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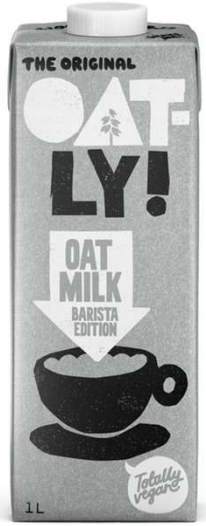
FIAQ Food Industries Association of Queensland Inc.

Ultra-Processed Foods – The Real Evidence, Consumer Confusion & Reformulating for Trust

Dr. Thomas Hay

10 June 2026

Processed.. Or Ultra-Processed – Can you tell?



Processed.. Or Ultra-Processed – Can you tell?

Ultra-Processed Foods – Food risk beyond composition

Public Health Nutrition

Nutrition and health. The issue is not food, nor nutrients, so muchas processing

Published online by Cambridge University Press: **01 May 2009**

Carlos A. Monteiro — Hide author details

Carlos A. Monteiro*

Affiliation: Professor, Department of Nutrition Director, Center for Epidemiological Studies in Health and Nutrition School of Public HealthUniversity of Sao Paulo, Sao Paulo, Brazil

"Ultra-processed foods are basically confections…"

"…sophisticated use of additives, to make them edible, palatable, and habit-forming."

The NOVA classification system

Class 1
Whole Foods

- Minimally processed
- Cut/portioned
- Low degree of preservation

Class 2
Processed culinary ingredients

- Starches
- Oils
- Proteins

Class 3
Processed food

- Bulk Class 1 phase
- Shelf-life extending preservations

Class 4
Ultra-processed food

- Class 3 & 2
- Cosmetic additives
- Friable matrix

The NOVA classification system

Class 1
Whole Foods

Class 2
Culinary ingredients

Class 3
Processed food

Class 4
Ultra-processed food

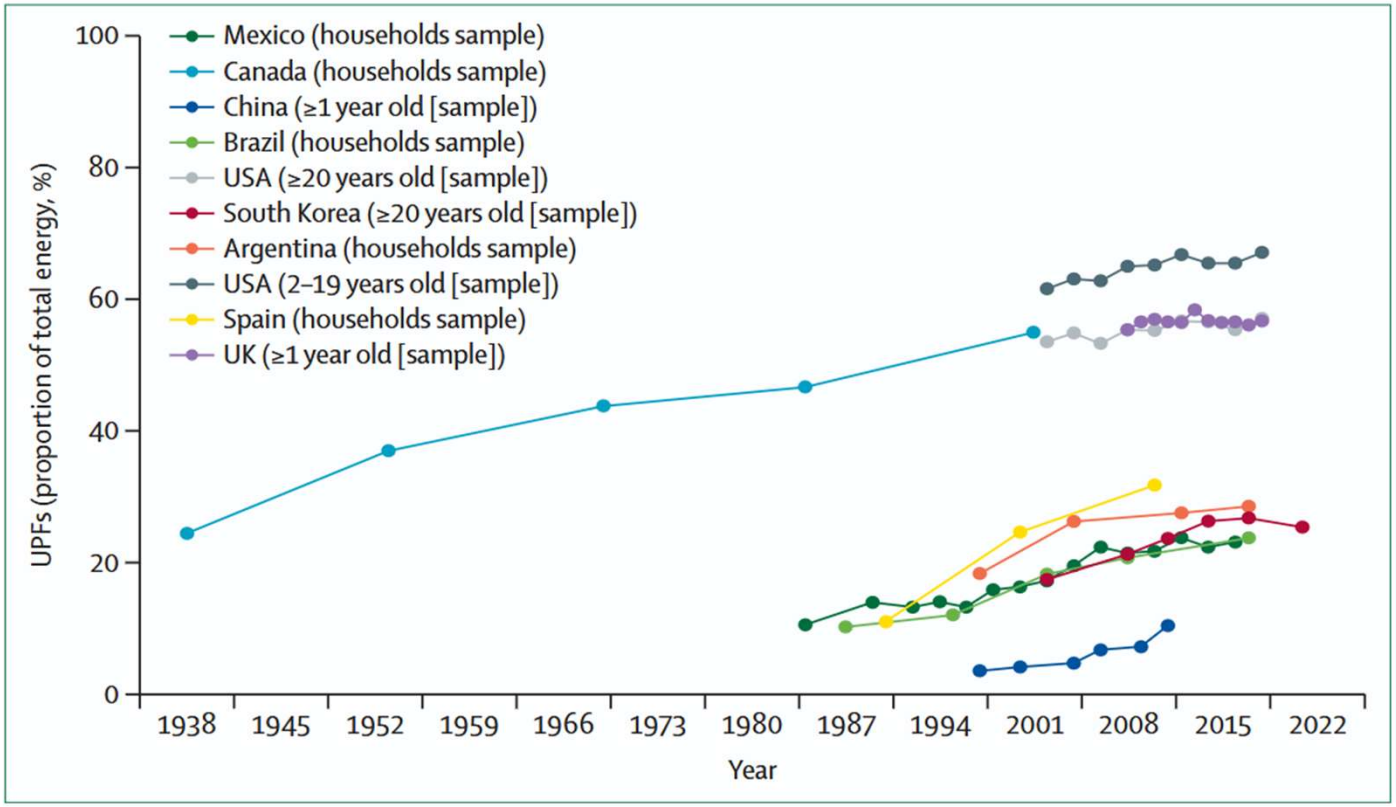
- Class 3 & 2
- Cosmetic additives
- Friable matrix

	Quantity Per 100g / 100mL
Energy	221kJ
Protein	1.6g
Fat, Total	2.4g
– Saturated	0.9g
Carbohydrate	6.1g
– Sugars	3.0g
Dietary Fibre	0.4g
Sodium	297mg

- Bulk phase refined ingredients
- Cosmetic additives
- High salt/low fibre
- Hyper-palatable
- Low Satiation

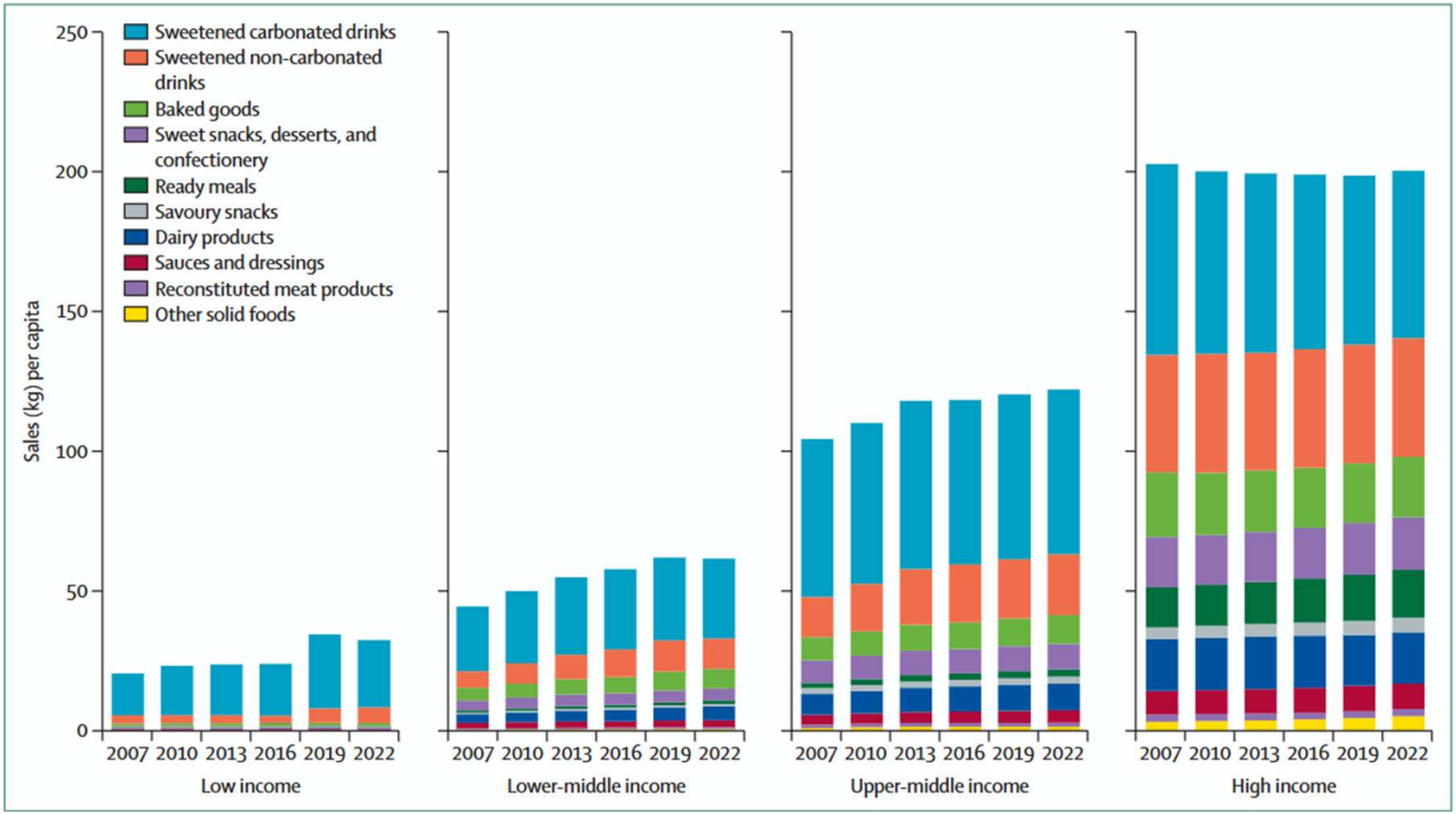
Chicken Stock (Water, Chicken, Herb Extracts), Corn (11 %), Wheat Flour, Sugar, Chicken (2%), Vegetable Oil, Cornflour (Maize), Salt, Cream (From Milk), Milk Solids, Onions Soy Protein, Garlic, Yeast Extract, Flavours (Contain Milk), Flavour Enhancer (E635), Vegetable Protein extract, Food Colour (Beta Carotene), Mineral Salt (E451).

UPF dietary proportion has increased over time



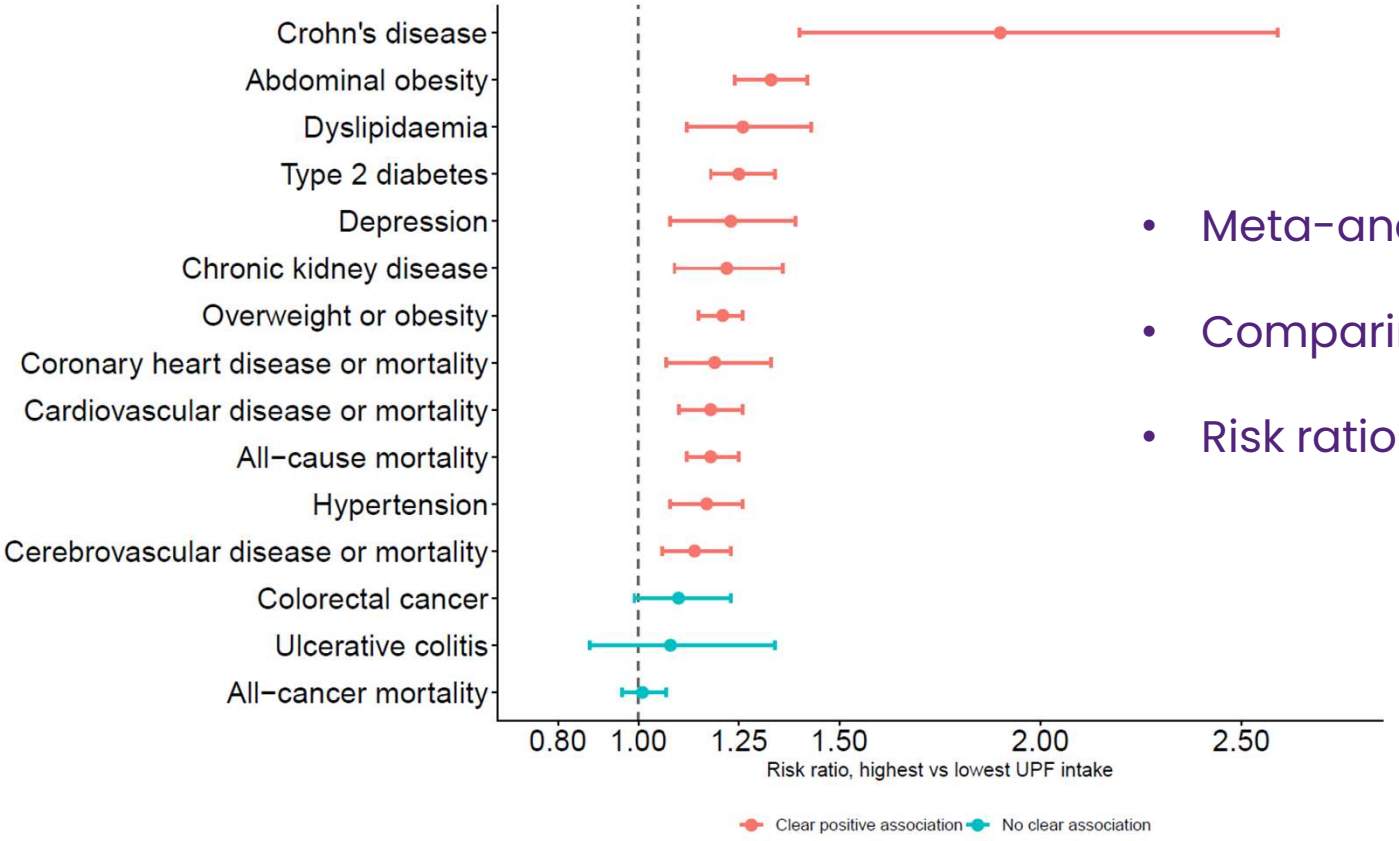
Data: Monteiro et al. 2025

Higher-income countries$^{(n=93)}$ purchasing more kg UPF/capita



Data: Monteiro et al. 2025[3]

High UPF intake & chronic disease



Points show pooled risk ratios; horizontal lines show 95% confidence intervals.
A risk ratio above 1 indicates higher relative risk in the highest UPF intake group.

- Meta-analysis of projective studies
- Comparing low vs. high UPF intake
- Risk ratio = % increased risk

Data: Adapted from Monteiro et al. 2025

Clinical Nutrition
Volume 43, Issue 6, June 2024, Pages 1386-1394

Original article

Ultra-processed foods and human health: An umbrella review and updated meta-analyses of observational evidence

Convincing	Highly suggestive	Suggestive
• Renal function decline • wheezing in children	• Type 2 diabetes • Obesity • Depression • Common mental disorders	• All-cause mortality • Cardiovascular mortality • Hypertension • Cardio events

- 122 studies
- 49 health outcomes
- higher UPF intake was associated with 25 adverse outcomes
- Evidence strength varies
- No causative links established

Dai et al. 2024

BBC

Could ultra-processed foods be harmful for us?

5 June 2023

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Esme Stallard
Climate and science reporter, BBC News

Processed meats, mass produced sliced breads and cheeses are common ultra processed foods

The Washington Post
Democracy Dies in Darkness

Fake Food, Real Risk

Melted, pounded, extruded: Why many ultra-processed foods are unhealthy

Industrial processing changes the structure of food. Experts say it can affect how much you eat and absorb, your weight and risk for chronic disease.

June 27, 2023 · More than 2 years ago

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New research: It's time to treat ultra-processed foods like tobacco

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NEWS

Ultra-processed foods: how bad are they for your health?

Our Senior Dietitian reveals how ultra-processed foods like ham and sausages, mass-produced bread, cereals and instant soups can affect your health, and simple ways to avoid them.

by Victoria Taylor, Dietitian Page updated: 24 March 2025

NutritionFacts.org

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Wagamaga

Researchers have found that people who ate more ultra-processed foods have worse health outcomes, even after accounting for the overall nutritional quality of the foods. They were also more likely to have conditions such as diabetes, metabolic syndrome, and cancer

Health

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Ultra-processed foods linked to major health concerns

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Home / Newsroom / Article / Public notice and comment: WHO Guideline Development Group for ultra-processed foods

Public notice and comment: WHO Guideline Development Group for ultra-processed foods

Closed for submissions

6 November 2025 | Call for submissions

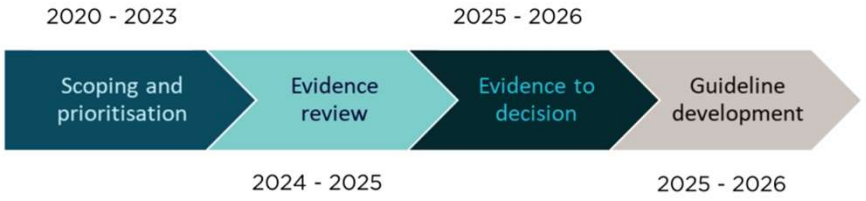
Background

Diet plays a critical role in shaping the health and well-being of both individuals and populations. Healthy, safe, sustainable diets help to protect against malnutrition in all its forms, as well as non-communicable diseases, including diabetes, heart disease, stroke and cancer. The level of processing of foods as a modulator of health is currently a topic of great interest.

Processing of food is chemical or mechanical manipulation often carried out to make foods edible, increase their storage potential, or enhance safety, and basic forms such as milling (of grains, rice or corn), brining and curing has been practiced by humans for millennia. Methods and applications have evolved greatly with the development of new technologies however, such that many foods found on supermarket shelves today have undergone substantial transformations that substantially modify the food matrix and may contain food additives or other industrial substances. Consumption of such highly processed or "ultra-processed" foods has been associated with a myriad of negative health effects.

To review currently available evidence and provide much-needed, evidence-based global guidance on this important topic, WHO has brought together experts from all over the globe, with a wide range of relevant expertise and diverse perspectives to serve in a guideline development group (GDG) that will develop a guideline on the consumption of ultra-processed foods. Experts were identified via an open call and outreach to WHO Regional Offices and other relevant networks. The composition of the GDG is provisional and will be reviewed and confirmed by the WHO Guidelines Review Committee. The names and brief, self-reported biographies of the individuals selected to be part of the GDG are also being published for public notice and comment.

NHMRC



Consumer confusion

Research article • Open access Under a Creative Commons license Get rights and content

Concerned but confused: Australian consumers' awareness, understanding, and recognition of ultra-processed foods

Eden M. Barrett [a], Bella Sträuli [a b], Daisy H. Coyle [a], Bridget Kelly [c], Caroline Miller [d], Alexandra Jones [a], Simone Pettigrew [a] Show more

View PDF Download full issue Cite Add to Mendeley Share 10.1016/j.appet.2025.108220

Consumers are:

a) Concerned, but confused about UPFs and processed food distinctions

b) Support for UPF information provision but uncertainty about feasibility

Barret et al. 2025

Confused by..

- Front-of-pack nutrition labels
- 'Premium' branding
- Heuristic (rule-of-thumb) instincts of what constitutes 'healthy'

Taste

- Flavour enjoyment
- Texture and mouthfeel
- Familiarity
- Comfort

Convenience

- "Ready to eat?"
- "Quick to make?"
- "Will the kids eat it?"
- "Affordable?"

Perceptions

- "High protein"
- "High fibre"
- "No artificial flavours/colours"
- Compensatory diet justifications

The Reformulation Dilemma

Reformulation goal	Consumer response
Reduce salt, sugar or saturated fat	“Will it still taste good?”
Add fibre or protein	“Is this genuinely healthier or just a claim?”
Extend shelf life	“Why is the ingredient list getting longer?”
Maintain texture and stability	“Why are there so many gums, starches and emulsifiers?”

Preparing for Tomorrow…

1	2	3	4
Improve the product	**Simplify the formulation**	**Be honest on pack**	**Test for trust**
More fibre/retained whole food matrix	Fewer cosmetic additives; more naturally sourced colours. Devest from flavour enhancers and ‘natural flavours’	Claims and imagery should match the ingredient list, anticipate incoming dietary guidelines and HSR changes	Measure liking, perceived healthiness and credibility. Invest in consumer understanding, perception and confidence in processed foods

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Thank you

Dr Thomas Hay | Research fellow
Centre for Nutrition & Food Sciences, QAAFI
t.hay@uq.edu.au

CRICOS code 00025B