**Additional file 1: Table S1.** Cox proportional hazard regression analyses of those receiving LTC (n=523) **(70 years old)**

| Variables | Model 1[a] | | Model 2[b] | | Model 3[c] | |
|---|---|---|---|---|---|---|
| | HR | 95% CI | HR | 95% CI | HR | 95% CI |
| **Weak grip strength** ref. normal | 0.96 | 0.31-3.01 | 0.81 | 0.25-2.67 | 0.76 | 0.23-2.54 |
| **Slow walking speed** ref. normal | 1.25 | 0.44-3.52 | 1.13 | 0.38-3.34 | 1.12 | 0.38-3.30 |
| **MoCA-J score** | - | - | - | - | 0.89 | 0.76-1.06 |
| **Sex** (ref. = male) | - | - | 1.38 | 0.44-4.31 | 1.48 | 0.47-4.66 |
| **HT** | - | - | 0.97 | 0.31-3.11 | 0.92 | 0.29-2.93 |
| **DM** | - | - | 1.76 | 0.54-5.79 | 1.82 | 0.56-5.92 |
| **Stroke** | - | - | 1.81 | 0.23-14.56 | 2.04 | 0.26-16.34 |
| **Joint diseases** | - | - | 2.24 | 0.74-6.79 | 1.97 | 0.64-6.07 |
| **Living alone** | - | - | 1.96 | 0.60-6.44 | 2.09 | 0.63-6.92 |
| **BMI** | - | - | 1.11 | 0.95-1.30 | 1.10 | 0.95-1.29 |
| **Serum albumin** | - | - | 0.49 | 0.07-3.63 | 0.57 | 0.08-4.20 |

Abbreviations: BMI, Body mass index; CI, Confidence interval; DM, Diabetes mellitus; HR, Hazard ratio; HT, Hypertension; LTC, Long-term care; MoCA-J, The Japanese version of the Montreal Cognitive Assessment; ref., reference.

[a] **Model 1** was unadjusted for physical function (weak grip strength and slow walking speed).

[b] **Model 2** was adjusted for physical function by age, sex, HT, DM, stroke, joint diseases, living alone, BMI, and serum albumin.

[c] **Model 3** was adjusted for physical function by MoCA-J score, age, sex, HT, DM, stroke, joint diseases, living alone, BMI, and serum albumin.