives, e.g.:

- French Food Safety Agency (ANSES) expertise on nitrites 2022
- Aspartame WHO-IARC monograph 2023

ADDITIVES project (PI M Touvier):



NATURAL



Ingredientes:
Papas

PROCESADO



Ingredientes:
Papa
Arveja deshidratada
Zanahoria
Agua

ULTRAPROCESADO



Ingredientes:
Papas
Aceite vegetal de girasol
Agua
Sal
Pimienta
Nuez moscada
Cúrcuma
Dextrosa
Estabilizante



Ingredientes:
Papa
Aceite vegetal
Maltodextrina
Sal
Sabores artificiales
Suero de leche en polvo
Glutamato
Proteína vegetal hidrolizada
Almidón
Ácido cítrico
Antiapelmazante
Colorantes artificiales
Conservante
Guanilato