**Table S1.** Baseline characteristics of study participants, comparing those included and those excluded

|  |  |  |  |
| --- | --- | --- | --- |
| Characteristics | All | Participants | P-value |
| Included | Excluded |
| N (row %) | 5664 (100.0) | 2717 (48.0) | 2947 (52.0) |  |
| Follow-up duration | 5.9 ± 0.01 | 5.9 ± 0.01 | 0.0 ± 0.0 |  |
| Age (mean ± SE) | 69.6 ± 0.1 | 67.5 ± 0.1 | 71.6 ± 0.2 | < 0.001 |
| Female (%) | 2988 (52.8) | 1366 (50.3) | 1622 (55.0) | 0.0003 |
| Education level |  |  |  | < 0.001 |
| Illiterate | 799 (14.1) | 244 (9.0) | 555 (18.8) |  |
| Elementary school (reference) | 2322 (41.0) | 1071 (39.4) | 1251 (42.5) |  |
| High school | 1631 (28.8) | 896 (33.0) | 735 (25.0) |  |
| College or higher | 908 (16.1) | 505 (18.6) | 403 (13.7) |  |
| Partnered (%) | 4159 (73.4) | 2123 (78.1) | 2036 (69.1) | < 0.001 |
| Reside in urban areas *a* (%) | 2911 (51.4) | 1249 (46.0) | 1662 (56.4) | < 0.001 |
| Current smoking (%) | 716 (12.6) | 343 (12.6) | 373 (12.7) | 1.0 |
| Current betel nut eating (%) | 180 (3.2) | 109 (4.0) | 71 (2.4) | 0.0006 |
| Current drinking (%) | 1627 (28.7) | 896 (33.0) | 731 (24.8) | < 0.001 |
| BMI | 24.6 ± 0.05 | 24.6 ± 0.06 | 24.5 ± 0.07 | 0.1 |
| MMSE (mean ± SE) | 26.2 ± 0.05 | 27.1 ± 0.06 | 25.3 ± 0.08 | < 0.001 |
| Number of cardiovascular diseases (mean ± SE) | 1.0 ± 0.01 | 0.9 ± 0.02 | 1.1 ± 0.02 | < 0.001 |
| Number of non-cardiovascular diseases (mean ± SE) | 1.2 ± 0.02 | 1.1 ± 0.02 | 1.2 ± 0.02 | < 0.001 |
| Social network (mean ± SE) | 15.6 ± 0.07 | 16.7 ± 0.09 | 14.6 ± 0.1 | < 0.001 |
| Life event (mean ± SE) | 1.6 ± 0.04 | 1.6 ± 0.06 | 1.7 ± 0.06 | 0.2 |
| CES-D score | 4.0 ± 0.08 | 3.2 ± 0.1 | 4.8 ± 0.1 | < 0.001 |
| Frailty characteristics |  |  |  |  |
| Unintentional weight loss | 397 (7.0) | 123 (4.5) | 274 (9.4) | < 0.001 |
| Exhaustion | 369 (6.5) | 95 (3.5) | 274 (9.3) | < 0.001 |
| Poor muscle strength | 1255 (22.2) | 312 (11.5) | 943 (32.0) | < 0.001 |
| Slowness | 1233 (21.8) | 332 (12.2) | 901 (30.6) | < 0.001 |
| Low physical activity | 2121 (37.5) | 751 (27.6) | 1370 (46.5) | < 0.001 |
| Overall pre-frailty status *b* |  |  |  | < 0.001 |
| Robust | 2365 (41.9) | 1449 (53.3) | 916 (31.3) |  |
| One characteristic | 1890 (33.5) | 924 (34.0) | 966 (33.0) |  |
| Two characteristics | 866 (15.3) | 345 (12.7) | 521 (17.8) |  |
| Three characteristics | 394 (7.0) | 0 (0.0) | 394 (13.5) |  |
| Four characteristics | 110 (2.0) | 0 (0.0) | 110 (3.8) |  |
| Five characteristics | 18 (0.3) | 0 (0.0) | 18 (0.6) |  |

The Wilcoxon rank-sum testor test was conducted to detect the differences between the two groups (“included” vs. “excluded”).

*a* Urban areas: Taipei, Changhua, Kaohsiung, and Hualien. Rural areas: Miaoli, Yangmei, Shoufeng, and Chiayi.

*b* Pre-frailty is defined as the presence of 1 or 2 frailty characteristics.

**Table S2.** Baseline characteristics of study participants, comparing those with and those without follow-up

|  |  |  |  |
| --- | --- | --- | --- |
| Characteristics | All | Follow-up | P-value |
| Yes | No |
| N (row %) | 5664 (100.0) | 3444 (60.8) | 2220 (39.2) |  |
| Age (mean ± SE) | 69.6 ± 0.1 | 68.3 ± 0.1 | 71.7 ± 0.2 | < 0.001 |
| Female (%) | 2988 (52.8) | 1808 (52.5) | 1180 (53.2) | 0.6 |
| Education level |  |  |  | < 0.001 |
| Illiterate | 799 (14.1) | 428 (12.4) | 371 (16.7) |  |
| Elementary school (reference) | 2322 (41.0) | 1414 (41.1) | 908 (40.9) |  |
| High school | 1631 (28.8) | 1048 (30.5) | 583 (26.3) |  |
| College or higher  | 908 (16.1) | 552 (16.0) | 356 (16.1) |  |
| Partnered (%) | 4159 (73.4) | 2622 (76.1) | 1537 (69.2) | < 0.001 |
| Reside in urban areas *a* (%) | 2911 (51.4) | 1542 (44.8) | 1369 (61.7) | < 0.001 |
| Current smoking (%) | 716 (12.6) | 426 (12.4) | 290 (13.1) | 0.4 |
| Current betel nut eating (%) | 180 (3.2) | 136 (4.0) | 44 (2.0) | < 0.001 |
| Current drinking (%) | 1627 (28.7) | 1064 (30.9) | 563 (25.4) | < 0.001 |
| BMI | 24.6 ± 0.05 | 24.7 ± 0.06 | 24.4 ± 0.08 | 0.001 |
| MMSE (mean ± SE) | 26.2 ± 0.05 | 26.6 ± 0.06 | 25.6 ± 0.09 | < 0.001 |
| Number of cardiovascular diseases (mean ± SE) | 1.0 ± 0.01 | 1.0 ± 0.02 | 1.1 ± 0.02 | < 0.001 |
| Number of non-cardiovascular diseases (mean ± SE) | 1.2 ± 0.02 | 1.1 ± 0.02 | 1.2 ± 0.03 | 0.001 |
| Social network (mean ± SE) | 15.6 ± 0.07 | 16.4 ± 0.09 | 14.3 ± 0.1 | < 0.001 |
| Life event (mean ± SE) | 1.6 ± 0.04 | 1.7 ± 0.05 | 1.6 ± 0.07 | 0.1 |
| CES-D score | 4.0 ± 0.08 | 3.7 ± 0.1 | 4.6 ± 0.1 | < 0.001 |
| Frailty characteristics |  |  |  |  |
| Unintentional weight loss | 397 (7.0) | 195 (5.7) | 202 (9.1) | < 0.001 |
| Exhaustion | 369 (6.5) | 202 (5.9) | 167 (7.5) | 0.01 |
| Poor muscle strength | 1255 (22.2) | 575 (16.7) | 680 (30.6) | < 0.001 |
| Slowness | 1233 (21.8) | 620 (18.0) | 613 (27.6) | < 0.001 |
| Low physical activity | 2121 (37.5) | 1115 (32.4) | 1006 (45.3) | < 0.001 |
| Overall pre-frailty status |  |  |  | < 0.001 |
| Robust | 2365 (41.9) | 1647 (48.0) | 718 (32.5) |  |
| One characteristic | 1890 (33.5) | 1132 (33.0) | 758 (34.3) |  |
| Two characteristics | 866 (15.3) | 448 (13.0) | 418 (18.9) |  |
| Three characteristics | 394 (7.0) | 172 (5.0) | 222 (10.1) |  |
| Four characteristics | 110 (2.0) | 29 (0.8) | 81 (3.7) |  |
| Five characteristics | 18 (0.3) | 7 (0.2) | 11 (0.5) |  |

The Wilcoxon rank-sum test or  test was conducted to detect the differences between the two groups (“with follow-up” vs. “without follow-up”).

*a* Urban areas: Taipei, Changhua, Kaohsiung, and Hualien. Rural areas: Miaoli, Yangmei, Shoufeng, and Chiayi.