**Table S1. Components of the plant-based indices: PDI, hPDI, and uPDI 1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Plant Food Groups** | **Description with examples**  | **Recommendation for 2,000 kcal diet [1]** | **PDI**  | **hPDI**  | **uPDI** |
| **Healthy**  |  |  |  |  |  |
| Whole grains | Whole grain breakfast cereal, other cooked breakfast cereal, cooked oatmeal, dark bread, brown rice, other grains, bran, wheat germ, popcorn, oatmeal soap, local whole grain dishes | ≥ 3 oz/day  | Positive scores | Positive scores | Reverse scores |
| Fruits | Fresh fruits (e.g. grapes, prunes, bananas, cantaloupe, watermelon, apples, pears, oranges, grapefruit, strawberries, blueberries, peaches, apricots, dates and plums) and dried fruits (e.g. raisins). | 2 cups/day  | Positive scores | Positive scores | Reverse scores |
| Vegetables | Tomatoes, tomato juice, tomato sauce, broccoli, cabbage, cauliflower, Brussel’s sprouts, carrots, mixed vegetables, -, yellow/winter squash, eggplant, zucchini, -, sweet potatoes, spinach cooked, spinach raw, kale, iceberg /head lettuce, romaine or leaf lettuce, celery, mushrooms, beets, alfalfa sprouts, garlic, avocado and corn | 2½ cups/day  | Positive scores | Positive scores | Reverse scores |
| Nuts | Nuts, peanut butter | 1 oz/day  | Positive scores | Positive scores | Reverse scores |
| Legumes | String beans, tofu, soybeans, beans, lentils, peas and lima beans, lentil soap, falafel, hummus. | 0.9 oz/day  | Positive scores | Positive scores | Reverse scores |
| Vegetable oils | Oil-based salad dressing, vegetable oil used for cooking | 27 g/day | Positive scores | Positive scores | Reverse scores |
| Tea and coffee | Tea, coffee, Arabic coffee, and decaffeinated coffee | 2 cups/day  | Positive scores | Positive scores | Reverse scores |
| **Less healthy** |  |  |  |  |  |
| Fruit juices | Apple juice, orange juice, grapefruit juice, other fruit juices | 223 gm/day | Positive scores | Reverse scores | Positive scores |
| Refined grains | Refined grain breakfast cereal, white bread, bagels, rolls, muffins, biscuits, white rice, pancakes, waffles, crackers, and pasta | ≤ 85 gm/day | Positive scores | Reverse scores | Positive scores |
| Potatoes | French fries, baked and mashed potatoes, potato and corn chips | 90 gm/day | Positive scores | Reverse scores | Positive scores |
| Sugary beverages | Colas with caffeine and sugar, colas without caffeine but with sugar, other carbonated beverages with sugar, noncarbonated fruit drinks with sugar | <1 cup/day  | Positive scores | Reverse scores | Positive scores |
| Sweets and desserts | Chocolates, candy bars, candy without chocolate, cookies (home-baked and ready-made), brownies, doughnuts, cake (home-baked and ready-made), sweet roll (home-baked and ready-made), pie (home-baked and readymade), jams, jellies, preserves, syrup and honey, cream caramel, Arabic sweets | ≤ 85 gm/day | Positive scores | Reverse scores | Positive scores |
| **Animal Food Groups** |  |  |  |  |  |
| Dairy | Skim low fat milk, whole milk, cream, sour cream, buttermilk, ice cream, yogurt, cottage and ricotta cheese, cream cheese, feta cheese, other cheese | 245 ml/day | Reverse scores | Reverse scores | Reverse scores |
| Egg | All fried, scrambled, omelettes, and boiled eggs | 11 gm/day | Reverse scores | Reverse scores | Reverse scores |
| Fish and seafood | Canned tuna, dark meat fish, other fish, shrimp, lobster, scallops | 105 gm/day | Reverse scores | Reverse scores | Reverse scores |
| Total meat | Chicken and turkey with skin, chicken and turkey without skin, beef hot dogs, processed meats, liver, hamburger, beef-lamb mixed dish, beef-lamb main dish |  105 gm/day | Reverse scores | Reverse scores | Reverse scores |
| Miscellaneous animal-based foods | Pizza, stuffed pastry, samosa, cream soup, added butter/lard, mayonnaise and other creamy salad dressing, soup, gravy, and salad dressing | 105 gm/day | Reverse scores | Reverse scores | Reverse scores |

1 Plant Based Diet Score (PDI), healthy PDI (hPDI), unhealthy PDI (uPDI).

**References**

1. The Saudi General Directorate of Nutrition, Ministry of Health. Dietary Guidelines for Saudis 2012: The healthy Food Palm. Riyadh, Saudi Arabia, 2012. Available from: <https://www.moh.gov.sa/en/Ministry/MediaCenter/Publications/Documents/>.

**Table S1. Descriptive characteristics of study participants, n=401**

|  |  |  |
| --- | --- | --- |
|  **± SD** | **Mean** | **Characteristics** |
| 6.13 | 20.12 | PSS-10 score |
| 5.08 | 42.42 | PDI |
| 5.38 | 42.56 | hPDI |
| 6.34 | 42.37 | uPDI |
| 6.04 | 24.05 | BMI (kg/m²)  |
| 3.31 | 2.62 | Hs-CRP (mg/l) 1 |

Body mass index (BMI); High sensitivity C reactive protein (hs-CRP); Perceived stress scale (PSS); Plant based dietary index (PDI); Healthy plant based dietary index (hPDI); Unhealthy plant based dietary index (uPDI).

1Hs-CRP were collected from 289 participants

Table S3. Nutritional components per quartiles of plant-based indices, n=4011

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | **Quartile 1** | **Quartile 2** | **Quartile 3** | **Quartile 4** | ***P***  |
|   | **PLANT BASED DIET INDEX**  |
| N | 100 |  | 100 |  | 100 |  | 101 |  |  |
| **Components of the Plant Based Scores (g/1000 kcal)** |  |  |  |  |  |  |  |  |  |
| Healthy |  |  |  |  |  |  |  |  |  |
| Whole grains | 26 | (15, 37) | 40 | (29, 50) | 31 | (21, 42) | 52 | (41, 63) | 0.012 |
| Fruit | 125 | (88, 162) | 157 | (122, 192) | 139 | (104, 174) | 140 | (103, 178) | 0.683 |
| Vegetables (excluding potatoes) | 206 | (117, 294) | 234 | (150, 319) | 285 | (203, 366) | 284 | (199, 370) | 0.122 |
| Nuts | 11 | (4, 17) | 18 | (11, 24) | 15 | (9, 21) | 18 | (11, 25) | 0.412 |
| Legumes | 20 | (13, 27) | 25 | (19, 32) | 25 | (18, 31) | 29 | (22, 36) | 0.361 |
| Vegetable oils | 31 | (22, 39) | 29 | (21, 37) | 30 | (23, 38) | 28 | (19, 36) | 0.953 |
| Tea and coffee | 214 | (96, 332) | 251 | (139, 364) | 280 | (171, 389) | 412 | (298, 525) | <0.0001 |
| Less healthy |  |  |  |  |  |  |  |  |  |
| Fruit juices | 32 | (16, 48) | 53 | (36, 60) | 43 | (25, 61) | 66 | (49, 82) | 0.032 |
| Refined grains | 121 | (92, 150) | 178 | (147, 209) | 208 | (176, 241) | 240 | (210, 269) | <0.0001 |
| Potatoes | 21 | (12, 31) | 39 | (30, 49) | 39 | (29, 50) | 62 | (52, 71) | <0.0001 |
| Sugary beverages | 42 | (25, 60) | 3494 | (16, 54) | 43 | (23, 63) | 58 | (40, 76) | 0.381 |
| Sweets and desserts | 51 | (41, 62) | 33 | (23, 44) | 36 | (25, 47) | 20 | (9, 30) | <0.0001 |
| Animal Food Groups |  |  |  |  |  |  |  |  |  |
| Dairy | 118 | (66, 169) | 144 | (90, 198) | 165 | (113, 217) | 163 | (110, 216) | 0.152 |
| Egg | 18 | (13, 23) | 21 | (16, 26) | 19 | (13, 24) | 20 | (14, 25) | 0.891 |
| Fish and seafood | 11 | (7, 15) | 14 | (10, 18) | 15 | (11, 19) | 18 | (14, 22) | 0.081 |
| Meat | 46 | (38, 54) | 48 | (40, 57) | 49 | (40, 58) | 53 | (45, 62) | 0.623 |
| Miscellaneous animal-based foods | 55 | (45, 64) | 45 | (35, 55) | 45 | (35, 55) | 36 | (27, 45) | 0.052 |
| **Macronutrients (%)** |  |  |  |  |  |  |  |  |  |
| Total energy (kcal/day) | 2139 | (2005, 2274) | 2182 | (2057, 2307) | 1979 | (1861, 2114) | 1890 | (1758, 2023) | 0.011 |
| Total protein | 20 | (18, 22) | 22 | (20, 25) | 22 | (20, 25) | 23 | (21, 25) | 0.354 |
| Total carbohydrates | 50 | (45, 54) | 53 | (49, 58) | 53 | (48, 58) | 48 | (44, 53) | 0.384 |
| Total fat | 30 | (28, 32) | 31 | (29, 33) | 29 | (27, 31) | 31 | (29, 33) | 0.443 |
| Saturated fatty acids  | 43 | (36, 49) | 45 | (38, 52) | 49 | (41, 56) | 50 | (43, 56) | 0.462 |
| Polyunsaturated fatty acids  | 11 | (8, 14) | 13 | (10, 16) | 12 | (9, 15) | 13 | (10, 16) | 0.721 |
| Monounsaturated fatty acids  | 11 | (9, 12) | 14 | (12, 15) | 13 | (11, 15) | 13 | (11, 15) | 0.142 |
| **Micronutrients** **(per 1000 kcal)** |  |  |  |  |  |  |  |  |  |
| Dietary fiber (g) | 7 | (6, 7) | 7 | (6, 7) | 6 | (5, 6) | 6 | (6, 7) | 0.072 |
| Cholesterol (mg)  | 102 | (93, 110) | 108 | (99, 117) | 116 | (106, 126) | 106 | (97, 115) | 0.171 |
| Vitamin A (RE)  | 78 | (65, 92) | 93 | (79, 107) | 89 | (73, 104) | 95 | (82, 109) | 0.323 |
| Vitamin C (mg)  | 8 | (7, 9) | 9 | (8, 10) | 10 | (9, 11) | 10 | (9, 11) | 0.012 |
| Vitamin E (mg)  | 1 | (1, 2) | 2 | (1, 2) | 2 | (1, 2) | 2 | (1, 2) | 0.371 |
| Vitamin D (µg)  | 1 | (1, 2) | 2 | (1, 2) | 2 | (1, 2) | 2 | (1, 2) | 0.122 |
| Vitamin B12 (µg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | <0.0001 |
| Vitamin B6 (mg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 0.023 |
| Thiamine (mg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | <0.0001 |
| Riboflavin (mg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | <0.0001 |
| Folic acid (µg)  | 83 | (69, 97) | 96 | (81, 111) | 101 | (86, 117) | 106 | (92, 121) | 0.111 |
| Niacin (mg)  | 1 | (1, 1) | 1 | (1, 1) | 1 | (1, 1) | 1 | (1, 1) | 0.012 |
| Calcium | 197 | (179, 216) | 233 | (214, 253) | 217 | (197, 237) | 246 | (227, 264) | <0.0001 |
| Iron (mg)  | 1 | (1, 1) | 1 | (1, 1) | 2 | (1, 2) | 1 | (1, 2) | 0.042 |
| Sodium (gm)  | 2 | (2, 3) | 2 | (2, 2) | 2 | (2, 2) | 2 | (2, 2) | <0.0001 |
| Potassium (gm)  | 1 | (1, 1) | 2 | (1, 2) | 1 | (1, 1) | 1 | (1, 2) | <0.0001 |
| Zinc (mg)  | 1 | (1, 1) | 1 | (1, 2) | 1 | (1, 2) | 1 | (1, 1) | 0.031 |
| Magnesium (mg) | 53 | (47, 59) | 49 | (43, 55) | 44 | (38, 49) | 47 | (41, 54) | 0.182 |
| Selenium (µg)  | 8 | (7, 9) | 9 | (8, 10) | 10 | (9, 11) | 10 | (9, 11) | 0.011 |
| Manganese (mg)  | 29 | (25, 34) | 31 | (27, 36) | 34 | (29, 39) | 38 | (34, 42) | 0.052 |
|  | **HEALTHY PLANT-BASED DIET INDEX** |
| N | 100 |  | 100 |  | 100 |  | 101 |  |  |
| **Components of the Plant Based Scores (g/1000 kcal)** |  |  |  |  |  |  |  |  |  |
| Healthy |  |  |  |  |  |  |  |  |  |
| Whole grains | 15 | (5, 25) | 36 | (25, 46) | 43 | (32, 54) | 56 | (46, 66) | <0.0001 |
| Fruit | 70 | (37, 103) | 129 | (94, 164) | 145 | (108, 182) | 222 | (188, 255) | <0.0001 |
| Vegetables (excluding potatoes) | 117 | (40, 193) | 239 | (160, 317) | 278 | (202, 355) | 424 | (347, 502) | <0.0001 |
| Nuts | 6 | (2, 12) | 9 | (2, 15) | 17 | (10, 24) | 30 | (24, 36) | <0.0001 |
| Legumes | 12 | (6, 18) | 17 | (11, 24) | 28 | (22, 35) | 42 | (36, 48) | <0.0001 |
| Vegetable oils | 15 | (8, 23) | 27 | (19, 35) | 37 | (29, 46) | 40 | (33, 48) | <0.0001 |
| Tea and coffee | 196 | (86, 307) | 207 | (93, 32) | 394 | (283, 505) | 364 | (251, 470) | <0.0001 |
| Less healthy |  |  |  |  |  |  |  |  |  |
| Fruit juices | 92 | (76, 109) | 39 | (22, 54) | 43 | (27, 59) | 20 | (3, 37) | <0.0001 |
| Refined grains | 241 | (210, 272) | 189 | (159, 219) | 177 | (148, 207) | 132 | (100, 163) | <0.0001 |
| Potatoes | 65 | (56, 75) | 45 | (35, 54) | 31 | (22, 40) | 20 | (10, 30) | <0.0001 |
| Sugary beverages | 84 | (66, 103) | 54 | (37, 72) | 28 | (11, 46) | 13 | (6, 31) | <0.0001 |
| Sweets and desserts | 41 | (29, 52) | 46 | (35, 57) | 34 | (24, 45) | 18 | (8, 29) | <0.0001 |
| Animal Food Groups |  |  |  |  |  |  |  |  |  |
| Dairy | 217 | (163, 270) | 166 | (115, 217) | 126 | (76, 176) | 116 | (64, 168) | <0.0001 |
| Egg | 26 | (21, 31) | 20 | (15, 25) | 18 | (13, 23) | 13 | (8, 18) | 0.011 |
| Fish and seafood | 20 | (16, 24) | 17 | (13, 20) | 11 | (7, 14) | 11 | (7, 15) | <0.0001 |
| Meat | 72 | (64, 80) | 55 | (48, 63) | 42 | (34, 49) | 27 | (19, 35) | <0.0001 |
| Miscellaneous animal-based foods | 59 | (49, 68) | 56 | (47, 65) | 38 | (29, 47) | 27 | (17, 37) | <0.0001 |
| **Macronutrients (%)** |  |  |  |  |  |  |  |  |  |
| Total energy (kcal/day) | 2394 | (2276, 2512) | 2028 | (1901, 2154) | 1891 | (1757, 2024) | 1847 | (1726, 1968) | <0.0001 |
| Total protein | 24 | (22, 27) | 20 | (18, 22) | 21 | (19, 24) | 22 | (19, 24) | 0.062 |
| Total carbohydrates | 55 | (50, 59) | 55 | (50, 59) | 48 | (43, 52) | 47 | (42, 52) | 0.023 |
| Total fat | 32 | (30, 34) | 30 | (33, 36) | 31 | (29, 33) | 28 | (26, 30) | 0.062 |
| Saturated fatty acids  | 52 | (45, 59) | 45 | (38, 52) | 46 | (40, 53) | 43 | (36, 50) | 0.381 |
| Polyunsaturated fatty acids  | 12 | (9, 16) | 13 | (10, 16) | 12 | (9, 15) | 11 | (7, 14) | 0.791 |
| Monounsaturated fatty acids  | 14 | (12, 16) | 12 | (10, 14) | 13 | (11, 15) | 11 | (9, 13) | 0.082 |
| **Micronutrients** **(per 1000 kcal)** |  |  |  |  |  |  |  |  |  |
| Dietary fiber (g) | 5 | (5, 6) | 7 | (6, 7) | 7 | (6, 7) | 7 | (7, 8) | <0.0001 |
| Cholesterol (mg)  | 121 | (112, 130) | 105 | (96, 114) | 105 | (97, 114) | 99 | (89, 108) | 0.012 |
| Vitamin A (RE)  | 93 | (79, 108) | 96 | (82, 110) | 81 | (67, 95) | 84 | (69, 99) | 0.371 |
| Vitamin C (mg)  | 9 | (8, 10) | 8 | (7, 9) | 10 | (9, 11) | 10 | (9, 11) | <0.0001 |
| Vitamin E (mg)  | 1 | (1, 2) | 2 | (1, 2) | 2 | (1, 2) | 2 | (2, 2) | 0.022 |
| Vitamin D (µg)  | 2 | (1, 2) | 2 | (1, 2) | 2 | (1, 2) | 1 | (1, 2) | 0.661 |
| Vitamin B12 (µg)  | 0.91 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 0.032 |
| Vitamin B6 (mg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 0.381 |
| Thiamine (mg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | <0.0001 |
| Riboflavin (mg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 0.072 |
| Folic acid (µg)  | 109 | (94, 124) | 100 | (86, 114) | 86 | (72, 100) | 91 | (75, 106) | 0.151 |
| Niacin (mg)  | 1 | (1, 1) | 1 | (1, 1) | 1 | (1, 1) | 1 | (1, 1) | 0.952 |
| Calcium | 218 | (198, 237) | 201 | (183, 220) | 229 | (211, 248) | 246 | (227, 266) | 0.012 |
| Iron (mg)  | 1 | (1, 2) | 1 | (1, 2) | 1 | (1, 2) | 1 | (1, 2) | 0.691 |
| Sodium (gm)  | 2 | (2, 3) | 2 | (2, 2) | 2 | (2, 2) | 2 | (2, 2) | 0.051 |
| Potassium (gm)  | 1 | (1, 1) | 1 | (1, 1) | 2 | (1, 2) | 2 | (1, 2) | <0.0001 |
| Zinc (mg)  | 1 | (1, 1) | 1 | (1, 2) | 1 | (1, 1) | 1 | (1, 1) | 0.211 |
| Magnesium (mg)  | 41 | (36, 47) | 50 | (44, 56) | 51 | (45, 58) | 51 | (46, 57) | 0.052 |
| Selenium (µg)  | 10 | (9, 11) | 10 | (9, 11) | 8 | (7, 9) | 9 | (8, 10) | 0.123 |
| Manganese (mg)  | 28 | (23, 33) | 32 | (28, 37) | 32 | (27, 36) | 40 | (35, 45) | <0.0001 |
|  | **UNHEALTHY PLANT-BASED DIET INDEX** |  |
| N | 100 |  | 100 |  | 100 |  | 101 |  |  |
| **Components of the Plant Based Scores (g/1000 kcal)** |  |  |  |  |  |  |  |  |  |
| Healthy |  |  |  |  |  |  |  |  |  |
| Whole grains | 72 | (62, 82) | 38 | (28, 47) | 30 | (19, 40) | 13 | (3, 22) | <0.0001 |
| Fruit | 296 | (263, 329) | 117 | (86, 148) | 94 | (60, 128) | 71 | (41, 101) | <0.0001 |
| Vegetables (excluding potatoes) | 473 | (399, 547) | 268 | (196, 341) | 142 | (67, 217) | 126 | (53, 199) | <0.0001 |
| Nuts | 33 | (27, 40) | 16 | (10, 22) | 9 | (2, 16) | 5 | (1, 11) | <0.0001 |
| Legumes | 43 | (37, 50) | 30 | (24, 36) | 16 | (10, 23) | 11 | (5, 17) | <0.0001 |
| Vegetable oils | 39 | (31, 47) | 32 | (24, 40) | 24 | (16, 33) | 23 | (15, 30) | 0.021 |
| Tea and coffee | 409 | (298, 519) | 354 | (245, 463) | 261 | (149, 373) | 137 | (27, 247) | <0.0001 |
| Less healthy |  |  |  |  |  |  |  |  |  |
| Fruit juices | 39 | (21, 57) | 39 | (22, 56) | 45 | (27, 63) | 68 | (52, 85) | 0.041 |
| Refined grains | 140 | (111, 169) | 162 | (130, 194) | 236 | (207, 266) | 202 | (170, 234) | <0.0001 |
| Potatoes | 46 | (36, 57) | 51 | (41, 60) | 36 | (26, 47) | 28 | (19, 38) | 0.012 |
| Sugary beverages | 16 | (3, 35) | 49 | (32, 67) | 41 | (21, 60) | 68 | (50, 85) | <0.0001 |
| Sweets and desserts | 28 | (17, 40) | 30 | (18, 41) | 34 | (23, 45) | 44 | (32, 55) | 0.021 |
| Animal Food Groups |  |  |  |  |  |  |  |  |  |
| Dairy | 230 | (181, 280) | 173 | (125, 222) | 88 | (38, 138) | 85 | (36, 134) | <0.0001 |
| Egg | 38 | (34, 43) | 20 | (15, 24) | 14 | (9, 18) | 7 | (3, 12) | <0.0001 |
| Fish and seafood | 28 | (24, 32) | 16 | (13, 19) | 9 | (6, 13) | 6 | (2, 9) | <0.0001 |
| Meat | 33 | (26, 41) | 42 | (33, 50) | 52 | (45, 60) | 71 | (63, 79) | <0.0001 |
| Miscellaneous animal-based foods | 33 | (24, 42) | 38 | (28, 48) | 48 | (39, 57) | 63 | (54, 73) | <0.0001 |
| **Macronutrients (%)** |  |  |  |  |  |  |  |  |  |
| Total energy (kcal/day) | 1847 | (1717, 1977) | 1848 | (1727, 1969) | 2196 | (2063, 2328) | 2303 | (2184, 2422) | <0.0001 |
| Total protein | 24 | (21, 26) | 22 | (20, 25) | 20 | (18, 23) | 21 | (19, 23) | 0.212 |
| Total carbohydrates | 48 | (44, 53) | 52 | (48, 57) | 51 | (46, 56) | 51 | (47, 55) | 0.691 |
| Total fat | 32 | (30, 34) | 30 | (28, 32) | 30 | (28, 32) | 30 | (28, 32) | 0.374 |
| Saturated fatty acids  | 47 | (40, 53) | 37 | (30, 44) | 49 | (43, 56) | 52 | (45, 59) | 0.023 |
| Polyunsaturated fatty acids  | 11 | (8, 15) | 15 | (12, 18) | 11 | (8, 14) | 10 | (7, 13) | 0.141 |
| Monounsaturated fatty acids  | 13 | (11, 15) | 12 | (10, 14) | 12 | (10, 14) | 12 | (11, 14) | 0.772 |
| **Micronutrients** **(per 1000 kcal)** |  |  |  |  |  |  |  |  |  |
| Dietary fiber (g) | 8 | (7, 8) | 7 | (7, 8) | 6 | (5, 6) | 6 | (5, 6) | <0.0001 |
| Cholesterol (mg)  | 110 | (101, 120) | 110 | (102, 119) | 100 | (91, 110) | 108 | (99, 116) | 0.415 |
| Vitamin A (RE)  | 109 | (95, 124) | 92 | (78, 105) | 79 | (64, 94) | 76 | (63, 90) | <0.0001 |
| Vitamin C (mg)  | 10 | (9, 11) | 10 | (9, 11) | 9 | (8, 10) | 8 | (8, 9) | 0.052 |
| Vitamin E (mg)  | 2 | (2, 2) | 2 | (2, 2) | 1 | (1, 2) | 1 | (1, 2) | <0.0001 |
| Vitamin D (µg)  | 2 | (2, 2) | 2 | (1, 2) | 1 | (1, 2) | 1 | (1, 2) | 0.033 |
| Vitamin B12 (µg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 0.101 |
| Vitamin B6 (mg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 0.072 |
| Thiamine (mg)  | 1 | (0, 1) | 1 | (1, 1) | 1 | (0, 1) | 1 | (0, 1) | <0.0001 |
| Riboflavin (mg)  | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 1 | (0, 1) | 0.021 |
| Folic acid (µg)  | 99 | (84, 114) | 112 | (98, 126) | 87 | (72, 103) | 86 | (72, 100) | 0.041 |
| Niacin (mg)  | 1 | (1, 1) | 1 | (1, 1) | 1 | (1, 1) | 1 | (1, 1) | 0.012 |
| Calcium | 243 | (223, 263) | 234 | (215, 252) | 205 | (184, 225) | 211 | (193, 229) | 0.021 |
| Iron (mg)  | 1 | (1, 2) | 1 | (1, 2) | 1 | (1, 2) | 1 | (1, 2) | 0.542 |
| Sodium (gm)  | 2 | (2, 2) | 2 | (2, 2) | 2 | (2, 2) | 2 | (2, 2) | 0.051 |
| Potassium (gm)  | 2 | (1, 2) | 1 | (1, 2) | 1 | (1, 1) | 1 | (1, 1) | <0.0001 |
| Zinc (mg)  | 1 | (1, 2) | 1 | (1, 1) | 1 | (1, 1) | 1 | (1, 1) | 0.010 |
| Magnesium (mg)  | 54 | (48, 60) | 48 | (42, 54) | 45 | (39, 52) | 46 | (40, 51) | 0.163 |
| Selenium (µg)  | 10 | (9, 11) | 10 | (9, 11) | 8 | (7, 9) | 8 | (7, 9) | <0.0001 |
| Manganese (mg)  | 35 | (30, 40) | 34 | (30, 39) | 32 | (27, 37) | 32 | (27, 36) | 0.731 |
| 1 Values are mean (95% CI) or %. Perceived stress score (PSS score), Saudi riyals (SR), Body mass index (BMI), physical activity (PA), High sensitivity C reactive protein (hs-CRP). 2 Medical condition refers to (chronic constipation, gastroesophageal reflux disease, prolactinoma, vitamin D deficiency, polycystic ovary syndrome, and hypothyroidism).3 Hs-CRP was collected from 289 participants  |