**Supplement Table 1. Hazard Ratios of CVD and Total Mortality in Women, Women and Men Combined According to Animal-Based-, and Plant-Fish-Based LCD Score**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Decile 1 | | Decile 2 | Decile 3 | Decile 4 | Decile 5 | Decile 6 | Decile 7 | Decile 8 | Decile 9 | Decile 10 | *HR/decile*  *Trend P* |
| **CVD Mortality** | | |  |  |  |  |  |  |  |  |  |  |
| Animal-based-LCD | | | | |  |  |  |  |  |  |  |  |
| Case (N) | 105 | | 97 | 90 | 61 | 45 | 73 | 44 | 33 | 34 | 31 |  |
| Person-y | 11,028 | | 13,968 | 13,235 | 9,856 | 10,745 | 15,986 | 15,490 | 9,709 | 14,283 | 15,518 |  |
| Score range | 0-3 | | 4-7 | 8-10 | 11-12 | 13-15 | 16-17 | 18-19 | 20-22 | 23-25 | 26-30 |  |
| Model 1 | 1.00 | | 0.95 | 1.14 | 1.19 | 0.96 | 1.03 | 0.91 | 1.04 | 0.74 | 0.72 | *0.97* |
|  |  | | (0.72-1.25) | (0.86-1.52) | (0.87-1.64) | (0.68-1.37) | (0.76-1.39) | (0.63-1.30) | (0.70-1.54) | (0.50-1.09) | (0.48-1.07) | *P=0.064* |
| Model 2 | 1.00 | | 0.90 | 1.12 | 1.16 | 0.95 | 1.02 | 0.87 | 0.94 | 0.72 | 0.69 | *0.97* |
|  |  | | (0.68-1.19) | (0.85-1.49) | (0.84-1.59) | (0.67-1.35) | (0.75-1.38) | (0.61-1.24) | (0.63-1.41) | (0.49-1.06) | (0.46-1.04) | *P=0.046* |
| Model 3 | 1.00 | | 0.92 | 1.12 | 1.12 | 0.94 | 1.01 | 0.84 | 0.91 | 0.69 | 0.72 | *0.97* |
|  |  | | (0.70-1.22) | (0.84-1.48) | (0.81-1.54) | (0.66-1.34) | (0.75-1.37) | (0.58-1.21) | (0.61-1.35) | (0.47-1.02) | (0.48-1.08) | *P=0.028* |
| Model 4 | 1.00 | | 0.93 | 1.12 | 1.14 | 0.95 | 1.02 | 0.85 | 0.91 | 0.70 | 0.73 | *0.97* |
|  |  | | (0.70-1.22) | (0.84-1.49) | (0.82-1.57) | (0.65-1.36) | (0.75-1.38) | (0.59-1.22) | (0.61-1.36) | (0.48-1.04) | (0.48-1.10) | *P=0.038* |
| Men+Women |  | |  |  |  |  |  |  |  |  |  |  |
| Case (N) | 189 | | 187 | 142 | 118 | 105 | 113 | 108 | 51 | 88 | 70 |  |
| Person-y | 18,631 | | 23,955 | 19,724 | 20,453 | 22,075 | 23,354 | 27,568 | 16,998 | 25,025 | 26,827 |  |
| Model 3 | 1.00 | | 0.95 | 1.05 | 0.91 | 0.90 | 0.97 | 0.88 | 0.75 | 0.91 | 0.79 | *0.98* |
|  |  | | (0.78-1.16) | (0.84-1.30) | (0.72-1.14) | (0.71-1.15) | (0.76-1.23) | (0.69-1.12) | (0.55-1.03) | (0.70-1.18) | (0.60-1.05) | *P=0.046* |
| Model 4 | 1.00 | | 0.96 | 1.06 | 0.92 | 0.93 | 1.00 | 0.91 | 0.78 | 0.95 | 0.83 | *0.98* |
|  |  | | (0.78-1.17) | (0.85-1.32) | (0.73-1.17) | (0.73-1.19) | (0.79-1.27) | (0.72-1.17) | (0.57-1.06) | (0.73-1.23) | (0.63-1.11) | *P0.140* |
| Plant-Fish-based-LCD | | | | | |  |  |  |  |  |  |  |  |  |  |  |
| Case (N) | | 103 | 127 | 41 | 96 | 33 | 58 | 41 | 20 | 61 | 33 |  |
| Person-y | | 13,198 | 13,850 | 7,940 | 15,574 | 7,837 | 16,852 | 16,820 | 7,643 | 18,684 | 11,418 |  |
| Score range | | 0-3 | 4-7 | 8-10 | 11-12 | 13-14 | 15-17 | 18-20 | 21-22 | 23-25 | 26-30 |  |
| Model 1 | | 1.00 | 1.20 | 1.01 | 1.21 | 1.06 | 0.94 | 0.81 | 0.88 | 1.13 | 0.70 | *0.97* |
|  | |  | (0.93-1.56) | (0.71-1.46) | (0.91-1.59) | (0.72-1.58) | (0.68-1.30) | (0.56-1.16) | (0.55-1.43) | (0.82-1.56) | (0.47-1.04) | *P=0.051* |
| Model 2 | | 1.00 | 1.18 | 1.04 | 1.22 | 1.02 | 0.95 | 0.81 | 0.84 | 1.12 | 0.71 | *0.97* |
|  | |  | (0.91-1.53) | (0.72-1.49) | (0.92-1.61) | (0.69-1.52) | (0.68-1.31) | (0.56-1.17) | (0.52-1.36) | (0.81-1.55) | (0.48-1.06) | *P=0.050* |
| Model 3 | | 1.00 | 1.16 | 1.05 | 1.22 | 1.03 | 0.95 | 0.81 | 0.84 | 1.08 | 0.72 | *0.97* |
|  | |  | (0.90-1.51) | (0.73-1.52) | (0.92-1.62) | (0.69-1.53) | (0.69-1.31) | (0.56-1.16) | (0.52-1.36) | (0.79-1.50) | (0.49-1.08) | *P=0.050* |
| Model 4 | | 1.00 | 1.15 | 1.04 | 1.22 | 1.01 | 0.94 | 0.79 | 0.84 | 1.06 | 0.73 | *0.97* |
|  | |  | (0.88-1.50) | (0.72-1.51) | (0.92-1.63) | (0.68-1.50) | (0.67-1.30) | (0.54-1.14) | (0.52-1.37) | (0.77-1.47) | (0.49-1.09) | *P=0.046* |
| Men+Women | |  |  |  |  |  |  |  |  |  |  |  |
| Case (N) | | 208 | 218 | 75 | 174 | 71 | 105 | 85 | 41 | 120 | 74 |  |
| Person-y | | 23,032 | 23,573 | 12,761 | 27,235 | 14,137 | 28,381 | 29,672 | 13,572 | 32,639 | 19,607 |  |
| Model 3 | | 1.00 | 1.11 | 0.90 | 1.11 | 1.01 | 0.87 | 0.75 | 0.82 | 0.99 | 0.83 | *0.98* |
|  | |  | (0.92-1.35) | (0.69-1.18) | (0.91-1.36) | (0.77-1.33) | (0.69-1.11) | (0.58-0.97) | (0.58-1.15) | (0.79-1.24) | (0.63-1.08) | *P=0.016* |
| Model 4 | | 1.00 | 1.10 | 0.89 | 1.11 | 1.00 | 0.87 | 0.75 | 0.83 | 0.98 | 0.84 | *0.98* |
|  | |  | (0.91-1.34) | (0.68-1.16) | (0.91-1.37) | (0.76-1.32) | (0.68-1.11) | (0.58-0.98) | (0.59-1.17) | (0.78-1.24) | (0.64-1.11) | *P=0.026* |
| **Total Mortality** | | |  |  |  |  |  |  |  |  |  |  |
| Animal-based-LCD | | | | |  |  |  |  |  |  |  |  |
| Case (N) | | 249 | 268 | 215 | 137 | 149 | 190 | 125 | 90 | 108 | 115 |  |
| Model 1 | | 1.00 | 1.07 | 1.09 | 1.07 | 1.21 | 1.02 | 0.92 | 1.07 | 0.88 | 0.97 | *0.99* |
|  | |  | (0.90-1.27) | (0.91-1.31) | (0.87-1.32) | (0.98-1.48) | (0.85-1.24) | (0.74-1.14) | (0.84-1.36) | (0.70-1.10) | (0.78-1.22) | *P=0.173* |
| Model 2 | | 1.00 | 1.04 | 1.10 | 1.05 | 1.20 | 1.03 | 0.90 | 1.03 | 0.87 | 0.95 | *0.99* |
|  | |  | (0.88-1.24) | (0.92-1.32) | (0.85-1.30) | (0.98-1.48) | (0.85-1.24) | (0.72-1.11) | (0.80-1.31) | (0.69-1.09) | (0.76-1.20) | *P=0.126* |
| Model 3 | | 1.00 | 1.08 | 1.12 | 1.03 | 1.22 | 1.04 | 0.90 | 1.03 | 0.86 | 1.00 | *0.99* |
|  | |  | (0.91-1.28) | (0.93-1.34) | (0.84-1.28) | (0.99-1.50) | (0.86-1.26) | (0.72-1.12) | (0.80-1.31) | (0.69-1.09) | (0.80-1.25) | *P=0.140* |
| Model 4 | | 1.00 | 1.08 | 1.12 | 1.03 | 1.23 | 1.05 | 0.91 | 1.03 | 0.87 | 1.00 | *0.99* |
|  | |  | (0.91-1.28) | (0.93-1.35) | (0.84-1.28) | (1.00-1.51) | (0.86-1.27) | (0.73-1.13) | (0.81-1.32) | (0.69-1.10) | (0.80-1.26) | *P=0.177* |
| Men+Women | |  |  |  |  |  |  |  |  |  |  |  |
| Case (N) | | 502 | 533 | 370 | 339 | 353 | 318 | 314 | 178 | 266 | 270 |  |
| Model 3 | | 1.00 | 1.01 | 1.02 | 0.94 | 1.05 | 0.96 | 0.87 | 0.89 | 0.91 | 0.99 | *0.99* |
|  | |  | (0.90-1.15) | (0.89-1.17) | (0.82-1.08) | (0.91-1.20) | (0.83-1.10) | (0.75-1.00) | (0.75-1.06) | (0.79-1.06) | (0.85-1.16) | *P=0.082* |
| Model 4 | | 1.00 | 1.02 | 1.02 | 0.94 | 1.06 | 0.97 | 0.88 | 0.91 | 0.93 | 1.00 | *0.99* |
|  | |  | (0.90-1.15) | (0.89-1.17) | (0.82-1.08) | (0.93-1.22) | (0.84-1.12) | (0.76-1.02) | (0.76-1.08) | (0.76-1.08) | (0.87-1.19) | *P=0.204* |
| Plamt-Fish-based-LCD | | | | | |  |  |  |  |  |  |  |
| Case (N) | | 290 | 267 | 112 | 240 | 90 | 176 | 132 | 61 | 166 | 112 |  |
| Model 1 | | 1.00 | 0.90 | 0.93 | 1.03 | 0.94 | 0.92 | 0.81 | 0.85 | 0.95 | 0.76 | *0.98* |
|  | |  | (0.76-1.06) | (0.75-1.16) | (0.87-1.22) | (0.74-1.19) | (0.76-1.11) | (0.66-1.00) | (0.64-1.12) | (0.78-1.15) | (0.61-0.95) | *P=0.048* |
| Model 2 | | 1.00 | 0.89 | 0.95 | 1.04 | 0.91 | 0.92 | 0.82 | 0.83 | 0.94 | 0.77 | *0.98* |
|  | |  | (0.75-1.05) | (0.77-1.19) | (0.87-1.23) | (0.72-1.16) | (0.76-1.11) | (0.66-1.01) | (0.63-1.09) | (0.78-1.15) | (0.62-0.96) | *P=0.055* |
| Model 3 | | 1.00 | 0.88 | 0.96 | 1.03 | 0.93 | 0.93 | 0.82 | 0.83 | 0.93 | 0.79 | *0.99* |
|  | |  | (0.74-1.03) | (0.77-1.19) | (0.87-1.22) | (0.73-1.18) | (0.77-1.12) | (0.66-1.01) | (0.63-1.10) | (0.77-1.13) | (0.63-0.98) | *P=0.072* |
| Model 4 | | 1.00 | 0.87 | 0.96 | 1.03 | 0.92 | 0.93 | 0.82 | 0.83 | 0.93 | 0.79 | *0.99* |
|  | |  | (0.73-1.03) | (0.77-1.19) | (0.86-1.22) | (0.72-1.17) | (0.76-1.12) | (0.66-1.01) | (0.63-1.11) | (0.76-1.13) | (0.63-1.00) | *P=0.095* |
| Men+Women | |  |  |  |  |  |  |  |  |  |  |  |
| Case (N) | | 569 | 540 | 239 | 468 | 201 | 362 | 288 | 150 | 382 | 244 |  |
| Model 3 | | 1.00 | 1.01 | 1.03 | 1.03 | 0.99 | 1.00 | 0.81 | 0.94 | 1.01 | 0.90 | *0.99* |
|  | |  | (0.89-1.13) | (0.88-1.20) | (0.91-1.16) | (0.84-1.16) | (0.88-1.15) | (0.70-0.94) | (0.79-1.13) | (0.88-1.15) | (0.78-1.05) | *P=0.084* |
| Model 4 | | 1.00 | 1.01 | 1.03 | 1.03 | 0.99 | 1.01 | 0.82 | 0.96 | 1.02 | 0.92 | *0.99* |
|  | |  | (0.90-1.14) | (0.89-1.21) | (0.92-1.18) | (0.85-1.18) | (0.89-1.16) | (0.72-0.96) | (0.81-1.17) | (0.89-1.17) | (0.80-1.09) | *P=0.212* |

Multivariable-adjusted hazard ratios (HR) of cardiovascular and total mortality associated with LCD in women, and women and men combined are shown. We calculated HR using a Cox proportional hazards model. Covariates in model 1 were age and deciles of diet scores. Model 2: model 1 covariates + BMI (5 categories divided at 18.5, 23, 25, and 30 kg/m2; 18.5-23: a reference), hypertension, cigarette smoking (never and past smokers, 3 current smokers categories divided at 20, and 40 cigarettes/day; never smokers: a reference), and alcohol drinking (ex-drinker or current drinker, never-drinker; never drinkers: a reference). Model 3: model 2 covariates + serum total cholesterol, and blood glucose concentrations (standardized to have the mean=0 and standard deviation=1), and serum creatinine (divided at 75 percentile, 1.0 mg/dl). Model 4: model 3 covariates + total dietary fiber and sodium/potassium ratio, and employee class (executive, professional, others; others: a reference). Model 3, 4 in women and men combined: model 3, 4 covariates + sex.

**Supplement Table 2. Category Limits for Nutrients Used in Determining the LCD Score in Men**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Points** | **Carbohydrate** | **Total Protein** | **Total Fat** | **Animal Protein** | **SFA** | **Veg Protein** | **M\_PUFA** |
| 0 | 68.3-81.0 | 8.0-12.6 | 4.3-13.1 | 1.5-5.7 | 1.4-3.8 | 1.4-6.1 | 3.7-8.7 |
| 1 | 65.5-68.2 | 12.7-13.2 | 13.2-15.1 | 5.8-6.5 | 3.8-4.3 | 6.2-6.4 | 8.7-9.8 |
| 2 | 63.6-65.4 | 13.3-13.7 | 15.2-16.6 | 6.6-7.1 | 4.3-4.7 | 6.5-6.7 | 9.8-10.6 |
| 3 | 62.2-63.5 | 13.8-14.1 | 16.7-17.7 | 7.2-7.6 | 4.7-5.0 | 6.8-6.9 | 10.6-11.3 |
| 4 | 60.8-62.1 | 14.2-14.6 | 17.8-18.9 | 7.7-8.1 | 5.0-5.4 | 7.0-7.1 | 11.3-12.0 |
| 5 | 59.5-60.7 | 14.7-15.0 | 19.0-20.1 | 8.2-8.6 | 5.4-5.6 | 7.2-7.3 | 12.0-12.7 |
| 6 | 58.1-59.4 | 15.1-15.5 | 20.2-21.2 | 8.7-9.1 | 5.7-6.0 | 7.4-7.5 | 12.7-13.5 |
| 7 | 56.5-58.0 | 15.6-16.0 | 21.3-22.6 | 9.2-9.7 | 6.0-6.3 | 7.6-7.8 | 13.5-14.3 |
| 8 | 54.5-56.4 | 16.1-16.7 | 22.7-24.2 | 9.8-10.5 | 6.3-6.8 | 7.9-8.1 | 14.3-15.2 |
| 9 | 51.7-54.4 | 16.8-17.8 | 24.3-26.6 | 10.6-11.7 | 6.8-7.4 | 8.2-8.6 | 15.2-16.8 |
| 10 | 18.8-51.6 | 17.9-31.7 | 26.7-49.1 | 11.8-32.6 | 7.4-18.3 | 8.7-11.6 | 16.8-31.0 |

LCD score in men was calculated by modifying the methods of Halton, et al. [6]. Data are shown as a percentage of energy. We divided the male study participants into 11 strata each of fat, protein, and carbohydrate intake, expressed as a percentage of energy. For fat and protein, participants in the highest stratum received 10 points for that macronutrient, down to participants in the lowest stratum, who received 0 points. For carbohydrate, the order of the strata was reversed. The points for each of the three macronutrients were then summed to create the overall diet score, which ranged from 0 to 30 (usual LCD score). We also created two additional LCD scores. One was calculated according to the percentage of energy as carbohydrate, the percentage of energy as animal protein, and the percentage of energy as saturated fatty acids (animal-based LCD score), and the other was calculated according to the percentage of energy as carbohydrate, the percentage of energy as vegetable protein, and the percentage of energy as mono- and poly-unsaturated fatty acids (plant-fish-based LCD score).

**Supplement Table 3. Characteristics of Participants in 1980 According to the LCD Scores in Men--NIPPON DATA 80, 1980-2009**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Usual LCD | | | Animal-based LCD | | | Plant-Fish-based LCD | | |
|  | Decile 1 | Decile 5 | Decile 10 | Decile 1 | Decile 5 | Decile 10 | Decile 1 | Decile 5 | Decile 10 |
| N | 422 | 558 | 387 | 433 | 539 | 507 | 520 | 282 | 506 |
| Low-carbohydrate score |  |  |  |  |  |  |  |  |  |
| Median | 2 | 14 | 27 | 2 | 14 | 27 | 7 | 14 | 24 |
| Range | 0-4 | 13-15 | 26-30 | 0-3 | 13-15 | 26-30 | 0-8 | 14-14 | 22-30 |
| Age (y) | 56.0±13.6 | 49.3±12.8† | 47.8±11.8† | 58.0±12.9 | 49.4±13.1† | 45.7±11.5† | 56.1±14.2 | 49.2±12.5† | 48.9±12.5† |
| BMI (kg/m2) | 22.0±1.1 | 24.6±1.0 | 23.0±1.2 | 22.0±1.1 | 22.6±1.0 | 22.8±1.0 | 24.1±1.0 | 22.5±1.3 | 22.7±1.2 |
| Hypertension (%) | 53.6 | 51.3† | 48.8\* | 57.4 | 50.3\* | 43.0 | 53.9 | 48.6 | 49.6 |
| Current smoker (%) | 59.7 | 62.5 | 64.9 | 60.4 | 60.5\* | 64.1† | 62.3 | 62.7 | 65.4 |
| Current drinker (%) | 64.0 | 74.2\* | 82.2† | 62.9 | 74.6 | 82.1 | 64.6 | 76.6\* | 80.4† |
| Executive (%) | 9.0 | 13.0† | 23.6† | 6.3 | 13.2† | 24.3† | 10.4 | 15.1\* | 18.6† |
| Professional (%) | 23.4 | 34.1 | 36.7\* | 19.8 | 32.5† | 37.1† | 24.5 | 32.8 | 36.9\* |
| TCH (mg/dl) | 178.4±1.7 | 182.8±1.4 | 194.1±1.7† | 175.7±1.7 | 186.0±1.5† | 194.0±1.5† | 180.7±1.5 | 187.6±2.0\* | 189.0±1.8† |
| Blood glucose (mg/dl) | 105.3±1.6 | 101.6±1.4 | 100.6±1.7 | 105.0±1.6 | 103.2±1.4 | 100.3±1.5 | 102.6±1.5 | 101.1±1.9 | 103.4±1.7 |
| Calories (kJ/d) | 10238±105 | 10012±92 | 9928±109 | 10012±105 | 10054±92 | 9932±96 | 10452±96 | 9936±126† | 9957±113† |
| Rice (g/d) | 407.8±4.6 | 313.2±4.0 † | 214.1±4.8 † | 406.7±4.6 | 307.6±4.0† | 211.0±4.2† | 386.3±4.3 | 313.2±5.7† | 239.1±5.1† |
| Flour product (g/d) | 78.1±2.8 | 79.6±2.4 | 83.9±2.9 | 71.1±2.8 | 86.0±2.5† | 90.8±2.6† | 72.7±2.5 | 83.4±3.3 | 95.6±2.9† |
| Fruits (g/d) | 141.6±5.0 | 139.2±4.3 | 147.1±5.1 | 128.3±5.0 | 146.4±4.4\* | 141.4±4.5 | 151.9±4.5 | 134.7±5.9 | 138.6±5.2 |
| Green, yellow veg (g/d) | 48.1±2.0 | 57.3±1.7† | 66.8±2.1† | 49.3±2.0 | 55.1±1.8 | 63.6±1.9† | 40.6±1.8 | 52.6±2.4† | 73.9±2.1† |
| Fish & shellfish (g/d) | 89.4±3.2 | 124.8±2.8† | 162.4±3.3† | 86.3±3.2 | 128.2±2.9† | 154.8±3.0† | 125.5±3.0 | 122.6±4.0 | 130.2±3.5 |
| Meats (g/d) | 40.1±1.8 | 64.5±1.6† | 106.9±1.9† | 36.2±1.8 | 63.4±1.6† | 112.5±1.6† | 55.2±1.8 | 66.3±2.3† | 77.9±2.1† |
| Eggs (g/d) | 29.6±1.1 | 40.1±0.9† | 55.0±1.1† | 28.3±1.1 | 38.7±1.0† | 53.9±1.0† | 35.0±1.0 | 37.3±1.0\* | 47.8±1.2† |
| Total fiber (g/4189kJ) | 7.4±0.1 | 7.7±0.1 | 7.8±0.1† | 7.8±0.1 | 7.8±0.1 | 7.5±0.1\* | 6.9±0.1 | 7.6±0.1† | 8.6±0.1† |
| Sodium (mg/4189kJ) | 2334±42 | 2491±36\* | 2705±43† | 2574±43 | 2468±38 | 2530±39 | 2141±37 | 2493±49† | 2904±43† |
| Potassium(mg/4189kJ) | 1152±11 | 1273±10† | 1428±12† | 1187±12 | 1279±10† | 1382±11† | 1163±10 | 1269±14† | 1403±12† |
| Carbohydrate (%kJ) | 69.8±0.1 | 60.7±0.1† | 50.0±0.1† | 69.7±0.2 | 60.7±0.1† | 50.8±0.2† | 66.7±0.2 | 60.8±0.3† | 53.4±0.2† |
| Protein (%kJ) | 12.6±0.1 | 15.0±0.1† | 17.9±0.1† | 13.0±0.1 | 15.0±0.1† | 17.4±0.1† | 13.8±0.1 | 15.1±0.1† | 16.5±0.1† |
| Animal protein (%kJ) | 5.5±0.1 | 8.4±0.1† | 12.2±0.1† | 5.1±0.1 | 8.4±0.1† | 12.2±0.1† | 7.6±0.1 | 8.6±0.1† | 9.4±0.1† |
| Veg protein (%kJ) | 7.8±0.0 | 7.4±0.0† | 6.9±0.0† | 8.2±0.0 | 7.4±0.0† | 6.5±0.0† | 6.9±0.0 | 7.3±0.1† | 8.0±0.1† |
| Total fat (%kJ) | 13.1±0.2 | 18.9±0.1† | 26.6±0.2† | 13.1±0.1 | 19.2±0.2† | 26.1±0.2† | 14.7±0.1 | 18.9±0.2† | 24.9±0.2† |
| Saturated fat (%kJ) | 4.0±0.1 | 5.4±0.0† | 7.3±0.1† | 3.7±0.0 | 5.4±0.0† | 7.7±0.0† | 4.7±0.1 | 5.5±0.1† | 6.4±0.1† |
| M\_PUFA (%kJ) | 8.7±0.1 | 12.0±0.1† | 16.4±0.1† | 0.9±0.1 | 12.2±0.1† | 15.9±0.1† | 9.1±0.1 | 11.9±0.1† | 16.4±0.1† |

Age data are shown mean ± SD. Continuous variables except for age are age-adjusted data by analysis of covariance, and are shown as the mean±SE.; crude prevalence is shown as a %. The chi-square test was used to compare dichotomous variables, followed by *a post hoc* application of logistic analysis adjusted for age. A one-way analysis of variance was used to compare means among the groups, followed by a *post hoc* application of Dunnett's test, taking decile 1 as a reference, when the F value showed a significant difference at p < 0.05. BMI=body mass index, TCH=serum total cholesterol concentration, SFA=saturated fatty acids, M\_PUFA=mono- plus poly-unsaturated fatty acids, Veg=vegetable. \* P<0.05, † P<0.01, compared to decile 1.

**Supplement Table 4. Hazard Ratio of CVD and Total Mortality in Men According to LCD Score**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Decile 1 | Decile 2 | Decile 3 | Decile 4 | Decile 5 | Decile 6 | Decile 7 | Decile 8 | Decile 9 | Decile 10 | *Trend P* |
| **CVD Mortality** | |  |  |  |  |  |  |  |  |  |  |
| Usual LCD | | | | |  |  |  |  |  |  |  |
| Case (N) | 74 | 72 | 93 | 41 | 70 | 35 | 37 | 51 | 48 | 37 |  |
| Person-y | 7,881 | 7,555 | 10,933 | 8,306 | 12,174 | 8,486 | 8,206 | 12,857 | 9,760 | 8,636 |  |
| Score range | 0-4 | 5-7 | 8-10 | 11-12 | 13-15 | 16-17 | 18-19 | 20-22 | 23-25 | 26-30 |  |
| Model 1 | 1.00 | 1.12 | 1.05 | 0.81 | 1.02 | 0.74 | 0.94 | 0.83 | 1.07 | 0.88 | *0.98* |
|  |  | (0.81-1.54) | (0.77-1.42) | (0.55-1.19) | (0.74-1.42) | (0.49-1.10) | (0.63-1.41) | (0.58-1.19) | (0.74-1.55) | (0.59-1.32) | *P=0.244* |
| Model 2 | 1.00 | 1.14 | 1.10 | 0.81 | 1.03 | 0.82 | 1.00 | 0.91 | 1.22 | 0.94 | *0.99* |
|  |  | (0.82-1.58) | (0.81-1.50) | (0.55-1.20) | (0.74-1.44) | (0.55-1.23) | (0.67-1.49) | (0.63-1.30) | (0.84-1.77) | (0.63-1.41) | *P=0.613* |
| Model 3 | 1.00 | 1.47 | 1.09 | 0.83 | 1.03 | 0.83 | 0.98 | 0.89 | 1.20 | 0.93 | *0.99* |
|  |  | (0.83-1.59) | (0.80-1.49) | (0.56-1.22) | (0.74-1.43) | (0.55-1.24) | (0.66-1.47) | (0.62-1.29) | (0.82-1.74) | (0.62-1.39) | *P=0.547* |
| Model 4 | 1.00 | 1.16 | 1.11 | 0.83 | 1.04 | 0.86 | 1.04 | 0.94 | 1.26 | 0.99 | *1.00* |
|  |  | (0.83-1.61) | (0.81-1.51) | (0.56-1.22) | (0.75-1.46) | (0.57-1.29) | (0.69-1.55) | (0.65-1.37) | (0.86-1.83) | (0.65-1.48) | *P=0.881* |
| Animal-based LCD | | | |  |  |  |  |  |  |  |  |
| Case (N) | 84 | 90 | 52 | 57 | 60 | 40 | 64 | 18 | 54 | 39 |  |
| Person-y | 7,603 | 9,987 | 6,489 | 10,598 | 11,330 | 7,368 | 12,078 | 7,289 | 10,742 | 11,309 |  |
| Score range | 0-3 | 4-7 | 8-9 | 10-12 | 13-15 | 16-17 | 18-20 | 21-22 | 23-25 | 26-30 |  |
| Model 1 | 1.00 | 0.96 | 0.90 | 0.75 | 0.87 | 0.87 | 0.91 | 0.52 | 0.99 | 0.84 | *0.98* |
|  |  | (0.72-1.30) | (0.63-1.27) | (0.54-1.05) | (0.62-1.21) | (0.59-1.27) | (0.65-1.26) | (0.31-0.86) | (0.70-1.40) | (0.57-1.23) | *P=0.286* |
| Model 2 | 1.00 | 1.00 | 0.90 | 0.76 | 0.91 | 0.93 | 0.95 | 0.56 | 1.13 | 0.92 | *0.99* |
|  |  | (0.74-1.34) | (0.64-1.28) | (0.54-1.07) | (0.64-1.26) | (0.64-1.36) | (0.68-1.32) | (0.33-0.94) | (0.79-1.60) | (0.62-1.36) | *P=0.723* |
| Model 3 | 1.00 | 1.00 | 0.94 | 0.76 | 0.88 | 0.95 | 0.94 | 0.55 | 1.11 | 0.91 | *0.99* |
|  |  | (0.74-1.35) | (0.66-1.33) | (0.54-1.07) | (0.63-1.24) | (0.65-1.40) | (0.67-1.31) | (0.33-0.93) | (0.78-1.58) | (0.61-1.35) | *P=0.617* |
| Model 4 | 1.00 | 1.01 | 0.95 | 0.79 | 0.93 | 1.01 | 1.01 | 0.59 | 1.19 | 1.00 | *1.00* |
|  |  | (0.75-1.37) | (0.67-1.36) | (0.56-1.12) | (0.66-1.31) | (0.69-1.49) | (0.72-1.42) | (0.35-0.99) | (0.83-1.70) | (0.67-1.49) | *P=0.900* |
| Plant-Fish-based LCD | | | | |  |  |  |  |  |  |  |
| Case (N) | 105 | 91 | 34 | 78 | 38 | 47 | 44 | 21 | 59 | 41 |  |
| Person-y | 9,834 | 9,723 | 4,821 | 11,661 | 6,299 | 11,528 | 12,852 | 5,929 | 13,956 | 8,189 |  |
| Score range | 0-8 | 9-10 | 11-11 | 12-13 | 14-14 | 15-16 | 17-18 | 19-19 | 20-21 | 22-30 |  |
| Model 1 | 1.00 | 1.01 | 0.77 | 0.96 | 1.03 | 0.78 | 0.70 | 0.68 | 0.84 | 0.93 | *0.97* |
|  |  | (0.76-1.33) | (0.52-1.13) | (0.71-1.29) | (0.71-1.49) | (0.55-1.10) | (0.49-0.99) | (0.43-1.09) | (0.61-1.16) | (0.64-1.33) | *P=0.081* |
| Model 2 | 1.00 | 1.01 | 0.81 | 1.03 | 0.96 | 0.78 | 0.67 | 0.73 | 0.89 | 0.97 | *0.98* |
|  |  | (0.76-1.33) | (0.55-1.19) | (0.76-1.38) | (0.66-1.40) | (0.55-1.11) | (0.47-0.96) | (0.46-1.18) | (0.64-1.24) | (0.64-1.40) | *P=0.140* |
| Model 3 | 1.00 | 1.03 | 0.82 | 1.03 | 0.98 | 0.78 | 0.69 | 0.75 | 0.90 | 0.96 | *0.98* |
|  |  | (0.78-1.37) | (0.55-1.21) | (0.76-1.38) | (0.67-1.44) | (0.55-1.11) | (0.48-0.99) | (0.47-1.21) | (0.65-1.25) | (0.66-1.39) | *P=0.137* |
| Model 4 | 1.00 | 1.03 | 0.79 | 1.02 | 0.98 | 0.78 | 0.71 | 0.77 | 0.90 | 0.98 | *0.98* |
|  |  | (0.77-1.37) | (0.53-1.18) | (0.76-1.39) | (0.67-1.44) | (0.55-1.12) | (0.49-1.02) | (0.48-1.25) | (0.65-1.27) | (0.67-1.44) | *P=0.220* |
| **Total Mortality** | |  |  |  |  |  |  |  |  |  |  |
| Usual LCD | | | |  |  |  |  |  |  |  |  |
| Case (N) | 233 | 212 | 254 | 154 | 216 | 133 | 126 | 181 | 154 | 134 |  |
| Model 1 | 1.00 | 1.03 | 0.90 | 0.91 | 0.91 | 0.81 | 0.90 | 0.82 | 0.96 | 0.89 | *0.99* |
|  |  | (0.86-1.25) | (0.75-1.07) | (0.74-1.11) | (0.76-1.10) | (0.66-1.01) | (0.72-1.11) | (0.67-0.99) | (0.78-1.18) | (0.72-1.10) | *P=0.078* |
| Model 2 | 1.00 | 1.06 | 0.92 | 0.93 | 0.93 | 0.87 | 0.94 | 0.86 | 1.02 | 0.92 | *0.99* |
|  |  | (0.88-1.27) | (0.77-1.10) | (0.76-1.14) | (0.77-1.12) | (0.70-1.08) | (0.75-1.17) | (0.71-1.05) | (0.83-1.26) | (0.74-1.14) | *P=0.265* |
| Model 3 | 1.00 | 1.08 | 0.93 | 0.98 | 0.95 | 0.90 | 0.94 | 0.90 | 1.05 | 0.97 | *1.00* |
|  |  | (0.89-1.30) | (0.77-1.11) | (0.79-1.20) | (0.79-1.14) | (0.72-1.11) | (0.76-1.18) | (0.74-1.10) | (0.85-1.29) | (0.78-1.21) | *P=0.534* |
| Model 4 | 1.00 | 1.07 | 0.94 | 0.98 | 0.96 | 0.91 | 0.97 | 0.92 | 1.08 | 1.00 | *1.00* |
|  |  | (0.89-1.29) | (0.78-1.12) | (0.80-1.20) | (0.79-1.15) | (0.73-1.13) | (0.78-1.22) | (0.75-1.12) | (0.87-1.33) | (0.80-1.25) | *P=0.858* |
| Animal-based LCD | | | |  |  |  |  |  |  |  |  |
| Case (N) | 253 | 265 | 155 | 202 | 204 | 128 | 189 | 88 | 158 | 155 |  |
| Model 1 | 1.00 | 0.93 | 0.86 | 0.83 | 0.90 | 0.83 | 0.80 | 0.73 | 0.84 | 0.93 | *0.98* |
|  |  | (0.78-1.11) | (0.71-1.05) | (0.69-1.00) | (0.75-1.09) | (0.67-1.03) | (0.66-0.97) | (0.56-0.93) | (0.69-1.03) | (0.76-1.14) | *P=0.066* |
| Model 2 | 1.00 | 0.95 | 0.90 | 0.85 | 0.94 | 0.85 | 0.82 | 0.78 | 0.90 | 0.98 | *0.99* |
|  |  | (0.80-1.13) | (0.74-1.10) | (0.70-1.02) | (0.78-1.13) | (0.69-1.06) | (0.68-0.99) | (0.61-0.99) | (0.73-1.10) | (0.79-1.20) | *P=0.214* |
| Model 3 | 1.00 | 0.97 | 0.93 | 0.87 | 0.95 | 0.89 | 0.86 | 0.79 | 0.93 | 1.04 | *0.99* |
|  |  | (0.82-1.16) | (0.76-1.14) | (0.73-1.05) | (0.79-1.14) | (0.72-1.11) | (0.71-1.04) | (0.62-1.01) | (0.76-1.14) | (0.84-1.28) | *P=0.440* |
| Model 4 | 1.00 | 0.98 | 0.93 | 0.88 | 0.97 | 0.92 | 0.89 | 0.80 | 0.95 | 1.08 | *1.00* |
|  |  | (0.83-1.17) | (0.76-1.14) | (0.73-1.06) | (0.81-1.17) | (0.74-1.14) | (0.73-1.08) | (0.62-1.03) | (0.78-1.17) | (0.87-1.33) | *P=0.760* |
| Plant-Fish-based LCD | | | | |  |  |  |  |  |  |  |
| Case (N) | 279 | 273 | 127 | 228 | 111 | 186 | 156 | 89 | 216 | 132 |  |
| Model 1 | 1.00 | 1.12 | 1.07 | 0.98 | 1.01 | 1.01 | 0.79 | 0.95 | 0.99 | 0.98 | *0.99* |
|  |  | (0.95-1.32) | (0.87-1.32) | (0.82-1.17) | (0.81-1.26) | (0.84-1.22) | (0.65-0.97) | (0.75-1.21) | (0.83-1.19) | (0.79-1.21) | *P=0.115* |
| Model 2 | 1.00 | 1.13 | 1.13 | 1.03 | 1.00 | 1.04 | 0.79 | 1.00 | 1.05 | 1.02 | *0.99* |
|  |  | (0.95-1.33) | (0.91-1.39) | (0.86-1.22) | (0.80-1.25) | (0.86-1.25) | (0.65-0.96) | (0.78-1.27) | (0.88-1.26) | (0.83-1.26) | *P=0.267* |
| Model 3 | 1.00 | 1.13 | 1.16 | 1.04 | 1.05 | 1.07 | 0.81 | 1.03 | 1.09 | 1.05 | *0.98* |
|  |  | (0.95-1.33) | (0.94-1.43) | (0.87-1.24) | (0.84-1.31) | (0.88-1.29) | (0.66-0.99) | (0.81-1.32) | (0.91-1.31) | (0.85-1.29) | *P=0.547* |
| Model 4 | 1.00 | 1.14 | 1.16 | 1.05 | 1.07 | 1.09 | 0.84 | 1.07 | 1.12 | 1.09 | *1.00* |
|  |  | (0.96-1.36) | (0.94-1.44) | (0.88-1.25) | (0.85-1.33) | (0.90-1.32) | (0.68-1.03) | (0.84-1.37) | (0.93-1.35) | (0.88-1.36) | *P=0.858* |

Multivariable-adjusted hazard ratios (HR) of cardiovascular and total mortality associated with LCD in men are shown. We calculated HR using a Cox proportional hazards model. Covariates in model 1 were age and deciles of diet scores. Model 2: model 1 covariates + BMI (5 categories divided at 18.5, 23, 25, and 30 kg/m2; 18.5-23: a reference), hypertension, cigarette smoking (never and past smokers, 3 current smokers categories divided at 20, and 40 cigarettes/day; never smokers: a reference), and alcohol drinking (ex-drinker or current drinker, never-drinker; never drinkers: a reference). Model 3: model 2 covariates + serum total cholesterol, and blood glucose concentrations (standardized to have the mean=0 and standard deviation=1), and serum creatinine (divided at 75 percentile, 1.0 mg/dl). Model 4: model 3 covariates + total dietary fiber and sodium/potassium ratio, and employee class (executive, professional, others [including homemaker], others: a reference).