

Annex I. Description and development of the final questionnaires FBFC-ARFSQ-18 and PSIMP-ARFSQ-10

Table IA. Number of items, sections and elements on each item and criteria followed for FBFC-ARFSQ-18 and PSIMP-ARFSQ-10 during questionnaires design and validity

FBFC-ARFSQ-18				PSIMP-ARFSQ-10				
FBFC-ARFSQ-18 ITEMS	Food, beverages, food supplements or elements on each item	Researchers' insights (criteria followed)		PSIMP-ARFSQ-10 ITEMS	Pathologies, and signs or symptoms in each group	Researchers' insights (criteria followed)		
		Included and excluded elements				Included and excluded elements		
		Included	Excluded			Included	Excluded	
General Instructions Section	-	Estimated time to complete the whole questionnaire (15 minutes), sections description, period considered to answer the questions (last 6 months) and brief sentences (all sentences in this section required a maximum of 30 words)	Complex words, technical explanations and long sentences (instruction sentences with more than 30 words were excluded)	General Instructions Section	-	Estimated time to complete the whole questionnaire (5 minutes), sections description, explanation of responding yes only if having a medical diagnosis in the "Pathologies" sections and brief sentences (all sentences in this section required a maximum of 30 words)	Complex words, technical explanations and long sentences (instruction sentences with more than 30 words were excluded)	
Section 1. EATING HABITS		Period considered to answer the eating habits questions (last 6 months) and brief sentences (all sentences in this section required a maximum of 30 words)		Section 1. DIGESTIVE SYSTEM		14 questions of single choice	Diseases/pathologies of the digestive system with medical diagnosis linked to ARFS. (i.e., irritable bowel syndrome, Crohn's disease, intestinal permeability, ulcerative colitis, chronic gastritis, esophagitis, gastroesophageal reflux disease, short bowel syndrome, small intestinal bacterial overgrowth, food protein induced enterocolitis syndrome, hiatal hernia, enteropathy, dysgeusia)	Additional diseases/pathologies of the digestive system with medical diagnosis can be described and reported by selecting the option "Other diseases/pathologies of the digestive system"
Instructions for Section 1. EATING HABITS	-		ITEM 1. § DISEASES/PATHOLOGIES OF THE DIGESTIVE SYSTEM. Please select below if you have any of the following diseases/pathologies of the digestive system:	ITEM 2. ¶ SYMPTOMS AND SIGNS OF THE DIGESTIVE SYSTEM. Please select below if you have any of the following symptoms or signs of the digestive system:				
ITEM 1. How many main meals a day do you usually eat?	1 question, 3 elements of single choice	Breakfast, lunch, dinner	Snacks between meals: mid-morning snack, mid-afternoon snack, supper, bedtime snack	ITEM 2. ¶ SYMPTOMS AND SIGNS OF THE DIGESTIVE SYSTEM. Please select below if you have any of the following symptoms or signs of the digestive system:	16 questions of single choice	Symptoms and signs of the digestive system linked to ARFS. (i.e., abdominal swelling, abdominal pain, abdominal colic, heartburn, nausea, vomit, diarrhoea, constipation, flatulence, meteorism, abdominal bulge, itchy mouth, itchy tongue, itchy throat, xerostomia)	Additional symptoms or signs of the digestive system can be described and reported by selecting the option "Other symptoms or signs of the digestive system"	
ITEM 2. How many inbetween meals (snacks between meals) a day do you usually have?	1 question, 4 elements of single choice	Snacks between meals: mid-morning snack, mid-afternoon snack, supper, bedtime snack	Breakfast, lunch, dinner	Section 2. SKIN AND SUBCUTANEOUS TISSUE		14 questions of single choice	Diseases/pathologies of the skin and subcutaneous tissue with medical diagnosis linked to ARFS. (i.e., atopic dermatitis, acne, psoriasis, rosacea, pityriasis lichenoid, melasma, actinic keratosis, molluscum contagiosum, cutaneous candidiasis, hirsutism, alopecia, vitiligo, athlete's foot)	Additional diseases/pathologies of the skin and subcutaneous tissue with medical diagnosis can be described and reported by selecting the option "Other diseases/pathologies of the skin and subcutaneous tissue"
				ITEM 3. § DISEASES/PATHOLOGIES OF THE SKIN AND SUBCUTANEOUS TISSUE. Select below if you have any of the following diseases/pathologies of the skin and subcutaneous tissue:	ITEM 4. ¶ SYMPTOMS AND SIGNS OF THE SKIN AND SUBCUTANEOUS TISSUE. Please select below if you have any of the following symptoms			
ITEM 3. Do you do or have you done, during the last 6 months, any of these following diets with the help or supervision of a professional such as: general practitioner, specialist	1 question, 12 elements of multiple choice	Trendy restrictive diets (i.e., high-protein diet, ketogenic diet, vegan diet, gluten-free diet, lactose-free diet, fructose-free diet, weight control diet, diet with food supplements, DASH diet)	Additional diets can be described and reported by selecting the option "Another diet with the help or supervision of a professional"	ITEM 4. ¶ SYMPTOMS AND SIGNS OF THE SKIN AND SUBCUTANEOUS TISSUE. Please select below if you have any of the following symptoms	19 questions of single choice	Symptoms and signs of the skin and subcutaneous tissue linked to ARFS. (i.e., eczema, urticaria, skin redness, pruritus, rash, skin spots, skin bumps, erythema, dry skin, warts, eyelid swelling, ocular pruritus, yellow eyes, lip swelling, lip	Additional symptoms or signs of the skin and subcutaneous tissue can be described and reported by selecting the option "Other symptoms or signs of the skin and subcutaneous tissue"	

physician, nutritionist, researcher or other?				or signs of the skin or subcutaneous tissue:		angioedema, tongue (swelling), palate (swelling), mandibular (swelling)	
ITEM 4. On a regular basis, you select or have selected, during the last 6 months, food and beverages products:	1 question, 10 elements of multiple choice	Current foodstuff labels (i.e., gluten-free, lactose-free, fructose-free, phenylalanine-free, low fat, low sugar, low salt)	Additional labels can be described and reported by selecting the option "Another/Other features"	Section 3. NERVOUS SYSTEM		Diseases/pathologies of the nervous system with medical diagnosis linked to ARFS. (i.e., depression, anxiety, panic disorder, migraines, epilepsy, stuttering or stammering)	Additional diseases/pathologies of the nervous system with medical diagnosis can be described and reported by selecting the option "Other diseases/pathologies of the nervous system"
				ITEM 5. § DISEASES/PATHOLOGIES OF THE NERVOUS SYSTEM. Select below if you have any of the following diseases/pathologies of the nervous system:	7 questions of single choice		
ITEM 4.1. Select the option that best describes the reason why you choose or have chosen this type of food and beverages during the last 6 months:	1 question, 10 elements of single choice	Common reasons why choosing the selected foodstuff labels (i.e., health, trend, lose weight, to improve quality of life, to reduce the risk of diseases, to improve symptoms and signs, to take care of the animals, to take care of the environment)	Additional reasons can be described and reported by selecting the option "Another reason"	ITEM 6. ¶ SYMPTOMS AND SIGNS OF THE NERVOUS SYSTEM. Please select below if you have any of the following symptoms or signs of the nervous system:	11 questions of single choice	Symptoms and signs of the nervous system linked to ARFS. (i.e., body pain, weakness, hot flushes, cold and/or sweaty hands, headache, dizziness, tiredness, fatigue, lack of concentration, fainting)	Additional symptoms or signs of the nervous system can be described and reported by selecting the option "Other symptoms or signs of the nervous system"
ITEM 5. † During the last 6 months, in general, what type of preserved food and beverages have you chosen for each type or group of food and beverages? You can select more than one option.	1 question, 12 elements of multiple choice	Packaging of the foodstuff (i.e., fresh, frozen, canned), the content of the processed food and beverages (i.e., salt, sugar, vinegar), the nature of the packaging (i.e., vacuum) and the material of packaging (i.e., can, plastic, glass, paper)	Additional packaging can be explained and reported by selecting the option "Other"	Section 4. RESPIRATORY SYSTEM		Diseases/pathologies of the respiratory system with medical diagnosis linked to ARFS. (i.e., asthma, rhinitis, pharyngitis, laryngitis, bronchitis, sinusitis)	Additional diseases/pathologies of the respiratory system with medical diagnosis can be described and reported by selecting the option "Other diseases/pathologies of the respiratory system"
				ITEM 7. § DISEASES/PATHOLOGIES OF THE RESPIRATORY SYSTEM. Select below if you have any of the following diseases/pathologies of the respiratory system:	7 questions of single choice		
ITEM 5.1. Select the option that best describes the reason why you choose or have chosen this type of preserved food and beverage during the last 6 months:	1 question, 9 elements of single choice	Common reasons why choosing the selected foodstuff preservation (i.e., health, trend, price, quality, comfort, to take care of the animals, to take care of the environment)	Additional reasons of food and beverages choices can be explained and reported by selecting the option "Another reason"	ITEM 8. ¶ SYMPTOMS AND SIGNS OF THE RESPIRATORY SYSTEM. Select below if you have any of the following symptoms or signs of the respiratory system:	13 questions of single choice	Symptoms and signs of the respiratory system linked to ARFS. (i.e., chest pain, chest tightness, sneezing, sleep apnoea, snoring, dyspnoea, shortness of breath, acute cough, chronic cough, stridor, hoarseness, wheezing)	Additional symptoms or signs of the respiratory system can be described and reported by selecting the option "Other symptoms or signs of the respiratory system"
Section 2. FREQUENCY OF CONSUMPTION OF FOOD AND BEVERAGES		Period considered to answer the frequency of consumption of food and beverages (last 6 months), an example of how to calculate the frequency of consumption of food and beverages during the summer season was described and brief sentences (all sentences in this section required a maximum of 30 words)	Complex words, technical explanations and long sentences (instruction sentences with more than 30 words were excluded)	Section 5. OTHER HUMAN BODY SYSTEMS		Other diseases/pathologies with medical diagnosis linked to ARFS. (i.e., anaphylaxis, arthritis, osteoarthritis, type I diabetes, type II diabetes, hypertension, hypotension, hypothyroidism, hyperthyroidism, obesity, overweight, underweight, overactive bladder, urinary infection, tendinitis, conjunctivitis, otitis)	Additional diseases/pathologies with medical diagnosis can be described and reported by selecting the option "Other diseases/pathologies"
Instructions for Section 2. FREQUENCY OF CONSUMPTION OF FOOD AND BEVERAGES				ITEM 9. § OTHER DISEASES/PATHOLOGIES. Select below if you have any of the following diseases/pathologies:	18 questions of single choice		
ITEM 6. Ω GROUP 1) BREAD, CEREALS, SEEDS AND DERIVATIVES	18 questions of single choice	Cereals, seeds and derivatives that are available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., wheat, buckwheat, spelt, rye, barley, oats, quinoa, rice, corn, soy, sesame, mustard seeds, sunflower (seeds, ****, baker's yeast and derivatives)	Additional cereals, seeds and derivatives can be described and reported by selecting the option "Other food or beverages of Group 1. Specify." (e.g., millet, sorghum)	ITEM 10. ¶ OTHER SYMPTOMS AND SIGNS. Select below if you have any of the symptoms or signs:	7 questions of single choice	Other symptoms and signs linked to ARFS. (i.e., low back pain, joint pain, weight loss resistance, weight gain resistance, cramps in extremities, peripheral oedema ***)	Additional symptoms or signs can be described and reported by selecting the option "Other symptoms or signs"

<p align="center">ITEM 7. Ω GROUP 2) VEGETABLES, LEGUMES ,* FRUITS* AND DERIVATIVES</p>	<p>45 questions of single choice</p>	<p>Vegetables, legumes, fruits and derivatives that are available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., tomato, carrot, potato, garlic, onion, leek, celery, lettuce, cabbage, broccoli, chard, cauliflower, brussels, asparagus, peppers, eggplant, zucchini, pumpkin, cucumber, artichoke, mushrooms, ginger, peas, green beans, white/red/pinto/black beans, lentils, chickpeas, lupines, banana, orange, lemon, strawberry, grapes, apple, peach, kiwi, pineapple, cherry, plum, watermelon, melon, mango, figs, dates and derivatives)</p>	<p>Additional vegetables, legumes, fruits and derivatives can be described and reported by selecting the option "Other food or beverages of Group 2. Specify." (e.g., rhubarb, guava)</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>
<p align="center">ITEM 8. Ω GROUP 3) MILK AND DAIRY DERIVATIVES</p>	<p>37 questions of single choice</p>	<p>Milk and dairy derivatives that are available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., cow's, goat's, sheep's, mare's and other animal's milk and derivatives)</p>	<p>Additional milk and dairy derivatives can be described and reported by selecting the option "Other food or beverages of Group 3. Specify."</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>
<p align="center">ITEM 9. Ω GROUP 4) EGGS AND EGG PRODUCTS</p>	<p>11 questions of single choice</p>	<p>Eggs and egg products that are available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., chicken, quail, egg white, egg yolk. Eggs of other birds: duck, turkey, goose and ostrich eggs and egg-based products: flan, cake)</p>	<p>Additional eggs and egg products can be described and reported by selecting the option "Other food or beverages of Group 4. Specify."</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>
<p align="center">ITEM 10. Ω GROUP 5) MEAT</p>	<p>10 questions of single choice</p>	<p>Meat that is available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., beef, pork, goat, sheep, chicken, turkey, duck, rabbit and wild game meat: ostrich, wild boar, roe, deer, venison, buffalo, partridge, pigeon, quail)</p>	<p>Additional meat can be described and reported by selecting the option "Other food or beverages of Group 5. Specify." (e.g., guinea pig)</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>
<p align="center">ITEM 11. Ω GROUP 6) FISH, CRUSTACEANS AND MOLLUSCS</p>	<p>12 questions of single choice</p>	<p>Fish, crustaceans and molluscs that are available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., salmon, trout, tuna, cod, shrimp, squid, octopus, mussels. Other semi-fatty fish: sardines, anchovies, bonito, swordfish, turbot, emperor, sea</p>	<p>Additional fish, crustaceans and molluscs can be described and reported by selecting the option "Other food or beverages of Group 6. Specify." (e.g., shark)</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>	<p align="center">-</p>

		bass, sea bream, red mullet. Other white fish: hake, monkfish, perch, acedia, rooster, sole, sea bream, tilapia, sturgeon, haddock, surimi, eels. Other crustaceans and molluscs: crab, spider crab, clams, oysters, scallops, cuttlefish and derivatives)					
ITEM 12. Ω GROUP 7) BEVERAGES	25 questions of single choice	Beverages that are available for consumption in the Spanish area and that have components of beverages susceptible to trigger ARFS. (i.e., tap water, treated water, bottled water, juices and nectars, refreshing drinks, sports drinks, energy drinks, coffee, coffee with milk, coffee with lactose-free milk, tea, tea with milk, tea with lactose-free milk, infusions, infusions with milk, infusions with lactose-free milk, beer, alcohol-free beer, gluten-free beer, wine, cava wine, champagne, low alcohol content drinks and high alcohol content drinks.	Additional beverages can be described and reported by selecting the option "Other food or beverages of Group 7. Specify." (e.g., tequila)	-	-	-	-
ITEM 13. Ω GROUP 8) NUTS OR DRIED FRUITS	8 questions of single choice	Nuts that are available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., peanut, almond, hazelnut, nuts, cashew nut, pistachios)	Additional nuts can be described and reported by selecting the option "Other food or beverages of Group 8. Specify."	-	-	-	-
ITEM 14. Ω GROUP 9) SUGAR, DESSERTS, SWEETS AND SWEETENERS	11 questions of single choice	Sugar, desserts, sweets and sweeteners that are available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., white sugar, brown sugar, fructose, tabletop sweeteners, bee honey, cane honey, jelly, dark chocolate, white chocolate, milk chocolate)	Additional sugar, desserts, sweets and sweeteners can be described and reported by selecting the option "Other food or beverages of Group 9. Specify." (e.g., sweet syrups)	-	-	-	-
ITEM 15. Ω GROUP 10) OTHER FOOD AND BEVERAGES	21 questions of single choice	Other food and beverages that are available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., olives, anchovy stuffed olives, olive oil (virgin, extra ** virgin) , vegetable margarine, wine vinegar, apple vinegar, rice vinegar, vanilla, salt, black pepper, sweet paprika, turmeric, cumin, cayenne, cilantro, parsley, mayonnaise. Other spices: thyme, bay leaf, oregano.	Other food and beverages can be described and reported by selecting the option "Other food or beverages of Group 10. Specify." (e.g., sweet syrups)	-	-	-	-

		Other sauces: Caesar, barbecue, rose. Hot sauces: tabasco, curry, chili)					
Section 3. FREQUENCY OF CONSUMPTION OF FOOD SUPPLEMENTS		Period considered to answer the frequency of consumption of vitamins, minerals or food supplements (last 6 months) and brief sentences (all sentences in this section required a maximum of 30 words)	Complex words, technical explanations and long sentences (instruction sentences with more than 30 words were excluded)	-	-	-	-
Instructions for Section 3. FREQUENCY OF CONSUMPTION OF FOOD SUPPLEMENTS	-						
ITEM 16. Have you taken any vitamins, minerals or any food supplement in the last 6 months?	1 question of single choice	Yes/No question. If positive answer, proceed to answer items 17 and 18. If negative answer, this is the end of the questionnaire.	-	-	-	-	-
ITEM 17. ▽ How often have you taken the following vitamins, minerals, or food supplements in the past 6 months?	29 questions of single choice	Food supplements that are available for consumption in the Spanish area and that have components of food or beverages susceptible to trigger ARFS. (i.e., vitamin A, D, E, K, C, B complex, mineral-free vitamins, multivitamins with minerals, iron, calcium, magnesium, hyaluronic acid, omega-3, omega-6, omega-9, creatine, caffeine, nitrate, beta-alanine, L-carnitine, L-glutamine, sodium bicarbonate, BCAAs or branch chain aminoacids, collagen, digestive enzymes, flavonoids and antioxidants, probiotics, spirulina, chlorella and other food supplements)	Additional food supplements can be described and reported by selecting the option "Other food supplements. Specify:" (e.g., reishi capsules)	-	-	-	-
ITEM 18. Enter the name, concentration and brand name of the vitamins, minerals and/or food supplements that you have taken during the last 6 months.	open question	-	-	-	-	-	-

FBFC-ARFSQ-18: Food and Beverages Frequency Consumption to identify Adverse Reactions to Foodstuffs Questionnaire. PSIMP-ARFSQ-10: Pathologies and Symptomatology associated with Adverse Reactions to Foodstuffs Questionnaire. ARFS: Adverse reactions to foodstuffs. *Relocated (from items 19 and 20) to item 7 during Phase 1 of FBFC-ARFSQ-18. **Relocated (from item 21) to item 15 during Phase 1 and separated into independent question inside item 15 during Phase 4 of FBFC-ARFSQ-18. ***Relocated from item 4 to item 10 during Phase 4 of PSIMP-ARFSQ-10. ****Separated into independent question inside item 6 during Phase 4 of FBFC-ARFSQ-18. Scales used in FBFC-ARFSQ-18: †Item 5: Fresh, Frozen, Dehydrated or dried, Smoked, Canned, Pickle (salt and/or vinegar), In syrup or sugar, Plastic packaging, Vacuum packed, Glass bottle, Paperboard and/or paper packaging, Other; Ω Items 6-15: Never, <1 time a month, 1-3 times/month, 1 time/week, 2-3 times/week, 4-6 times/week, 1 time/day, Always (more than 1 time/day); ▽Item 17: Never, 1 time/day, 2 times/day, 3 times/day, 4 times/day, 5 times/day, 6 times/day, 7 times/day, 8 times/day, More than 9 times/day. Scales used in PSIMP-ARFSQ-10: §Items 1, 3, 5, 7, 9: Yes-with medical diagnosis, No; ¶Items 2, 4, 6, 8, 10: Yes, No