

## SUPPLEMENTARY MATERIAL

### **Structuring the theoretical basis of the scale and elaboration of the items**

#### 1. Theoretical basis of the scale

The recommendations extracted from DGBP chapters 2) *Choosing foods*, 3) *From foods to meals*, and 4) *Modes of eating* are presented on the following box. The text and page number of the English version of the DGBP is included<sup>1</sup>.

Nº	Recommendation	Chapter/ page
1	Make natural or minimally processed foods, mainly of plant origin, the basis of your diet.	2/26
2	In some cases, minimal processing techniques, such as the industrial refining of grains, reduce the nutrient content of foods. In such cases, less processed foods are a better choice.	2/28
3	Whenever possible, buy organic and agroecological based foods, preferably directly from the producers. As more people seek organic and agro-ecological based foods, agro-ecologic family farmers will receive greater support, and food systems will become more socially and environmentally sustainable.	2/32
4	Use oils, fats, salt, and sugar in small amounts for seasoning and cooking foods and to create culinary preparations.	2/32
5	Eat culinary preparations.	2/34
6	Limit the use of processed foods, consuming them in small amounts as ingredients in culinary preparations or as part of meals based on natural or minimally processed foods.	2/36
7	Processed foods may displace natural or minimally processed foods, such as when sandwiches are consumed instead of freshly prepared dishes. This use of processed foods is not recommended in these Guidelines.	2/38
8	Avoid ultra-processed foods.	2/39
9	A practical way of distinguishing ultra-processed foods from processed foods is to consult the list of ingredients, which by law, should be provided on packaged food labels that possess more than one ingredient.	2/40
10	Always prefer natural or minimally processed foods and freshly made dishes and meals to ultra-processed foods.	2/47
11	Examples of healthy meals for the three main meals of the day (breakfast, lunch, and dinner) are described as suggestions.	3/55
12	Variations among food combinations are crucial. These variations substitute types of foods with similar nutritional compositions and culinary use to render the meal even healthier because varieties within the same food group imply a greater diversity in the supply of nutrients.	3/56
13	Fruits are a constant part of breakfast.	3/57
14	Either milk or cheese is a constant part of breakfast.	3/57
15	The combination of rice and beans is present in almost all examples of lunches and dinners.	3/59-60,62-63
16	Vegetables are present in all examples of lunch and dinner.	3/59-60,62-63





<sup>1</sup> Available at: [http://bvsm.s.saude.gov.br/bvs/publicacoes/dietary\\_guidelines\\_brazilian\\_population.pdf](http://bvsm.s.saude.gov.br/bvs/publicacoes/dietary_guidelines_brazilian_population.pdf)

17	Red meats (beef or pork) are restricted to one-third of the examples for lunch and dinner, giving priority to lean cuts and grilled or roasted preparations.	3/60
18	For small meals, the choice of foods should also follow the general recommendations of these Guidelines: opt for natural or minimally processed foods, limit the consumption of processed foods, and avoid ultra-processed foods.	3/64-65
19	It is very important to plan ahead what will be consumed during small meals, particularly when not at home, such as at work or at school. To refrain from consuming ultra-processed foods due to lack of options, pack and take fresh or dried fruits, natural or minimally processed foods, or a favoured dish.	3/65
20	Varying the choices of beans and other legumes is good nutritional practice and makes meals more varied and enjoyable.	3/66
21	Use generous amounts of onions, garlic, and favoured herbs and spices when making culinary preparations. It is a good strategy to avoid excessive use of oil and salt.	3/67,68-74
22	White rice and white wheat flour have lower amounts of dietary fibre and micronutrients, which are lost in the refining process. Less processed versions of these foods, such as brown rice and whole-wheat flour, are preferable.	3/70
23	Roots and tubers are best boiled or baked because they absorb a lot of oil or fat when fried.	3/72
24	Vegetables that are local or in season are cheaper and have more flavour. Organic vegetables and those that are produced agro-ecologically are particularly flavoursome and are produced in ways that protect the environment.	3/74-75
25	For their exceptional nutritional properties and extensive culinary versatility, vegetables are an excellent alternative to red meat in Brazil.	3/75
26	Fruit juices do not always provide the same benefits as whole fruit. Therefore, it is always best to consume the entire fruit.	3/77
27	Versions without fat or with less fat (skimmed or semi-skimmed) may be more appropriate for adults.	3/80
28	The best way to prepare fatty cuts is by roasting, grilling, or sautéing, while less fatty cuts may be used in stews.	3/81-82
29	The fat in poultry is mostly found in the skin; therefore, the skin is best discarded.	3/82
30	Because of the low-fat content and because they have a high proportion of healthy fats (unsaturated fat), fish and vegetables are excellent substitutes for red meats.	3/83
31	Similar to meat and fish, eggs are rich in high-quality proteins, minerals, and vitamins, particularly B complex, and are a good substitute for red meat.	3/83
32	The daily water balance is controlled by sophisticated sensors located in the brain and in different parts of the body. It is very important to pay attention to the first signs of thirst and to drink plenty of water.	3/85-86
33	Brazilians also consume water in the form of coffee and tea; added sugar should be reduced to a minimum or not added at all.	3/86
34	To protect the environment, non-disposable utensils such as glass cups or mugs should be used when drinking water, coffee, or tea.	3/86
35	Ultra-processed beverages such as soft drinks and various types of sweetened drinks are almost all water but contain sugar or artificial sweeteners and various additives and must not be considered a source of hydration.	3/86

36	Eat regularly and carefully. Always eat daily meals at similar times when possible.	4/92
37	Avoid 'snacking' between meals.	4/92
38	Eat slowly, with full attention, and enjoy eating without engaging in another activity.	4/92
39	It is better not to have ultra-processed foods at hand, when at home, at work, or at school. Good food choices to have at hand are fresh or dried fruits and unsalted nuts.	4/92
40	The more time that is taken to chew food, the greater the attention to the act of eating, and the longer it takes to eat a meal.	4/92
41	Eating a salad or soup or broth before the main course gives the body time for the food to be absorbed, which inhibits overeating.	4/92
42	Always prefer to eat in clean, comfortable, and quiet places.	4/93
43	Always prefer to eat in places where there is no stimulus to consume unlimited amounts of food.	4/94
44	Distractions such as using cell phones or watching television while eating are unhelpful and unhealthy.	4/95
45	Avoid eating while working, standing, walking, or driving.	4/96
46	Good advice to avoid overeating is to have one serving only or at least wait some time before taking a second serving, which is often more than is needed.	4/93
47	When eating out, prefer 'per kilo' buffet-style self-service restaurants where payment is by weight, and avoid places where unlimited food is offered for a set price.	4/94
48	Avoid 'fast food' outlets.	4/96
49	Prefer eating together with family, friends, or colleagues.	4/96
50	At home, share in acquisition, preparation, cooking and arrangements before and after eating.	4/96
51	Engage children and teenagers in food preparation.	4/98

## 2. Elaboration of the items

The set of 72 items kept before assessing content and face validity is shown in the following box. These steps were performed to excluded redundant items and rewrite others. The exploratory factor analysis (EFA) excluded items with factor loadings <0.4 or with cross loading. The confirmatory factor analysis (CFA) excluded items with the aim of eliminating empty cells. In this step, one item was excluded because of a low factor loading.

<b>LEGEND:</b>		
EFA: Exploratory factor analysis    CFA: Confirmatory factor analysis		
Excluded items		Kept items 
P: <i>Planning</i> dimension		
O: <i>Domestic organization</i> dimension		
M: <i>Modes of eating</i> dimension		
C: <i>Food choices</i> dimension		
	E	C
	F	F
	A	A
<b>Items related to the content of the Chapter 2 – Choosing foods</b>		
I usually consult the ingredients list on food labels before purchasing.		

I usually use plastic cups to drink beverages, such as water, juices, coffee or soda.		
During my daily routine, it is more common for me to eat almost-ready-to-eat food rather than to cook something.		
When I have lunch or dinner away from home, I usually eat homemade food.		
My dinner is usually composed of coffee, bread, milk and fillings such as ham and cheese.		
It is more common for me to eat bread made from wheat flour, yeast, water and salt rather than packaged loaf bread.		
At home we usually use natural spices such as oregano, parsley, rosemary and other aromatic herbs.		
We usually prepare homemade breads at home.		
There is at least one person who can cook at home.		
There are places near my home where I usually shop for fruits and vegetables.		
It is easy for me to shop at street markets or vegetable stands.		
I plant or grow foods, such as seasoning herbs, fruits, vegetables, milk or eggs.		
I usually buy foods at local markets or grocery stores.		
I usually buy most of my food items at supermarkets.		
I usually buy fruits and vegetables at fruit shops or vegetable stands.		
I prefer buying fruits and vegetables in season.		
At home, we usually buy frozen foods, such as lasagne, pizza or nuggets.	c	
At home, we usually have biscuits, chips or chocolate.	c	
I usually take sandwiches, savoury snacks or pizza for lunch or dinner instead of freshly prepared dishes.	c	c
I usually drink soft drinks.	c	c
I usually drink industrialized juices, such as those that are powdered or packed in boxes, bottles or tins.	c	c
When I drink coffee or tea, I usually add sugar.	c	c
I usually eat biscuits that are either sweet or savoury.	c	c
I usually eat candies, chocolates and other sweets.	c	c
I usually go to fast-food restaurants or snack bars.	c	c
When I choose fruits and vegetables, I prefer those that are organic.	c	c
I usually buy foods at the street market.	o	o
When I choose fruits and vegetables, I prefer those that come from local farmers.	p	p
<b>Items related to the content of the Chapter 3 – From foods to meals</b>		
I usually vary the vegetables that I eat.		
I eat vegetables as part of my lunch or dinner.		
When I eat chicken, I discard the skin.		
I often have dinner.		
At breakfast, I usually either drink milk or eat cheese.		
I usually vary the fruits that I eat.		
I commonly use brown rice at home.		
It is more common for me to drink skimmed or semi-skimmed milk rather than whole milk.		
It is more common for me to eat cassava fried than cooked.		
It is more common for me to drink fruit juices rather than to eat a whole fruit.		
When I am thirsty, I prefer to drink soda or juice rather than water.		

The type of meat that I eat most frequently is red meat (beef, pork and lamb).		
I usually eat fish.		
Sometimes I eat eggs rather than meat.		
It is common for me to include vegetables with meat dishes.		
Rice and beans usually compose my lunch or dinner.	o	
It is common for me to eat rice and beans as part of my dinner.	o	
I often have breakfast.	m	
I often have lunch.	m	
I usually vary the consumption of beans among peas, lentils and chickpeas.	p	p
I usually eat fruit at breakfast.	p	p
When I eat small meals during the day, I usually have fruits or nuts.	p	p
We commonly use whole-meal wheat flour at home.	p	p
<b>Items related to the content of the Chapter 4 – Modes of eating</b>		
I usually plan my daily meals.		
I usually eat daily meals at similar times.		
I do not have a routine to eat.		
I usually go to "per kilo" self-service restaurants.		
I frequently eat quickly because I have little time.		
I usually watch TV whilst having breakfast/lunch/dinner.		
I usually use my smartphone, laptop or tablet whilst having breakfast/lunch/dinner.		
I always try to eat with company when possible.		
I usually eat meals in the car, public transport or while I am walking.	m	
We usually cook at home.	o	
I usually engage in food purchasing for home.	o	
I usually eat breakfast/lunch/dinner at the table.	m	m o
I usually eat breakfast/lunch/dinner seated on the couch in the living room or in bed.	m	m
I usually eat breakfast/lunch/dinner at my work's or study's desk.	m	m
I often snack between meals.	c	c
I deal with personal issues during meal time, and therefore, I usually end up not eating anything.	m	m
I usually skip at least one of the main meals (lunch or dinner).	m	m
I usually carry some food with me in case I get hungry during the day.	p	p
I try to eat slowly.	m	p m
I usually engage in meal preparation at home.	o	o
We share tasks which involve the preparation and consumption of foods at home.	o	o