

Supplementary Information

Supplementary Table 1. Bivariate correlation.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. CES-D	1.00														
2. CES-D (2006)	0.33	1.00													
3. Income level	-0.25	-0.28	1.00												
4. With children	0.01	-0.02	-0.07	1.00											
5. Income volatility	0.04	0.04	-0.14	0.06	1.00										
6. Gender	0.11	0.16	-0.23	0.05	0.03	1.00									
7. Age	0.24	0.20	-0.46	0.04	0.04	0.08	1.00								
8. With spouse	0.18	0.22	-0.40	0.14	0.06	0.39	0.37	1.00							
9. Job	-0.18	-0.12	0.28	-0.08	-0.09	-0.16	-0.26	-0.20	1.00						
10. Education	-0.18	-0.29	0.46	0.00	0.01	-0.41	-0.38	-0.34	0.06	1.00					
11. Chronic disease	0.18	0.17	-0.15	-0.02	0.00	0.08	0.18	0.10	-0.16	-0.13	1.00				
12. IADL	0.25	0.14	-0.18	0.09	0.02	-0.05	0.31	0.10	-0.16	-0.11	0.13	1.00			
13. ADL	0.23	0.15	-0.16	0.07	0.04	0.01	0.28	0.10	-0.14	-0.13	0.10	0.59	1.00		
14. Residence	0.01	0.05	-0.08	-0.16	-0.01	0.00	0.05	-0.02	0.26	-0.21	-0.04	-0.07	-0.04	1.00	
15. Wealth	-0.12	-0.17	0.37	-0.03	-0.02	-0.13	-0.22	-0.29	0.12	0.27	-0.06	-0.14	-0.11	0.01	1.00

Supplementary Table 2. The relationships of income volatility to depressive symptoms (sensitivity analysis).

	(1)	(2)	(3)	(4)
	CES-D 10	CES-D 10	CES-D 10	CES-D 10
	Living without Children	Living with Children	All	All
	β (95% CI)	β (95% CI)	β (95% CI)	β (95% CI)
Co-residence	-	-	-0.00 (-0.06–0.05)	0.07 * (0.01–0.14)
Income volatility	0.22 * (0.05–0.39)	-0.42 ** (-0.71–-0.14)	0.01 (-0.14–0.16)	0.25 ** (0.09–0.42)
Co-residence · income volatility	-	-	-	-0.74 *** (-1.08–-0.41)
Male	0.02 * (0.00–0.04)	-0.00 (-0.03–0.02)	0.01 (-0.01–0.02)	0.01 (-0.01–0.02)
Age	0.01 ** (0.00–0.01)	0.00 (-0.01–0.01)	0.00 (-0.00–0.01)	0.00 (-0.00–0.01)
Single (married)	0.09 ** (0.03–0.16)	0.03 (-0.08–0.13)	0.06 * (0.00–0.12)	0.06 * (0.00–0.12)
Income level	-0.08 *** (-0.12–-0.04)	-0.05 (-0.11–0.01)	-0.05 ** (-0.09–0.02)	-0.05 ** (-0.09–0.02)
Net asset	0.13 † (-0.02–0.28)	-0.04 (-0.23–0.14)	-0.13 (-0.33–0.07)	-0.13 (-0.33–0.06)
No working	1.00 [reference]	1.00 [reference]	1.00 [reference]	1.00 [reference]
Employee	-0.21 ** (-0.34–-0.08)	-0.21 * (-0.37–-0.04)	-0.21 *** (-0.31–-0.10)	-0.21 *** (-0.31–-0.11)
Self-employed	-0.09 † (-0.18–0.00)	-0.24 ** (-0.39–-0.08)	-0.11 ** (-0.19–0.03)	-0.12 ** (-0.20–0.04)
Unpaid family worker	-0.23 *** (-0.37–-0.10)	-0.23 † (-0.49–0.03)	-0.23 *** (-0.35–-0.11)	-0.23 *** (-0.35–-0.11)
≤Elementary	-0.01 (-0.11–0.08)	0.03 (-0.10–0.17)	0.02 (-0.07–0.10)	0.01 (-0.07–0.10)
≤Middle school	0.03 (-0.05–0.12)	-0.03 (-0.15–0.09)	0.02 (-0.05–0.09)	0.02 (-0.05–0.09)
≤High school	0.03 (-0.07–0.13)	-0.08 (-0.23–0.06)	0.01 (-0.08–0.09)	0.00 (-0.08–0.08)
≥College	1.00 [reference]	1.00 [reference]	1.00 [reference]	1.00 [reference]
Metropolitan	1.00 [reference]	1.00 [reference]	1.00 [reference]	1.00 [reference]
City	0.03 (-0.04–0.10)	0.17 *** (0.08–0.26)	0.08 ** (0.03–0.14)	0.08 ** (0.02–0.13)
Rural	0.03 (-0.03–0.10)	0.01 (-0.10–0.12)	0.03 (-0.02–0.09)	0.04 (-0.02–0.09)
No chronic disease	1.00 [reference]	1.00 [reference]	1.00 [reference]	1.00 [reference]
Chronic disease: 1	0.02	0.10 †	0.05	0.05

(0)				
Chronic disease: 2+	(-0.06-0.10) 0.13 ***	(-0.01-0.20) 0.16 **	(-0.02-0.11) 0.14 ***	(-0.02-0.11) 0.14 ***
IADL: 1+ (0)	(0.06-0.20) 0.33 ***	(0.05-0.26) 0.05	(0.08-0.20) 0.24 ***	(0.08-0.21) 0.24 ***
ADL: 1+ (0)	(0.24-0.41) 0.09 †	(-0.08-0.17) 0.29 ***	(0.17-0.31) 0.14 **	(0.17-0.31) 0.13 **
2006 CES-D 10	(-0.01-0.19) 0.07 ***	(0.15-0.42) 0.06 ***	(0.05-0.22) 0.06 ***	(0.05-0.22) 0.07 ***
Household income	(0.06-0.08) -	(0.05-0.08) -	(0.06-0.07) -0.03 †	(0.06-0.07) -0.03 †
Household wealth	-	-	(-0.06-0.00) 0.80 *	(-0.06-0.00) 0.80 *
Observations	2753	1370	(0.15-1.46) 3775	(0.15-1.44) 3775

Abbreviations: CES-D 10, Center for Epidemiologic Studies-Depression 10-item Scale; IADL, instrumental activities of daily living; ADL, activities of daily living; CI, confidence interval. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$; Negative Binomial regressions on CES-D 10 score from the 2012 KLoSA (robust standard errors); all adjusted variable, except 2006 CES-D 10 and income level and volatility, are collected from the 2012 KLoSA.