

Supplementary Table 1: Baseline characteristics for study-participants with nutritional information and blood measurements at 8 years of age per country and gender

| Characteristics ¹ | Country | | | | | Gender | |
|---------------------------------------|-------------------|-------------------|-----------------|------------------|------------------|-----------------|-------------------|
| | Germany (N=24) | Belgium (N=35) | Italy (N=86) | Poland (N=71) | Spain (N=109) | Male (N=160) | Female (N=165) |
| BMI | 16 (2) | 16 (2) | 18 (3) | 17 (3) | 17 (3) | 17 (3) | 17 (3) |
| Total energy intake (kcal) | 1642 (329) | 1410 (263) | 1511 (260) | 1648 (168) | 1650 (307) | 1653 (277) | 1522 (265) |
| Total sugar intake (kcal) | 398 (167) | 332 (119) | 277 (91) | 381 (93) | 328 (93) | 343 (117) | 321 (102) |
| Energy percentage from total sugar | 24 (7) | 23 (6) | 18 (5) | 23 (5) | 20 (5) | 21 (6) | 21 (6) |
| Total sugar intake² | | | | | | | |
| Milk products (kcal) | 58 (27) | 36 (29) | 33 (22) | 61 (36) | 90 (41) | 65 (42) | 62 (41) |
| Fruit products (kcal) | 148 (95) | 75 (62) | 85 (47) | 120 (63) | 81 (50) | 104 (68) | 90 (56) |
| Sweetened beverages (kcal) | 42 (28) | 104 (136) | 49 (41) | 50 (43) | 61 (60) | 54 (49) | 54 (57) |
| Bread and cereals (kcal) | 32 (35) | 15 (14) | 9 (12) | 24 (26) | 16 (15) | 19 (25) | 17 (17) |
| Confectionary (kcal) | 108 (54) | 104 (62) | 61 (37) | 105 (62) | 73 (47) | 86 (61) | 82 (46) |
| Blood marker³ | | | | | | | |
| Glucose [mg/dl] | 87.5 (12.1) | 86.3 (5.4) | 78.3 (8.4) | 88.5 (5.9) | 81.9 (6.8) | 84.6 (8.3) | 82.1 (8.3) |
| Insulin [μ IU/ml] | 14.6 (17.2) | 8.4 (2.2) | 7.3 (3.0) | 9.1 (3.0) | 10.0 (3.4) | 9.4 (7.4) | 9.1 (3.4) |
| HOMA index | 3.6 (5.7) | 1.8 (0.6) | 1.4 (0.6) | 2.0 (0.7) | 2.0 (0.8) | 1.8 (0.7) | 1.9 (0.8) |
| TG [mg/dl] | 129.6 (96.8) | 60.3 (27.1) | 59.8 (22.2) | 73.2 (31.9) | 49.4 (18.1) | 64.3 (47.6) | 64.7 (31.5) |
| HDL-C [mg/dl] | 57.7 (12.1) | 63.6 (16.9) | 61.2 (16.0) | 50.4 (11.5) | 63.5 (14.1) | 61.2 (16.1) | 58.1 (13.9) |
| TG/HDL-C ratio | 2.6 (2.4) | 1.1 (0.8) | 1.1 (0.6) | 1.6 (0.9) | 0.8 (0.4) | 1.0 (0.6) | 1.2 (0.8) |
| TC [mg/dl] | 170.4 (24.1) | 167.8 (22.4) | 165.2 (30.7) | 167.6 (30.5) | 168.5 (25.3) | 166.4 (27.3) | 168.5 (27.8) |
| LDL-C [mg/dl] | 90.4 (26.4) | 92.7 (23.1) | 89.0 (24.7) | 102.9 (26.9) | 95.3 (23.0) | 91.6 (24.8) | 97.7 (24.9) |

¹Categorical variables are displayed as N (%) and continuous as mean (SD).

² Some food groups were not consumed by all children: milk products (n= 38), fruit products (n= 49), sweetened beverages (n= 197), bread and cereals (n= 36), confectionary (n= 40).

³ Missings: Insulin (11), HOMA index (35), Triglycerides (1), HDL-C (1), TG/HDL-C ratio (1), LDL-C (4).

Abbreviations: High homeostasis model assessment (HOMA), Triglycerides (TG), High density lipoprotein cholesterol (HDL-C), Total cholesterol (TC), Low density lipoprotein cholesterol (LDL-C)