Supplementary Table 1. Univariate and multivariate multinomial logistic regression analysis of risk factors for higher level of frailty among community dwelling older adults (N=2647)

Level of frailty based on CFAI	Variables	Univariate analysis		Multivariate analysis	
		OR	95% CI	OR	95% CI
Mild frailty[#]	**Age (years)**	1.06*	(1.04, 1.07)	1.06*	(1.04, 1.08)
	Gender				
	Male	1	reference	1	reference
	Female	1.37*	(1.15, 1.63)	1.34*	(1.11, 1.62)
	Marital status				
	Married	1	reference	-	-
	Unmarried/Divorced/Widowed	1.08	(0.83, 1.41)	-	-
	Educational level				
	College or above	1	reference	-	-
	High school	1.10	(0.81, 1.51)	-	-
	Middle school	1.22	(0.90, 1.65)	-	-
	Primary school or below	1.41*	(1.01, 1.96)	-	-
	Working type before retirement				
	Intelligently	1	reference	-	-
	Physically	1.01	(0.81, 1.26)	-	-
	Both	1.07	(0.83, 1.37)	-	-
	Empty nesters				
	No	1	reference	-	-
	Yes	1.06	(0.86, 1.31)	-	-
	Medical insurance				
	Self-paying	1	reference	-	-
	Urban residents medical insurance	0.82	(0.48, 1.40)	-	-
	Employee medical insurance	0.62	(0.37, 1.06)	-	-
	Commercial medical insurance	3.96	(0.85, 18.46)	-	-
	Other medical insurance	0.64	(0.35, 1.18)	-	-
	Self-perceived medical burden				
	None	1	reference	1	reference
	Somewhat burdensome	1.61*	(1.35, 1.92)	1.59*	(1.31, 1.93)
	Highly burdensome	1.59*	(1.00, 2.54)	-	-
	BMI				
	Normal body weight	1	reference	1	reference
	Underweight	1.49	(0.87, 2.56)	-	-
	Overweight	1.14	(0.95, 1.38)	1.31*	(1.04, 1.64)
	Obese	1.09	(0.80, 1.49)	-	-
	Physical exercise				
	Never	1	reference	1	reference
	1-2 times/month	1.07	(0.71, 1.59)	-	-
	3-4 times/month	1.44	(0.93, 2.24)	-	-
	>4 times/month	0.64*	(0.46, 0.89)	0.60*	(0.43, 0.84)
	Types of medication taking				
	0	1	reference	1	reference
	1	1.50*	(1.21, 1.87)	1.41*	(1.11, 1.81)
	2	1.57*	(1.22, 2.01)	1.35*	(1.01, 1.80)
	3	1.97*	(1.39, 2.81)	1.63*	(1.10, 2.41)

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	4	1.51	(0.82, 2.77)	-	-
	≥5	1.30	(0.85, 2.01)	-	-
	Comorbid chronic diseases				
	No	1	reference	-	-
	Yes	0.98	(0.74, 1.31)	-	-
	Hypertension				
	No	1	reference	-	-
	Yes	1.15	(0.97, 1.37)	-	-
	Diabetes				
	No	1	reference	-	-
	Yes	1.12	(0.89, 1.40)	-	-
	Coronary heart disease				
	No	1	reference	-	-
	Yes	1.52*	(1.14, 2.04)	-	-
	Number of comorbid chronic diseases	1.06	(0.95, 1.19)	-	-
	Number of clinic visit during the past year	1.13*	(1.05, 1.21)	1.12*	(1.03, 1.21)
	Number of hospitalization during the past year				
	0	1	reference	1	reference
	1	1.35*	(1.07, 1.71)	-	-
	2	2.09*	(1.21, 3.60)	2.18*	(1.19, 4.00)
	≥3	2.13	(0.92, 4.93)	-	-
	Medical cost during the past year				
	≤5000 CNY	1	reference	-	-
	5001-8000 CNY	1.06	(0.78, 1.42)	-	-
	8001-10000 CNY	1.40	(0.77, 2.56)	-	-
	>10000 CNY	1.29	(0.81, 2.05)	-	-
	Nutritional status based on MNA-SF				
	Normal (12-14)	1	reference	1	reference
	Possible undernutrition (≤11)	1.19*	(1.00, 1.42)	1.35*	(1.08, 1.68)
	Sleep quality based on PSQI				
	Good (≤7)	1	reference	1	reference
	Poor (>7)	1.74*	(1.36, 2.22)	1.57*	(1.22, 2.03)
High frailty[#]	**Age (years)**	1.09*	(1.07, 1.12)	1.09*	(1.06, 1.13)
	Gender				
	Male	1	reference	1	reference
	Female	1.37*	(1.07, 1.76)	1.35*	(1.02, 1.78)
	Marital status				
	Married	1	reference	-	-
	Unmarried/Divorced/Widowed	1.67*	(1.19, 2.34)	-	-
	Educational level				
	College or above	1	reference	-	-
	High school	1.73*	(1.04, 2.87)	-	-
	Middle school	1.63	(0.98, 2.71)	-	-
	Primary school or below	2.91*	(1.74, 4.89)	-	-
	Working type before retirement				
	Intelligently	1	reference	-	-
	Physically	1.18	(0.85, 1.63)	-	-
	Both	1.41	(0.99, 2.01)	-	-
	Empty nesters				

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No	1	reference	-	-
Yes	1.35*	(1.02, 1.80)	-	-
Medical insurance				
Self-paying	1	reference	-	-
Urban residents medical insurance	1.61	(0.70, 3.74)	-	-
Employee medical insurance	1.05	(0.45, 2.43)	-	-
Commercial medical insurance	3.75	(0.52, 26.84)	-	-
Other medical insurance	0.89	(0.34, 2.35)	-	-
Self-perceived medical burden				
None	1	reference	1	reference
Somewhat burdensome	4.31*	(3.21, 5.78)	4.24*	(3.08, 5.84)
Highly burdensome	8.07*	(4.67, 13.95)	7.45*	(4.07, 13.61)
BMI				
Normal body weight	1	reference	1	reference
Underweight	2.82*	(1.51, 5.24)	2.16*	(1.09, 4.27)
Overweight	1.12	(0.86, 1.46)	1.53*	(1.10, 2.12)
Obese	0.80	(0.50, 1.29)	-	-
Physical exercise				
Never	1	reference	1	reference
1-2 times/month	0.71	(0.45, 1.14)	-	-
3-4 times/month	0.54*	(0.31, 0.94)	0.53*	(0.29, 0.97)
>4 times/month	0.28*	(0.19, 0.41)	0.26*	(0.17, 0.40)
Types of medication taking				
0	1	reference	1	reference
1	1.92*	(1.39, 2.66)	1.78*	(1.23, 2.58)
2	2.33*	(1.63, 3.33)	1.88*	(1.24, 2.85)
3	4.52*	(2.91, 7.00)	3.41*	(2.05, 5.67)
4	2.95*	(1.37, 6.34)	-	-
≥5	3.11*	(1.82, 5.32)	-	-
Comorbid chronic diseases				
No	1	reference	-	-
Yes	1.20	(0.82, 1.76)	-	-
Hypertension				
No	1	reference	-	-
Yes	1.40	(1.09, 1.78)	-	-
Diabetes				
No	1	reference	-	-
Yes	1.06	(0.77, 1.46)	-	-
Coronary heart disease				
No	1	reference	-	-
Yes	1.47	(0.99, 2.17)	-	-
Number of comorbid chronic diseases	1.22*	(1.05, 1.42)	-	-
Number of clinic visit during the past year	1.28*	(1.17, 1.39)	1.27*	(1.15, 1.40)
Number of hospitalization during the past year				
0	1	reference	-	-
1	1.67*	(1.22, 2.28)	-	-
2	2.89*	(1.50, 5.57)	-	-
≥3	4.35*	(1.72, 11.02)	-	-
Medical cost during the past year				
≤5000 CNY	1	reference	-	-

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5001-8000 CNY	1.21	(0.80, 1.82)	-	-
8001-10000 CNY	2.03	(0.97, 4.26)	-	-
>10000 CNY	2.51*	(1.46, 4.32)	-	-
Nutritional status based on MNA-SF				
Normal (12-14)	1	reference	1	reference
At risk for undernutrition (≤11)	1.69*	(1.32, 2.16)	2.06*	(1.50, 2.82)
Sleep quality based on PSQI				
Good (≤7)	1	reference	1	reference
Poor (>7)	3.05*	(2.26, 4.11)	2.28*	(1.64, 3.17)

Note: #: The reference is no-low frailty; *: $P<0.05$; CFAI: the Comprehensive Frailty Assessment Instrument; BMI: Body Mass Index; CNY: Chinese Yuan; MNA-SF: the Short-Form Mini-Nutritional Assessment; PSQI: the Pittsburgh Sleep Quality Index.