**Supplementary Table S1.** Characteristics of participants in the Khánh Hòa Cardiovascular Study, Vietnam according to other tea consumption categories.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Other tea consumption categories | | | | |
|  | 0 mL/day  (n = 2,438) | < 200 mL/day  (n = 365) | 200–< 400 mL/day  (n = 65) | 400–< 600 mL/day  (n = 41) | ≥ 600 mL/day  (n = 91) |
| Age, mean [SD] | 49.8 [5.5] | 49.9 [5.5] | 50.0 [5.6] | 51.1 [5.3] | 50.6 [5.4] |
| Sex (female), n (%) | 1,619 (66.4) | 144 (39.5) | 17 (26.2) | 16 (39.0) | 47 (48.4) |
| Marital status (married/cohabitating), n (%) | 2,158 (88.5) | 349 (95.6) | 59 (90.8) | 39 (95.1) | 86 (94.5) |
| Education, n (%) |  |  |  |  |  |
| Less than primary school | 310 (12.7) | 30 (8.2) | 4 (6.2) | 3 (7.3) | 5 (5.5) |
| Primary school | 738 (30.3) | 77 (21.2) | 18 (27.7) | 6 (14.6) | 24 (26.4) |
| Secondary school | 849 (34.8) | 149 (40.8) | 28 (43.1) | 12 (29.3) | 30 (33.0) |
| High school or higher | 541 (22.2) | 109 (29.9) | 15 (23.1) | 20 (48.8) | 32 (35.2) |
| Job, n (%) |  |  |  |  |  |
| Government employee | 222 (9.1) | 56 (15.3) | 7 (10.8) | 5 (12.2) | 5 (5.5) |
| Non-government employee | 379 (15.6) | 70 (19.2) | 14 (21.5) | 4 (9.8) | 16 (17.6) |
| Self-employed | 483 (19.8) | 66 (18.1) | 14 (21.5) | 9 (22.0) | 23 (25.3) |
| Farmer or fisherman | 695 (28.5) | 114 (31.2) | 23 (35.4) | 14 (34.2) | 24 (26.4) |
| Houseworker | 470 (19.3) | 36 (9.9) | 3 (4.6) | 2 (4.9) | 16 (17.6) |
| Other | 99 (4.1) | 8 (2.2) | 2 (3.1) | 0 (0.0) | 2 (2.2) |
| Not working (retired or unemployed) | 90 (3.7) | 15 (4.1) | 2 (3.1) | 7 (17.1) | 5 (5.5) |
| Household income, n (%) |  |  |  |  |  |
| Low | 823 (33.8) | 122 (33.4) | 19 (29.2) | 14 (34.2) | 24 (26.4) |
| Middle | 832 (34.1) | 144 (39.5) | 23 (35.4) | 15 (36.6) | 31 (34.1) |
| High | 752 (30.8) | 98 (26.9) | 23 (35.4) | 12 (29.3) | 35 (38.5) |
| missing | 31 (1.3) | 1 (0.3) | 0 (0.0) | 0 (0.0) | 1 (1.1) |
| Smoking status, n (%) |  |  |  |  |  |
| Never | 1,772 (72.7) | 176 (48.2) | 23 (35.4) | 21 (51.2) | 44 (48.4) |
| Former | 230 (9.4) | 76 (20.8) | 21 (32.3) | 6 (14.6) | 17 (18.7) |
| Current | 436 (17.9) | 113 (31.0) | 21 (32.3) | 14 (34.2) | 30 (33.0) |
| Alcohol consumption, n (%) |  |  |  |  |  |
| 0 drink/day | 1,825 (74.9) | 191 (52.3) | 25 (38.5) | 19 (46.3) | 54 (59.3) |
| < 1 drink/day | 300 (12.3) | 71 (19.5) | 19 (29.2) | 11 (26.8) | 15 (16.5) |
| 1–< 2 drinks/day | 132 (5.4) | 46 (12.6) | 10 (15.4) | 7 (17.1) | 6 (6.6) |
| ≥ 2 drinks/day | 181 (7.4) | 57 (15.6) | 11 (16.9) | 4 (9.8) | 16 (17.6) |
| Physical activity, n (%) |  |  |  |  |  |
| < 600 MET-minutes/week | 240 (9.8) | 10 (2.7) | 0 (0.0) | 1 (2.4) | 1 (1.1) |
| 600–< 1,200 MET-minutes/week | 108 (4.4) | 7 (1.9) | 1 (1.5) | 1 (2.4) | 3 (3.3) |
| ≥ 1,200 MET-minutes/week | 2,090 (85.7) | 348 (95.3) | 64 (98.5) | 39 (95.1) | 87 (95.6) |
| Sleep duration (< 6 hours/day), n (%) | 269 (11.0) | 25 (6.9) | 8 (12.3) | 4 (9.8) | 9 (9.9) |
| Fruit consumption (≥ 2 servings/day), n (%) | 252 (10.3) | 49 (13.4) | 20 (30.8) | 11 (26.8) | 25 (27.5) |
| Vegetable consumption (≥ 3 servings/day), n (%) | 289 (11.9) | 44 (12.1) | 22 (33.9) | 10 (24.4) | 19 (20.9) |
| Red meat consumption (≥ 200 grams/day), n (%) | 262 (10.8) | 36 (9.9) | 11 (16.9) | 2 (4.9) | 12 (13.2) |
| Rice consumption (≥ 8 bowls/day), n (%) | 240 (9.8) | 56 (15.3) | 9 (13.9) | 7 (17.1) | 8 (8.8) |
| Rice noodle consumption (≥ 7 bowls/day), n (%) | 411 (16.9) | 37 (10.1) | 10 (15.4) | 4 (9.8) | 13 (14.3) |
| Coffee consumption, n (%) |  |  |  |  |  |
| 0 mL/day | 1,454 (59.6) | 145 (39.7) | 23 (35.4) | 13 (31.7) | 45 (49.5) |
| < 65 mL/day | 423 (17.4) | 110 (30.1) | 14 (21.5) | 9 (22.0) | 21 (23.1) |
| 65–< 130 mL/day | 498 (20.4) | 104 (28.5) | 24 (36.9) | 19 (46.3) | 20 (22.0) |
| ≥ 130 mL/day | 63 (2.6) | 6 (1.6) | 4 (6.2) | 0 (0.0) | 5 (5.5) |
| Adding sugar or condensed milk to coffee or tea (yes), n (%) | 791 (32.4) | 183 (50.3) | 37 (56.9) | 25 (61.0) | 51 (56.0) |
| BMI categories, n (%) |  |  |  |  |  |
| < 18.5 kg/m2 | 109 (4.5) | 23 (6.3) | 3 (4.6) | 1 (2.4) | 3 (3.3) |
| 18.5–< 23.0 kg/m2 | 1,086 (44.5) | 162 (44.5) | 36 (55.4) | 19 (46.3) | 41 (45.1) |
| 23.0–< 25.0 kg/m2 | 607 (24.9) | 95 (26.1) | 9 (13.9) | 6 (14.6) | 21 (23.1) |
| 25.0–< 30.0 kg/m2 | 596 (24.5) | 77 (21.2) | 16 (24.6) | 14 (34.2) | 25 (27.5) |
| ≥ 30.0 kg/m2 | 40 (1.6) | 7 (1.9) | 1 (1.5) | 1 (2.4) | 1 (1.1) |
| Family history of diabetes, (yes) n (%) | 303 (12.4) | 47 (12.9) | 9 (13.9) | 4 (9.8) | 10 (11.0) |
| Hypertension (yes), n (%) | 962 (39.5) | 145 (39.8) | 25 (38.5) | 20 (48.8) | 36 (39.6) |
| Dyslipidemia (yes), n (%) | 1,089 (44.7) | 178 (48.9) | 22 (33.9) | 20 (48.8) | 42 (46.2) |
| Depressive symptoms (yes), n (%) | 290 (11.9) | 33 (9.1) | 3 (4.6) | 3 (7.3) | 12 (13.2) |

Abbreviations: BMI, body mass index; MET, metabolic equivalent; SD, standard deviation.**Supplementary Table S2.** Odds ratios and 95% confidence intervals of prediabetes and diabetes according to other tea consumption categories.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Other tea consumption categories | | | | |  |
|  | 0 mL/day  (n = 2,438) | < 200 mL/day  (n = 365) | 200–< 400 mL/day  (n = 65) | 400–< 600 mL/day  (n = 41) | ≥ 600 mL/day  (n = 91) | P for trend\* |
| **Prediabetes** |  |  |  |  |  |  |
| No. events | 1,135 | 173 | 30 | 15 | 48 |  |
| Model 1 | 1.00 (reference) | 0.93 (0.73–1.17) | 0.79 (0.47–1.33) | 0.57 (0.29–1.12) | 1.10 (0.70–1.71) | 0.87 |
| Model 2 | 1.00 (reference) | 1.00 (0.77–1.30) | 0.88 (0.51–1.52) | 0.53 (0.26–1.08) | 1.11 (0.69–1.78) | 0.70 |
| Model 3 | 1.00 (reference) | 1.00 (0.77–1.30) | 0.88 (0.51–1.52) | 0.53 (0.26–1.09) | 1.11 (0.69–1.79) | 0.69 |
| **Diabetes** |  |  |  |  |  |  |
| No. events | 264 | 29 | 3 | 5 | 6 |  |
| Model 1 | 1.00 (reference) | 0.66 (0.43–1.01) | 0.33 (0.10–1.11) | 0.76 (0.28–2.08) | 0.57 (0.23–1.37) | 0.24 |
| Model 2 | 1.00 (reference) | 0.69 (0.43–1.12) | 0.48 (0.13–1.71) | 0.63 (0.20–2.01) | 0.55 (0.21–1.42) | 0.33 |
| Model 3 | 1.00 (reference) | 0.71 (0.44–1.16) | 0.48 (0.13–1.72) | 0.66 (0.20–2.14) | 0.59 (0.23–1.53) | 0.41 |

Model 1, adjusted for age (years, continuous) and sex (male or female).

Model 2, further adjusted for marital status (married/cohabiting or not), education (less than primary school, primary school, secondary school, or high school or higher), job (government employee, non-government employee, self-employed, farmer or fisherman, houseworker, other, or not working), income (low, middle, or high), smoking status (never, former, or current), alcohol consumption (0, < 1, 1–< 2, or ≥ 2 drinks/day), physical activity (< 600, 600–< 1,200, or ≥ 1,200 MET-minutes/week), sleep duration (< 6, 6–< 7, 7–< 8, 8–< 9, or ≥ 9 hours/day), fruit consumption (0, <1, 1–< 2, or ≥ 2 servings/day), vegetable consumption (0, < 1, 1–< 2, 2–< 3, or ≥ 3 servings/day), red meat consumption (0, < 100, 100–< 200, or ≥ 200 grams/day), rice consumption (< 2, 2–< 3, 3–< 4, 4–< 6, 6–< 8, or ≥ 8 bowls/day), rice noodle consumption (0, < 2, 2–< 4, 4–< 7, or ≥ 7 bowls/week), coffee consumption (0, < 65, 65–< 130, or ≥ 130 mL/day), green tea consumption (0, < 200, 200–< 400, 400–< 600, or ≥ 600 mL/day), family history of diabetes (yes, no, or unknown), BMI categories (< 18.5, 18.5–< 23.0, 23.0–< 25.0, 25.0–< 30.0, or ≥ 30.0 kg/m2), hypertension (yes or no), dyslipidemia (yes or no), and depressive symptoms (yes or no).

Model 3, further adjusted for use of additives (yes or no).

\* P for trend was estimated by treating the exposure as a continuous variable in the model for each analysis.

**Supplementary Table S3.** Geometric means and 95% confidence intervals of HOMA-IR and HOMA-β according to other tea consumption categories.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Other tea consumption categories | | | | |  |
|  | 0 mL/day  (n = 2,438) | < 200 mL/day  (n = 365) | 200–< 400 mL/day  (n = 65) | 400–< 600 mL/day  (n = 41) | ≥ 600 mL/day  (n = 91) | P for trend\* |
| **HOMA-IR** |  |  |  |  |  |  |
| Model 1 | 1.68 (1.64–1.73) | 1.65 (1.54–1.77) | 1.79 (1.51–2.11) | 1.57 (1.28–1.94) | 1.63 (1.42–1.88) | 0.62 |
| Model 2 | 1.84 (1.63–2.08) | 1.81 (1.57–2.08) | 2.13 (1.77–2.58) | 1.61 (1.29–2.00) | 1.77 (1.49–2.11) | 0.56 |
| Model 3 | 1.84 (1.62–2.08) | 1.81 (1.57–2.08) | 2.14 (1.77–2.58) | 1.61 (1.29–2.00) | 1.78 (1.49–2.11) | 0.60 |
| **HOMA-β** |  |  |  |  |  |  |
| Model 1 | 75.83 (73.88–77.82) | 75.21 (70.53–80.21) | 90.93 (78.08–105.89) | 69.61 (57.48–84.30) | 83.99 (73.87–95.51) | 0.15 |
| Model 2 | 73.94 (65.24–83.81) | 73.26 (63.61–84.38) | 95.03 (78.49–115.05) | 66.06 (52.99–82.35) | 82.82 (69.52–98.67) | 0.08 |
| Model 3 | 74.02 (65.30–83.90) | 73.24 (63.59–84.35) | 94.95 (78.43–114.97) | 65.95 (52.90–82.22) | 82.59 (69.31–98.41) | 0.09 |

Abbreviations: HOMA-IR, homeostatic model assessment of insulin resistance; HOMA-β, homeostatic model assessment of β-cell function.

Model 1, adjusted for age (years, continuous) and sex (male or female).

Model 2, further adjusted for marital status (married/cohabiting or not), education (less than primary school, primary school, secondary school, or high school or higher), job (government employee, non-government employee, self-employed, farmer or fisherman, houseworker, other, or not working), income (low, middle, or high), smoking status (never, former, or current), alcohol consumption (0, < 1, 1–< 2, or ≥ 2 drinks/day), physical activity (< 600, 600–< 1,200, or ≥ 1,200 MET-minutes/week), sleep duration (< 6, 6–< 7, 7–< 8, 8–< 9, or ≥ 9 hours/day), fruit consumption (0, <1, 1–< 2, or ≥ 2 servings/day), vegetable consumption (0, < 1, 1–< 2, 2–< 3, or ≥ 3 servings/day), red meat consumption (0, < 100, 100–< 200, or ≥ 200 grams/day), rice consumption (< 2, 2–< 3, 3–< 4, 4–< 6, 6–< 8, or ≥ 8 bowls/day), rice noodle consumption (0, < 2, 2–< 4, 4–< 7, or ≥ 7 bowls/week), coffee consumption (0, < 65, 65–< 130, or ≥ 130 mL/day), green tea consumption (0, < 200, 200–< 400, 400–< 600, or ≥ 600 mL/day), family history of diabetes (yes, no, or unknown), BMI (< 18.5, 18.5–< 23.0, 23.0–< 25.0, 25.0–< 30.0, or ≥ 30.0 kg/m2), hypertension (yes or no), dyslipidemia (yes or no), and depressive symptoms (yes or no).

Model 3, further adjusted for use of additives (yes or no).

\* P for trend was estimated by treating the exposure as a continuous variable in the model for each analysis.