

Supplementary Table 1 Daily reference values and recommended intake values for individual nutrients used in the nutritional adequacy score calculation

| | Unit | Sex | Daily reference value | | |
|---------------|------|-------|-----------------------|-------------|-----------|
| | | | 30–49 years | 50–64 years | ≥65 years |
| Energy | kcal | Men | 2700 | 2600 | 2400 |
| | | Women | 2050 | 1950 | 1850 |
| Protein | g | Men | 65 | 65 | 60 |
| | | Women | 50 | 50 | 50 |
| Fiber | g | Men | ≥21 | ≥21 | ≥20 |
| | | Women | ≥18 | ≥18 | ≥17 |
| Vitamin A | μg | Men | 900 | 900 | 850 |
| | | Women | 700 | 700 | 700 |
| Vitamin C | mg | Men | 100 | 100 | 100 |
| | | Women | 100 | 100 | 100 |
| Vitamin E | mg | Men | 6.0 | 7.0 | 7.0 |
| | | Women | 5.5 | 6 | 6.5 |
| Calcium | mg | Men | 750 | 750 | 750 |
| | | Women | 650 | 650 | 650 |
| Iron | mg | Men | 7.5 | 7.5 | 7.5 |
| | | Women | 10.5 | 11.0 | 6.0 |
| Potassium | mg | Men | ≥3000 | ≥3000 | ≥3000 |
| | | Women | ≥2600 | ≥2600 | ≥2600 |
| Sodium | mg | Men | ≤3000 | ≤3000 | ≤3000 |
| | | Women | ≤2600 | ≤2600 | ≤2600 |
| Saturated fat | g | Men | <21.0 | <20.2 | <18.7 |
| | | Women | <15.9 | <15.2 | <14.4 |

Supplementary Table 2 Association between nutritional adequacy score and all-cause, cancer, and cardiovascular disease mortality after excluding early deaths (within 3 years from baseline) among Japanese adults: The J-MICC Study (n=27,052 men and 37,690 women)

| | Nutritional adequacy score quartile | | | | | p-trend |
|------------------------|-------------------------------------|-------------------|-------------------|-------------------|-------------------|---------|
| | Q1 | Q2 | Q3 | Q4 | Q5 | |
| Men | | | | | | |
| All-cause mortality | | | | | | |
| Model 1 ^a | 1.00 (ref) | 0.92 (0.78, 1.1) | 0.77 (0.64, 0.92) | 0.72 (0.6, 0.87) | 0.67 (0.56, 0.81) | <0.001 |
| Model 2 ^b | 1.00 (ref) | 0.93 (0.78, 1.1) | 0.77 (0.64, 0.92) | 0.72 (0.6, 0.87) | 0.68 (0.56, 0.81) | <0.001 |
| Cancer | | | | | | |
| Model 1 ^a | 1.00 (ref) | 0.94 (0.74, 1.18) | 0.79 (0.62, 1.01) | 0.74 (0.58, 0.95) | 0.67 (0.52, 0.85) | <0.001 |
| Model 2 ^b | 1.00 (ref) | 0.96 (0.75, 1.22) | 0.82 (0.64, 1.05) | 0.77 (0.60, 1.00) | 0.70 (0.55, 0.90) | <0.001 |
| Cardiovascular disease | | | | | | |
| Model 1 ^a | 1.00 (ref) | 0.92 (0.59, 1.43) | 0.80 (0.51, 1.26) | 0.84 (0.54, 1.31) | 0.61 (0.38, 0.97) | 0.046 |
| Model 2 ^b | 1.00 (ref) | 0.95 (0.61, 1.48) | 0.81 (0.51, 1.30) | 0.86 (0.54, 1.36) | 0.60 (0.37, 0.98) | 0.06 |
| Women | | | | | | |
| All-cause mortality | | | | | | |
| Model 1 ^a | 1.00 (ref) | 0.97 (0.76, 1.23) | 0.91 (0.71, 1.16) | 0.76 (0.60, 0.98) | 0.89 (0.70, 1.12) | 0.86 |
| Model 2 ^b | 1.00 (ref) | 1.00 (0.78, 1.27) | 0.95 (0.74, 1.22) | 0.79 (0.61, 1.01) | 0.92 (0.73, 1.17) | 0.99 |
| Cancer | | | | | | |
| Model 1 ^a | 1.00 (ref) | 0.99 (0.71, 1.39) | 0.97 (0.69, 1.36) | 0.93 (0.67, 1.30) | 0.89 (0.64, 1.24) | 0.51 |
| Model 2 ^b | 1.00 (ref) | 1.01 (0.72, 1.42) | 1.00 (0.71, 1.40) | 0.95 (0.68, 1.33) | 0.91 (0.65, 1.27) | 0.53 |
| Cardiovascular disease | | | | | | |
| Model 1 ^a | 1.00 (ref) | 1.11 (0.61, 2.01) | 0.95 (0.52, 1.75) | 0.72 (0.38, 1.35) | 0.96 (0.54, 1.71) | 0.88 |
| Model 2 ^b | 1.00 (ref) | 1.13 (0.62, 2.06) | 1.02 (0.55, 1.87) | 0.73 (0.39, 1.39) | 1.04 (0.58, 1.87) | 0.71 |

The Cox proportional hazards model was used, and values were expressed as the hazard ratios (95% CI) in Models 1–2.

a Model 1 was adjusted for age, sex, and data collection site.

b In addition to the variables in Model 1, Model 2 was adjusted for BMI, smoking status, physical activity, alcohol consumption status, stroke, hypertension, diabetes, dyslipidemia, educational attainment, vitamin supplement intake, and total energy intake

Supplementary Table 3 Association between nutritional adequacy score and all-cause, cancer, and cardiovascular disease mortality after excluding participants with baseline disease among Japanese adults: The J-MICC Study (n=17,101 men and 26,990 women)

| | Nutritional adequacy score quartile | | | | | p-trend | |
|------------------------|-------------------------------------|-------------------|-------------------|-------------------|-------------------|---------|--|
| | Q1 | Q2 | Q3 | Q4 | Q5 | | |
| Men | | | | | | | |
| All-cause mortality | | | | | | | |
| Model 1 ^a | 1.00 (ref) | 0.81 (0.65, 1.01) | 0.82 (0.66, 1.03) | 0.70 (0.56, 0.88) | 0.61 (0.48, 0.77) | <0.001 | |
| Model 2 ^b | 1.00 (ref) | 0.83 (0.66, 1.04) | 0.86 (0.66, 1.07) | 0.73 (0.58, 0.93) | 0.64 (0.51, 0.81) | <0.001 | |
| Cancer | | | | | | | |
| Model 1 ^a | 1.00 (ref) | 0.77 (0.57, 1.04) | 0.85 (0.64, 1.14) | 0.77 (0.57, 1.04) | 0.62 (0.46, 0.84) | 0.005 | |
| Model 2 ^b | 1.00 (ref) | 0.79 (0.59, 1.08) | 0.88 (0.65, 1.19) | 0.80 (0.59, 1.09) | 0.66 (0.48, 0.91) | 0.009 | |
| Cardiovascular disease | | | | | | | |
| Model 1 ^a | 1.00 (ref) | 0.76 (0.41, 1.42) | 0.60 (0.30, 1.18) | 0.81 (0.44, 1.51) | 0.49 (0.25, 0.99) | 0.07 | |
| Model 2 ^b | 1.00 (ref) | 0.82 (0.43, 1.54) | 0.67 (0.34, 1.33) | 0.94 (0.49, 1.79) | 0.55 (0.27, 1.13) | 0.19 | |
| Women | | | | | | | |
| All-cause mortality | | | | | | | |
| Model 1 ^a | 1.00 (ref) | 1.00 (0.74, 1.34) | 0.93 (0.70, 1.26) | 0.69 (0.50, 0.94) | 0.85 (0.63, 1.14) | 0.69 | |
| Model 2 ^b | 1.00 (ref) | 0.97 (0.72, 1.31) | 0.92 (0.68, 1.24) | 0.67 (0.48, 0.92) | 0.84 (0.63, 1.14) | 0.75 | |
| Cancer | | | | | | | |
| Model 1 ^a | 1.00 (ref) | 1.17 (0.79, 1.72) | 1.07 (0.72, 1.59) | 0.85 (0.57, 1.29) | 0.96 (0.65, 1.43) | 0.70 | |
| Model 2 ^b | 1.00 (ref) | 1.14 (0.77, 1.70) | 1.05 (0.71, 1.57) | 0.84 (0.55, 1.27) | 0.94 (0.63, 1.41) | 0.72 | |
| Cardiovascular disease | | | | | | | |
| Model 1 ^a | 1.00 (ref) | 1.15 (0.51, 2.57) | 1.17 (0.53, 2.58) | 0.78 (0.33, 1.84) | 0.93 (0.41, 2.09) | 0.77 | |
| Model 2 ^b | 1.00 (ref) | 1.13 (0.50, 2.55) | 1.16 (0.52, 2.60) | 0.76 (0.32, 1.83) | 0.94 (0.41, 2.14) | 0.80 | |

The Cox proportional hazards model was used, and values were expressed as the hazard ratios (95% CI) in Models 1–2.

a Model 1 was adjusted for age, sex, and data collection site.

b In addition to the variables in Model 1, Model 2 was adjusted for BMI, smoking status, physical activity, alcohol consumption status, educational attainment, vitamin supplement intake, and total energy intake.