Table S1: Characteristics of health-related factors of included participants by self-rated health category

| Characteristics | Total (N=30222) | Very Good (N=3566) | Good (N=12583) | Neutral (N=10225) | Bad/very bad (N=3848) |
|-----------------|-----------------|--------------------|----------------|--------------------|-----------------------|
| Diet            | 10.8 (2.7)      | 11.6 (2.7)         | 11.1 (2.7)     | 10.6 (2.7)         | 9.9 (2.8)             |
| Fruit (n=30217) |                 |                    |                |                    |                       |
| Rarely or never | 7947 (26.3%)    | 652 (18.3%)        | 2856 (22.7%)   | 2876 (28.1%)       | 1563 (40.6%)          |
| Occasionally    | 13750 (45.5%)   | 1479 (41.5%)       | 5843 (46.4%)   | 4885 (47.8%)       | 1543 (40.1%)          |
| Everyday or except winter | 8520 (28.2%) | 1432 (40.2%)       | 3883 (30.9%)   | 2464 (24.1%)       | 741 (19.3%)           |
| Vegetables (n=30213) |           |                    |                |                    |                       |
| Rarely or never | 1132 (3.7%)     | 83 (2.3%)          | 330 (2.6%)     | 434 (4.2%)         | 285 (7.4%)            |
| Occasionally    | 4238 (14.0%)    | 384 (10.8%)        | 1496 (11.9%)   | 1673 (16.4%)       | 685 (17.8%)           |
| Everyday or except winter | 24843 (82.2%) | 3097 (86.9%)       | 10753 (85.5%) | 8115 (79.4%)       | 2878 (74.8%)          |
| Garlic (n=30103) |                 |                    |                |                    |                       |
| Rarely or never | 12475 (41.4%)   | 1378 (41.5%)       | 5014 (40.0%)   | 4352 (42.7%)       | 1731 (45.2%)          |
| Occasionally    | 13249 (44.0%)   | 1504 (42.4%)       | 5664 (45.2%)   | 4517 (44.3%)       | 1543 (40.1%)          |
| Everyday or except winter | 4379 (14.5%)  | 666 (18.8%)        | 1861 (14.8%)   | 1317 (12.9%)       | 535 (14.0%)           |
| Meat (n=30203)  |                 |                    |                |                    |                       |
| Rarely or never | 5260 (17.4%)    | 612 (17.2%)        | 1902 (15.1%)   | 1768 (17.3%)       | 978 (25.4%)           |
| Occasionally    | 15249 (50.5%)   | 1617 (45.4%)       | 6252 (49.7%)   | 5488 (53.7%)       | 1892 (49.2%)          |
| Everyday or except winter | 9694 (32.1%)  | 1334 (37.4%)       | 4418 (35.1%)   | 2966 (29.0%)       | 976 (25.4%)           |
| Fish (n=30186)  |                 |                    |                |                    |                       |
| Rarely or never | 8737 (28.9%)    | 858 (24.1%)        | 3406 (27.1%)   | 2940 (28.8%)       | 1533 (39.9%)          |
| Occasionally    | 17121 (56.7%)   | 1990 (55.9%)       | 7220 (57.5%)   | 6000 (58.7%)       | 1911 (49.7%)          |
| Everyday or except winter | 4328 (14.3%)  | 712 (20.0%)        | 1936 (15.4%)   | 1280 (12.5%)       | 400 (10.4%)           |
| Egg (n=30207)   |                 |                    |                |                    |                       |
| Rarely or never | 4460 (14.8%)    | 434 (12.2%)        | 1664 (13.2%)   | 1566 (15.3%)       | 796 (20.7%)           |
| Occasionally    | 14760 (48.9%)   | 1516 (42.5%)       | 5955 (47.3%)   | 5372 (52.6%)       | 1917 (49.8%)          |
| Everyday or except winter | 10987 (36.4%) | 1614 (45.3%)       | 4960 (39.4%)   | 3280 (32.1%)       | 1133 (29.5%)          |
| Bean (n=30216)  |                 |                    |                |                    |                       |
| Rarely or never | 4675 (15.5%)    | 450 (12.6%)        | 1773 (14.1%)   | 1610 (15.7%)       | 842 (21.9%)           |
| Occasionally    | 17549 (58.1%)   | 1813 (50.8%)       | 7366 (58.6%)   | 6151 (60.2%)       | 2219 (57.7%)          |
| Everyday or except winter | 7992 (26.4%)  | 1303 (36.5%)       | 3440 (27.3%)   | 2464 (24.1%)       | 785 (20.4%)           |
| Tea (n=29952)   |                 |                    |                |                    |                       |
| Rarely or never | 16666 (55.6%)   | 1799 (50.9%)       | 6810 (54.6%)   | 5700 (56.2%)       | 2357 (61.9%)          |
| Occasionally    | 5426 (18.1%)    | 619 (17.5%)        | 2267 (18.2%)   | 1930 (19.0%)       | 610 (16.0%)           |
| Everyday or except winter | 7860 (26.2%)  | 1115 (31.6%)       | 3401 (27.3%)   | 2504 (24.7%)       | 840 (22.1%)           |
| Sugar (n=30189) |                 |                    |                |                    |                       |
| Rarely or never | 7550 (25.0%)    | 1093 (30.7%)       | 3373 (26.8%)   | 2252 (22.0%)       | 832 (21.6%)           |
| Occasionally    | 13194 (43.7%)   | 1399 (39.3%)       | 5549 (44.1%)   | 4613 (45.2%)       | 1633 (42.5%)          |
| Everyday or except winter | 9445 (31.3%)  | 1066 (30.0%)       | 3647 (29.0%)   | 3352 (32.8%)       | 1380 (35.9%)          |
| Salt vegetable (n=30171) |           |                    |                |                    |                       |
| Rarely or never | 6403 (21.2%)    | 817 (23.0%)        | 2641 (21.0%)   | 2093 (20.5%)       | 852 (22.2%)           |
| Occasionally    | 10577 (35.1%)   | 1227 (34.5%)       | 4461 (35.5%)   | 3666 (35.9%)       | 1223 (31.8%)          |
| Activity                      | Unimpaired (%) | Impaired (%) | Unimpaired (%) | Impaired (%) | Unimpaired (%) | Impaired (%) | Unimpaired (%) | Impaired (%) |
|-------------------------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|
| **Everyday or except winter** |                 |              |                |              |                |              |                |              |
| **Leisure activity**          |                 |              |                |              |                |              |                |              |
| Housework (n=30221)           |                 |              |                |              |                |              |                |              |
| Never                         | 16716 (55.3%)   | 1506 (47.8%) | 6479 (51.5%)   | 5961 (58.3%) | 2570 (66.8%)   |              |                |              |
| Sometimes                     | 5051 (16.7%)    | 633 (17.8%)  | 2301 (18.3%)   | 1724 (16.9%) | 393 (10.2%)    |              |                |              |
| Almost everyday                | 8454 (28.0%)    | 1227 (34.4%) | 3803 (30.2%)   | 2539 (24.8%) | 885 (23.0%)    |              |                |              |
| **Fieldwork (n=30219)**       |                 |              |                |              |                |              |                |              |
| Never                         | 15847 (52.4%)   | 1500 (42.1%) | 6203 (49.3%)   | 5671 (55.5%) | 2473 (64.3%)   |              |                |              |
| Sometimes                     | 5872 (19.4%)    | 640 (18.0%)  | 2444 (19.4%)   | 2138 (20.9%) | 650 (16.9%)    |              |                |              |
| Almost everyday                | 8500 (28.1%)    | 1425 (40.0%) | 3936 (31.3%)   | 2414 (23.6%) | 725 (18.8%)    |              |                |              |
| **Garden work (n=30220)**     |                 |              |                |              |                |              |                |              |
| Never                         | 27136 (89.8%)   | 2932 (82.2%) | 11252 (89.4%)  | 9327 (91.2%) | 3625 (94.2%)   |              |                |              |
| Sometimes                     | 1479 (4.9%)     | 270 (7.6%)   | 645 (5.1%)     | 462 (4.5%)   | 138 (3.6%)     |              |                |              |
| Almost everyday                | 1605 (5.3%)     | 363 (10.2%)  | 686 (5.5%)     | 435 (4.3%)   | 121 (3.1%)     |              |                |              |
| **Reading (n=30221)**         |                 |              |                |              |                |              |                |              |
| Never                         | 25725 (85.1%)   | 2767 (77.6%) | 10545 (83.8%)  | 8873 (86.8%) | 3540 (92.0%)   |              |                |              |
| Sometimes                     | 2015 (6.7%)     | 298 (8.4%)   | 931 (7.4%)     | 648 (6.3%)   | 138 (3.6%)     |              |                |              |
| Almost everyday                | 2481 (8.2%)     | 501 (14.0%)  | 1106 (8.8%)    | 704 (6.9%)   | 170 (4.4%)     |              |                |              |
| **Pets (n=30218)**             |                 |              |                |              |                |              |                |              |
| Never                         | 24261 (80.3%)   | 2731 (76.6%) | 9925 (78.9%)   | 8330 (81.5%) | 3275 (85.1%)   |              |                |              |
| Sometimes                     | 2818 (9.3%)     | 366 (10.3%)  | 1213 (9.6%)    | 971 (9.5%)   | 268 (7.0%)     |              |                |              |
| Almost everyday                | 3139 (10.4%)    | 468 (13.1%)  | 1444 (11.5%)   | 922 (9.0%)   | 305 (7.9%)     |              |                |              |
| **Mahjong (n=30220)**         |                 |              |                |              |                |              |                |              |
| Never                         | 26427 (87.4%)   | 2906 (81.5%) | 10744 (85.4%)  | 9163 (89.6%) | 3614 (93.9%)   |              |                |              |
| Sometimes                     | 2626 (8.7%)     | 402 (11.3%)  | 1267 (10.1%)   | 784 (7.7%)   | 173 (4.5%)     |              |                |              |
| Almost everyday                | 1167 (3.9%)     | 258 (7.2%)   | 572 (4.5%)     | 276 (2.7%)   | 61 (1.6%)      |              |                |              |
| **TV/Radio (n=30221)**        |                 |              |                |              |                |              |                |              |
| Never                         | 12662 (41.9%)   | 992 (27.8%)  | 4806 (38.2%)   | 4659 (45.6%) | 2205 (57.3%)   |              |                |              |
| Sometimes                     | 7823 (25.9%)    | 892 (25.0%)  | 3433 (27.3%)   | 2693 (26.3%) | 805 (20.9%)    |              |                |              |
| Almost everyday                | 9736 (32.2%)    | 1682 (47.2%) | 4344 (34.5%)   | 2872 (28.1%) | 838 (21.8%)    |              |                |              |
| **Activity of daily living**  |                 |              |                |              |                |              |                |              |
| Bathing (n=30180)              |                 |              |                |              |                |              |                |              |
| Unimpaired                     | 21875 (72.5%)   | 2868 (80.6%) | 9749 (77.6%)   | 7081 (69.3%) | 2177 (56.7%)   |              |                |              |
| Impaired                       | 8305 (27.5%)    | 692 (19.4%)  | 2822 (22.4%)   | 3130 (30.7%) | 1661 (43.3%)   |              |                |              |
| Dressing (n=30217)             |                 |              |                |              |                |              |                |              |
| Unimpaired                     | 26333 (87.1%)   | 3397 (95.3%) | 11574 (92.0%)  | 8632 (84.4%) | 2730 (71.0%)   |              |                |              |
| Impaired                       | 3884 (12.9%)    | 168 (4.7%)   | 1009 (8.0%)    | 1590 (15.6%) | 1117 (29.0%)   |              |                |              |
| Toileting (n=30220)            |                 |              |                |              |                |              |                |              |
| Unimpaired                     | 25993 (86.0%)   | 3389 (95.0%) | 11471 (91.2%)  | 8494 (83.1%) | 2639 (68.6%)   |              |                |              |
| Impaired                       | 4227 (14.0%)    | 177 (5.0%)   | 1112 (8.8%)    | 1729 (16.9%) | 1209 (31.4%)   |              |                |              |
| Indoor transferring (n=30195)   |                 |              |                |              |                |              |                |              |
| Unimpaired                     | 26805 (88.8%)   | 3435 (96.4%) | 11727 (93.3%)  | 8845 (86.6%) | 2798 (72.8%)   |              |                |              |
| Impaired                       | 3390 (11.2%)    | 128 (3.6%)   | 841 (6.7%)     | 1373 (13.4%) | 1048 (27.2%)   |              |                |              |
| Continence (n=30219)           |                 |              |                |              |                |              |                |              |
| Unimpaired                     | 28314 (93.7%)   | 3475 (97.4%) | 12104 (96.2%)  | 9460 (92.5%) | 3275 (85.1%)   |              |                |              |
| Impaired                       | 1905 (6.3%)     | 91 (2.6%)    | 477 (3.8%)     | 765 (7.5%)   | 572 (14.9%)    |              |                |              |
Feeding (n=30214)

|          | Unimpaired |     |     |     |     |
|----------|------------|-----|-----|-----|-----|
|          | 27702 (91.7%) | 3469 (97.3%) | 11971 (95.2%) | 9198 (90.0%) | 3064 (79.7%) |
| Impaired | 2512 (8.3%)  | 97 (2.7%)    | 608 (4.8%)    | 1025 (10.0%) | 782 (20.3%)  |
| Cognitive function score $^b$ | 22.0 (7.6) | 24.8 (6.1) | 23.0 (7.0) | 21.2 (7.7) | 18.3 (8.5) |

a: We allowed maximum two missing values for each participant in die, leisure activities and activity of daily living.

b: The cognitive function consists of 24 items within 6 dimensions: 5 items for Orientation, 3 for Registration, 1 for Naming, 5 for Attention and Calculation, 3 for Recall and 7 for Language. The total score ranges from 0 to 30 points
Table S2: Demographic characteristics of the included and excluded participants

| Characteristics          | Participants Included (n=30222) | Participants Excluded (n=4846) |
|-------------------------|---------------------------------|--------------------------------|
|                         | N (%) / Mean ± SD                |                                |
| **Categorical Variable**|                                  |                                |
| **Gender**              |                                  |                                |
| Female                  | 18183 (60.2%)                   | 3536 (73.0%)                   |
| Male                    | 12039 (39.8%)                   | 1310 (27.0%)                   |
| **Ethnicity**           |                                  |                                |
| Han                     | 28315 (93.7%)                   | 4539 (95.5%)                   |
| Other                   | 1907 (6.3%)                     | 213 (4.5%)                     |
| **Residence (no m)**    |                                  |                                |
| Urban                   | 12734 (42.1%)                   | 1894 (39.1%)                   |
| Rural                   | 17488 (57.9%)                   | 2952 (60.9%)                   |
| **Marriage**            |                                  |                                |
| Married                 | 5268 (17.4%)                    | 399 (8.3%)                     |
| Others                  | 24492 (81.0%)                   | 4230 (87.7%)                   |
| Widowed                 | 462 (1.5%)                      | 196 (4.1%)                     |
| **Occupation**          |                                  |                                |
| Manual                  | 28465 (94.2%)                   | 4565 (97.0%)                   |
| Non-manual              | 1752 (5.8%)                     | 141 (3.0%)                     |
| Never worked            | 5 (0.0%)                        | 0                              |
| **Education**           |                                  |                                |
| None                    | 20950 (69.3%)                   | 3750 (82.3%)                   |
| Primary School          | 6120 (20.3%)                    | 554 (12.2%)                    |
| Middle or higher        | 3152 (10.4%)                    | 255 (5.6%)                     |
| **Self-Rated Health**   |                                  |                                |
| Very Good               | 3566 (11.8%)                    | 72 (9.1%)                      |
| Good                    | 12583 (41.6%)                   | 325 (41.0%)                    |
| Neutral                 | 10225 (33.8%)                   | 295 (37.2%)                    |
| Bad                     | 3848 (12.7%)                    | 101 (12.7%)                    |
| **Continuous Variable** |                                  |                                |
| Age                     | 92.2 (7.4)                      | 97.1 (6.4)                     |
Table S3: Stratification analysis between self-rated health and mortality by gender and education

| Self-rated health | Person-year | Mortality rates | N. of death | Unadjusted HR (95%CI) | Adjusted HR (95%CI) |
|-------------------|-------------|----------------|-------------|-----------------------|---------------------|
|                   |             |                |             | Crude model           | Minimally adjusted  |
|                   |             |                |             |                       | Fully adjusted      |
| In non-educated & male (n=4990) |             |                |             |                       |                     |
| Very good         | 2224.82     | 0.20           | 454         | Ref.                  | Ref.                |
| Good              | 7437.93     | 0.21           | 1532        | 1.01 (0.91, 1.12)     | 1.00 (0.90, 1.10)   |
| Neutral           | 5420.58     | 0.23           | 1228        | 1.13 (1.01, 1.26)*    | 1.12 (1.00, 1.24)*  |
| Bad/Very bad      | 1765.13     | 0.29           | 512         | 1.49 (1.31, 1.69)*    | 1.50 (1.32, 1.70)*  |
|                   |             |                |             |                       |                     |
| In educated & male (n=7049) |             |                |             |                       |                     |
| Very good         | 4586.54     | 0.15           | 666         | Ref.                  | Ref.                |
| Good              | 12128.60    | 0.18           | 2131        | 1.23 (1.13, 1.34)*    | 1.19 (1.09, 1.30)*  |
| Neutral           | 7538.78     | 0.21           | 1578        | 1.50 (1.37, 1.65)*    | 1.51 (1.38, 1.66)*  |
| Bad/Very bad      | 1897.98     | 0.25           | 478         | 1.87 (1.66, 2.10)*    | 2.02 (1.80, 2.28)*  |
|                   |             |                |             |                       |                     |
| In non-educated & female (n=15960) |             |                |             |                       |                     |
| Very good         | 6311.02     | 0.19           | 1186        | Ref.                  | Ref.                |
| Good              | 23969.62    | 0.20           | 4857        | 1.08 (1.02, 1.16)*    | 1.04 (0.98, 1.11)   |
| Neutral           | 17781.58    | 0.22           | 3979        | 1.22 (1.14, 1.30)*    | 1.16 (1.09, 1.24)*  |
| Bad/Very bad      | 6637.45     | 0.26           | 1702        | 1.41 (1.31, 1.52)*    | 1.38 (1.28, 1.48)*  |
|                   |             |                |             |                       |                     |
| In educated & female (n=2223) |             |                |             |                       |                     |
| Very good         | 1177.61     | 0.14           | 162         | Ref.                  | Ref.                |
| Good              | 3501.94     | 0.16           | 548         | 1.16 (0.97, 1.38)     | 1.16 (0.97, 1.38)   |
| Neutral           | 2758.22     | 0.17           | 470         | 1.27 (1.06, 1.52)*    | 1.18 (0.98, 1.41)   |
| Bad/Very bad      | 824.92      | 0.21           | 177         | 1.61 (1.30, 2.00)*    | 1.53 (1.24, 1.90)*  |

a: Adjusted for gender, ethnicity, age, marital status, occupation, education, and residence.
b: Adjusted for gender, ethnicity, age, marital status, occupation, education, residence, lifestyle (smoking, alcohol assumption, physical activity, diet, and leisure activity), ADL, and cognitive function.
*: P-value < 0.05
Figure S1: Kaplan–Meier observed survival curves and Cox predicted curves