**Organic food consumption during pregnancy is associated with different consumer profiles, food patterns and intake: the KOALA Birth Cohort Study**

**Supplementary material**

Supplemental Fig. 1.

Scree-plot

Factor

Eigenvalues

Supplemental Fig. 1. Scree-plot of Principal Component Analysis (PCA) of food items.

Supplemental Table 1. Scores of the nine PCA main components corresponding to pregnant women with varying purchases of food of organic vs. conventional origin (n=2786).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Conventional (reference) group (n=1719)** | **<50% organic (n=843)** | **50-90% organic****(n=132)** | **>90% organic****(n=92)** | **Trenda** |
| **PCA component** | mean  | SD | B (95% CI) | B (95% CI) | B (95% CI) | P |
| 1, “alternative/vegetarian” crude | -0.3  | 0.5 | **0.6 (0.5 to 0.7)** | **1.6 (1.4 to 1.8)** | **1.4 (1.2 to 1.6)** | **<0.001** |
| 2, “fast food” crude | 0.1 | 1.0 | -**0.2 (-0.3 to -0.1)** | **-0.3 (-0.5 to -0.1)** | **-0.2 (-0.4 to 0.0)** | **<0.001** |
| adjustedc  |  |  | **-0.2 (-0.3 to -0.1)** | **-** | **-** | **0.001** |
| 3, “cooked vegetables” crude  | -0.0 | 1.0 | **0.1 (0.0 to 0.2)** | 0.0 (-0.2 to 0.2) | 0.1 (-0.1 to 0.3) | 0.091 |
| adjusted  |  |  | **0.1 (0.1 to 0.2)** | -0.0 (-0.2 to 0.1) | 0.0 (-0.2 to 0.2) | **0.429** |
| 4, “raw vegetables salad” crude | -0.1  | 0.9 | 0.1 (0.0 to 0.2) | **0.3 (0.1 to 0.5)** | **0.4 (0.2 to 0.6)** | **<0.001** |
| 5, “fish” crude  | -0.1 | 0.9 | 0.2 **(0.2 to 0.3)** | 0.1 (-0.1 to 0.3) | **-0.2 (-0.4 to -0.0)** | **0.047** |
| adjusted |  |  | **-** | 0.1 (-0.1 to 0.3) | **-0.3 (-0.5 to -0.1)** | 0.211 |
| 6, “Italian-like cuisine” crude | -0.0 | 1.0 | 0.0 (-0.0 to 0.1) | 0.2 (0.0 to 0.3) | 0.0 (-0.2 to 0.2) | 0.149 |
| adjusted  |  |  | - | - | 0.0 (-0.2 to 0.2) | 0.249 |
| 7, “meat” crude  | 0.1 | 1.0 | **-0.2 (-0.3 to -0.1)** | **-0.3 (-0.4 to -0.1)** | -0.2 (-0.4 to 0.0) | **<0.001** |
| 8, “traditional stamppot” crude  | -0.0 | 1.0 | 0.0 (-0.1 to 0.1) | -0.0 (-0.2 to 0.2) | -0.1 (-0.3 to 0.1) | 0.594 |
| adjusted |  |  | 0.0 (-0.1 to 0.1) | -0.1 (-0.2 to 0.0) | -0.1 (-0.3 to 0.0) | 0.132 |
| 9, “sweets” crude  | 0.0 | 1.0 | 0.0 (0.0 to 0.1) | -0.1 (-0.2to 0.1) | -0.1 (-0.3 to 0.1) | 0.520 |
| adjusted |  |  | 0.0 (-0.1 to 0.1) | -0.1 (-0.3 to 0.1) | -0.2 (-0.4 to 0.0) | 0.173 |
|  |  |  |  |  |  |  |

See footnotes to Table 3.

## Supplemental Table 2. Significant differences in the intake of elements, vitamins and fatty acids by pregnant women with varying purchases of food of organic vs. conventional origin (n=2786).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Conventional (reference) group****(n=1719)** | **<50% organic****(n=843)** | **50-90% organic****(n=132)** | **>90% organic****(n=92)** | **Trenda** |
| **Characteristic** | mean | SD | B (95% CI) | B (95% CI) | B (95% CI) | P |
| Phosphor (mg) crudeadjustedc  | 1687 | 452 | **74.9 (38.0 to 111.7)****-** | 63.5 (-15.7 to 142.7). | -6.6 (-100.5 to 87.2)- | **0.014**0.073 |
| Calcium (mg) crudeadjusted  | 1186  | 424 | **62.3 (27.3 to 97.3)****-** | 49.6 (-25.5 to 124.7)- | 0.8 (-88.2 to 89.8)- | **0.027**0.122 |
| Magnesium (mg) crudeadjustedc  | 355 | 90 | **28.1 (20.6 to 35.7)****-** | **46.6 (30.5 to 62.7)****-** | **23.7 (4.6 to 42.8)**18.2 (-0.9 to 37.3) | **<0.001****<0.001** |
| Iron (total, mg) crudeadjusted  | 11  | 3 | **0.6 (0.4 to 0.8)****-** | **1.5 (1.0 to 2.0)****-** | **0.8 (0.1 to 1.4)****0.6 (0.0 to 1.3)** | **<0.001****<0.001** |
| Iron (non-heme, mg) crudeadjusted  | 10 | 3 | **0.8 (0.5 to 1.0)****-** | **1.9 (1.4 to 2.3)****-** | **1.1 (0.6 to 1.7)****1.0 (0.4 to 1.6)** | **<0.001****<0.001** |
| Iron (heme, mg) crudeadjusted  | 1.2  | 0.5 | **-0.2 (-0.2 to -0.1)****-** | **-0.3 (-0.4 to -0.2)****-** | **-0.4 (-0.5 to -0.3)****-** | **<0.001****<0.001** |
| -carotene (µg) crudeadjusted  | 386  | 275 | **60.7 (36.4 to 85.1)****-** | **138.7 (86.4 to 191.0)****-** | **186.0 (124.1 to 248.0)****-** | **<0.001****<0.001** |
| Vit. B2 crudeadjusted | 1.8  | 0.6 | 0.0 (-0.0 to 0.1)0.0 (-0.0 to 0.1) | -0.1 (-0.2 to 0.0)-0.1 (-0.2 to 0.0) | -0.1 (-0.3 to -0.0)**-0.2 (-0.3 to -0.0)** | 0.1010.050 |
| Vit. B12 crudeadjusted | 5.7  | 3.3 | **-**0.1 (**-**0.3 to 0.2)**-**0.1 (**-**0.4 to 0.2) | **-0.8 (-1.4 to -0.2)****-0.9 (-1.5 to -0.3)** | **-1.2 (-1.9 to -0.5)****-1.3 (-2.0 to -0.6)** | **<0.001****<0.001** |
| 25-OH-vit. D (µg) crude  | 0.0 | 0.0 | **0.0 (-0.0 to -0.0)** | **-0.0 (-0.2 to -0.0)** | **-0.0 (-0.0 to -0.0)** | **<0.001** |
| -tocopherol (mg) crude  | 0.7  | 0.2 | **0.0 (0.0 to 0.1)** | 0.0 (-0.0 to 0.1) | -0.0 (-0.1 to 0.0) | **0.049** |
| -tocopherol (mg) crude  | 8.6  | 3.4 | **0.9 (0.7 to 1.2)** | **1.1 (0.4 to 1.7)** | 0.4 (-0.3 to 1.2) | **<0.001** |
| -tocopherol (mg) crude  | 1.7  | 0.9 | **0.2 (0.2 to 0.3)** | **0.3** **(0.2 to 0.5)** | 0.1 (-0.1 to 0.3) | **<0.001** |
| Sucrose (g) crude adjusted  | 42 | 1 | -2.2 (-4.6 to 0.2)- | **-7.5 (-12.7 to -2.4)****-6.5 (-11.6 to -1.3)** | -6.8 **(-12.9 to -0.8)****-** | **<0.001****0.003** |
| Lactose (g) crudeadjusted  | 19 | 11 | **-1.1 (-2.0 to -0.2)****-** | **-4.1 (-6.1 to -2.2)****-** | **-4.1 (-6.4 to -1.8)****-** | **<0.001****<0.001** |
| Fructose (g) crudeadjusted  | 18 | 12 | **1.3 (0.4 to 2.2)****-** | 0.5 (-1.5 to 2.47)- | 2.1 (-0.2 to 4.5)**2.4 (0.0 to 4.7)** | **0.009****0.003** |
| Glucose (g) crudeadjusted  | 12 | 6 | **0.6 (0.1 to 1.1)****0.7 (0.1 to 1.2)** | 0.1 (-1.0 to 1.2)0.4 (-0.8 to 1.5) | 0.7 (-0.6 to 2.0)0.9 (-0.5 to 2.1) | 0.079**0.025** |
| 15 : 0 crude | 378 | 151 | **44.9 (31.3 to 58.4)** | **82.8 (53.7 to 111.8)** | **56.4 (22.0 to 90.9)** | **<0.001** |
| 20 : 3*n*-6 crude  | 2.7 | 1.3 | **-0.3 (-0.4 to -0.2)** | **-0.5 (-0.8 to -0.3)** | **-0.8 (-1.0 to -0.5)** | **<0.001** |
| 20 : 4*n*-6 (AA) crude | 36 | 20 | -0.1 (-1.8 to 1.5) | **-4.1 (-7.7 to -0.5)** | **-6.6 (-10.8 to -2.3)** | 0.002 |
|  |  |  |  |  |  |  |

See footnotes to Table 3. Nutrient values were calculated with basis on the data from the FFQ only; supplements were not considered. No differences were detected on the amounts of potassium, sodium, iodide, vitamin B1, vitamin B6, total FA, SFA, MUFA *cis*, total PUFA, PUFA n-3 *cis*, PUFA n-6 *cis*, total TFA, cholesterol, 18 : 2n-6 *cis*, 18 : 3*n*-3 (ALA), 20 : 5*n*-3 (EPA), 22 : 4*n*-6, 22 : 5*n*-3 and 22 : 6*n*-3 (DHA). .