**Suplementary tables**

**Supplementary Table 1:** Baseline characteristics according to the *GCKR* rs780094 polymorphism in EPIC-Norfolk participants (n=19,800)

| | Total | rs780094 (GCKR) | | | p |
| --- | --- | --- | --- | --- | --- |
| | | **GG** | **GA** | **AA** | **p** |
| | **19,800** | **7,372 (32.2)** | **9,337 (47.2)** | **3,091 (15.6)** | |
| **Age (y)** | 59.4 (9.3) | 59.3 (9.3) | 59.5 (9.3) | 59.5 (9.2) | 0.353 |
| **Men (%)** | 48.5 | 47.8 | 48.7 | 49.3 | |
| **BMI (kg/m$^2$)** | 26.3 (3.8) | 26.4 (3.9) | 26.3 (3.7) | 26.2 (3.6) | 0.058 |
| **WC (cm)** | 88.7 (12.2) | 88.7 (12.4) | 88.7 (12.2) | 88.6 (12.0) | 0.779 |
| **TG (mmol/L)** | 1.8 (0.9) | 1.69 (0.83) | 1.77 (0.86) | 1.86 (0.89) | **<0.001** |
| **Total cholesterol (mmol/L)** | 6.2 (1.1) | 6.12 (1.12) | 6.17 (1.14) | 6.25 (1.19) | **<0.001** |
| **LDL-c (mmol/L)** | 4.0 (1.0) | 3.97 (1.03) | 3.97 (1.04) | 4.02 (1.07) | 0.173 |
| **HDL-c (mmol/L)** | 1.4 (0.4) | 1.39 (0.41) | 1.40 (0.42) | 1.39 (0.41) | 0.798 |
| **ApoB (mmol/L)** | 0.97 (0.24) | 0.96 (0.24) | 0.97 (0.24) | 0.99 (0.25) | **<0.001** |
| **ApoA (mmol/L)** | 1.54 (0.33) | 1.53 (0.33) | 1.54 (0.32) | 1.54 (0.32) | 0.229 |
| **ApoB/ApoA-1** | 0.65 (0.19) | 0.64 (0.19) | 0.65 (0.19) | 0.66 (0.19) | **0.018** |
| **HbA1c (%)** | 5.3 (0.8) | 5.34 (0.84) | 5.32 (0.84) | 5.30 (0.84) | 0.49 |
| **Social class (%)** | | | | | |
| Uncoded | 0.3 | 0.4 | 0.3 | 0.2 | 0.341 |
| Professional | 6.8 | 7.4 | 6.1 | 6.9 | |
| Managerial & technical | 36.7 | 35.7 | 37.2 | 37.4 | |
| Skilled non-manual | 16.6 | 16.9 | 16.4 | 16.8 | |
| Skilled manual | 23.3 | 23.2 | 23.5 | 23.5 | |
| Partly skilled | 12.9 | 13.3 | 12.9 | 11.9 | |
| Unskilled | 3.3 | 3.1 | 3.4 | 3.6 | |
| **Education level (%)** | | | | | |
| Low | 36.3 | 35.8 | 37.6 | 33.9 | **0.038** |
| O-level or equivalent | 10.3 | 10.5 | 9.9 | 11.2 | |
| A-level or equivalent | 40.8 | 41.2 | 40.3 | 41.2 | |
| University degree or equivalent | 12.6 | 12.6 | 12.2 | 13.7 | |
| **Physical activity (%)** | | | | | |
| Inactive | 30.2 | 30.1 | 30.1 | 30.4 | 0.536 |
| Moderately inactive | 28.7 | 28.5 | 29.3 | 27.4 | |

| | | | | | |
|---|---|---|---|---|---|
| Moderately active | 22.5 | 22.6 | 21.9 | 23.8 | |
| Active | 18.7 | 18.8 | 18.6 | 18.4 | |
| **Smoking (%)** | | | | | |
| Never | 11.3 | 11.1 | 11.7 | 10.8 | 0.432 |
| Former | 42.9 | 43.7 | 42.2 | 43.1 | |
| Current | 45.8 | 45.1 | 46.2 | 46.1 | |
| **Dietary components of rMED (g/day)\*\*** | | | | | |
| Overall  rMED score | 7.8 (2.7) | 7.8 (2.7) | 7.8 (2.7) | 7.7 (2.7) | 0.096 |
| Vegetables | 235.7 (150.1) | 238.9 (147.7) | 227.2 (149.6) | 223.8 (145.8) | 0.113 |
| Fruit and nuts | 223.1 (199.7) | 211.4 (194.5) | 206.2 (194.0) | 208.9 (196.3) | 0.389 |
| Legumes | 54.5 (43.0) | 54.5 (42.8) | 54.2 (43.0) | 52.2 (43.5) | 0.306 |
| Fish | 32.1 (27.2) | 32.1 (27.3) | 32.1 (27.2) | 32.1 (25.1) | 0.883 |
| Cereals | 248.9 (118.3) | 245.9 (124.1) | 249.4 (124.2) | 247.9 (123.1) | 0.818 |
| Olive oil | 0.8 (0.9) | 0.98 (0.98) | 0.98 (0.98) | 0.98 (0.98) | 0.781 |
| Alcohol | 3.1 (9.2) | 4.7 (10.6) | 4.7 (10.1) | 4.7 (10.1) | 0.128 |
| Meat and meat products | 94.6 (64.0) | 97.4 (64.9) | 98.2 (64.0) | 98.2 (65.9) | 0.414 |
| Dairy products | 87.5 (82.7) | 82.8 (80.3) | 81.2 (77.4) | 80.1 (76.1) | 0.062 |

*rMED (relative Mediterranean Diet Score: categories: low adherence to MD (rMED 0-6); medium adherence to the MD (rMED 7-10); high adherence to MD (rMED 11-18). BMI, Body Mass Index, WC, waist circumference, PA, Physical activity ** Values for dietary components of rMED are presented as Median (interquartile range) Continuous variables are presented as mean (SD, standard deviation)