**Table S1:** Adjusted means of BHEI-R and AHEI components in 2015 ISA-Nutrition and HCHS/SOL-Youth by excess body weight statusa.

|  |  |
| --- | --- |
| **Components of the Healthy Eating Indexes (maximum score)** | **2015 ISA-Nutrition** |
| **Total adolescents** | **Without EBWb** | **With EBWb** |  |
| **Mean** | **95% CL** | **Mean** | **95% CL** | **Mean** | **95% CL** | **pc** |
| ***Brazilian Healthy Eating Index (BHEI-R)*** |  |  |  |  |  |  |  |
| Total fruit, sevings/1000 kcal (5) | 2.65 | (2.42, 2.88) | 2.71 | (2.43, 2.99) | 2.51 | (2.1, 2.93) | 0.404 |
| Whole fruit, sevings/1000 kcal (5) | 2.99 | (2.74, 3.23) | 2.96 | (2.67, 3.26) | 3.04 | (2.6, 3.49) | 0.748 |
| Total vegetable, sevings/1000 kcal (5) | 4.84 | (4.76, 4.92) | 4.84 | (4.75, 4.92) | 4.84 | (4.71, 4.97) | 0.955 |
| DGOV&L, sevings/1000 kcal (5) | 4.64 | (4.47, 4.81) | 4.68 | (4.5, 4.85) | 4.55 | (4.25, 4.86) | 0.378 |
| Total grains, sevings/1000 kcal (5) | 5.00 | (5.0, 5.0) | 5.00 | (5.0, 5.0) | 5.00 | (5.0, 5.0) | - |
| Whole grains, sevings/1000 kcal (5) | 0.29 | (0.26, 0.32) | 0.31 | (0.27, 0.35) | 0.25 | (0.2, 0.3) | 0.064 |
| Milk and dairy, sevings/1000 kcal (10) | 4.58 | (4.46, 4.69) | 4.60 | (4.47, 4.72) | 4.52 | (4.25, 4.8) | 0.619 |
| Meats, eggs and legumes, sevings/1000 kcal (10) | 9.95 | (9.92, 9.98) | 99.59 | (99.38, 99.8) | 99.22 | (98.5, 99.9) | 0.298 |
| Oils, sevings/1000 kcal (10) | 10.0 | (10.0, 10.0) | 10.0 | (10.0, 10.0) | 10.0 | (10.0, 10.0) | - |
| Saturated fat, % energy (10) | 7.81 | (7.71, 7.92) | 7.85 | (7.74, 7.96) | 7.73 | (7.46, 7.99) | 0.387 |
| Sodium, g/1000 kcal (10) | 8.83 | (8.65, 9.01) | 8.91 | (8.7, 9.11) | 8.63 | (8.29, 8.96) | 0.196 |
| SoFAS, % energy (20) | 7.20 | (6.99, 7.41) | 7.31 | (7.07, 7.55) | 6.93 | (6.53, 7.33) | 0.146 |
| BHEI-R total (100) | 68.8 | (68.1, 69.4) | 69.1 | (68.4, 69.9) | 67.9 | (66.8, 69.0) | 0.073 |
| ***Alternative Healthy Eating Index (AHEI-2010)*** |  |  |  |  |  |  |  |
| Vegetables without potatoes, servings/day (10) | 1.84 | (1.73, 1.95) | 1.90 | (1.79, 2.01) | 1.70 | (1.54, 1.87) | 0.074 |
| Whole Fruit, servings/day (10) | 1.61 | (1.39, 1.83) | 1.64 | (1.39, 1.88) | 1.53 | (1.05, 2.01) | 0.713 |
| Whole grains, servings/day (10) | 1.06 | (0.97, 1.15) | 1.09 | (0.99, 1.19) | 1.00 | (0.90, 1.09) | 0.236 |
| Sugar sweetened beverages/fruit juice, servings/day (10) | 0.25 | (0.14, 0.35) | 0.30 | (0.16, 0.43) | 0.13 | (0.04, 0.22) | 0.065 |
| Nuts and legumes, servings/day (10) | 7.62 | (7.27, 7.97) | 7.76 | (7.38, 8.14) | 7.27 | (6.63, 7.91) | 0.179 |
| Red/processed meat, servings/day (10) | 2.36 | (2.11, 2.62) | 2.34 | (2.09, 2.58) | 2.43 | (2.08, 2.78) | 0.696 |
| Trans Fat, % energy (10) | 7.75 | (7.69, 7.81) | 7.76 | (7.69, 7.83) | 7.73 | (7.61, 7.85) | 0.688 |
| Long-chain (n-3) fats (EPA+DHA), mg/day (10) | 1.72 | (1.63, 1.82) | 1.72 | (1.61, 1.83) | 1.74 | (1.48, 2.00) | 0.897 |
| Polyunsaturated fatty acids (PUFA), % energy (10) | 8.06 | (7.97, 8.15) | 8.03 | (7.93, 8.14) | 8.12 | (7.94, 8.29) | 0.412 |
| Sodium, mg/day (10) | 5.23 | (4.75, 5.71) | 5.00 | (4.43, 5.56) | 5.81 | (4.98, 6.63) | 0.115 |
| AHEI total (100) | 37.5 | (36.8, 38.2) | 37.5 | (36.8, 38.3) | 37.5 | (36.4, 38.6) | 0.938 |
|  | **HCHS/SOL-Youth** |
| ***Brazilian Healthy Eating Index (BHEI-R)*** |  |  |  |  |  |  |  |
| Total fruit, sevings/1000 kcal (5) | 3.67 | (3.6, 3.8) | 3.65 | (3.5, 3.8) | 3.71 | (3.6, 3.9) | 0.598 |
| Whole fruit, sevings/1000 kcal (5) | 3.82 | (3.7, 4) | 3.77 | (3.6, 3.9) | 3.89 | (3.7, 4.1) | 0.335 |
| Total vegetable, sevings/1000 kcal (5) | 3.15 | (3.1, 3.2) | 3.09 | (3, 3.2) | 3.23 | (3.1, 3.4) | 0.143 |
| DGOV&L, sevings/1000 kcal (5) | 1.08 | (1, 1.1) | 1.07 | (1, 1.2) | 1.08 | (1, 1.2) | 0.908 |
| Total grains, sevings/1000 kcal (5) | 5.00 | (5, 5) | 5.00 | (5, 5) | 5.00 | (5, 5) | - |
| Whole grains, sevings/1000 kcal (5) | 3.58 | (3.4, 3.7) | 3.47 | (3.3, 3.6) | 3.72 | (3.6, 3.9) | **0.028** |
| Milk and dairy, sevings/1000 kcal (10) | 7.49 | (7.3, 7.7) | 7.37 | (7.1, 7.6) | 7.64 | (7.4, 7.9) | **0.062** |
| Meats, eggs and legumes, sevings/1000 kcal (10) | 10.00 | (10, 10) | 10.00 | (10, 10) | 10.00 | (10, 10) | - |
| Oils, sevings/1000 kcal (10) | 10.00 | (10, 10) | 10.00 | (10, 10) | 10.00 | (10, 10) | - |
| Saturated fat, % energy (10) | 6.51 | (6.4, 6.6) | 6.47 | (6.3, 6.6) | 6.56 | (6.4, 6.8) | 0.442 |
| Sodium, g/1000 kcal (10) | 2.61 | (2.5, 2.7) | 2.82 | (2.7, 3) | 2.33 | (2.2, 2.5) | **<.0001** |
| SoFAS, % energy (20) | 5.61 | (5.4, 5.8) | 5.45 | (5.1, 5.8) | 5.83 | (5.5, 6.2) | 0.147 |
| BHEI-R total (100) | 62.5 | (61.8, 63.2) | 62.2 | (61.2, 63.1) | 63.0 | (62.1, 63.9) | 0.240 |
| ***Alternative Healthy Eating Index (AHEI-2010)*** |  |  |  |  |  |  |  |
| Vegetables without potatoes, servings/day (10) | 2.20 | (2.13, 2.28) | 2.22 | (2.12, 2.32) | 2.18 | (2.10, 2.25) | 0.506 |
| Whole Fruit, servings/day (10) | 2.00 | (1.91, 2.09) | 2.02 | (1.90, 2.14) | 1.97 | (1.87, 2.06) | 0.490 |
| Whole grains, servings/day (10) | 2.37 | (2.27, 2.46) | 2.35 | (2.22, 2.47) | 2.39 | (2.27, 2.5) | 0.671 |
| Sugar sweetened beverages/fruit juice, servings/day (10) | 0.02 | (0.01, 0.04) | 0.02 | (0, 0.04) | 0.03 | (0.01, 0.05) | 0.498 |
| Nuts and legumes, servings/day (10) | 4.08 | (3.87, 4.29) | 4.30 | (4, 4.59) | 3.79 | (3.57, 4) | **0.011** |
| Red/processed meat, servings/day (10) | 0.00 | (0, 0.002) | 0.00 | (0, 0.0005) | 0.00 | (0, 0.005) | **0.027** |
| Trans Fat, % energy (10) | 8.61 | (8.57, 8.64) | 8.61 | (8.57, 8.64) | 8.60 | (8.54, 8.66) | 0.879 |
| Long-chain (n-3) fats (EPA+DHA), mg/day (10) | 3.15 | (3.03, 3.27) | 3.09 | (2.93, 3.26) | 3.22 | (3.05, 3.40) | 0.321 |
| Polyunsaturated fatty acids (PUFA), % energy (10) | 6.17 | (6.09, 6.26) | 6.22 | (6.12, 6.33) | 6.11 | (5.99, 6.22) | 0.151 |
| Sodium, mg/day (10) | 5.45 | (5.15, 5.75) | 5.31 | (4.94, 5.67) | 5.63 | (5.19, 6.07) | 0.277 |
| AHEI total (100) | 34.0 | (33.6, 34.5) | 34.1 | (33.6, 34.7) | 33.9 | (33.4, 34.4) | 0.585 |

Abbreviations: EBW, Excess body weight (includes overweight and obesity); SSB = Sugar sweetened beverages; DGOV&L = Dark-green and orange vegetables and legumes; Oils = Vegetable Oils, Seed Oils and Oily Fish; SoFAS = total calories from solid fat and added sugar.

aAll the analyses take into account the sampling design of each survey.Sample size = 189 in 2015 ISA-Nutrition (n=135 without EBW, n=54 with EBW. Sample size = 787 in HCHS/SOL-Youth (n=426 without EBW, n=361 with EBW.

bBody weight status was defined according to the sex- and age-specific World Obesity Federation cutoffs for BMI (kg/m2) [21]; With excess body weight: overweight and obesity.

cVariables are compared using regression analysis for the mean scores adjusting for total energy intake, sex, and age.

**Table S2:** Odds ratio (95% CI) of 1-unit increment of BHEI-R and AHEI scores according to the presence of excess body weight, central adiposity, and cardiovascular risk factors count in adolescents in the 2015 ISA-Nutrition and in the HCHS/SOL-Youtha.

|  |  |  |
| --- | --- | --- |
|   | **2015 ISA-Nutrition** |  |
|  | **BHEI-R** | **AHEI-2010** |
| *Dependant Variable* | **OR** | **95%CI** | **p** | **OR** | **95%CI** | **p** |
| **Excess Body Weightb** | 0.87 | (0.80, 0.95) | **0.003** | 0.95 | (0.86, 1.04) | 0.226 |
| **Central Adiposity (waist circ.>=90%ile)** | 1.01 | (0.89, 1.15) | 0.912 | 0.90 | (0.79, 1.02) | 0.098 |
| **CVD Risk Factors Count (3 or more) c** | 0.89 | (0.80, 0.98) | **0.022** | 0.95 | (0.87, 1.04) | 0.284 |
|  | **HCHS/SOL-Youth** |
|  | **BHEI-R** | **AHEI-2010** |
|  | **OR** | **95%CI** | **p** | **OR** | **95%CI** | **p** |
| **Excess Body Weightb** | 1.03 | (0.98, 1.07) | 0.246 | 0.93 | (0.87, 0.99) | **0.041** |
| **Central Adiposity (waist circ.>=90%ile)** | 1.06 | (0.99, 1.14) | 0.067 | 0.98 | (0.90, 1.06) | 0.598 |
| **CVD Risk Factors Count (3 or more)c** | 1.05 | (0.99, 1.11) | 0.109 | 0.99 | (0.92, 1.07) | 0.876 |

Abbreviations: CVD, Cardiovascular Disease; OR, Odds Ratio; 95%CI, 95% Confidence interval.

aAll the analyses take into account the sampling design of each survey. The logistic regression models for 2015 ISA-Nutrition were adjusted for age, gender, and income. For HCHS/SOL-Youth, they were adjusted for gender, age, income, and Hispanic heritage. For both populations, they were also adjusted for energy in the AHEI models. For BHEI, the energy adjustment is not necessary since it is estimated for 1000 kcal/d.

bExcess body weight includes overweight and obesity, according to the sex- and age-specific World Obesity Federation cutoffs for BMI (kg/m2) [21]

cCardiovascular disease risk factors was categorized as having three or more of the following conditions: obesity [21], high systolic or diastolic blood pressure (≥ 90th percentile for sex, age, and height) [22], dyslipidemia (total cholesterol ≥ 200 mg/dL, or LDL-C ≥ 130 mg/dL, or HDL-C ≤ 40 mg/dl, or triglycerides ≥ 150 mg/dL) [23], high fasting plasma glucose (≥ 100 mg/dL) or hemoglobin A1c (≥5.7 mg/dL), or insulin resistance (HOMA\_IR ≥ 2.5) [24].