Supplementary Table 1

NOVA food groups: definition according to the extent and purpose of food processing, with examples

NOVA group	Definition	Examples
1) Unprocessed or minimally processed foods	Unprocessed are those obtained directly from plants or animals (such as leaves and fruits or eggs and milk) and purchased for consumption without having undergone any change after leaving nature. Minimally processed foods are in natura foods subjected to processes such as removal of inedible or unwanted parts of the food, drying, dehydration, crushing or grinding, fractionation, roasting, cooking with water only, pasteurization, refrigeration or freezing, packaging, vacuum packaging, non-alcoholic fermentation and other methods that do not add salt, sugar, oils or fats or other food substances to the original food.	White rice, whole or parboiled, in bulk or packaged; corn in grain or on the cob, grains of wheat and other cereals; potato, cassava and other roots and tubers; beans, lentils, chickpeas and other legumes; beef, pork and poultry; fresh, frozen or dried fruit; pasteurized fruit juice with no added sugar; vegetables and greens; fresh or dried herbs; chestnuts, nuts and seeds without salt or sugar; cassava, corn or wheat flour and pasta or fresh or dry pasta made with these flours and water; pasteurized, ultra-pasteurized or powdered milk; yogurt (no added sugar); and fresh or dried mushrooms.
2) Processed culinary ingredients	Substances extracted directly from Group 1 foods or from nature and usually consumed as items in culinary preparations. The processes involved in extracting these substances include pressing, crushing, grinding, pulverizing, drying and refining.	Refined or coarse table salt; table sugar, honey and brown sugar; vegetable oils and fats (butter, pork fat and coconut fat); and starches extracted from corn and others plants; and vinegar.
3) Processed foods	Products made by adding salt, oil, sugar or other group 2 ingredients to group 1 foods, using preservation methods such as canning and bottling, and, in the case of breads and cheeses, using non-alcoholic fermentation.	Canned vegetables, cereals or pulses; extract or tomato concentrate with salt; salted, dried and smoked meats; fish preserved in oil or water and salt; fruit in syrup or candied; cheeses; breads made with flour, yeast, water, and salt.
4) Ultra-processed foods	This group includes products made with various ingredients involving, in addition to Group 2 substances (such as salt, sugar, oils and fats), substances also extracted directly from Group 1 foods, but not commonly used in culinary preparations (such as casein, whey, protein isolate from soy and other foods and hydrolyzed protein), substances synthesized from constituents from foods (such as hydrogenated or unesterified oils, modified starches, and other substances not naturally present in foods) and additives used with a cosmetic function to modify the organoleptic characteristics of the products (colour, odour, taste or texture). Several	Sweet and savoury biscuits; ice cream, candies, chocolate and treats generally; breakfast cereals and cereal bars; cakes and cake mixes; instant soups, noodles and seasonings; ready-made sauces; margarine; packet snacks; non-carbonated sweetened beverages (soft drinks) and carbonated sweetened beverages (soft drinks); yogurts and other dairy drinks with added colouring and/or flavouring; frozen and ready-to-heat products such as pasta dishes, pizzas, hamburgers and breaded chicken or fish meat extracts such as nuggets, sausages and other sausages; loaves of bread, buns for hamburgers or hot dogs.

	industrial techniques are used in the manufacture of ultra-processed products, including extrusion, moulding and pre-frying.	

*** Adapted from:**

1. Brazilian Institute of Geography and Statistics. IBGE. Pesquisa de Orçamentos Familiares 2017-2018. Análise do Consumo Alimentar Pessoal no Brasil. IBGE; 2020.

2. Monteiro CA, Cannon G, Levy RB, Moubarac J-C, Louzada ML, Rauber F, et al. Ultra-processed foods: what they are and how to identify them. Public Health Nutr. abril de 2019;22(5):936–41.