

**Supplementary Table S1.** Baseline characteristics

		Social participation	Non-participation	Total
N (%)		9,863 (73.6)	3,547 (26.5)	13,140
Age, y	Average $\pm$ Standard deviation	72.5 $\pm$ 5.7	72.9 $\pm$ 6.3	72.6 $\pm$ 5.8
Gender (%)	Men	4,902 (49.7)	1,696 (47.8)	6,598 (49.2)
Social participation (%)	Local community	7,613 (77.2)	-	7,613 (56.8)
	Hobby groups	4,045 (41.0)	-	4,045 (30.2)
	Sports groups or clubs	2,671 (27.1)	-	2,671 (19.9)
	Political organization or groups	1,029 (10.4)	-	1,029 (7.7)
	Industrial or trade associations	1,298 (13.2)	-	1,298 (9.7)
	Religious organizations or groups	1,544 (15.7)	-	1,544 (11.5)
	Volunteer groups	1,330 (13.5)	-	1,330 (9.9)
	Citizen or consumer groups	623 (6.3)	-	623 (4.7)
Family status	Living alone	936 (9.5)	374 (10.5)	1,310 (9.8)
	Missing	0 (0.0)	0 (0.0)	0 (0.0)
Educational attainment	More than 9 years	4,291 (43.5)	1,185 (33.4)	5,476 (40.8)
	Missing	77 (0.8)	46 (1.3)	123 (0.9)
Smoking	Current smoker	1,190 (12.1)	511 (14.4)	1,701 (12.7)
	Missing	291 (3.0)	171 (4.8)	462 (3.5)
Alcohol	Current drinker	2,161 (21.9)	638 (18.0)	2,799 (20.9)
	Missing	129 (1.3)	71 (2.0)	200 (1.5)
Walking time	More than 30 min/day	5,952 (60.4)	1,904 (53.7)	7,856 (58.6)
	Missing	890 (9.0)	403 (11.4)	1,293 (9.6)
Household income	More than 3,000,000 yen/year	5,389 (54.6)	1,488 (42.0)	6,877 (51.3)
	Missing	1,404 (14.2)	666 (18.8)	2,070 (15.4)
Numbers of comorbidity	One	3,415 (34.6)	1,239 (34.9)	4,654 (34.7)
	Two or more	4,516 (45.8)	1,614 (45.5)	6,130 (45.7)
	Missing	0 (0.0)	0 (0.0)	0 (0.0)

**Supplementary Table S2.** Multinomial logistic regression analysis: Association between social participation and the incidence of the need for LTC and death at two and five years - Reference category: Without need for LTC

Follow-up period	Survival with need for LTC	Death
Two years (n = 10,019)		
No. of participants, n (%)	136 (1.4)	333 (3.3)
Social participation (yes)		
AOR (95% CI) <sup>a</sup>	0.45 (0.32-0.64)**	0.92 (0.71-1.18)
Five years (n = 9,888)		
No. of participants, n (%)	346 (3.5)	1,047 (10.6)
Social participation, yes		
AOR (95% CI) <sup>a</sup>	0.68 (0.54-0.86)**	0.83 (0.71-0.96)*

\*: p<0.05, \*\*: p<0.01.

Note: LTC, long-term care; AOR, adjusted odds ratio; CI, confidence interval.

<sup>a</sup>Adjusted for age, gender, living alone, education, smoking, alcohol, household income, walking time, and number of comorbidities

**Supplementary Table S3.** Multinomial logistic regression analysis: Association between social participation and the incidence of the certification of Needed Support and death at 9.4 years (N = 9,741) - Reference category: Without the certification of Needed Support

Variable	Survival with the certification of Needed Support	Death
	AOR (95% CI)	AOR (95% CI)
	1,263 (13.0)	1,758 (18.1)
Social participation (yes)	0.93 (0.81-1.07)	0.78 (0.69-0.89)**
Age (per 5 years)	2.36 (2.23-2.50)**	2.45 (2.45-2.72)**
Gender (men)	0.66 (0.57-0.75)**	1.78 (1.57-2.01)**
Family (living alone)	1.04 (0.85-1.28)	0.92 (0.74-1.13)
Education (more than 9 years)	0.99 (0.88-1.12)	0.95 (0.85-1.06)
Smoking (yes)	1.45 (1.20-1.74)**	1.82 (1.58-2.11)**
Alcohol (yes)	0.97 (0.82-1.14)	0.91 (0.80-1.04)
Walking time (more than 30 min/day)	0.85 (0.75-0.96)*	0.72 (0.64-0.80)**
Household income (more than 3,000,000 yen/year)	0.81(0.71-0.92)**	0.92 (0.82-1.03)
One comorbidity	1.44 (1.21-1.73)**	1.32 (1.13-1.55)**
Two or more comorbidities	1.97 (1.66-2.34)**	1.87 (1.61-2.17)**

\*: p<0.05, \*\*: p<0.01.

Note: AOR, adjusted odds ratio; CI, confidence interval.