Health Risks Associated with Ultra-Processed Foods(UPFs)- What Steps can be taken to reduce consumption?

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1st August

Global Virtual Symposium: Investing in Maternal Infant and Young Child Nutrition for Sustainable Development-What works,

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Overview

- What are UPFs
  - NOVA Classification of foods
- Risks of Consumption Ultra-processed foods
- What steps can be taken to reduce consumption
  - What can people or an individual do?
  - What can Governments of India do?
- And what can you do for advocacy?

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Webinar Held on 20th July

https://www.bpni.org/webinar-on-ultra-processed-foodsupfs/

WEBINAR

What you need to know about Ultra-Processed Foods (UPFs)?

The science, policy responses and politics in global context: 20 July, 2020

Organised by NAPi and BPNI in collaboration with Deakin University and NUPENS/UPS Supported by UNICEF

Background

The Breastfeeding Promotion Network of India (BPNI) and Nutrition Advocacy in Public Interest (NAPi) organise this Webinar believing that guidance for consumption of UPFs becomes even more important as we continue to face the Covid-19 pandemic.

The World Health Organisation recommends "healthy diet" for all infants, young children and adults. The WHO also advises about salt, sugar and fats one should consume. Concerns have been expressed globally about the negative impact on human health of the replacement of real foods by products so industrially processed that they are hardly recognisable from their raw ingredients. Industrialised Nations have witnessed substantial replacement and developing countries are fast catching up. Increased intake of UPFs often high in fat, sugar, salt, chemical additives, low in fibre and food-based nutrients, is a matter of great concern. Recent reviews have thrown light on health outcomes as a result of exposure to UPFs.

Professor Carlos Monteiro from University of Sao Paulo, Brazil, and his team while studying dietary patterns in Brazil, found that obesity in adults went up from 7.5% in 2002 to 17.5% in 2013. This finding was surprising because of the fact that people were buying less sugar and oil. This team observed that consumption of highly processed or ultra-processed foods (UPFs), ready to eat, sugary and packaged food products had gone up during this time. They felt the need to classify foods according to the extent and purpose of food processing rather than in terms of nutrients. This led to **"NOVA Food Classification"**. Their team also developed a guide to identify to which group the food belongs.

Objectives: The Webinar will provide updated information on UPFs, scientific evidence of consuming UPFs on health outcomes, global and regional dietary patterns, NOVA classification of foods with examples and to make policy recommendations and how marketing tactics influence consumption of UPFs.

Advocacy Document :

"The Unseen Dangers of Ultra-Processed Food"

Translations Available:

English
Hindi
Punjabi
Tamil
Malayalam
Odia
Bengali
Kannada
Telugu

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NOVA Classification of Foods according to its processing

- Group 1-Unprocessed or minimally processed foods
- Group 2-Processed culinary ingredients
- Group 3-Processed foods
- Group-4-Ultra-processed foods (UPFs)

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Unprocessed or minimally processed foods

eaten as boiled, cooled, pasteurized, roasted, crushed, ground, fermented, fried or frozen.

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Processed Culinary Ingredients

Obtained directly from group 1 or from nature by processes such as pressing, refining, grinding, milling, and spray drying. These are used in cooking and seasoning to make foods delicious.

Examples: Sugar, oil and butter from milk, ground spices, salted butter, iodized salt, and vinegar.

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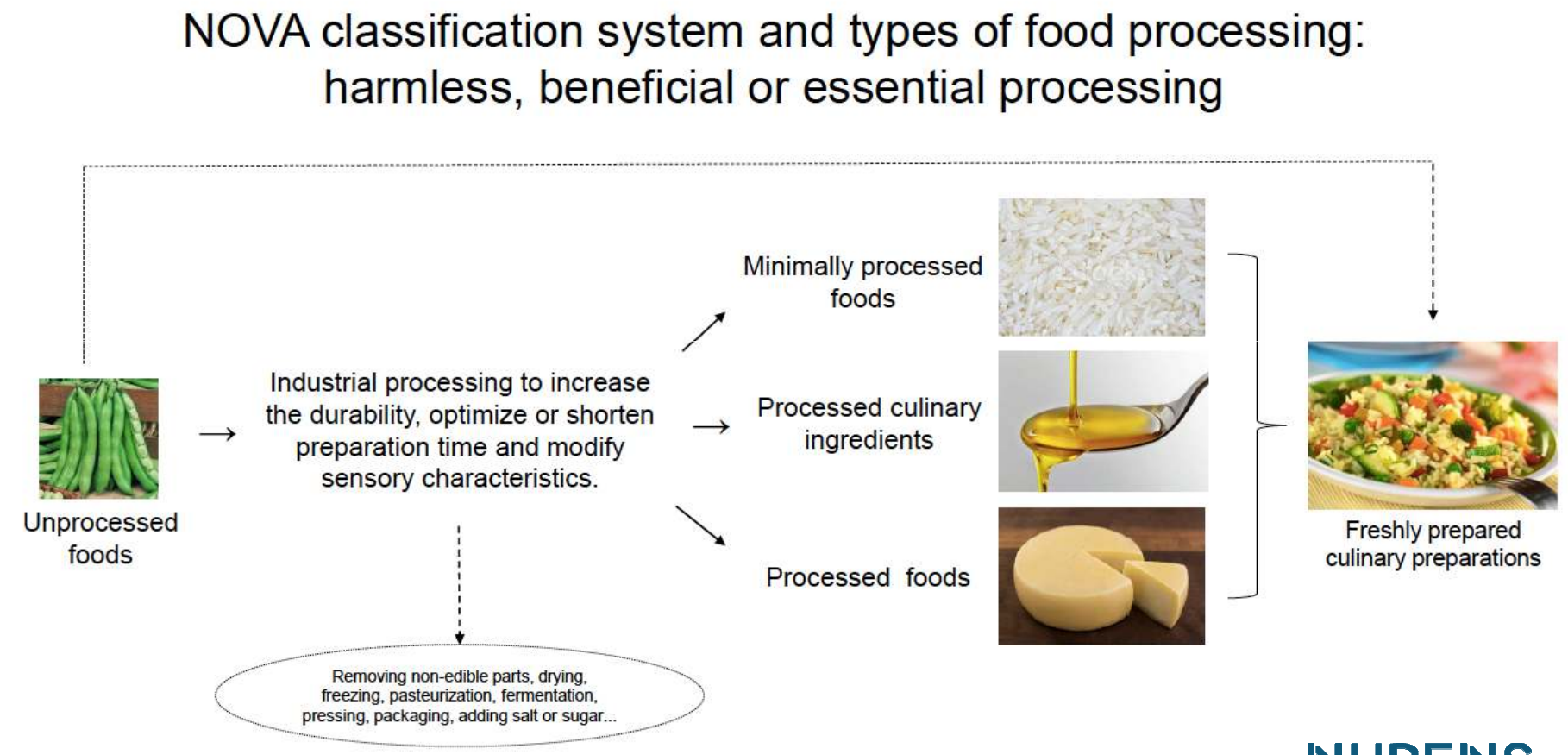
Harmless/Beneficial Processing- Processed Foods



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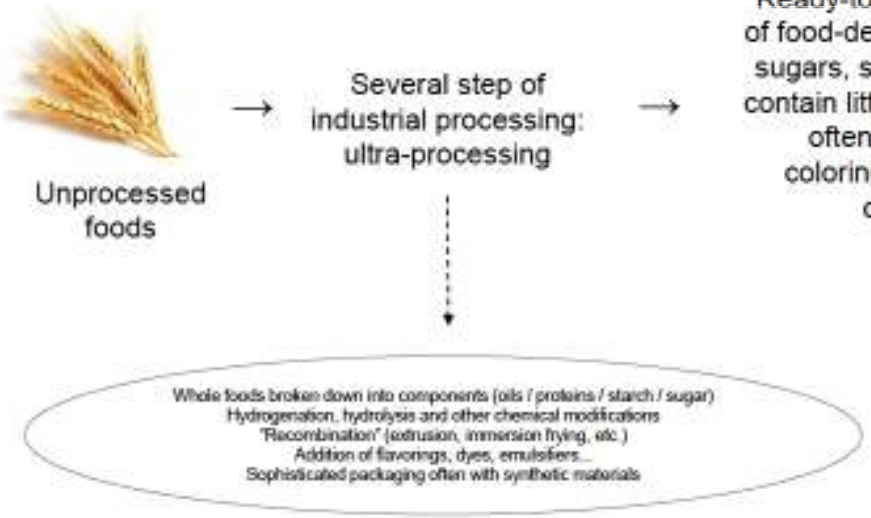
Harmful processing/ultra-processing –Ultra-Processed Foods(UPFs)

NOVA classification system and types of food processing: harmful processing



Ready-to-eat industrial formulations of food-derived substances (oils, fats, sugars, starch, protein isolates) that contain little or no whole food and are often added with flavorings, colorings, emulsifiers and other cosmetic additives.

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NOT FOODS BUT FORMULATIONS

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Ultra-Processed Foods (UPFs)

- Typically five or even more ingredients.
- Made in factories.
- At least one ingredients we don't use or rarely in domestic kitchen.

Carbonating, firming, whipping, bulking and anti-bulking, de-foaming etc.

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Identifying UPFs

- Usually advertised
- Celebrity endorsed
- Ready to eat and consume
- Convenient
- Pitched as any time anywhere foods
- “Designed to be over consumed”

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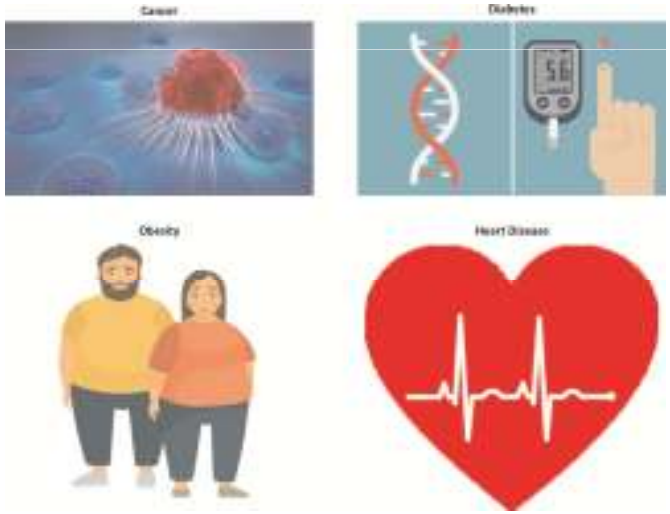
Health Risks



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Recent Publications

UPFs and health outcomes

nutrients

MDPI

Review

Ultra-Processed Foods and Health Outcomes: A Narrative Review

Leonie Elizabeth [1], Priscila Machado [1,2], Marit Zinöcker [3], Phillip Baker [1,2] and Mark Lawrence [1,2,*]

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Abstract: The nutrition literature and authoritative reports increasingly recognise the concept of ultra-processed foods (UPF), as a descriptor of unhealthy diets. UPFs are now prevalent in diets worldwide. This review aims to identify and appraise the studies on healthy participants that investigated associations between levels of UPF consumption and health outcomes. This involved a systematic search for extant literature; integration and interpretation of findings from diverse study types, populations, health outcomes and dietary assessments; and quality appraisal. Of 43 studies reviewed, 37 found dietary UPF exposure associated with at least one adverse health outcome. Among adults, these included overweight, obesity and cardio-metabolic risks; cancer, type-2 diabetes and cardiovascular diseases; irritable bowel syndrome, depression and frailty conditions; and all-cause mortality. Among children and adolescents, these included cardio-metabolic risks and asthma. No study reported an association between UPF and beneficial health outcomes. Most findings were derived from observational studies and evidence of plausible biological mechanisms to increase confidence in the veracity of these observed associations is steadily evolving. There is now a considerable body of evidence supporting the use of UPFs as a scientific concept to assess the 'healthiness' of foods within the context of dietary patterns and to help inform the development of dietary guidelines and nutrition policy actions.

Keywords: ultra-processed food; health outcomes; dietary patterns; NOVA; food processing; obesity

UPFs and the nutrition transition

Ultra-processed foods and the nutrition transition: global, regional and national trends, food systems transformations and political economy drivers

Phillip Baker[1,2], Priscila Machado[1,2], Thiago Santos[3], Katherine Sievert[4], Kathryn Backholer[4], Michalis Hadjikakou[5], Cherie Russell[5], Oliver Huse[6], Colin Bell[6], Gyorgy Scrinis[6], Anthony Worsley[1,2], Sharon Friel[7], Mark Lawrence[1,2]

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7. School of Regulation and Global Governance, Australian National University, Canberra, Australia

Key words: ultra-processed foods, beverages, palm oil, nutrition transition, food systems, political economy

Running title: Ultra-processed foods and the nutrition transition

Conflicts of interest: The authors declare no conflicts of interest.

Abstract

Understanding changes in global ultra-processed food (UPF) consumption and associated drivers is essential, given mounting evidence linking these foods with adverse health outcomes. In this synthesis review we take two steps. First, we quantify per capita volumes and trends in UPF sales, and ingredients (sweeteners, fats, sodium, cosmetic additives) supplied by these foods, in countries classified by income and region. Second, we review the literature on food systems and political economy factors that may explain the observed changes. We find evidence for a substantial expansion in the types and quantities of UPFs sold worldwide, representing a transition towards a more processed global diet, but with variations between regions and countries. As countries grow richer, more UPFs and a wider variety of UPFs are sold. Sales volumes are highest in Australasia, North America, Europe and Latin America, but are growing most rapidly in Asia, the Middle East and Africa. These developments are closely linked with the industrialisation of food systems, technological change and globalisation, including growth in the market and political activities of transnational food corporations, and inadequate governance and policy responses. The scale of dietary change underway, especially in highly-populated middle-income countries, raises serious concern for global health.

deakin.edu.au/research/ipan Deakin University CRICOS Provider Code: 00113B @PhilBakerNZ

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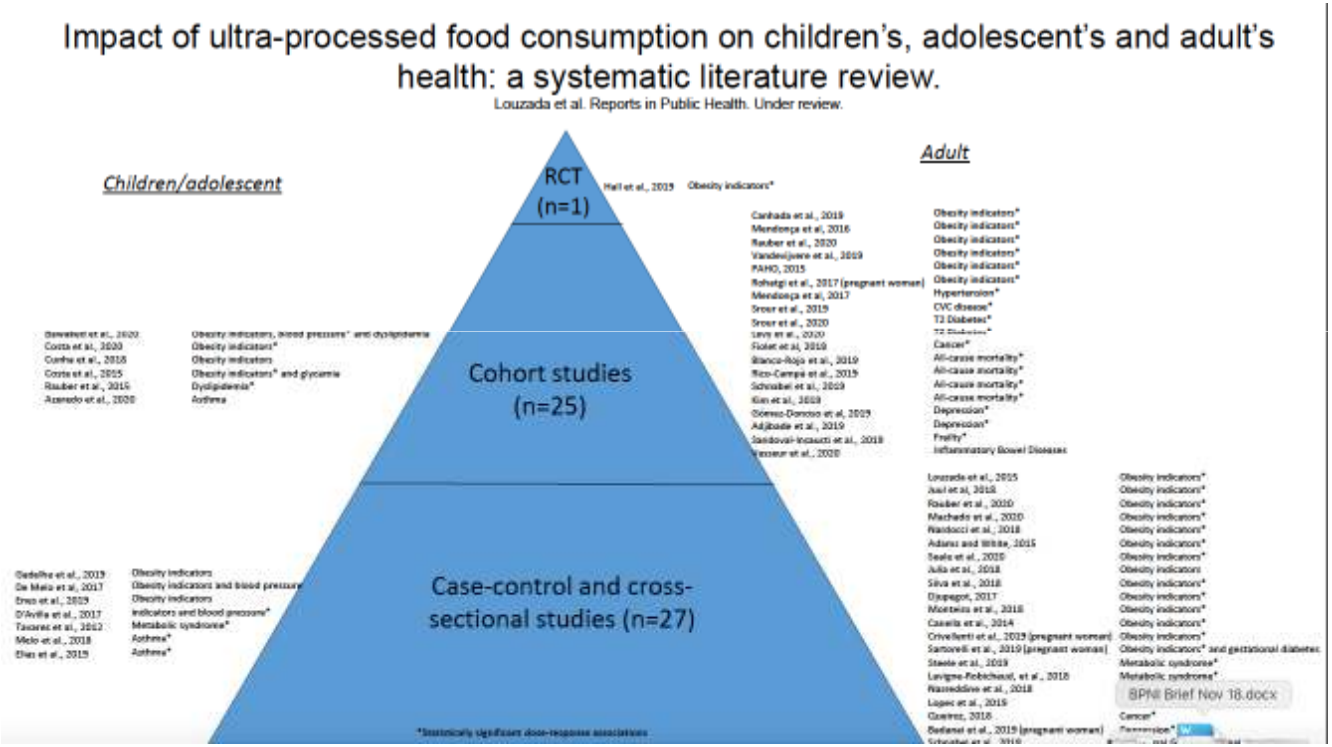
Impact of UPF consumption: Systematic Reviews by Louzada et al.



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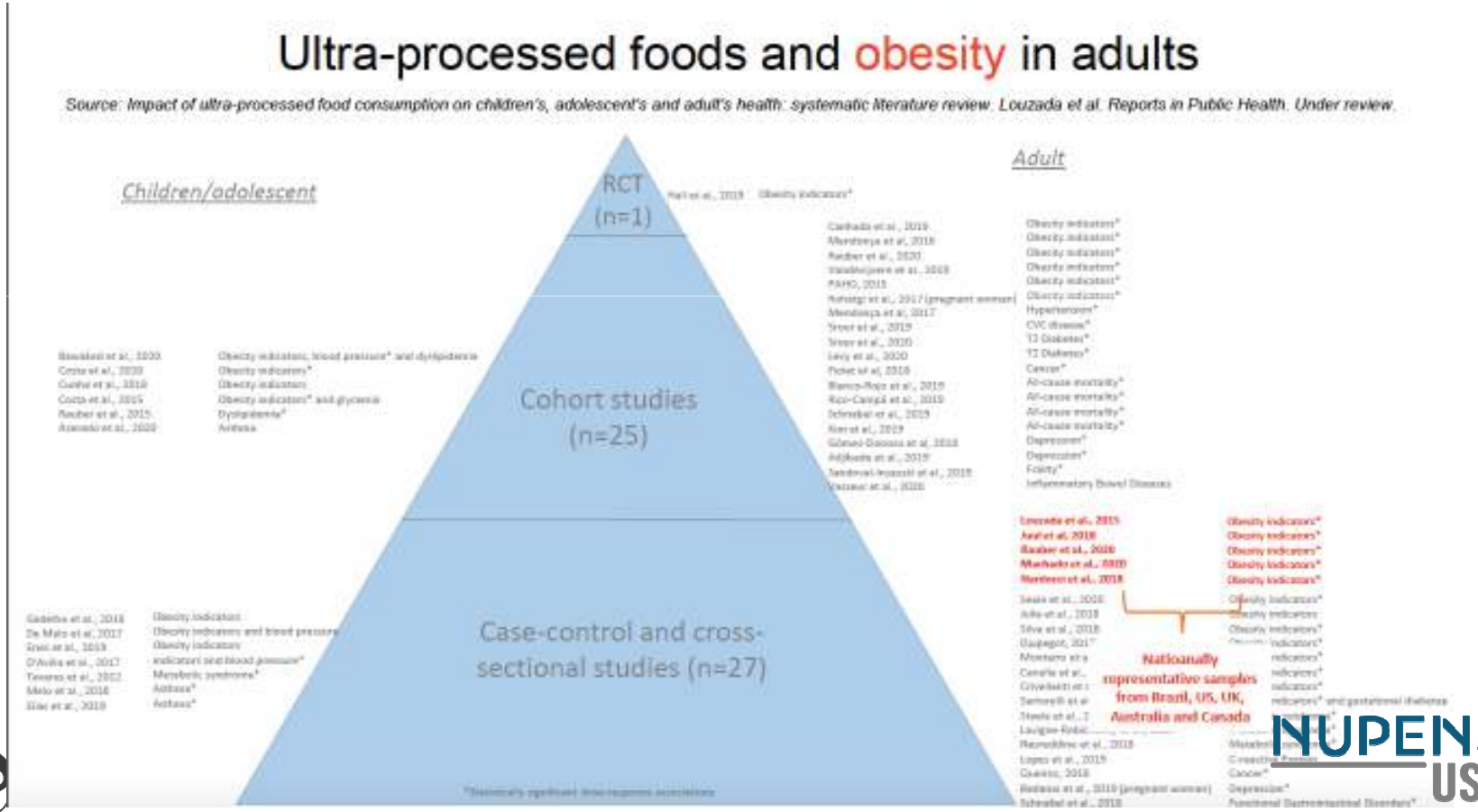
Obesity



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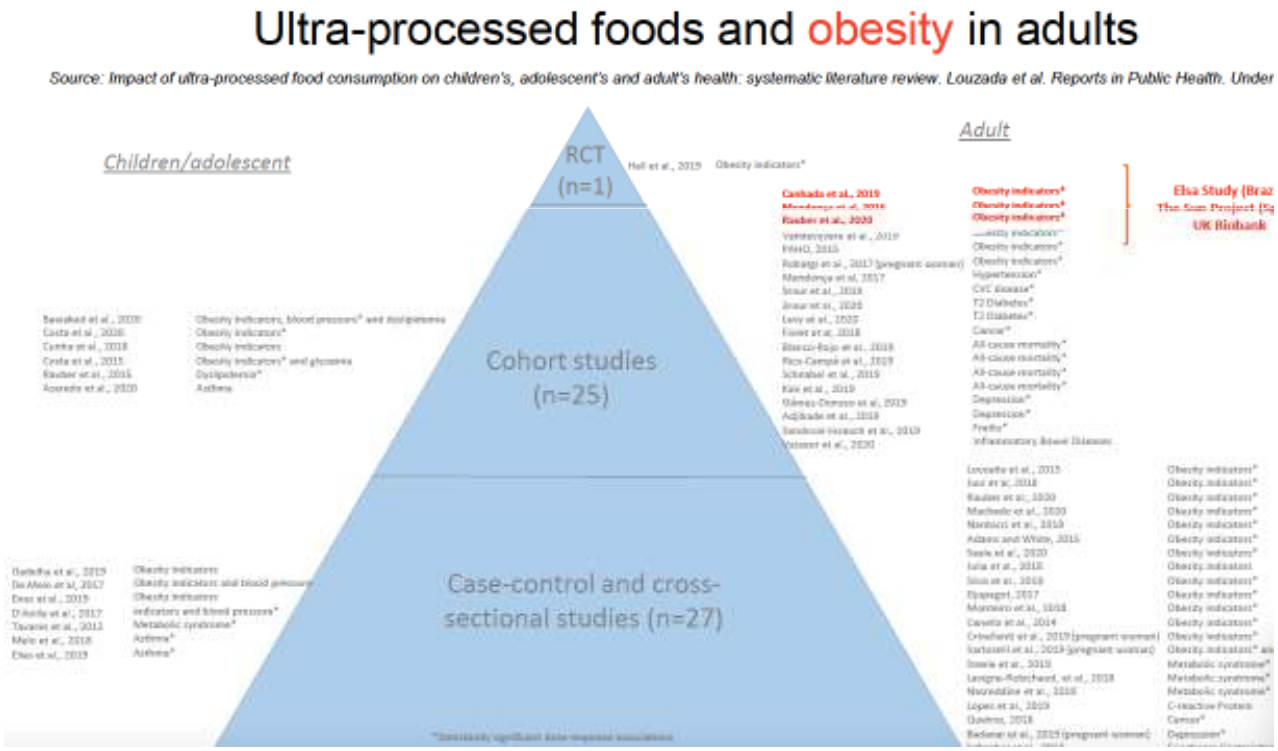
Obesity in adults



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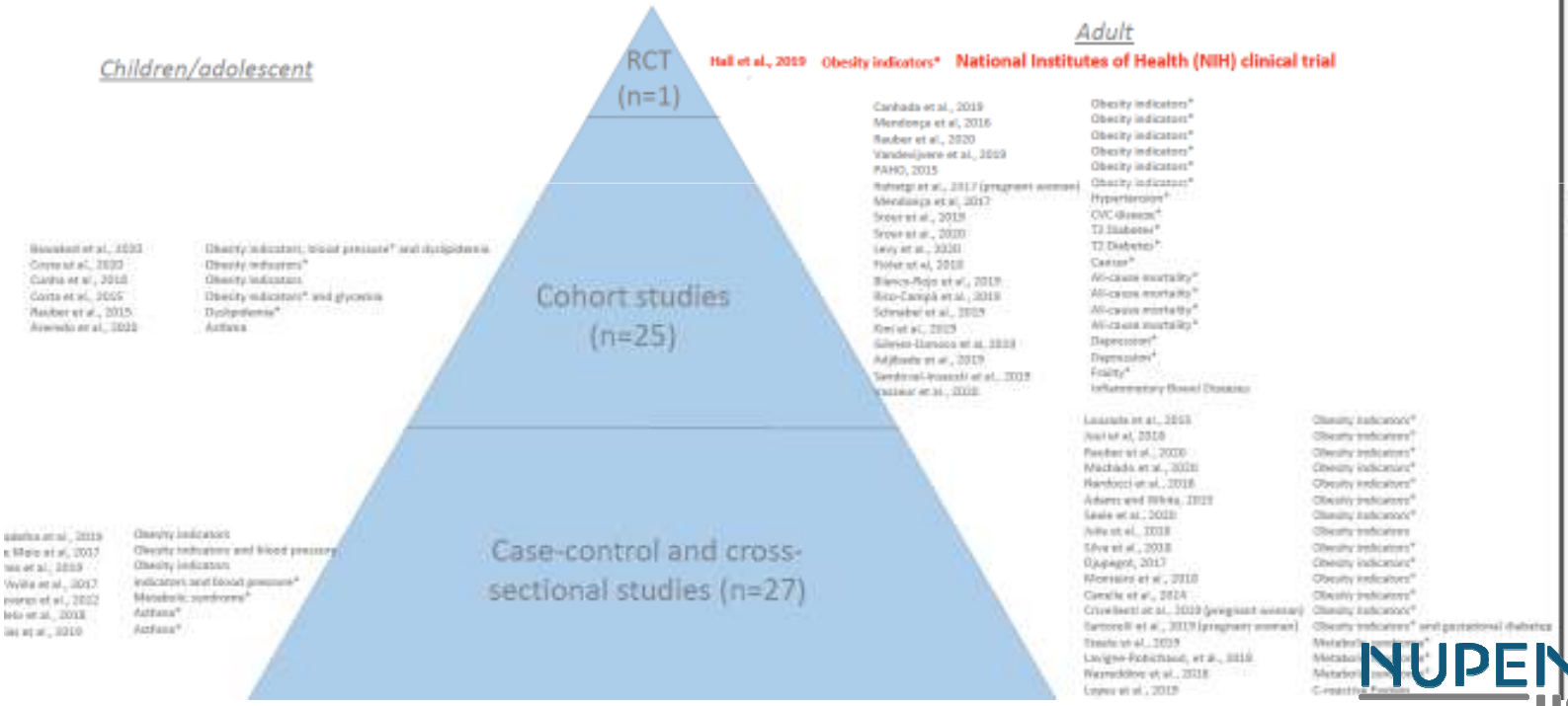
Ultra-processed foods and obesity in adults

Source: Impact of ultra-processed food consumption on children's, adolescent's and adult's health: systematic literature review. Louzada et al. Reports in Public Health. Under review.



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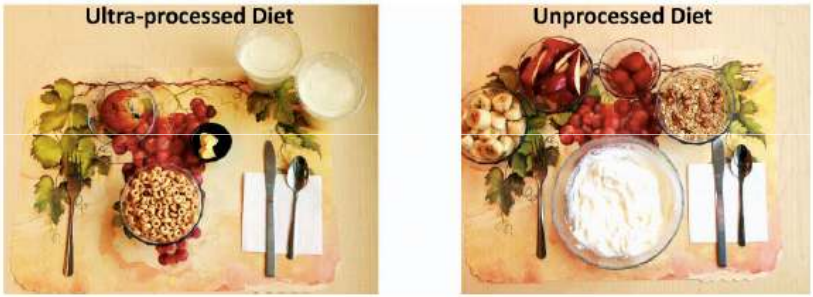
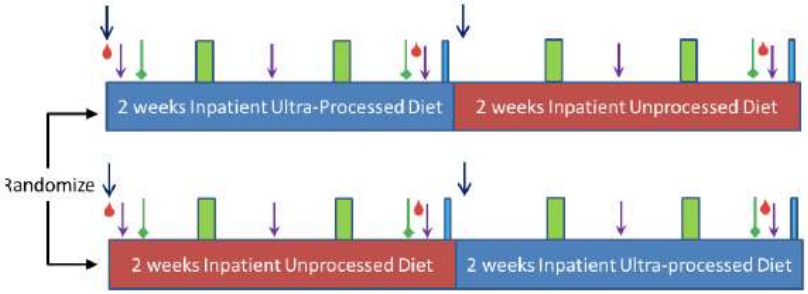
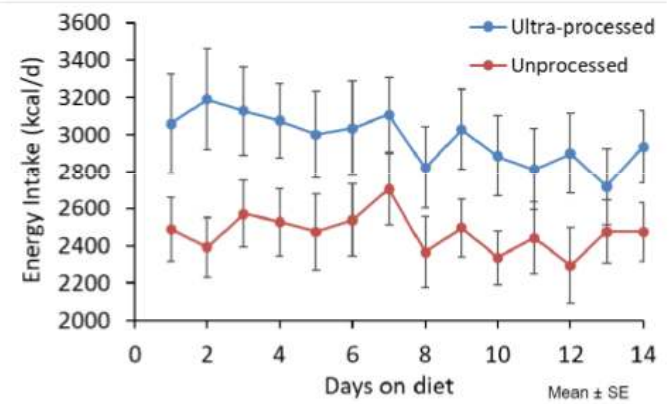
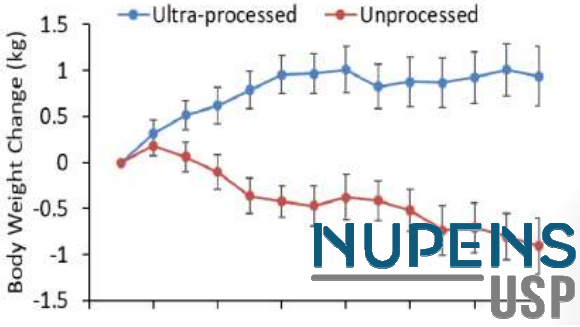
Ultra-processed diets cause excess calorie intake and weight gain









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Ultra-processed foods and cardiovascular disease, diabetes and cancer

Ultra-processed food intake and risk of cardiovascular disease: prospective cohort study (NutriNet-Santé)

Bernard Srour,[1] Léopold K Fezeu,[1] Emmanuelle Kesse-Guyot,[1] Benjamin Allès,[1] Caroline Méjean,[2] Roland M Andrianasolo,[1] Eloi Chazelas,[1] Mélanie Deschasaux,[1] Serge Hercberg,[1,3] Pilar Galan,[1] Carlos A Monteiro,[4] Chantal Julia,[1,3] Mathilde Touvier[1]

BMJ 2018;360:k322

Ultraprocessed Food Consumption and Risk of Type 2 Diabetes Among Participants of the NutriNet-Santé Prospective Cohort

Bernard Srour, PharmD, MPH, PhD; Léopold K. Fezeu, MD, PhD; Emmanuelle Kesse-Guyot, MSc, PhD; Benjamin Allès, PhD; Charlotte Debras, MSc; Nathalie Druesne-Pecollo, PhD; Eloi Chazelas, MSc; Mélanie Deschasaux, MSc, PhD; Serge Hercberg, MD, PhD; Pilar Galan, MD, PhD; Carlos A. Monteiro, MD, PhD; Chantal Julia, MD, MPH, PhD; Mathilde Touvier, PhD, MSc, MPH

JAMA Intern Med. 2020;180(12):283-291.

Consumption of ultra-processed foods and cancer risk: results from NutriNet-Santé prospective cohort

Thibault Fiolet,[1] Bernard Srour,[1] Laury Sellem,[1] Emmanuelle Kesse-Guyot,[1] Benjamin Allès,[1] Caroline Méjean,[2] Mélanie Deschasaux,[1] Philippine Fassier,[1] Paule Latino-Martel,[1] Marie Beslay,[1] Serge Hercberg,[1,4] Céline Lavalette,[1] Carlos A Monteiro,[3] Chantal Julia,[1,4] Mathilde Touvier[1]

BMJ 2019;365:l1949

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Ultra-processed foods and depression

BMC Medicine

RESEARCH ARTICLE Open Access

Prospective association between ultra-processed food consumption and incident depressive symptoms in the French NutriNet-Santé cohort

ORIGINAL CONTRIBUTION

Ultra-processed food consumption and the incidence of depression in a Mediterranean cohort: the SUN Project

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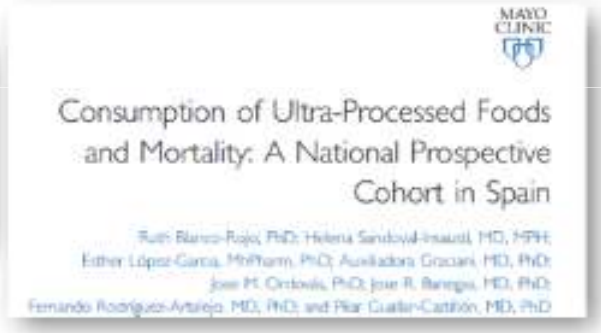
Ultra-processed foods and all-cause mortality

Association between consumption of ultra-processed foods and all cause mortality: SUN prospective cohort study

Anaïs Rico-Campà,[1,2] Miguel A Martínez-González,[1,2,3,4] Ismael Alvarez-Alvarez,[1] Raquel de Deus Mendonça,[1,5] Carmen de la Fuente-Arrillaga,[1,2,3] Clara Gómez-Donoso,[1] Maira Bes-Rastrollo[1,2,3]

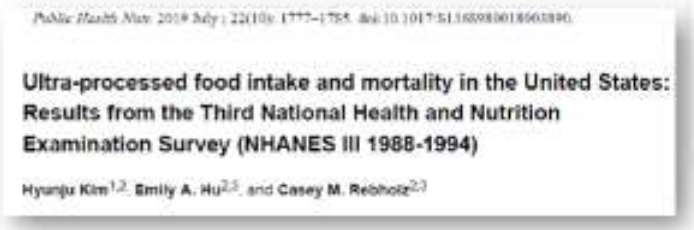
BMJ 2019;365:l1949



MAYO CLINIC

Consumption of Ultra-Processed Foods and Mortality: A National Prospective Cohort in Spain

Ruth Blanco-Rojo, PhD; Helena Sandoval-Insausti, MD, MPH; Esther López-García, MnPharm, PhD; Auxiliadora Graciani, MD, PhD; José M. Ordovás, PhD; José R. Banegas, MD, PhD; Fernando Rodríguez-Artalejo, MD, PhD; and Pilar Guallar-Castillón, MD, PhD



Public Health Nutr. 2019 July; 22(10): 1777–1785. doi:10.1017/S1368980018003890

Ultra-processed food intake and mortality in the United States: Results from the Third National Health and Nutrition Examination Survey (NHANES III 1988-1994)

Hyunju Kim[1,2], Emily A. Hu[2,3], and Casey M. Rebholz[2,3]

JAMA Internal Medicine | Original Investigation

Association Between Ultraprocessed Food Consumption and Risk of Mortality Among Middle-aged Adults in France

Laure Schnabel, MD, MSc; Emmanuelle Kesse-Guyot, PhD; Benjamin Allès, PhD; Mathilde Touvier, PhD; Bernard Srour, PharmD; Serge Hercberg, MD, PhD; Camille Buscail, MD, PhD; Chantal Julia, MD, PhD

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Yet UPF sales rising …

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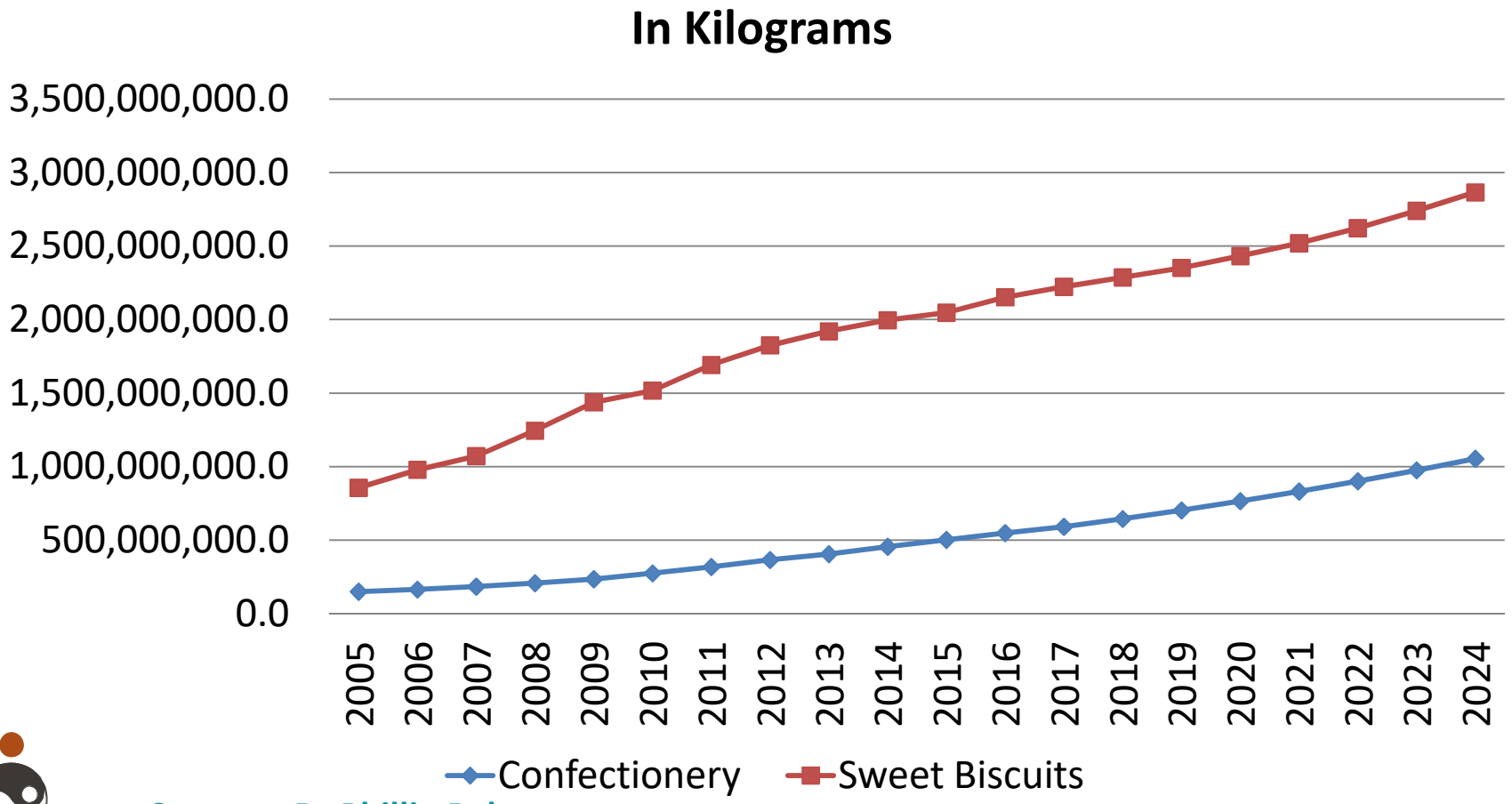
Rising trend of UPFs in India



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Courtesy Dr Phillip Baker

Institute for Physical Activity and Nutrition Deakin University, Melbourne

Email: phil.baker@deakin.edu.au

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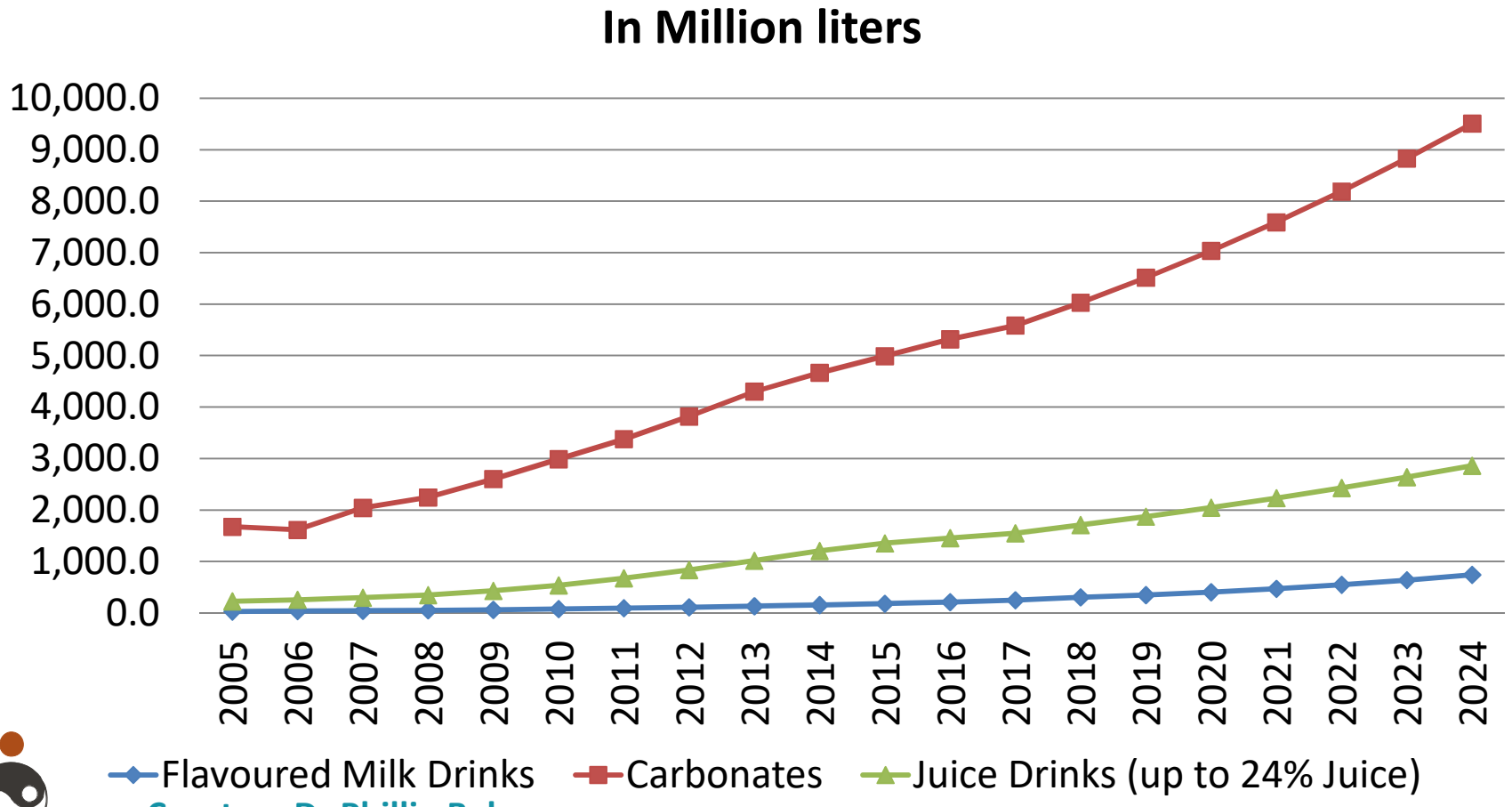
Rising trend of UPFs in India



Courtesy Dr Phillip Baker
Institute for Physical Activity and Nutrition Deakin University, Melbourne
Email: phil.baker@deakin.edu.au

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What steps can be taken to reduce consumption ?

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What can people do?

Specific Recommendations

- Group 1 Foods: Can make these foods the basis of their and baby's diet.
- Group 2 Foods: Use processed culinary ingredients in small amounts for seasoning and cooking foods and to create culinary preparations.
- Group 3 Foods: Limit the use of processed foods.
- Group 4 Foods: Avoid ultra-processed food products.

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What can people do?

General Recommendations

- Identify whether the food is a UPF before buying
- Be wary of adverts/information from industry or celebs.
- Trust information from sources like WHO , Government of India or public interest groups like NAPi/BPNI.

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0-6 months

REAL FOODS *(Unprocessed or minimally processed foods)*	ULTRA-PROCESSED FOODS
0-6 months*	
	
Human Breastmilk Animal Milk	Infant Formula, Powdered Milk

** Breastmilk is all that a baby needs for 0-6 months. For those where artificial milk has to be used for reasons, animal milk falls in minimally processed group and powdered milks fall in UPFs.*

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6-36 months

REAL FOODS *(Unprocessed or minimally processed foods)*	ULTRA-PROCESSED FOODS
6 months - 3 years	
 Milk and Milk Products	 Drinks and Infant Cereals
 Fruits and Vegetables	 Chocolates and Ice cream
 Cereals and Pulses	 Snacks and Biscuits

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3-8 Years

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Above 8 years-Adults

REAL FOODS *(Unprocessed or minimally processed foods)*	ULTRA-PROCESSED FOODS
8 years and above	


Meal


Idli Sambhar


Biryani


Omellete


Dahi Bhalle


Pizza

Fried Chicken

Frozen Kabab


Burger


Alcohol

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Kellogg's Chocos

Nutrition Information#

	Typical value for 30 g	30 g serving with 120 ml of skim milk
Energy	**111 kcal**	**146 kcal**
Energy From Fat	7 kcal	8 kcal
Total Fat	**0.8 g**	**0.9 g**
Saturated Fatty Acids	0.4 g	0.5 g
Monounsaturated Fatty Acids	0.3 g	0.3 g
Polyunsaturated Fatty Acids	0.1 g	0.1 g
Trans Fatty Acids	0.0 g	0.0 g
Cholesterol	**0.0 mg**	**0.0 mg**
Total Carbohydrates	**24.9 g**	**30.5 g**
of which Sugar (Sucrose)	10.4 g	10.4 g
Dietary Fibre	1.5 g	1.5 g
Protein	**2.7 g**	**5.7 g**
Sodium	**0.09 g**	**0.14 g**

		(%RDA)
Vitamin A	30.0 µg	35.4 µg 6%
Vitamin C	6.0 mg	7.2 mg 18%
Thiamine (Vit B1)	0.3 mg	0.3 mg 30%
Riboflavin (Vit B2)	0.4 mg	0.4 mg 33%
Niacin (Vit B3)	4.0 mg	4.1 mg 35%
Vitamin B6	0.5 mg	0.5 mg 26%
Vitamin B12	0.1 µg	0.7 µg 68%
Folate	25.5 µg	25.5 µg 13%
Iron	4.2 mg	4.4 mg 21%
Calcium	160.0 mg	304.0 mg 51%
Zinc	0.8 mg	0.8 mg 8%

Total Trans fat content not more than 0 percent by weight.
Total saturated fat content not more than 1.2 percent by weight.

#Approximate values

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What can the Governments do?

- Launch a campaign to identify UPFs, and on the negative consequences on health of the UPFs.
- Develop a legal framework to prohibit promotion of UPFs, front of the pack labels
- Adopt NOVA classification as a policy and include this in the national food dietary guidelines and develop an age specific concept (Brazil, Peru, Uruguay, Ecuador are using)
- Set up a National Task Force (without any conflicts of Interest) for surveys, research and policy response advice.
- Levy taxes on UPFs and provide subsidy to producers of minimally processed foods/unprocessed foods.
- Keep the policy development process free from conflicts of interest.

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What can you do ?

- Write, Speak, Share about UPFs in local papers.
- Share on social media.
- Sign up the NAPI-BPNI Statement on UPFs on our website if you agree.
- Write to your State policy makers to do the right action to halt the rise of UPFs and reduce consumption.

The UNSEEN DANGERS of UPFs" available in English and will be in several Indian languages

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Thank you

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