

Appendix-1a Components of Diet Quality Index-International (DQI-I)

Component	Score	Scoring criteria
Variety	0–20 points	
Overall food group variety (meat/poultry/fish/eggs; dairy/beans; grain; fruit; vegetable)	0–15 points	≥ 1 serving from each food group/d = 15 Any 1 food group missing/d = 12; Any 2 food groups missing/d = 9; Any 3 food groups missing/d = 6; ≥ 4 food groups missing/d = 3; None from any food groups = 0
Within-group variety for protein source (meat, poultry, fish, dairy, beans, eggs)	0–5 points	≥ 3 different sources/d = 5; 2 different sources/d = 3; From 1 source/d = 1; None = 0
Adequacy	0–40 points	
Vegetable group ^{3,4}	0–5 points	≥ 3 –5 servings/d = 5, 0 servings/d = 0; $\geq 100\%$; <100–50%; <50%
Fruit group ^{3,4}	0–5 points	≥ 2 –4 servings/d = 5, 0 servings/d = 0; $\geq 100\%$; <100–50%; <50%
Grain group ^{3,4}	0–5 points	≥ 6 –11 servings/d = 5, 0 servings/d = 0; $\geq 100\%$; <100–50%; <50%
Fiber ^{3,4}	0–5 points	≥ 20 –30 g/d = 5, 0 g/d = 0; $\geq 100\%$; <100–50%; <50%
Protein ³	0–5 points	$\geq 10\%$ of energy/d = 5, 0% of energy/d = 0; $\geq 100\%$; <100–50%; <50%
Iron ^{3,5}	0–5 points	$\geq 100\%$ RDA (AI)/d = 5, 0% RDA (AI)/d = 0; $\geq 100\%$; <100–50%; <50%
Calcium ³	0–5 points	$\geq 100\%$ AI/d = 5, 0% AI/d = 0; $\geq 100\%$; <100–50%; <50%
Vitamin C ^{3,6}	0–5 points	$\geq 100\%$ RDA (RNI)/d = 5, 0% RDA (RNI)/d = 0; $\geq 100\%$; <100–50%; <50%
Moderation	0–30 points	
Total fat	0–6 points	$\leq 20\%$ of total energy/d = 6; >20–30% of total energy/d = 3; >30% of total energy/d = 0
Saturated fat	0–6 points	$\leq 7\%$ of total energy/d = 6; >7–10% of total energy/d = 3; >10% of total energy/d = 0
Cholesterol	0–6 points	≤ 300 mg/d = 6; >300–400 mg/d = 3; >400 mg/d = 0
Sodium	0–6 points	≤ 2400 mg/d = 6; >2400–3400 mg/d = 3; >3400 mg/d = 0

Component	Score	Scoring criteria
Empty calorie foods	0–6 points	$\leq 3\%$ of total energy/d = 6; $>3\text{--}10\%$ of total energy/d = 3; $>10\%$ of total energy/d = 0
Overall balance	0–10 points	
Macronutrient ratio ⁷ (carbohydrate:protein:fat)	0–6 points	55 ~ 65:10 ~ 15:15 ~ 25 = 6; 52 ~ 68:9 ~ 16:13 ~ 27 = 4; 50 ~ 70:8 ~ 17:12 ~ 30 = 2; Otherwise = 0
Fatty acid ratio (PUFA:MUFA:SFA)	0–4 points	P/S = 1 ~ 1.5 and M/S = 1 ~ 1.5 = 4; Else if P/S = 0.8 ~ 1.7 and M/S = 0.8 ~ 1.7 = 2; Otherwise = 0

MUFA, monounsaturated fatty acids; SFA, saturated fatty acids; P/S, ratio of PUFA to SFA intake; M/S, ratio of MUFA to SFA intake.

Appendix 1b Construct of the Recommendation Compliance Index (RCI)

Components	National intake goals	Scoring criteria
Food-based recommendations		
Grains products ^a	≥ 3 times/day	[0-1[times/d=0; [1-3[times/d= 0.5; [3-6[times/d=1; ≥ 6 times/d= 0.5
Dairy products	≥ 3 times/day	[0-1[times/d=0; [1-2.5[times/d= 0.5; [2.5-3.5] times/d= 1; >3.5 times/d= 0.5
Meat, poultry, fish and eggs	1-2 times/day	0=0;]0-1[times/d= 0.5; [1-2] times/d= 1; >2 times/d= 0
Sea products	≥ 2 times/wk	<2 times/wk=0; ≥ 2 times/wk=1
Fruit and/or vegetables	≥ 5 servings/day	[0-3.5[servings/d=0, [3.5-5[servings/d=0.5; [5-7.5[servings/d=1; ≥7.5 servings/d=2
Salt ^{b1}	5-10 g/day	>12g/d=-0.5;]10-12] g/d=0; [5-10] g/d= 1; < 5g/d=1
Non-alcoholic drinks	≥ 1.5 L/d	<1L/d= 0; [1-1.5[L/d= 0.5; ≥ 1.5 L/d=1
Nutrient-based recommendations		
Total fat ^c	≤35 (%E)	>35 (%E)= 0; ≤35 (%E)=1
Saturated fatty acid	≤10 (%E)	> 10 (%E)=0; ≤10 (%E)=1
Total carbohydrate ^d	> 45 (%E)	≤ 45 (%E)=0;]45-75] (%E)=1; > 75 (%E)=0.5
Simple sugar ^e	≤10 (%E)	>10 (%E)=0; ≤10 (%E)=1
Total protein	15-20 (%E)	<15 (%E)=0; [15-20] (%E)=1; >20 (%E)=0
Total fibers	>25 g/day	≤25 g/d=0; >25 g/d=1

^a Grains products refer to all types of bread, cereals, muesli, pastries, potatoes, rice, pasta and pulses.

^{b1} This variable doesn't include the added salt to alimentation. ^{b2} The scoring criteria and cut-off points were based on PNNS-GS with adaptation⁽¹²⁾.

^c Refers to the total fat of the diet (oils and fats added and contained in the foods).

^d The scoring criteria and cut-off points were defined according to the WHO recommendations⁽⁶²⁾.

^e The term "simple sugar" refers to all monosaccharides and disaccharides naturally present in foods (honey, syrups and fruit) and added by the manufacturer, cook or consumer.

%E Percentage of total daily energy intake. Brackets can be read as follows: "[x]" or "x[" : boundary not included, and "[x]" and "x]": boundary included.

Appendix 1c Scoring Criteria for the DASH-Style Diet

Component	Foods	Scoring criteria
Fruits	All fruits and fruit juices	Q1 = 1 point
Vegetables	All vegetables except potatoes and legume	Q2 = 2 points
Nuts and legumes	Nuts and peanut butter, dried beans, peas	Q3 = 3 points
Whole grains	Brown rice, dark breads, cooked cereal, whole grain cereal, other grains, popcorn	Q4 = 4 points
Low-fat dairy	Skim milk, yogurt, cottage cheese	Q5 = 5 points
		Reverse scoring
Sodium ^a	Sum of sodium content of all foods in FFQ	Q1 = 5 points
Red and processed meats ^a	Beef, pork, lamb, deli meats, organ meats, bacon	Q2 = 4 points
Sweetened beverages ^a	Carbonated and noncarbonated sweetened beverages	Q3 = 3 points
		Q4 = 4 points
		Q5 = 1 point

DASH, Dietary Approaches to Stop Hypertension; FFQ, food frequency questionnaire; Q, quintile.

^a Higher quintiles represent higher intake; however, in constructing the DASH score, high intake and high quintiles received lower scores.

Appendix 1d Mediterranean diet

Food	Mediterranean Diet	Scoring criteria
Cereals	Bread, cereal, crisp bread, rice cakes, pastry, rice, pasta	Above median = 1, below median = 0
Dairy	Milk, yoghurt, cheese	Above median = 0, below median = 1
Meat	Pork, beef, veal, chicken, turkey, mince, rabbit, lamb, cold meats (processed and unprocessed)	Above median = 0, below median = 1
Fish	White fish, smoked fish, shellfish, seafood, canned fish	Above median = 1, below median = 0
Pulses	Lentils, chick peas, dried beans, peas, corn	Above median = 1, below median = 0
Vegetables	Peppers, tomatoes, carrots, salad, green leafy vegetables, cabbage, aubergines, beans, onions, avocado, sweet corn, onion, zucchini	Above median = 1, below median = 0
Fruits and nuts	Orange, mandarin, grapefruit, apple, pear, banana, berries (fresh/ frozen), pineapple, kiwi, melon, peach, plum, nectarine, apricot, figs, grapes, raisins/ sultanas/ currents, fruits in syrup/ juice/ water, dried fruit, nuts unsalted/ salted & cooked	Above median = 1, below median = 0
MUFA:SFA	Ratio of MUFA to SFA	Above median = 1, below median = 0
Alcohol	Males: 10-50 g/day; Females: 5-25 g/day	Within range = 1, outside range = 0

MUFA, monounsaturated fatty acids; SFA, saturated fatty acids

Appendix 1e Sequence of steps in creating the Dietary Inflammatory Index

1. Update articles through 2010 in the journal review database resulting in 1943 articles linking to a total of 45 food parameters.

2. Calculate the pro-inflammatory, anti-inflammatory, and null effects for each of the 45 food parameters and tally the total weighted number of articles contributing to each category based on the study design (see Table 1 for design weights) and the number of articles using that design (see Figure 2 for example).

3. Calculate the pro-inflammatory and anti-inflammatory fractions for each food parameter (see *Calculation of Food Parameter-Specific Overall Inflammatory Effect Scores and Food Parameter-Specific Overall Inflammatory Effect Scores* for description of this step and step 4; Figure 2 for example)

4. Calculate the “food parameter-specific overall inflammatory effect score” by subtracting the anti-inflammatory fraction from the pro-inflammatory fraction. To account for literature robustness, if the total weighted number of articles is <236 then the raw overall inflammatory effect score is multiplied by the total weighted number of articles divided by 236. The resulting value, i.e., the “overall food parameter-specific inflammatory effect score” is then used in the subsequent calculations

5. Develop a world composite database for the 45 food parameters based on data from 11 countries and calculate world mean and standard deviation for each of the 45 food parameters.

Dietary data from an individual study participant is now made available to the scoring algorithm.

6. Based on available dietary intake data calculate z-score and centered percentiles for each of the food parameters for each individual in the study or survey based on the world average and standard deviation.

7. Multiply centered percentile value for each food parameter by respective “overall food parameter-specific inflammatory effect score” to obtain “food parameter-specific DII score.”

8. Sum all of the “food parameter-specific DII scores” to create the “overall DII score” for an individual.