| Nutrients                          | Male Factor 1 | Female Factor 1 | Male Factor 2 | Female Factor 2 | Male Factor 3 | Female Factor 3 | Male Factor 4 | Female Factor 4 |
|-----------------------------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|----------------|
| Folate                            | 0.91          | 0.90            | 0.14          | 0.14            | 0.13          | 0.14            | 0.04          | 0.08           | 0.10          |
| Carotene                          | 0.85          | 0.75            | 0.20          | 0.22            | 0.07          | 0.12            | 0.03          | 0.04           | 0.07          |
| Vitamin C                         | 0.82          | 0.74            | 0.09          | 0.09            | 0.13          | 0.12            | 0.13          | 0.14           | 0.20          |
| Insoluble dietary fiber           | 0.79          | 0.77            | 0.23          | 0.22            | 0.16          | 0.12            | 0.25          | 0.18           | 0.20          |
| Iron                              | 0.72          | 0.75            | 0.14          | 0.14            | 0.46          | 0.12            | 0.75          | 0.12           | 0.42          |
| Retinol equivalent                | 0.70          | 0.70            | 0.18          | 0.18            | -0.04         | 0.12            | 0.75          | 0.20           | 0.08          |
| Soluble dietary fiber             | 0.66          | 0.67            | 0.18          | 0.18            | 0.52          | 0.12            | 0.77          | 0.12           | 0.35          |
| Potassium                         | 0.62          | 0.63            | 0.08          | 0.08            | 0.34          | 0.12            | 0.74          | 0.12           | 0.18          |
| Vitamin D                         | 0.45          | 0.45            | 0.19          | 0.19            | 0.39          | 0.23            | 0.35          | 0.23           | 0.32          |
| Monounsaturated fatty acids       | 0.12          | 0.12            | 0.95          | 0.95            | 0.16          | 0.93            | 0.04          | 0.93           | -0.03         |
| n-3 polyunsaturated fatty acids   | 0.26          | 0.26            | 0.87          | 0.87            | 0.13          | 0.88            | 0.15          | 0.88           | 0.05          |
| n-6 polyunsaturated fatty acids   | 0.20          | 0.20            | 0.86          | 0.86            | 0.08          | 0.85            | 0.20          | 0.85           | 0.13          |
| Vitamin E                         | 0.46          | 0.46            | 0.84          | 0.84            | 0.12          | 0.80            | 0.07          | 0.80           | 0.00          |
| Vitamin B1                        | 0.02          | 0.02            | 0.50          | 0.50            | 0.32          | 0.32            | 0.42          | 0.32           | 0.34          |
| Cholesterol                       | 0.07          | 0.07            | 0.38          | 0.38            | 0.30          | 0.30            | 0.36          | 0.36           | 0.27          |
| Saturated fatty acids             | 0.07          | 0.07            | 0.24          | 0.24            | 0.90          | 0.93            | 0.06          | 0.93           | -0.01         |
| Calcium                           | 0.30          | 0.30            | -0.07         | -0.07           | 0.80          | -0.06           | 0.20          | 0.78           | 0.21          |
| Vitamin B2                        | 0.41          | 0.41            | 0.06          | 0.06            | 0.75          | 0.04            | 0.18          | 0.77           | 0.21          |
| Carbohydrate                      | -0.06         | -0.06           | -0.41         | -0.41           | -0.74         | -0.30           | -0.02         | -0.82          | 0.06          |
| Sodium                            | 0.24          | 0.24            | 0.11          | 0.11            | 0.07          | 0.03            | 0.85          | 0.02           | 0.76          |
| Protein                           | 0.23          | 0.23            | 0.36          | 0.36            | 0.55          | 0.32            | 0.59          | 0.50           | 0.65          |
| Variance                          | 5.6           | 5.6             | 4.1           | 4.1             | 3.4           | 3.4             | 2.3           | 2.3            | 2.2           |
| Cumulative variance explained (%) | 26.6          | 26.6            | 46.3          | 46.3            | 62.4          | 62.4            | 73.3          | 73.3           | 73.5          |
## eTable 2. Associations of four factor scores with high Fatty Liver Index (Cut-off level=30)

| FLI ≥30 | Q1 OR | Q2 OR (95% CI) | Q3 OR (95% CI) | Q4 OR (95% CI) | P for trend<sup>c</sup> |
|---------|-------|----------------|----------------|----------------|----------------|
| Factor 1 | n=397 | n=397 | n=397 | n=397 | n=397 |
| Number of cases (%) | 153 (38.5) | 122 (30.7) | 105 (26.5) | 80 (20.2) |  |
| Model 1<sup>a</sup> | 1.00 | 0.84 (0.61-1.16) | 0.71 (0.51-0.98) | 0.59 (0.41-0.86) | 0.003 |
| Model 2<sup>b</sup> | 1.00 | 0.87 (0.63-1.20) | 0.71 (0.51-1.00) | 0.62 (0.42-0.91) | 0.008 |
| Factor 2 | n=397 | n=397 | n=397 | n=397 | n=397 |
| Number of cases (%) | 127 (32.0) | 112 (28.2) | 98 (24.7) | 123 (31.0) |  |
| Model 1 | 1.00 | 1.02 (0.73-1.43) | 0.96 (0.68-1.35) | 1.28 (0.92-1.79) | 0.21 |
| Model 2 | 1.00 | 1.01 (0.72-1.41) | 0.94 (0.66-1.33) | 1.22 (0.87-1.72) | 0.33 |
| Factor 3 | n=397 | n=397 | n=397 | n=397 | n=397 |
| Number of cases (%) | 157 (39.6) | 121 (30.5) | 94 (23.7) | 88 (22.2) |  |
| Model 1 | 1.00 | 0.74 (0.54-1.02) | 0.59 (0.42-0.82) | 0.64 (0.46-0.90) | 0.003 |
| Model 2 | 1.00 | 0.75 (0.54-1.04) | 0.59 (0.42-0.83) | 0.65 (0.46-0.92) | 0.004 |
| Factor 4 | n=397 | n=397 | n=397 | n=397 | n=397 |
| Number of cases (%) | 110 (27.7) | 114 (28.7) | 124 (31.2) | 112 (28.2) |  |
| Model 1 | 1.00 | 1.11 (0.80-1.56) | 1.31 (0.94-1.83) | 1.08 (0.77–1.52) | 0.46 |
| Model 2 | 1.00 | 1.12 (0.80-1.57) | 1.31 (0.94-1.84) | 1.10 (0.78-1.56) | 0.40 |

CI, confidence interval; OR, odds ratio; Q, quartile.

<sup>a</sup> Adjusted for sex, age, and research group.

<sup>b</sup> Additionally adjusted for smoking, amount of ethanol intake, total energy intake, and physical activity level.

<sup>c</sup> P for trend was calculated using Wald test.