**Online Supporting Material**

**Supplemental Table 2. Complete-case trend analyses investigating whether the differences between New Nordic diet (NND) and control in the metabolic syndrome score and the cardio-metabolic markers depended on children’s BMI at baseline**

|  |  | Estimated difference in outcome between NND and control  per BMI-increase (kg/m2)\* | | |
| --- | --- | --- | --- | --- |
|  | n | Mean | 95% CI | *P* |
| MetS score† | 631 | 0.01 | -0.12; 0.14 | 0.90 |
| Diastolic blood pressure (mmHg) | 725 | 0.1 | -0.2; 0.3 | 0.46 |
| Mean arterial pressure (mmHg) | 725 | -0.0 | -0.2; 0.2 | 0.95 |
| Heart rate (beats/min) | 725 | -0.1 | -0.5; 0.3 | 0.40 |
| Plasma total cholesterol (mmol/L) | 675 | 0.00 | -0.01; 0.02 | 0.62 |
| Plasma HDL cholesterol (mmol/L) | 675 | 0.00 | -0.01; 0.01 | 0.41 |
| Plasma TAG (mmol/L) | 675 | 0.00 | -0.01; 0.01 | 0.50 |
| HOMA-IR | 638 | -0.01 | -0.04; 0.03 | 0.58 |
| Waist circumference (cm) | 732 | 0.0 | -0.1; 0.1 | 0.63 |
| Android:total fat mass ×105 | 716 | 13 | -10; 35 | 0.12 |

MetS, metabolic syndrome; HOMA-IR, homeostasis model of assessment insulin resistance.  
\*Evaluated as a BMI×treatment interaction adjusted for visit, order of NND and control periods, sex, baseline value, baseline age, height if appropriate, and also school, class, year group within school, sibling and child as random effects. Blood pressure and heart rate were also adjusted for blood pressure device.

†The MetS score was based on mean arterial pressure, plasma HDL cholesterol, plasma TAG, HOMA-IR and waist circumference.