FAPESP WEEK GERMANY

March 25-26th, 2025

Innovative food and nutrition policies from Brazil and Latin America: what can the world learn from us?

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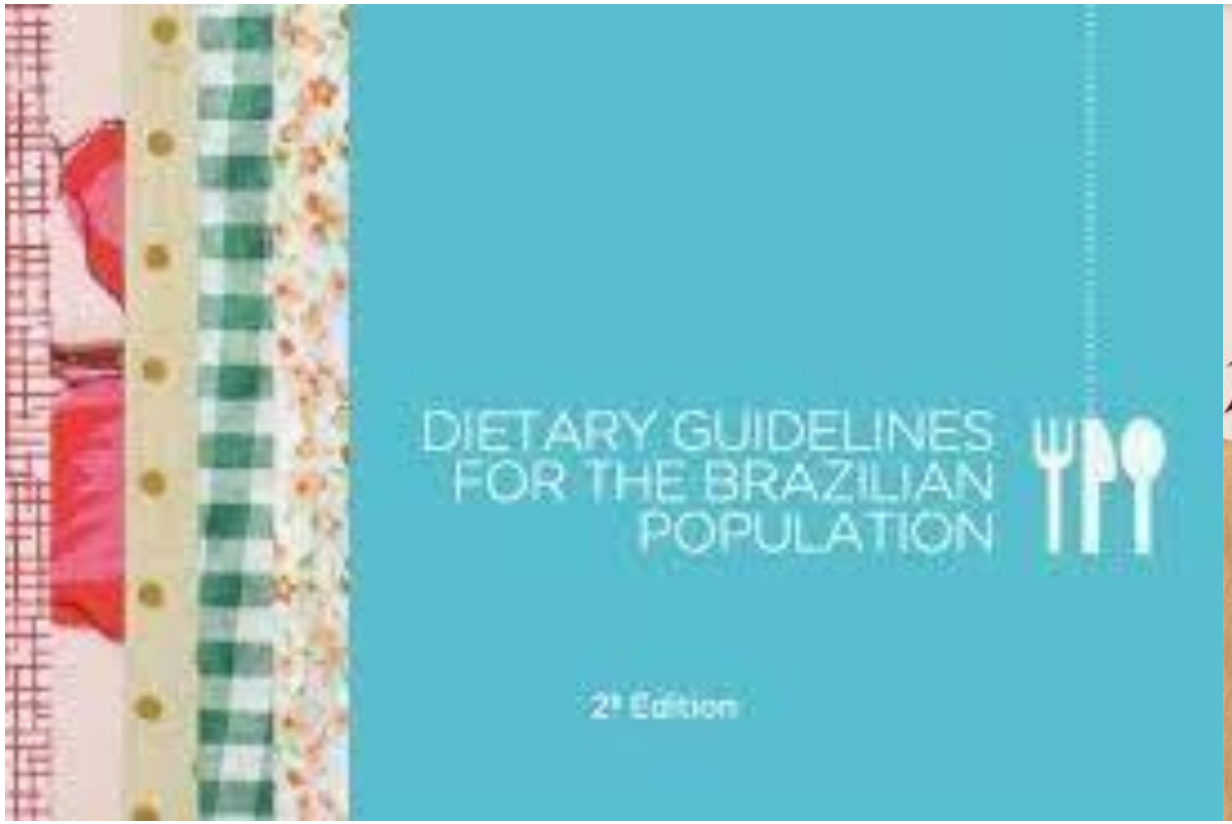
I disclose no conflicts of interests

Food-based Dietary Guidelines

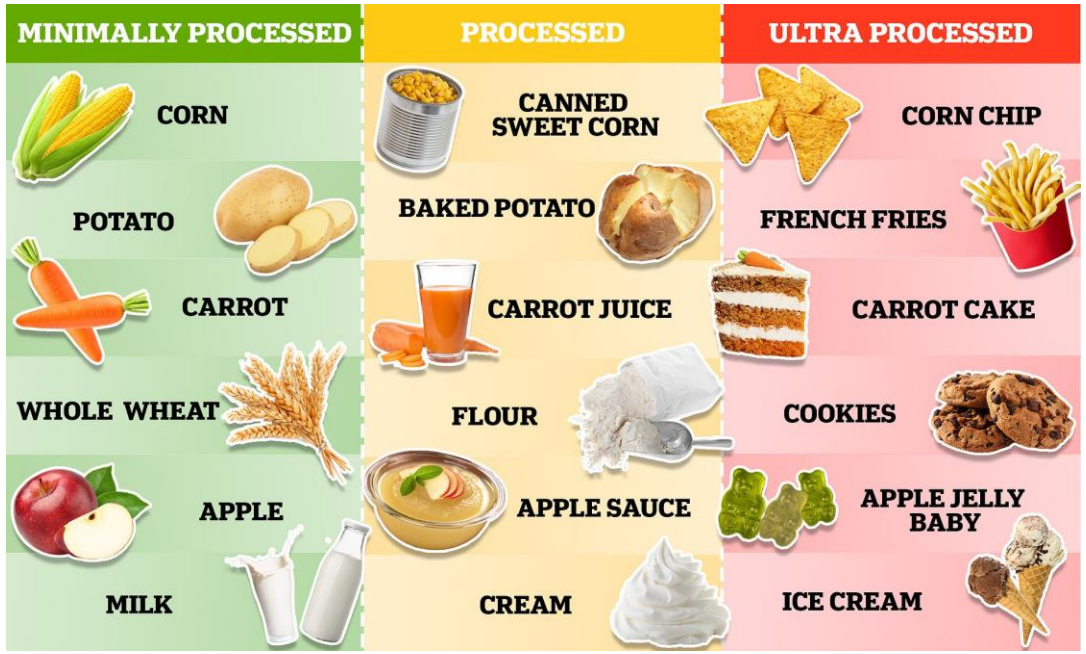
NO ULTRA-PROCESSED FOODS



1. Consume alimentos frescos de fe
mercados establecidos
2. Ponle color y sabor a tu día con v
frutas en todo lo que comes
3. Consume legumbres en guisos y
todas las veces que puedas
4. Bebe agua varias veces al día y r
reemplaces por jugos o bebidas
5. Consume lácteos en todas las et
vida
6. Aumenta el consumo de pescad
o algas de lugares autorizados
7. Evita los productos ultra procesa
sellos "ALTOS EN"
8. Comparte las tareas de la cocina
de preparaciones nuevas y tradicio
9. En la mesa disfruta de tu aliment
acompañado cuando puedas y sac
10. Protege el planeta, cuida el agu
comida, separa tu basura y recicla

‘ For over five years, Monteiro has been repeatedly named on lists of the most influential scientists in the world. **In 2023, more of his scientific articles had been cited in the international academic literature than any other Brazilian**, according to the AD Scientific Index.’

(https://revistapesquisa.fapesp.br/en/carlos-augusto-monteiro-the-normality-of-being-overweight)



A practical way to identify an ultra-processed product is to check to see if its list of ingredients contains at least one item characteristic of the NOVA ultra-processed food group, which are food substances never or rarely used in kitchens (such as **high-fructose corn syrup, hydrogenated or interesterified oils, and hydrolysed proteins**), or **classes of additives designed to make the final product palatable or more appealing (such as flavours, flavour enhancers, colours, emulsifiers, emulsifying salts, sweeteners, thickeners, and antifoaming, bulking, carbonating, foaming, gelling and glazing agents**).

Monteiro CA et al. Ultra-processed foods: what they are and how to identify them. *Public Health Nutrition*. 2019;22(5):936-941. doi:10.1017/S1368980018003762

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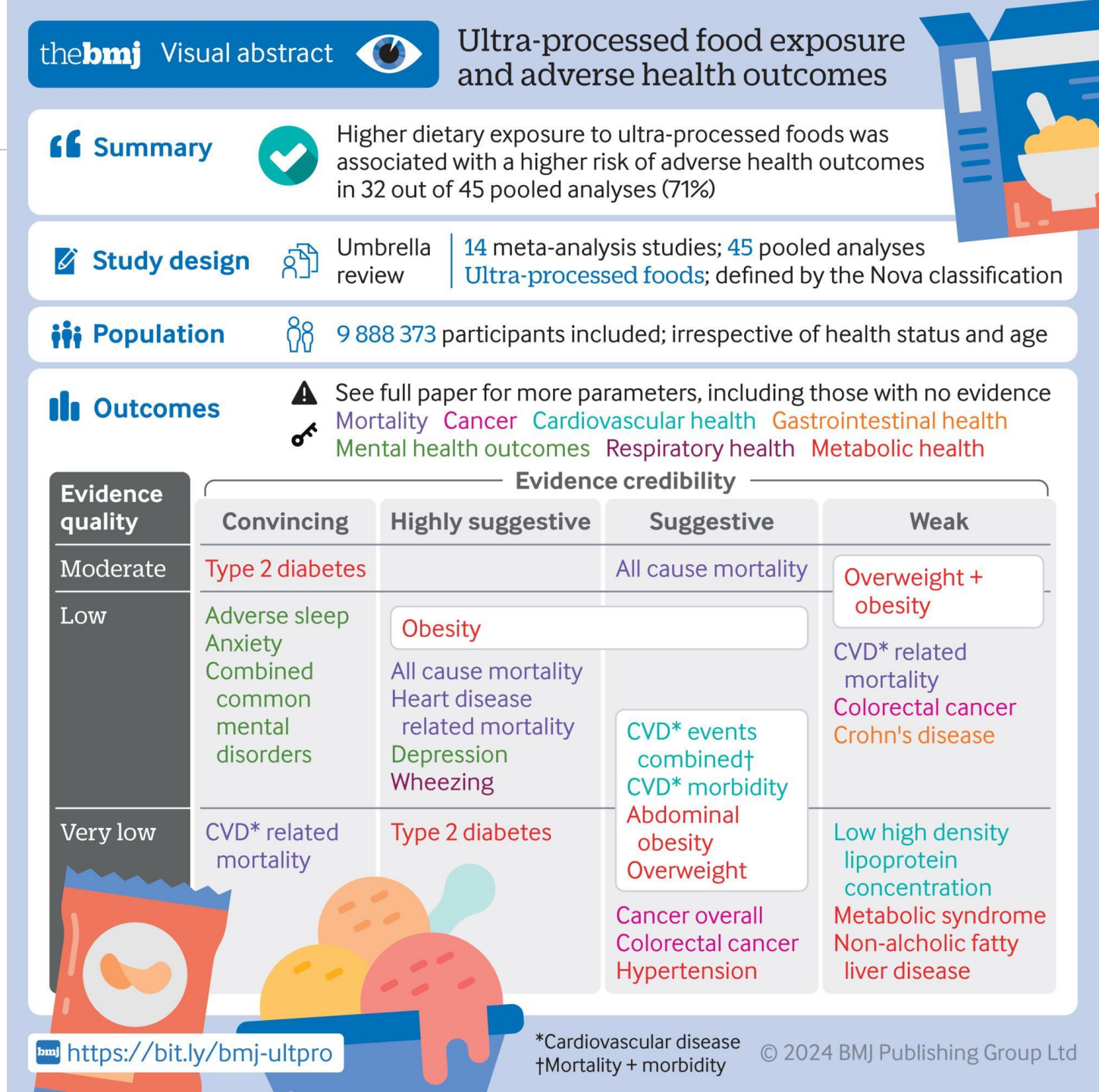
WHY LOWER UPF CONSUMPTION?



Lane et al. Ultra-processed food exposure and adverse health outcomes: umbrella review of epidemiological meta-analyses BMJ 2024;384:bmj-2023-077310
doi: https://doi.org/10.1136/bmj-2023-077310

Sugar-sweetened beverage tax

Mexico

1 peso/liter

10% price increase

Purchase of SSB decreased by

Year 1: -5.5%;

Year 2: -9.7%,

Average: -7.6%

Greater impact on low-income households

(Colchero et al., 2015a; 2017)

Selected nonessential foods (comida chatarra) tax

Mexico

8% tax on nonessential foods with energy density ≥275 kcal/100 g

Purchase of such foods decreased by

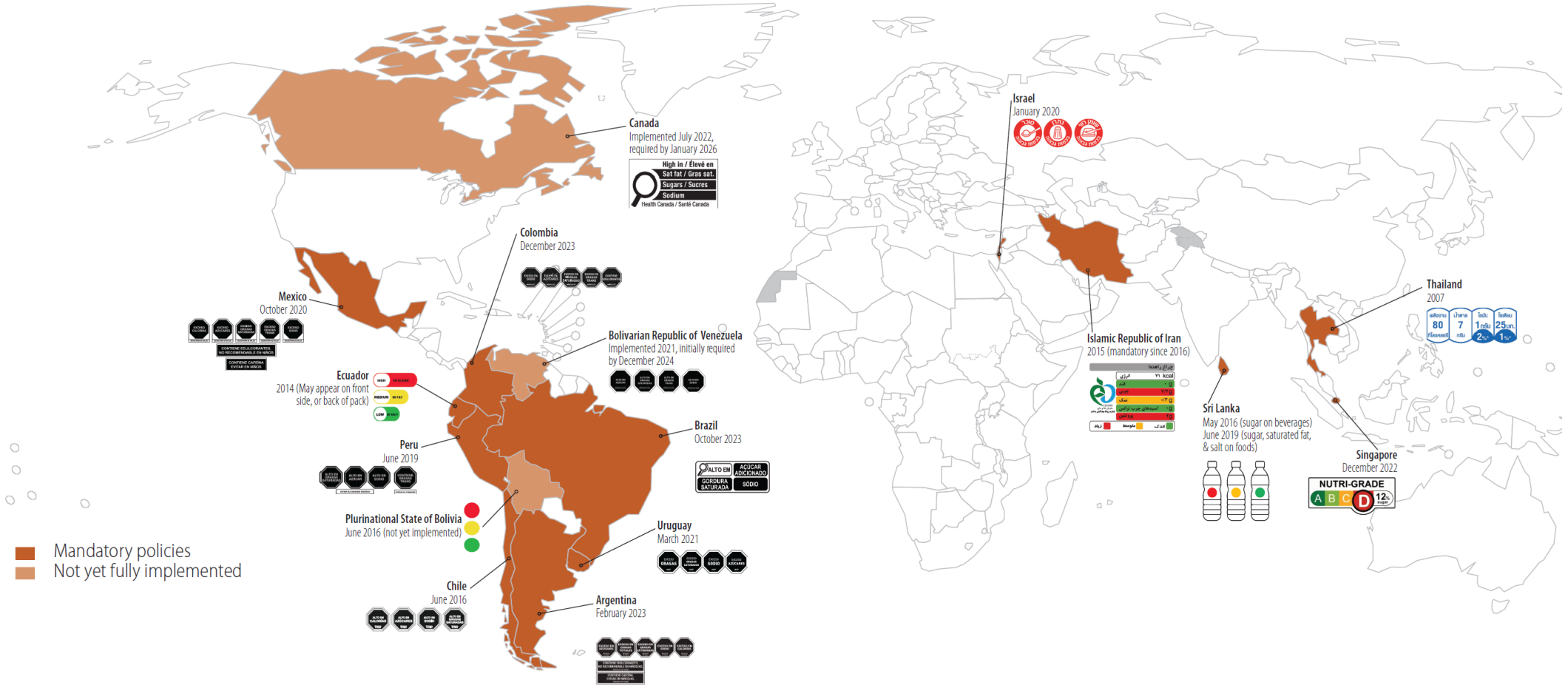
Year 1: -4.8%;

Year 2: -7.4%,

Average: -6.0%

Greater impact on low-income household and on households with greater purchase of unhealthy taxed foods

(Batis et al., 2016; Taillie et al.,2017)

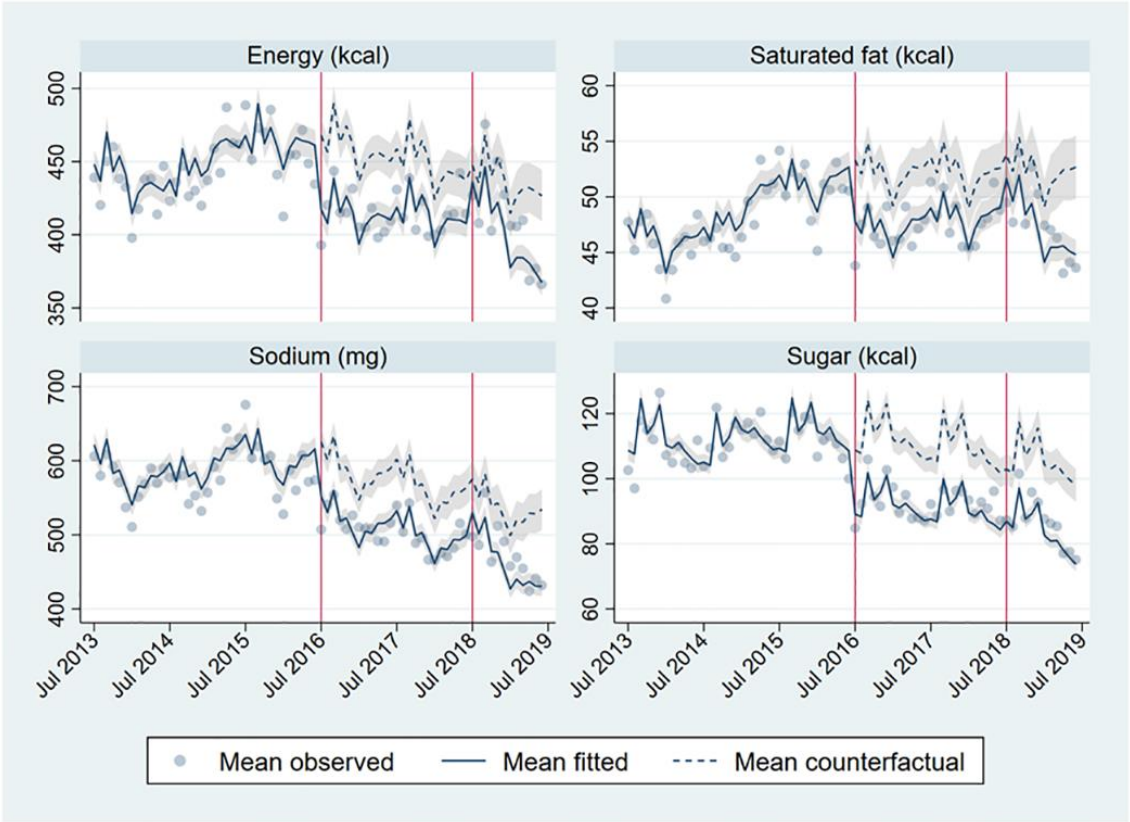


Taillie & Duran. Bull World Health Organization, 2024;102 (10):765-68.

3 years after the Chilean set of food and nutrition policies…

After the Phase 2 implementation, purchases of foods high in nutrients of concern decreased:

- 16% relative reduction in the purchase of saturated fat (g)
- 37% relative reduction in the purchase of sugar (g)



Taillie LS, Bercholz M, Popkin B, Rebolledo N, Reyes M, Corvalán C (2024) Decreases in purchases of energy, sodium, sugar, and saturated fat 3 years after implementation of the Chilean food labeling and marketing law: An interrupted time series analysis. PLoS Med 21(9): e1004463.

But...

% households purchasing any NSS beverages (NSS-only or NSS with CS) increased by **4.2** percentage points (pp) (95% CI: 2.8, 5.7; P < 0.01).

This increase was driven by households purchasing NSS-only beverages (**12.1** pp, 95% CI: 10.0, 14.2; P < 0.01).

Increases in the amounts of sucralose, aspartame, acesulfame K, and steviol glycosides purchased from beverages

Sweetener Purchases in Chile before and after Implementing a Policy for Food Labeling, Marketing, and Sales in Schools

Natalia Rebolledo [1], Maxime Bercholz [2], Linda Adair [1,2], Camila Corvalán [3], Shu Wen Ng [1,2], Lindsey Smith Taillie [1,2,*]

The World Health Organization **(WHO)** has released a new guideline on non-sugar sweeteners (NSS), which **recommends against the use of NSS to control body weight or reduce the risk of noncommunicable diseases (NCDs).**

‘ While results of randomized controlled trials have generally suggested non-sugar sweeteners may have little impact on glucose metabolism and result in lower body weight when coupled with energy restriction in the short-term, **there is no clear consensus on whether non-sugar sweeteners are effective for long-term weight loss or maintenance, or if they are linked to other long-term health effects at intakes within the ADI.** This systematic review brings together the most current scientific evidence on health effects of non-sugar sweetener use.’

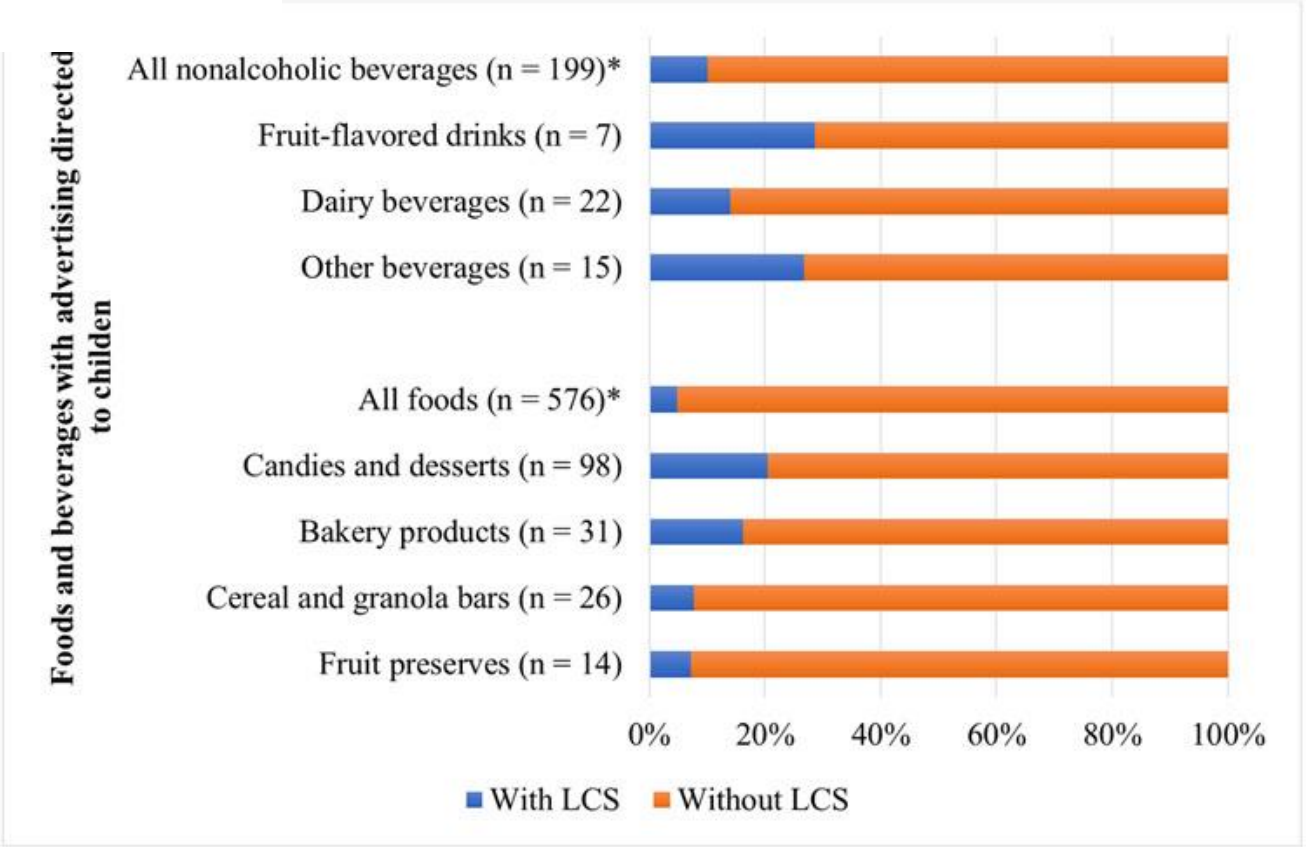
	Foods and beverages with NSS	Beverages with NSS
Mexico	11%	22%
United States	4%	
New Zealand	1%	
Australia	<1%	
Brazil	**10%**	49%

Dunford et al., 2018; Duran et al., 2020

Prevalence of Low-Calorie Sweeteners and Related Front-of-Package Claims in the Brazilian Packaged Food Supply

Mariana Fagundes Grilo, MPH; Lindsey Smith Taillie, PhD; Camila Zancheta Ricardo, MS; Laís Amaral Mais, PhD; Ana Paula Bortoletto Martins, PhD; Ana Clara Duran, PhD

J Acad Nutr Diet. 2022;122(7):1296-1304.



ALTO EN AZÚCARES
Ministerio de Salud
ALTO EN CALORÍAS
Ministerio de Salud
ALTO EN GRASAS SATURADAS
Ministerio de Salud
ALTO EN SODIO
Ministerio de Salud

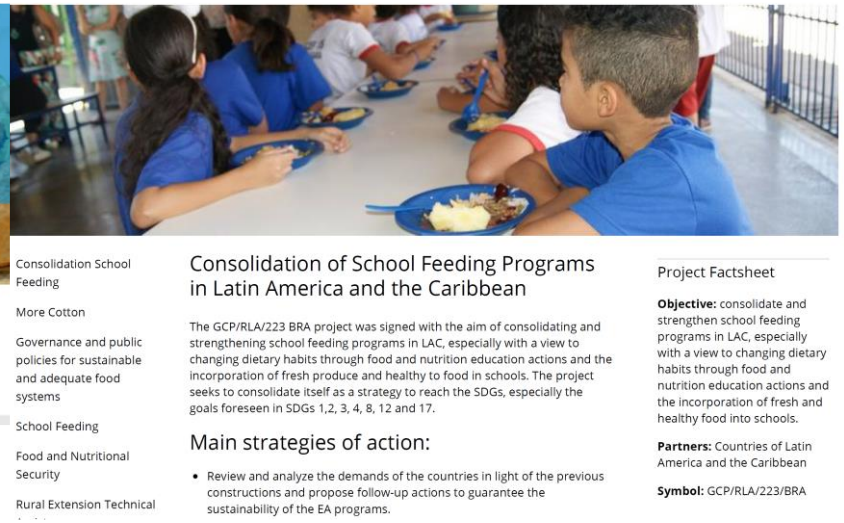
EXCESO CALORÍAS
EXCESO AZÚCARES
SECRETARÍA DE SALUD
CONTIENE EDULCORANTES, NO RECOMENDABLE EN NIÑOS
CONTIENE CAFEINA EVITAR EN NIÑOS

ORDEM E PROGRESSO

Brazilian National School Feeding Program (PNAE) Global reach

- Long-standing (created in 1955), **universal** and **free of charge for all** students
  - 40.2 million students in > 150,000 public schools in all 5570 country's municipalities (**80% of all Brazilian school-aged population**)
  - 50 million meals/day, 10 billion meals/year
- Strong social control and public participation
- First to have a national mandatory direct procurement from family farmers and restrictions to ultra-processed foods

School Meals Coalition
Nutrition, Health and Education for Every Child



School meals: National, mandatory nutritional restrictions

Global Food Research Program
UNC-Chapel Hill

GLOBAL FOOD RESEARCH PROGRAM at UNC-CHAPEL HILL

Source: Busey et al. National policies to regulate the nutrition content of school meals: a global scoping review. *Manuscript submitted for publication*. 2024.

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Brazilian National School Feeding Program Impact evaluation

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AVALIAÇÃO DE IMPACTO DO PROGRAMA NACIONAL DE ALIMENTAÇÃO ESCOLAR - PNAE
IMPACT EVALUATION OF THE BRAZILIAN SCHOOL FEEDING PROGRAM

Diet and food procurement

- Share of unprocessed/minimally processed foods vs. processed/ultra-processed foods in school meals
- Consumption of ultra-processed foods

Economic development

- Family farming livelihood
- Employment

Governance

- Optimum implementation at the local level
- Legal barriers
- Social control
- Industry interference

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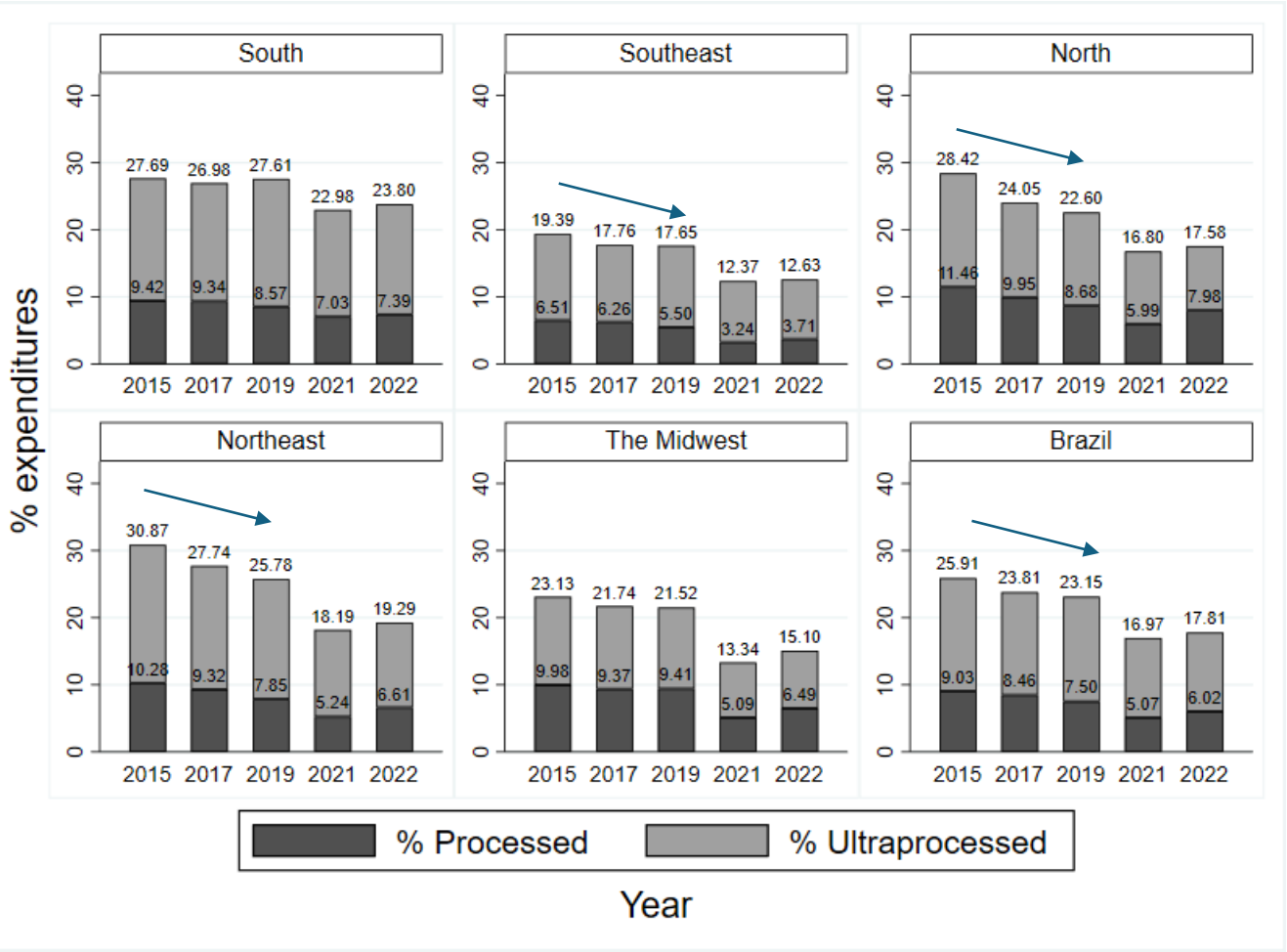
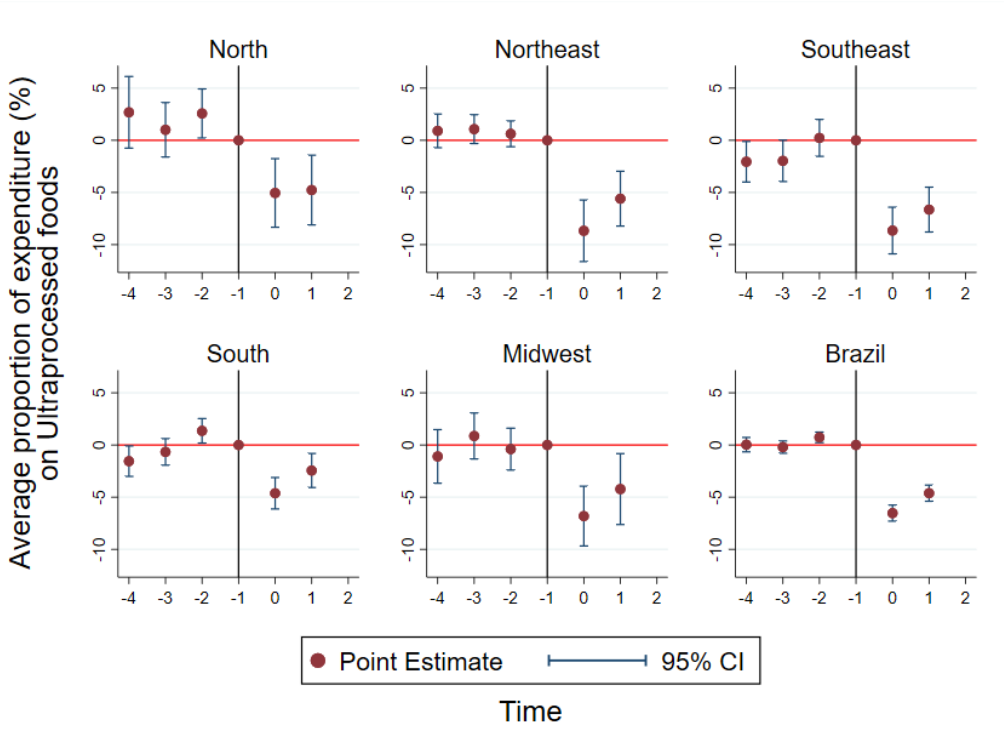
USP grupo direito e políticas públicas
UFPR Universidade Federal do Paraná
UFPA Universidade Federal do Pará
UNIFESP Universidade Federal de São Paulo 1933
UERJ Universidade do Estado do Rio de Janeiro
ÓAÊ observatório da alimentação escolar





Duran et al., Under review
Please do not share

Direct procurement from family farmers

Removal of a known barrier for family farmers to access public procurement programs: innovative legal instrument that dropped the requirement for public biding for procurement directly from family farmers (Coutinho et al., 2023)

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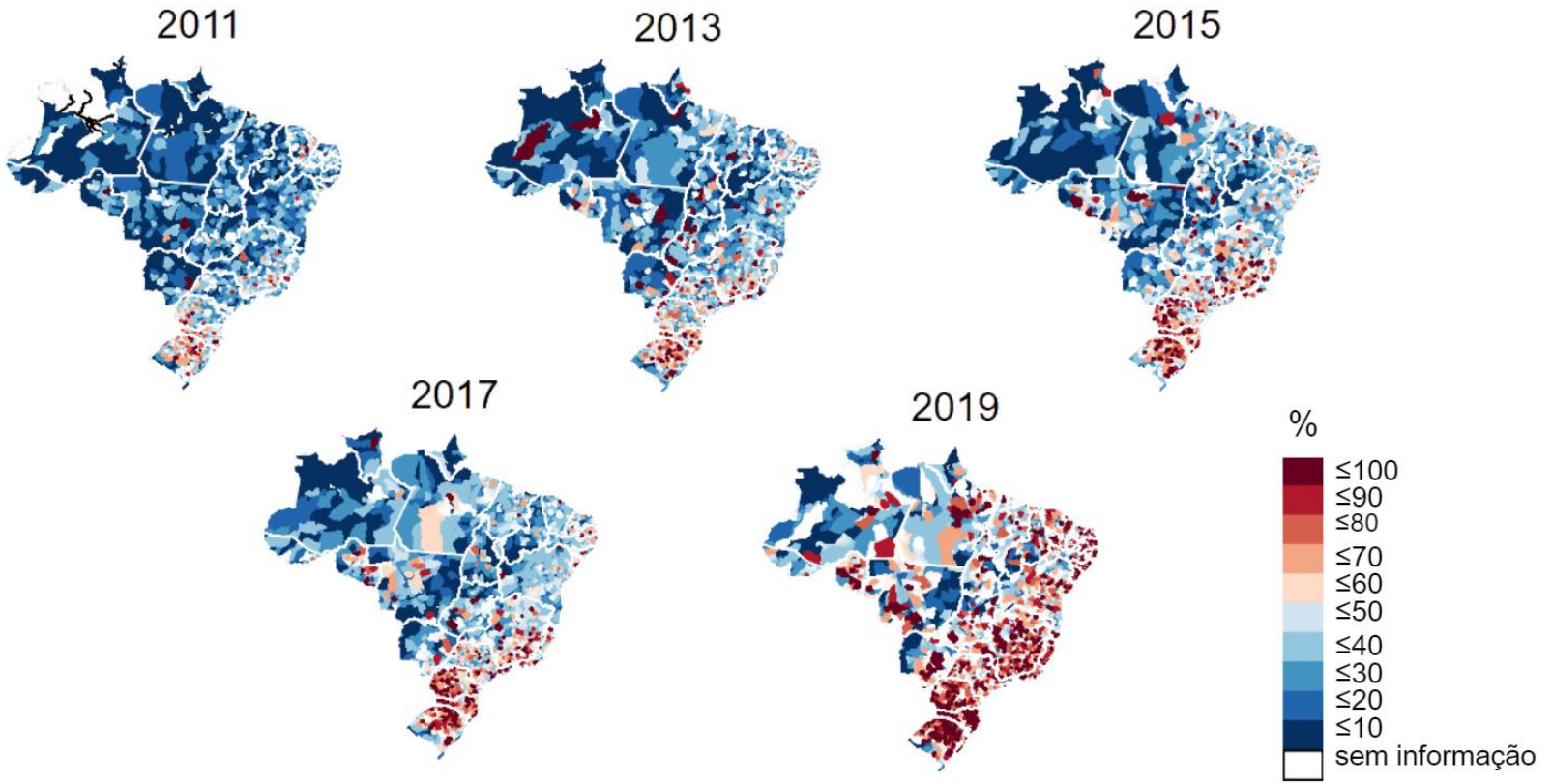
AVALIAÇÃO DE IMPACTO DO PROGRAMA NACIONAL DE ALIMENTAÇÃO ESCOLAR - I
IMPACT EVALUATION OF THE BRAZILIAN SCHOOL FEEDING PROGRAM



Duran et al. unpublished results

PNAE direct procurement from family farmers socioeconomic impact

- A panel of municipalities with data on food **production and pricing** of 2006 and 2017 at the municipality level, as well as **national food procurement data** for 2016-17
- Treatment group: those that comply with the 30% procurement from family farmers threshold
- Control group: procurement from family farmers below 30%

Table 1: Impacts of complying with the rules of PNAE in 2017 on family farming production value

	(1) Agriculture	(2) Livestock	(3) Fishing/ Forestry
Effect on PNAE rule	0.098***	0.045***	-0.019***
	(0.001)	(0.002)	(0.006)
N	3,727,322	677,436	148,847

Notes: Clustered standard errors by municipality in parentheses. All regressions are weighted by the production value of the product in the baseline (2006). The results can be interpreted as averages. P-values are: * p<0.1, ** p<0.05, *** p<0.01.

Using a national and disagreagted I-O matrix we identified the creation of direct and indirect jobs in the family farming sector and contribution to the Brazilian **GDP by USD 15 million**

Oliveira TD, Pereda P, Elias, LP, Duran AC. Socioeconomic Effects of the Direct Procurement from Family Farming in the Brazilian School Feeding Program. Available at SSRN: https://ssrn.com/abstract=4940245 or http://dx.doi.org/10.2139/ssrn.4940245

PNAE budget for school food procurement

BRL 5.7 billion (~USD 1 billion)

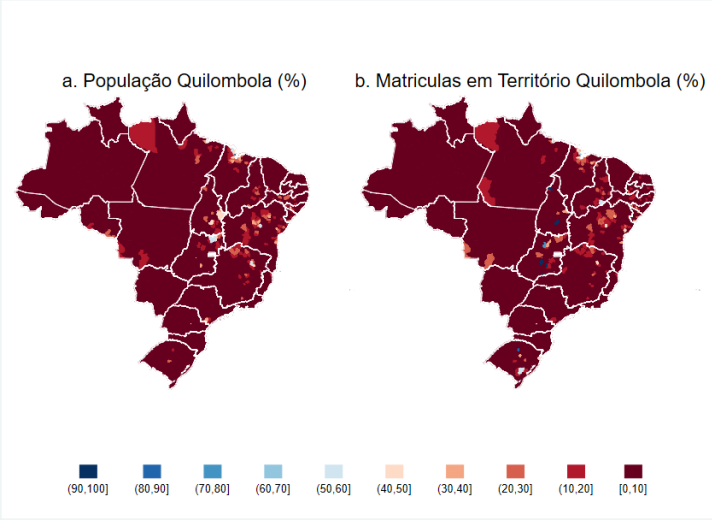
30% = BRL 1.71 billion (~USD 0.3 billion)

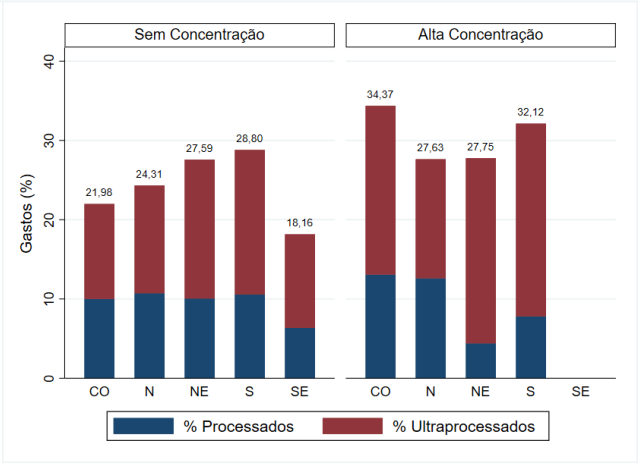
Brazil´s 2023 GDP:
BRL 10.9 trillion (~USD 1.9 trillion)

Agribusiness sector Brazilian GDP participation: 24%

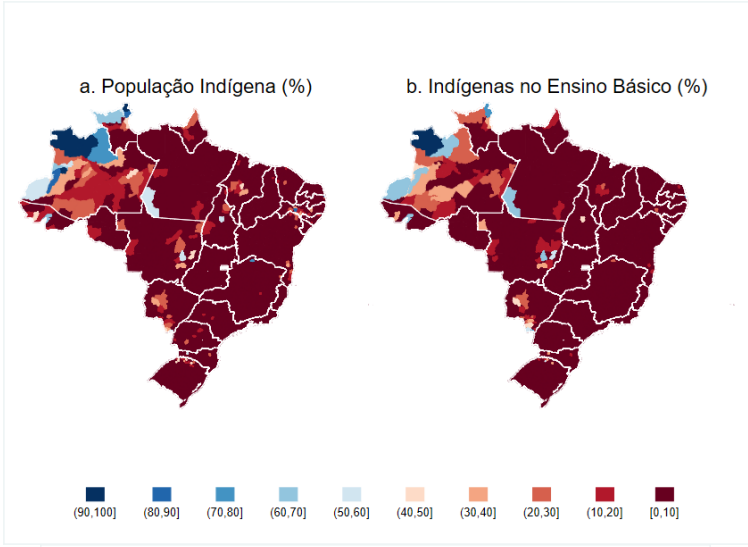
BRL 2.6 trillion (~USD 0.4 trillion)

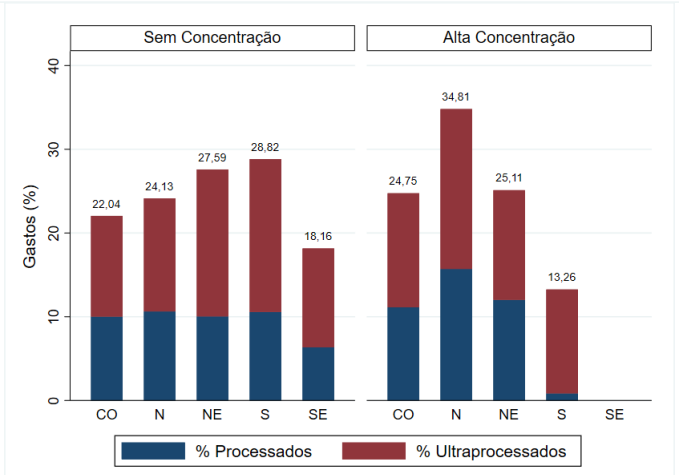
Quilombola (Afro-Brazilian) traditional communities





Indigenous communities





Duran AC, Milosz M, Benite AC, Pereda PC. https://alimentacaoescolar.org.br/acervo/dossie-oae-2023-2024-diversidades-e-desigualdades-na-alimentacao-escolar/

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