

Appendix: Supplemental tables with exact p-values for significant variables

Table S2 Hierarchical logistic regression of physician visits among older adults (Testing H1 & H3)

	Model 1 Core		p	Model 2 Predispose		p	Model 3 Enabling		p	Model 4 Health need		p	Model 5 Behaviour		p
	Nagelkerke R ² =0.03			Nagelkerke R ² =0.04			Nagelkerke R ² =0.06			Nagelkerke R ² =0.26			Nagelkerke R ² =0.26		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Health insurance (ref. uninsured)															
<i>GEMI</i>	0.66**	(0.49 0.90)	.009	0.72	(0.51 1.01)		0.62**	(0.44 0.89)	.009	0.67*	(0.45 0.98)	.040	0.65*	(0.44, 0.96)	.030
<i>UEBMI</i>	0.76*	(0.59 0.97)	.026	0.82	(0.62 1.09)		0.72*	(0.54 0.97)	.031	0.73	(0.53 1.01)		0.72*	(0.52, 0.99)	.043
<i>URBMI</i>	0.68**	(0.52 0.90)	.007	0.70*	(0.52 0.95)	.020	0.64**	(0.47 0.87)	.005	0.68*	(0.49 0.95)	.023	0.67*	(0.48, 0.93)	.016
<i>NCMS</i>	1.08	(0.87 1.33)		1.00	(0.80 1.25)		0.97	(0.77 1.22)		1.00	(0.77 1.28)		0.97	(0.76, 1.25)	
Age (ref. 60-69 years)															
<i>70-79 years</i>	1.40***	(1.25 1.57)	<.001	1.40***	(1.25 1.58)	<.001	1.35***	(1.20 1.52)	<.001	1.24**	(1.09 1.41)	.001	1.22**	(1.07, 1.40)	.003
<i>80+ years</i>	1.39*	(1.15 1.69)	.001	1.40**	(1.14 1.72)	.002	1.37**	(1.11 1.70)	.004	1.29*	(1.02 1.63)	.033	1.27*	(1.00, 1.60)	.049
Female (ref. Male)	1.39***	(1.26 1.54)	<.001	1.35***	(1.21 1.50)	<.001	1.33***	(1.19 1.48)	<.001	1.20**	(1.07 1.36)	.003	1.09	(0.95, 1.25)	
Without partner (ref. with partner)	-	-		0.87*	(0.76 1.00)	.049	0.89	(0.76 1.03)		0.90	(0.76 1.06)		0.9	(0.77, 1.06)	
Education (ref. illiterate)	-	-													
<i>Primary school</i>	-	-		0.93	(0.82 1.06)		0.92	(0.81 1.06)		1.01	(0.87 1.17)		0.99	(0.86, 1.15)	
<i>Junior high school</i>	-	-		0.76**	(0.64 0.91)	.002	0.76**	(0.64 0.90)	.002	0.88	(0.73 1.07)		0.87	(0.72, 1.05)	
<i>Senior high school+</i>	-	-		0.81	(0.64 1.01)		0.80	(0.63 1.01)		0.98	(0.76 1.26)		0.95	(0.74, 1.23)	
Urban household (ref. rural)	-	-		0.94	(0.77 1.16)		0.84	(0.67 1.04)		0.87	(0.69 1.11)		0.84	(0.66, 1.07)	
Chinese health belief (ref. no)	-	-		1.46***	(1.32 1.63)	<.001	1.44***	(1.30 1.60)	<.001	1.40***	(1.25 1.57)	<.001	1.39***	(1.24, 1.56)	<.001
Pensions (ref. non-pensioners)	-	-		-	-										
<i>Low: <¥500</i>	-	-		-	-		1.30***	(1.13 1.49)	<.001	1.30**	(1.11 1.51)	.001	1.31**	(1.12, 1.53)	.001
<i>Medium: ¥501-2000</i>	-	-		-	-		1.27**	(1.07 1.52)	.008	1.23*	(1.01 1.49)	.040	1.25*	(1.03, 1.52)	.024
<i>High: >¥2000</i>	-	-		-	-		1.23	(0.95 1.58)		1.18	(0.90 1.55)		1.19	(0.91, 1.57)	
Regular care provider (ref. clinic)	-	-		-	-										
<i>Specialty hospital</i>	-	-		-	-		1.67***	(1.26 2.23)	<.001	1.14	(0.84 1.56)		1.12	(0.82, 1.53)	
<i>General hospital</i>	-	-		-	-		1.53***	(1.27 1.85)	<.001	1.12	(0.91 1.37)		1.11	(0.90, 1.36)	
<i>Township health center</i>	-	-		-	-		1.16	(0.96 1.40)		1.00	(0.82 1.23)		1.01	(0.82, 1.24)	
<i>Community health center</i>	-	-		-	-		0.90	(0.74 1.08)		0.82	(0.66 1.01)		0.83	(0.67, 1.02)	
Major caregiver (ref. no caregiver)	-	-		-	-										
<i>Spouse</i>	-	-		-	-		1.21*	(1.04 1.42)	.016	1.08	(0.91 1.29)		1.07	(0.90, 1.27)	
<i>Adult Children or Child-in-law</i>	-	-		-	-		1.25**	(1.06 1.46)	.007	1.08	(0.91 1.29)		1.06	(0.89, 1.26)	
<i>Other family members</i>	-	-		-	-		1.47*	(1.03 2.11)	.034	1.28	(0.87 1.89)		1.24	(0.84, 1.83)	
Perceived health (ref. excellent)	-	-		-	-		-	-							
<i>Poor/fair</i>	-	-		-	-		-	-		4.99***	(4.07 6.11)	<.001	4.95***	(4.04, 6.08)	<.001
<i>Good</i>	-	-		-	-		-	-		2.09***	(1.68 2.59)	<.001	2.06***	(1.66, 2.55)	<.001
Chronic disease (ref. no)	-	-		-	-		-	-		2.81***	(2.50 3.17)	<.001	1.80***	(1.59, 2.03)	<.001
Mental distress (ref. no)	-	-		-	-		-	-		1.80***	(1.59 2.03)	<.001	2.77***	(2.45, 3.12)	<.001
Functional limitation (ref. no)	-	-		-	-		-	-		1.18*	(1.01 1.38)	.041	1.18*	(1.01, 1.38)	.041
No drinking (ref. yes)	-	-		-	-		-	-		-	-		1.56***	(1.31, 1.85)	<.001
No smoking (ref. yes)	-	-		-	-		-	-		-	-		0.99	(0.85, 1.16)	
No physical exercise (ref. yes)	-	-		-	-		-	-		-	-		0.90	(0.80, 1.02)	

Notes: p<0.05, *p<0.01, ***p<0.001. The reference group is given in the parenthesis (OR=1.00). **Abbreviations:** GEMI=Government Employee Medical Insurance; UEBMI=Urban Employee Basic Medical Insurance; URBMI=Urban Resident Basic Medical Insurance; NCMS=New Rural Resident Cooperative Medical Scheme.

Table S3 Hierarchical logistic regression of hospital admissions among older adults (Testing H1 & H3)

	Model 1 Core		p	Model 2 Predispose		p	Model 3 Enabling		p	Model 4 Health need		p	Model 5 Behavior		p
	Nagelkerke R ² =0.02			Nagelkerke R ² =0.03			Nagelkerke R ² =0.14			Nagelkerke R ² =0.24			Nagelkerke R ² =0.24		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Health insurance (ref. uninsured)															
<i>GEMI</i>	1.31	(0.93 1.84)		1.26	(0.87 1.81)		1.17	(0.79 1.74)		1.37	(0.90 2.08)		1.40	(0.93 2.13)	
<i>UEBMI</i>	1.36*	(1.03 1.80)	.031	1.27	(0.93 1.73)		1.32	(0.93 1.85)		1.46*	(1.02 2.11)	.040	1.49*	(1.03 2.14)	.033
<i>URBMI</i>	0.97	(0.70 1.34)		0.85	(0.60 1.21)		0.85	(0.59 1.22)		0.96	(0.66 1.40)		0.96	(0.66 1.40)	
<i>NCMS</i>	1.01	(0.79 1.29)		1.05	(0.81 1.36)		1.13	(0.85 1.50)		1.17	(0.87 1.58)		1.16	(0.86 1.57)	
Age (ref. 60-69 years)															
<i>70-79 years</i>	1.53***	(1.35 1.74)	<.001	1.62***	(1.42 1.85)	<.001	1.51***	(1.32 1.74)	<.001	1.40***	(1.21 1.62)	<.001	1.38***	(1.19 1.60)	<.001
<i>80+ years</i>	1.45**	(1.17 1.80)	.001	1.65***	(1.31 2.09)	<.001	1.48***	(1.16 1.89)	.002	1.40*	(1.08 1.81)	.012	1.37*	(1.06 1.78)	.017
Female (ref. male)	0.99	(0.88 1.12)		0.98	(0.87 1.11)		0.89	(0.78 1.01)		0.78***	(0.68 0.89)	<.001	0.68***	(0.58 0.80)	<.001
Without partner (ref. with partner)	-	-		0.66***	(0.56 0.77)	<.001	0.54***	(0.45 0.65)	<.001	0.57***	(0.47 0.69)	<.001	0.57***	(0.47 0.69)	<.001
Education (ref. illiterate)	-	-													
<i>Primary school</i>	-	-		0.83*	(0.71 0.97)	.019	0.84*	(0.71 0.98)	.028	0.86	(0.73 1.02)		0.85	(0.72 1.01)	
<i>Junior high school</i>	-	-		0.80*	(0.66 0.97)	.025	0.83	(0.68 1.01)		0.90	(0.73 1.12)		0.89	(0.72 1.11)	
<i>Senior high school+</i>	-	-		0.68**	(0.53 0.88)	.003	0.71*	(0.55 0.93)	.012	0.78	(0.59 1.03)		0.76	(0.58 1.01)	
Urban household (ref. rural)	-	-		1.27*	(1.01 1.61)	.046	1.06	(0.82 1.37)		1.08	(0.82 1.41)		1.08	(0.82 1.42)	
Chinese health belief (ref. no)	-	-		1.17*	(1.04 1.32)	.011	1.12	(0.98 1.26)		1.04	(0.91 1.18)		1.03	(0.91 1.18)	
Pensions (ref. non-pensioners)	-	-		-	-										
<i>Low: <¥500</i>	-	-		-	-		1.21*	(1.02 1.44)	.028	1.16	(0.97 1.39)		1.17	(0.98 1.40)	
<i>Medium: ¥501-2000</i>	-	-		-	-		0.88	(0.71 1.09)		0.78*	(0.62 0.98)	.030	0.79*	(0.63 0.99)	.040
<i>High: >¥2000</i>	-	-		-	-		0.95	(0.71 1.25)		0.86	(0.64 1.15)		0.84	(0.63 1.14)	
Regular care provider (ref. clinic)	-	-		-	-										
<i>Specialty hospital</i>	-	-		-	-		5.96***	(4.16 8.53)	<.001	4.68***	(3.22 6.79)	<.001	4.72***	(3.25 6.86)	<.001
<i>General hospital</i>	-	-		-	-		4.74***	(3.58 6.27)	<.001	3.93***	(2.94 5.25)	<.001	3.93***	(2.94 5.25)	<.001
<i>Township health center</i>	-	-		-	-		2.69***	(2.02 3.59)	<.001	2.51***	(1.87 3.38)	<.001	2.53***	(1.88 3.41)	<.001
<i>Community health center</i>	-	-		-	-		1.49*	(1.10 2.01)	.010	1.44*	(1.06 1.97)	.020	1.45*	(1.06 1.97)	.020
Major caregiver (ref. no caregiver)	-	-		-	-										
<i>Spouse</i>	-	-		-	-		2.36***	(1.86 3.00)	<.001	2.18***	(1.71 2.80)	<.001	2.19***	(1.71 2.80)	<.001
<i>Adult Children or Child-in-law</i>	-	-		-	-		4.22***	(3.31 5.37)	<.001	3.87***	(3.02 4.97)	<.001	3.85***	(3.00 4.94)	<.001
<i>Other family members</i>	-	-		-	-		3.89***	(2.50 6.04)	<.001	3.54***	(2.24 5.57)	<.001	3.53***	(2.24 5.58)	<.001
Perceived health (ref. excellent)	-	-		-	-		-	-							
<i>Poor/fair</i>	-	-		-	-		-	-		2.17***	(1.72 2.72)	<.001	2.10***	(1.67 2.64)	<.001
<i>Good</i>	-	-		-	-		-	-		1.27	(0.99 1.62)		1.25	(0.98 1.59)	
Chronic disease (ref. no)	-	-		-	-		-	-		2.96***	(2.59 3.37)	<.001	2.96***	(2.59 3.38)	<.001
Mental distress (ref. no)	-	-		-	-		-	-		1.25**	(1.09 1.44)	.002	1.25**	(1.09 1.44)	.002
Functional limitation (ref. no)	-	-		-	-		-	-		1.22*	(1.03 1.45)	.021	1.21*	(1.02 1.44)	.029
No drinking (ref. yes)	-	-		-	-		-	-		-	-		1.16	(0.95 1.42)	
No smoking (ref. yes)	-	-		-	-		-	-		-	-		1.28**	(1.08 1.52)	.005
No physical exercise (ref. yes)	-	-		-	-		-	-		-	-		1.09	(0.95 1.26)	

Notes: p<0.05, **p<0.01, ***p<0.001. The reference group is given in the parenthesis (OR=1.00). **Abbreviations:** GEMI=Government Employee Medical Insurance; UEBMI=Urban Employee Basic Medical Insurance; URBMI=Urban Resident Basic Medical Insurance; NCMS=New Rural Resident Cooperative Medical Scheme.

Table S4 Cross-referencing logistic regression of physician visits and hospital admissions among older adults (Testing H2)

	Model 5a Ref. Uninsured	p	Model 5b Ref. GEMI	p	Model 5c Ref. UEBMI	p	Model 5d Ref. URBMI	p	Model 5e Ref. NCMS	p
	OR (95% CI)		OR (95% CI)		OR (95% CI)		OR (95% CI)		OR (95% CI)	
Panel A: physician visits										
Uninsured	1		1.54* (1.04, 2.26)	.030	1.40* (1.01, 1.94)	.043	1.51* (1.08, 2.10)	.016	1.03 (0.80, 1.33)	
GEMI	0.65* (0.44, 0.96)	.030	1		0.91 (0.67, 1.24)		0.98 (0.69, 1.40)		0.67* (0.47, 0.97)	.031
UEBMI	0.72* (0.52, 0.99)	.043	1.10 (0.81, 1.49)		1		1.08 (0.82, 1.42)		0.74* (0.55, 0.99)	.045
URBMI	0.67* (0.48, 0.93)	.016	1.02 (0.72, 1.45)		0.93 (0.71, 1.23)		1		0.69* (0.51, 0.93)	.015
NCMS	0.97 (0.76, 1.25)		1.49* (1.04, 2.14)	.031	1.36* (1.01, 1.83)	.045	1.46* (1.08, 1.98)	.015	1	
Panel B: hospital admissions										
Uninsured	1		0.71 (0.47, 1.08)		0.67* (0.47, 0.97)	.033	1.04 (0.71, 1.52)		0.86 (0.64, 1.16)	
GEMI	1.40 (0.93, 2.13)		1		0.94 (0.69, 1.29)		1.46* (1.01, 2.13)	.046	1.21 (0.82, 1.78)	
UEBMI	1.49* (1.03, 2.14)	.033	1.06 (0.78, 1.45)		1		1.55** (1.14, 2.10)	.005	1.28 (0.92, 1.79)	
URBMI	0.96 (0.66, 1.40)		0.68* (0.47, 0.99)	.046	0.65** (0.48, 0.87)	.005	1		0.83 (0.59, 1.17)	
NCMS	1.16 (0.86, 1.57)		0.83 (0.56, 1.22)		0.78 (0.56, 1.09)		1.21 (0.86, 1.71)		1	

Notes: p<0.05, **p<0.01, ***p<0.001. The reference group is given in the parenthesis (OR=1.00). **Abbreviations:** GEMI=Government Employee Medical Insurance; UEBMI=Urban Employee Basic Medical Insurance; URBMI=Urban Resident Basic Medical Insurance; NCMS=New Rural Resident Cooperative Medical Scheme.