

Table S4. Robustness checks examining differences in cumulative LTC service cost by community activities and employment status^{a)}

	Type of community activities								
	Hobby activities group			Sports group or club			Volunteer group		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	Torbit model	Only survival case	Monthly average cost in survival time	Torbit model	Only survival case	Monthly average cost in survival time	Torbit model	Only survival case	Monthly average cost in survival time
	thousand USD (95% CI)	thousand USD (95% CI)	ten USD per month (95% CI)	thousand USD (95% CI)	thousand USD (95% CI)	ten USD per month (95% CI)	thousand USD (95% CI)	thousand USD (95% CI)	ten USD per month (95% CI)
Freq. of community activities									
Never	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>
A few times a year	-0.71** (-1.11 to -0.31)	-0.34 (-0.94 to 0.26)	-1.18*** (-1.78 to -0.58)	-0.17 (-0.72 to 0.39)	0.07 (-0.74 to 0.88)	-0.47 (-1.31 to 0.38)	-0.67** (-1.16 to -0.19)	-0.37 (-1.10 to 0.89)	-1.24*** (-1.75 to -0.72)
Once or twice a month	-0.69*** (-1.03 to -0.36)	-0.99*** (-1.46 to -0.51)	-1.13*** (-1.69 to -0.58)	-0.73* (-1.33 to -0.13)	-0.47 (-1.24 to 0.29)	-0.33 (-1.24 to 0.57)	-0.67* (-1.19 to -0.16)	-0.55 (-1.21 to 0.11)	-1.01** (-1.61 to -0.40)
Once a week	-0.62** (-0.97 to -0.26)	-0.83** (-1.35 to -0.31)	-1.25*** (-1.81 to -0.69)	-1.14*** (-1.63 to -0.65)	-1.00** (-1.62 to -0.39)	-1.26*** (-1.79 to -0.73)	-0.65 (-1.44 to 0.15)	-0.16 (-1.13 to 0.80)	-0.23 (-1.52 to 1.06)
Twice a week +	-0.80*** (-1.17 to -0.44)	-1.01*** (-1.53 to -0.49)	-1.11** (-1.78 to -0.43)	-0.95*** (-1.34 to -0.57)	-0.93** (-1.45 to -0.41)	-0.99** (-1.56 to -0.42)	-0.85* (-1.65 to -0.04)	-0.10 (-1.10 to 0.89)	-0.63 (-1.68 to 0.41)
Employment status									
Retired/never had a job	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>	<i>ref.</i>
Employed	-1.46*** (-1.75 to -1.16)	-0.45* (-0.82 to -0.07)	-0.68** (-1.07 to -0.29)	-1.38*** (-1.69 to -1.08)	-0.43* (-0.81 to -0.06)	-0.75*** (-1.14 to -0.36)	-1.26*** (-1.56 to -0.96)	-0.39* (-0.77 to -0.02)	-0.61** (-1.00 to -0.23)

*** p<.001 ** p<.01 * p<.05 1USD≈100JPY

Model 1: The results were from Tobit regression model with inverse probability weighting (IPW) estimation for complete case analysis. To adopt IPW estimation, the generalized propensity scores were calculated using multinomial regression analysis using all previously listed potential confounders: sex, age, years of education, equivalent income, marital status, living situation, disease and/or impairment, recognition of forgetfulness, self-rated health, and municipality.

Model 2: Statistical model is same as "IPW with MI" model in table 2. The results were based on only survival cases in follow-up period.

Model 3: Statistical model is same as "OLS" model in table 2 (complete case analysis). The dependent variable is monthly average cost in survival time.