

# LABELING OF SUGARS AND NON-CALORIC SWEETENERS ON ULTRA-PROCESSED FOODS TARGETING CHILDREN

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## BACKGROUND

- Inappropriate food intake is a likely reason for the global increase of chronic non-communicable diseases (NCD). Dietary sugar consumed in high amounts is associated with food of low nutritional quality
- World Health Organization (WHO) recommends a reduced intake of free sugar to <10% of total energy in adults and children, with <5% being desirable
- Food industries are reformulating their products to lower total sugar by combining sugars with artificial sweeteners to maintain sweetness. Consumers may be unaware of the different forms of caloric and non-caloric sweeteners used

### Study objectives

- To evaluate the different forms of added sugars and non-caloric sweeteners displayed on the list of ingredients of ultra-processed food products (UPF) and compare the amounts of these ingredients against current recommendations
- To determine consumers' opinions on the presence of added sugars and non-caloric sweeteners used in these products

## METHODS

The following methods were utilized:

1. Secondary literature review of the nomenclature of sugars and sweeteners and their recommended consumption
2. Analysis of the list of ingredients of 10 UPFs commonly consumed by children (powdered juices, jellies, flavored milk);
3. Thematic analysis of focus group discussions on UPF labeling, conducted in 4 different Brazilian cities.

## RESULTS - 1

### Names for added sugars that appeared on the ingredient lists

Agave	Evaporated cane juice	Honey	Molasses
Cane Juice	Fructose	Invert sugar	Raw sugar
Caramel	Glucose	Lactose	Sugar
Crystal sugar	Glucose syrup	Maltodextrin	Sucrose
Dextrose	High-fructose corn syrup	Maltose	Treacle

### Non-caloric sweeteners approved in Brazil

Substance	Maximum limit (g/100g or g/100mL)	ADI (mg/kg of weight)
Sorbitol, isomalt, lactitol, mannitol, xylitol, maltitol, taumantane	Any	Any
Erythritol	Any	Any
Neotame	0.0049	2
Acesulfame K	0.026	15
Aspartame	0.056	40
Sodium cyclamate	0.03	11
Saccharin	0.01	2.5
Sucralose	0.02	15
Steviol glycosides	0.045	5.5

## RESULTS - 2

### Sugars and non-caloric sweeteners in ultra-processed foods

U P F	Powered juices (3)			Jellies (3)			Flavored milks (4)			
	Tang	Mid	Fresh	Royal	Dr. Oetker	Sol	Nescau	Toddynho	Pirakids	Alpino
Type Added sugar										
Sugar	x	x	x	x	x	x	x	x	x	x
Maltodextrin	x	x	x					x		
Cocoa syrup (water + cocoa)								x	x	
Type Sweeteners (mg/100mL)	4	2	4	4	4	3	0	0	0	1
Aspartame	27	29.7	x	x	x	x				
Sodium cyclamate	22		x	x	x	x				
Acesulfame K	4.5	7.3	x	x	x					
Saccharin	1.6		x	x	x	x				
Sucralose										x
Note: All UPF are registered mark (®) Labels of sweeteners-containing beverages should include their concentration, but not always this information is found on them.										

## RESULTS - 3

### Focus Group Discussions

Thirteen groups of 8 persons each, conducted in 4 Brazilian cities



Topic	Question
Ingredient list	1. Are you used to looking at the ingredient list on foods? 2. Is it easy to understand the information it presents? What do you think are your difficulties?
Non-caloric sweeteners	1. What do you understand by "sweetener" and by "artificial sweetener"?
Notion of risk to health	1. Does excessive intake of sugar or sweeteners increase health risk?

### Barriers related to ingredient lists

- "Small font makes labels hard to read"
- "Several ingredients' names are unknown"
- "Ingredient lists are too technical or in English (and not Portuguese)"

### Barriers related to non-caloric sweeteners

- "Sweetener? What is it? Probably it is a natural product... "
- "It is a way to disguise sugar on the food labels "
- "I have no idea. If sweetener is bad, artificial sweetener is worse "

### Barriers related to risk to health

- "If a food label says it is high in sugar, I'm not going to buy it for my children"
- "The food label has to be legible and clear. If I don't understand what is written, how can I use this information?"



## CONCLUSIONS

- There is tremendous variation in the nomenclature of added sugars and non-caloric sweeteners that may contribute to consumer confusion
- Regular products targeting children offer reduced calories at the expense of increasing the variety and concentration of sweeteners
- More evidence is needed to understand the effects of the long-term intake of these sweeteners in children
- Presenting clearer nutrition information would facilitate consumer comprehension and support healthy choices

