

**Table S1.** Validation between social frailty and physical frailty.

| Total sample         | Social frailty |               |               | Spearman correlation | p-value | Physical frailty |                |               | Spearman correlation | p-value |
|----------------------|----------------|---------------|---------------|----------------------|---------|------------------|----------------|---------------|----------------------|---------|
|                      | Robust         | Prefrail      | Frail         |                      |         | Robust           | Prefrail       | Frail         |                      |         |
|                      | N = 203        | N = 121       | N = 84        |                      |         | N = 144          | N = 198        | N = 66        |                      |         |
| Age (mean±SD)        | 72.7±5.1       | 75.4±5.6      | 79.3±6.2      | 0.399                | <0.001  | 71.7±4.3         | 75.4±5.9       | 80.3±5.5      | 0.469                | <0.001  |
| Female               | 97<br>(47.8%)  | 80<br>(66.1%) | 59<br>(70.2%) | 0.201                | <0.001  | 63<br>(43.8%)    | 121<br>(61.1%) | 52<br>(78.8%) | 0.244                | <0.001  |
| Multimorbidity       | 93<br>(45.8%)  | 74<br>(61.2%) | 64<br>(76.2%) | 0.240                | <0.001  | 60<br>(41.7%)    | 117<br>(59.1%) | 54<br>(81.8%) | 0.270                | <0.001  |
| Cognitive impairment | 35<br>(17.2%)  | 31<br>(25.6%) | 40<br>(47.6%) | 0.245                | <0.001  | 9 (6.3%)         | 58 (29.3%)     | 39<br>(59.1%) | 0.402                | <0.001  |
| Depressed mood       | 9 (4.4%)       | 6 (5.0%)      | 17<br>(20.2%) | 0.185                | <0.001  | 2 (1.4%)         | 13 (6.6%)      | 17<br>(25.8%) | 0.266                | <0.001  |
| Sarcopenia           | 30<br>(14.8%)  | 30<br>(24.8%) | 34<br>(40.5%) | 0.227                | <0.001  | 0 (0%)           | 54 (27.3%)     | 40<br>(60.6%) | 0.483                | <0.001  |
| Dysmobility          | 49<br>(24.1%)  | 56<br>(46.3%) | 59<br>(70.2%) | 0.364                | <0.001  | 0 (0%)           | 100<br>(50.5%) | 64<br>(97.0%) | 0.688                | <0.001  |
| Fall                 | 38<br>(18.7%)  | 27<br>(22.3%) | 28<br>(33.3%) | 0.121                | 0.014   | 22<br>(15.3%)    | 46 (23.2%)     | 25<br>(37.9%) | 0.172                | 0.001   |
| Polypharmacy         | 51<br>(25.1%)  | 40<br>(33.1%) | 36<br>(42.9%) | 0.146                | 0.003   | 33<br>(22.9%)    | 62 (31.3%)     | 32<br>(48.5%) | 0.174                | <0.001  |
| Malnutrition         | 41<br>(20.2%)  | 34<br>(28.1%) | 33<br>(39.3%) | 0.163                | 0.001   | 16<br>(11.1%)    | 58 (29.3%)     | 34<br>(51.5%) | 0.307                | <0.001  |

**Table S2.** Agreement of social frailty items with CHS scale

| Social frailty items   | CHS frailty            |                    | Sensitivity | Specificity | Accuracy | PPV   | NPV   | Kappa | p-value |
|--|------------------------|--------------------|-------------|-------------|----------|-------|-------|-------|---------|
|  | No frailty<br>(N =342) | Frailty<br>(N =66) |             |             |          |       |       |       |         |
| No.1: Do you go out less frequently compared with last year? | No                     | 297 86.8%          | 53.0%       | 86.8%       | 81.4%    | 43.8% | 90.6% | 0.367 | <0.001  |
|  | Yes                    | 45 13.2%           |             |             |          |       |       |       |         |
| No.2: Do you sometimes visit your friends?                   | No                     | 317 92.7%          | 37.9%       | 92.7%       | 83.8%    | 50.0% | 88.6% | 0.339 | <0.001  |
|  | Yes                    | 25 7.3%            |             |             |          |       |       |       |         |
| No.3: Do you feel you are helpful to friends or family?      | No                     | 281 82.2%          | 53.0%       | 82.2%       | 77.5%    | 36.5% | 90.1% | 0.297 | <0.001  |
|  | Yes                    | 61 17.8%           |             |             |          |       |       |       |         |
| No.4: Do you live alone?                                     | No                     | 268 78.4%          | 28.8%       | 78.4%       | 70.3%    | 20.4% | 85.1% | 0.061 | 0.205   |
|  | Yes                    | 74 21.6%           |             |             |          |       |       |       |         |
| No.5: Do you talk with someone every day?                    | No                     | 331 96.8%          | 15.2%       | 96.8%       | 83.6%    | 47.6% | 85.5% | 0.165 | <0.001  |
|  | Yes                    | 11 3.2%            |             |             |          |       |       |       |         |

CHS, Cardiovascular Health Study; PPV, positive predictive value; NPV, negative predictive value.