

**Table S1: Total energy and nutrients intakes for the older men by frailty levels in 2014-2017 NAHSIT <sup>a</sup>**

	65-74 year-old men					> 74 year-old men						
	Robust		Prefrail	Frail	P for trend <sup>b</sup>		Robust		Prefrail	Frail	P for trend <sup>b</sup>	
	(n=231)	(n=156)	(n=13)	Model 1	Model 2		(n=86)	(n=117)	(n=26)	Model 1	Model 2	
Energy (Kcal)	2078.06±49.12 (107.4)	1952.8±74.79 (100.9)	1760.89±192.73 (91.7)	0.114	0.974		2163.77±122.69 (115.5)	1888.42±107.84 (99.1)	1840.41±179.71 (91.7)	0.158	0.056	
Carbohydrate (g)	274.18±6.61 (210.8)	261.32±10.14 (201.2)	257.07±28.98 (198.8)	0.567	0.232		280.6±9.21 (219)	252.27±13.12 (193.5)	244.69±21.92 (178.2)	0.179	0.537	
Protein (g)	86.92±2.78 (153.8)	80.92±3.45 (143.5)	58.3±6.53 (103.1)	<.001	0.133		92.27±6.25 (155.3)	76.71±5.45 (127.6)	74.08±8.83 (118.7)	0.113	0.294	
Fat (g)	69.07±2.79 (107.2)	63.61±3.91 (98.5)	57.24±11.35 (88.7)	0.311	0.764		71.9±8.36 (115.1)	62.3±5.66 (98.1)	63.39±8.22 (95.1)	0.477	0.117	
Vitamin A (µg RE)	1179.69±104.69 (194.7)	1019.94±128.2 (172.1)	989.07±220.62 (180.9)	0.446	0.963		1004.54±118.64 (170.2)	980.31±121.56 (162.9)	1278.28±301.22 (204.4)	0.424	0.323	
Vitamin C (mg)	184.52±9.76 (183.5)	171.41±17.69 (172.6)	56.45±18.19 (65.4)	<.0001	<.0001		197.73±22.89 (198)	167.64±17.9 (167.6)	128.34±34.98 (127.5)	0.063	0.083	
Vitamin D (µg)	7.1±0.65 (70.5)	7.19±0.74 (72.4)	7.07±3.64 (74.6)	0.994	0.789		10.81±1.56 (104.1)	7.94±1.44 (80.1)	9.07±4.29 (103.3)	0.697	0.969	
Vitamin E (mg α-TE)	10.16±0.49 (84.1)	7.87±0.61 (66.3)	6.68±1.55 (60.6)	0.036	0.331		10.49±0.79 (86.1)	7.83±0.68 (65.5)	8.69±1.39 (76.4)	0.271	0.473	
Vitamin B1 (mg)	1.48±0.06 (122.4)	1.43±0.08 (120.4)	1.02±0.17 (94.2)	0.014	0.310		1.53±0.1 (131)	1.42±0.12 (117.8)	1.42±0.21 (107.3)	0.616	0.438	
Vitamin B2 (mg)	1.35±0.06 (103.1)	1.22±0.08 (94.4)	1.14±0.15 (93)	0.211	0.888		1.38±0.1 (106.4)	1.15±0.09 (88.3)	1.26±0.26 (95.6)	0.670	0.949	
Niacin (mg)	20.52±1.03 (128.2)	18.73±1.24 (117.1)	16.36±1.82 (103)	0.045	0.758		19.31±1.35 (121.8)	18.73±1.4 (116.8)	14.77±1.94 (88.7)	0.060	0.122	
Vitamin B6 (mg)	2.36±0.1 (147)	2.03±0.15 (127.6)	1.53±0.36 (101)	0.024	0.285		2.48±0.14 (154.4)	1.89±0.13 (118.1)	1.7±0.23 (107.7)	0.008	0.007	

Vitamin B12 (μg)	5.4±0.71 (224.4)	5.3±0.9 (221.4)	5.53±1.87 (233.7)	0.944	0.569	4.78±0.7 (202.7)	3.67±0.57 (152.2)	3±0.54 (113.4)	0.058	0.245
Zinc (mg)	13.33±0.47 (88.7)	12.55±0.64 (83.8)	9.63±1 (65.2)	0.001	0.315	14.91±1.23 (100.7)	11.4±0.63 (75.8)	10.82±1.41 (68.1)	0.036	0.015
Iron (mg)	16.63±0.72 (165.8)	13.97±0.92 (140.2)	12.43±1.22 (128.5)	0.004	0.170	17.39±1.65 (177.1)	13.65±0.84 (135.9)	15.49±2.75 (145)	0.556	0.841
Sodium (mg)	3288.57±129.52 (137.5)	3281.1±247.11 (136.2)	2389.45±363.25 (95.8)	0.013	0.288	3668.86±345.53 (153.2)	3082.91±214.4 (128.4)	2787.23±584.5 (115.1)	0.200	0.420
Potassium (mg)	3231.47±117.89 (94.6)	2692.77±158.8 (79.7)	2026.57±325.59 (63.6)	0.001	0.032	3351.44±223.41 (98.7)	2562.15±173.46 (75.3)	2692.59±562.29 (78.8)	0.314	0.538
Phosphorus (mg)	1284.93±42 (160.3)	1170.26±53.83 (146.6)	867.95±77.2 (111.2)	<.0001	0.059	1427.69±168.14 (179.2)	1107.64±70.08 (138.3)	1104.25±144.56 (135.7)	0.167	0.380
Calcium (mg)	655.4±40.61 (65.2)	520.61±44.71 (52.5)	392.25±36.49 (42.2)	<.0001	0.016	671.53±60.84 (67.3)	557.23±52.55 (55.7)	662.51±190.97 (65.9)	0.966	0.627
Magnesium (mg)	377.67±14.11 (105.6)	295.92±18.09 (83.3)	221.43±18.41 (65.2)	<.0001	0.003	430.08±58.48 (124.4)	293.62±16.19 (83.6)	339.34±65.59 (92.3)	0.309	0.665
SFA (mg)	19590.99±843.81 (28.6)	19867.83±1130.71 (31.9)	23459.64±7400.67 (37.3)	0.605	0.166	20711.52±2432.81 (29.3)	20682±1856.32 (33.6)	19667.18±2387.86 (32.1)	0.759	0.025
MUFA (mg)	25650.66±1171.31 (37)	23969.69±1469.13 (37.1)	18628.55±2681.15 (34.7)	0.019	0.422	27148.46±3572.94 (37)	23975.75±2327.48 (37.4)	24779.39±3694.37 (38.1)	0.641	0.090
PUFA (mg)	23004.89±1097.35 (33.2)	19342.99±1567.63 (30.2)	14876.38±1970.33 (27.5)	<.001	0.175	23620.16±2955.37 (33.1)	17216.94±1689.6 (28.2)	18368.23±3223.01 (28.9)	0.240	0.948
Cholesterol (mg)	264.81±13.38 (88.6)	291.72±18.35 (96.9)	179.26±46.37 (57.4)	0.083	0.356	252.64±22.31 (84.8)	247.37±23.39 (82.4)	215.4±38.23 (69.9)	0.419	0.879
Dietary fiber (g)	22.41±0.89 (82.6)	16.28±1.12 (60.8)	12.99±1.92 (51.5)	<.0001	<.001	23.1±2.11 (85.9)	16.78±1.41 (62.1)	18.74±2.98 (68.3)	0.252	0.483

<sup>a</sup> Data are age-adjusted Mean±SEM (% RDA). The RDAs are the current dietary reference intakes (DRIs, the 8th edition) established for Taiwanese people.

<sup>b</sup> The trend test was performed by using the general linear model to test whether the mean of variable has an ordered relationship across frailty level groups after adjusting for age (Model 1) or for age and energy intake (Model 2).

**Table S2: Total energy and nutrients intakes for the older men by stages of cognitive ability in 2014-2017 NAHSIT <sup>a</sup>**

	65-74 year-old men					> 74 year-old men				
	Normal cognition (n=291)	Mild cognitive impairment (n=181)	Cognitive impairment (n=59)	P for trend <sup>b</sup>		Normal cognition (n=112)	Mild cognitive impairment (n=102)	Cognitive impairment (n=110)	P for trend <sup>b</sup>	
				Model 1	Model 2				Model 1	Model 2
Energy (Kcal)	2044.68±43.04 (105.9)	1872.27±65.68 (96.6)	1828.5±171.93 (93.8)	0.254	0.350	1945.18±88.32 (103.1)	2045.03±135.37 (107.2)	1769.64±125.38 (92.8)	0.267	0.910
Carbohydrate (g)	271.15±7.05 (209.2)	250.19±9.59 (191.8)	248.7±17.74 (189.4)	0.249	0.902	260.18±10.24 (201.7)	270.67±13.32 (207.3)	236.61±12.68 (181.3)	0.151	0.329
Protein (g)	85.15±2.66 (151.8)	76.62±2.63 (135.1)	76.37±9.85 (133.4)	0.410	0.910	82.12±4.57 (137.5)	82±5.58 (136.3)	72.47±6.85 (120.5)	0.256	0.600
Fat (g)	67.61±2.3 (105.1)	61.23±3.4 (94.7)	56.78±8.86 (87)	0.274	0.643	62.82±5 (99.5)	67.57±8.83 (106.5)	58.33±6.28 (92)	0.596	0.182
Vitamin A (µg RE)	1166.27±101.18 (191.5)	983.89±113.88 (166.7)	758.93±204.97 (135)	0.091	0.126	1018.43±102.72 (168.9)	1018.03±94.19 (170.1)	944.24±145.83 (157.7)	0.657	0.872
Vitamin C (mg)	171.11±9.69 (170.4)	151.47±10.9 (152.1)	142.48±26.24 (144.6)	0.313	0.614	181.85±15.51 (182.7)	150.83±16.94 (150.3)	133.03±15.29 (132.7)	0.028	0.036
Vitamin D (µg)	7.36±0.61 (72.6)	6.8±0.67 (68.9)	5.86±1.76 (61.3)	0.439	0.647	10.06±1.63 (98.9)	8.23±1.2 (83.3)	8.19±1.63 (82.6)	0.433	0.635
Vitamin E (mg α-TE)	9.6±0.35 (79.7)	7.97±0.48 (66.8)	7.02±0.98 (59.7)	0.021	0.011	8.77±0.64 (72.5)	9.07±0.77 (75.9)	8.52±0.9 (71.2)	0.819	0.696
Vitamin B1 (mg)	1.46±0.05 (121.2)	1.29±0.06 (108)	1.23±0.16 (105.5)	0.211	0.389	1.44±0.08 (120.7)	1.4±0.08 (115.9)	1.36±0.17 (112.6)	0.658	0.801
Vitamin B2 (mg)	1.32±0.07 (100.8)	1.15±0.05 (89.5)	0.98±0.14 (78.2)	0.027	0.011	1.17±0.06 (89.5)	1.28±0.08 (98.4)	1.11±0.11 (85.3)	0.614	0.746
Niacin (mg)	19.83±0.9 (124.6)	17.09±1.01 (106.2)	21.11±3.99 (129.9)	0.755	0.393	19.2±1.25 (120.6)	17.01±1.46 (106)	15.83±1.82 (98.6)	0.144	0.189
Vitamin B6 (mg)	2.28±0.08	1.97±0.11	1.78±0.27	0.082	0.161	2.11±0.15	1.98±0.08	1.86±0.18	0.316	0.486

	(141.7)	(123.6)	(112.6)			(131.9)	(123.6)	(116.4)		
Vitamin B12 (μg)	5.64±0.79	4.18±0.38	3.61±0.71	0.066	0.207	4.34±0.56	3.92±0.48	3.53±0.65	0.357	0.593
	(234.6)	(174.6)	(151.8)			(182.9)	(162)	(146.1)		
Zinc (mg)	12.93±0.42	11.84±0.6	11.93±1.22	0.452	0.450	12.07±0.57	13.25±1.06	10.86±0.86	0.238	0.688
	(86.5)	(78.6)	(78.7)			(81.4)	(87.8)	(72)		
Iron (mg)	15.81±0.61	13.52±0.63	13.61±1.99	0.306	0.651	15.08±0.76	15.51±1.37	13.36±1.09	0.182	0.630
	(157.7)	(135.6)	(137.3)			(152.2)	(154.2)	(133)		
Sodium (mg)	3169.46±130.9	3410.61±202.59	2611.1±332.99	0.089	0.185	2977.12±250.65	3111.21±281.45	2987.22±261.32	0.976	0.322
	(133.6)	(140.6)	(104.2)			(124.3)	(129.5)	(124.3)		
Potassium (mg)	3073.49±98.39	2583.9±126.71	2312.1±348.14	0.047	0.016	2923.83±156.27	2729.76±161.19	2572.11±271.67	0.279	0.506
	(89.9)	(76.4)	(69.4)			(86.2)	(80.2)	(75.6)		
Phosphorus (mg)	1245.55±39.03	1094.01±39.2	1081.3±124.46	0.227	0.443	1162.3±53.52	1348.24±139.98	1047.08±89.96	0.289	0.926
	(155.6)	(136.8)	(135.3)			(146.1)	(168.1)	(130.5)		
Calcium (mg)	622.15±33.61	506.05±32.92	520.38±93.66	0.315	0.551	565.2±37.02	653.71±50.37	546.02±56.65	0.771	0.603
	(61.8)	(51)	(53.3)			(56.3)	(65.5)	(54.7)		
Magnesium (mg)	369.23±13.87	284.78±12.73	260±34.11	0.006	<.001	332.88±14.82	380.39±52.57	285.16±26.11	0.104	0.642
	(103.1)	(80.2)	(74)			(96.2)	(108.1)	(81)		
SFA (mg)	19995.49±685.75	18842.82±1198.72	16914±2553	0.278	0.642	19456.94±1425.06	20160.4±2582.4	17809.21±2316.03	0.566	0.570
	(29.8)	(30.8)	(30.1)			(31.5)	(30.4)	(31)		
MUFA (mg)	25294.29±960.03	23038.95±1196.66	21424±3654.4	0.345	0.809	23671.54±2165.49	26187.8±3791.7	21799.53±2676.89	0.605	0.299
	(37)	(37.7)	(37.5)			(37.1)	(37.9)	(36.9)		
PUFA (mg)	21603.16±951.42	18867.49±1334.4	18079.8±2742	0.260	0.697	19274.73±1613.76	20851.2±3052.6	18262.92±1905.55	0.689	0.249
	(32.1)	(30.6)	(31.7)			(30.7)	(31)	(31.2)		
Cholesterol (mg)	265.37±14.49	294.58±22.26	237.22±31.19	0.369	0.834	237.63±20.52	241.68±17.74	233.13±29.66	0.907	0.551
	(88.9)	(97.8)	(77.8)			(79.2)	(80.5)	(77.7)		
Dietary fiber (g)	20.73±0.84	16.02±0.88	16.33±2.6	0.123	0.261	21.06±1.19	19.15±1.9	14.2±1.27	<.001	<.001
	(76.5)	(59.6)	(61.2)			(78.2)	(70.8)	(52.5)		

<sup>a</sup> Data are age-adjusted Mean±SEM (% RDA). The RDAs are the current dietary reference intakes (DRIs, the 8th edition) established for Taiwanese people.

<sup>b</sup> The trend test was performed by using the general linear model to test whether the mean of variable has an ordered relationship across frailty level groups after adjusting for age (Model 1) or for age and energy

intake (Model 2).

**Table S3: Total energy and nutrients intakes for the older women by frailty levels in 2014-2017 NAHSIT <sup>a</sup>**

	65-74 year-old women					> 74 year-old women						
	Robust		Prefrail	Frail	P for trend <sup>b</sup>		Robust		Prefrail	Frail	P for trend <sup>b</sup>	
	(n=224)	(n=127)	(n=10)	Model 1	Model 2		(n=60)	(n=109)	(n=27)	Model 1	Model 2	
Energy (Kcal)	1697.46±61.18 (108)	1629.34±62.04 (103.8)	1425.63±106.08 (91.6)	0.027	0.954		1483.5±66.16 (99.9)	1312.88±66.19 (87.5)	1245.79±117.38 (81.6)	0.085	0.872	
Carbohydrate (g)	236.92±7.06 (182.5)	227.44±8.75 (174.5)	214.75±11.07 (161.6)	0.086	0.325		215.94±8.72 (168.6)	182.93±8.58 (140.7)	166.97±16.23 (124.7)	0.011	0.023	
Protein (g)	71.57±2.94 (143.2)	69.29±4.3 (138.5)	55.57±7.46 (110.7)	0.046	0.319		60.74±3.44 (123)	52.41±3.5 (104.8)	50.91±4.44 (99.5)	0.069	0.916	
Fat (g)	54.11±3.01 (103.2)	50.52±3.38 (96.6)	40.95±6.27 (80.8)	0.059	0.704		42.62±3.43 (85.4)	42.61±3.48 (85.2)	43.08±6.36 (86)	0.950	0.006	
Vitamin A (µg RE)	1110.77±93.27 (222)	1229.68±212.12 (246.1)	1672.15±1111.15 (335.9)	0.616	0.508		1625.58±547.56 (344.3)	820.1±125.87 (163.5)	893.29±184.01 (149.8)	0.180	0.255	
Vitamin C (mg)	200.14±14.62 (200.7)	165.03±14.78 (164.2)	108.65±14.11 (101.3)	<.0001	0.001		157.03±21.31 (159)	112.64±12.67 (112.6)	110.11±28.32 (107.2)	0.212	0.256	
Vitamin D (µg)	5.85±0.56 (58.2)	6.91±0.87 (69.5)	4.27±1.04 (45.3)	0.227	0.622		5.03±1.02 (52)	5.21±0.71 (52.1)	4.73±1.23 (44.8)	0.845	0.642	
Vitamin E (mg α-TE)	8.5±0.51 (70.7)	8.19±0.58 (68.4)	8.72±1.62 (74)	0.902	0.321		6.81±0.88 (58.2)	6.67±0.56 (55.6)	6.27±0.95 (50.2)	0.673	0.432	
Vitamin B1 (mg)	1.28±0.06 (142.6)	1.24±0.08 (137.8)	1.19±0.17 (129.5)	0.621	0.606		1.07±0.09 (119.7)	0.95±0.08 (106.1)	0.98±0.17 (107.6)	0.629	0.571	
Vitamin B2 (mg)	1.15±0.06 (114.8)	1.17±0.09 (117.5)	1.24±0.25 (125.8)	0.696	0.284		1.15±0.09 (115.8)	0.89±0.07 (89)	0.99±0.13 (97.5)	0.284	0.969	
Niacin (mg)	15.75±0.61 (112.4)	15.11±0.8 (108)	9.95±1 (71.6)	<.0001	0.001		14.4±1.25 (102.6)	11.15±0.91 (79.6)	12.24±1.53 (87.8)	0.334	0.915	
Vitamin B6 (mg)	1.91±0.09	1.89±0.13	1.42±0.17	0.009	0.408		1.68±0.14	1.35±0.07	1.31±0.15	0.062	0.344	

	(119.1)	(118)	(88.8)			(106.7)	(84.3)	(79.2)		
Vitamin B12 (μg)	3.63±0.33	3.93±0.44	1.68±0.4	0.001	0.016	4.36±1	3.59±0.77	6.36±3.73	0.621	0.543
	(150.3)	(165.2)	(81.9)			(193.1)	(149.3)	(247.5)		
Zinc (mg)	11.17±0.49	10.56±0.52	8±1.24	0.020	0.133	10.41±0.92	8.09±0.46	7.96±0.76	0.028	0.199
	(93.1)	(88)	(66.6)			(89.1)	(67.3)	(62.8)		
Iron (mg)	14.55±0.73	14.49±1.44	11.84±1.67	0.140	0.848	13.44±0.74	11.02±0.75	11.22±1.33	0.153	0.657
	(145.4)	(145.1)	(119.6)			(139.8)	(110.1)	(104.3)		
Sodium (mg)	2668.7±151.7	2829.44±176.11	2278.65±262.14	0.190	1.000	2223.44±153.65	2488.19±262.51	2121.46±247.93	0.739	0.421
	(111.4)	(117.6)	(92.5)			(94)	(103.6)	(86.3)		
Potassium (mg)	2891.03±131.49	2734.68±201.87	1879.99±318.67	0.004	0.116	2591.76±149.49	1964.94±128.38	1718.82±237.82	0.003	0.005
	(111.2)	(105.2)	(72.8)			(101.2)	(75.5)	(63.9)		
Phosphorus (mg)	1096.87±47.31	1042.49±57.85	827.36±62.68	0.001	0.099	935.7±42.3	819.64±52.07	761.21±75.54	0.042	0.499
	(137.1)	(130.3)	(103.5)			(118.2)	(102.4)	(93.3)		
Calcium (mg)	593.53±45.48	603.9±76.97	501.51±108.51	0.438	0.828	588.71±40.95	461.87±44.43	434.62±78.85	0.085	0.297
	(59.4)	(60.4)	(50)			(60.7)	(46.1)	(40.7)		
Magnesium (mg)	344.06±16.17	305.9±21.77	224.27±25.45	<.001	0.031	277.68±11.91	234.6±15.95	209.34±25.54	0.024	0.114
	(112.1)	(99.4)	(71.9)			(94.8)	(78.1)	(66.4)		
SFA (mg)	15581.82±1011.76	14953.82±969.56	11007.63±1736.63	0.025	0.370	12682.14±1027.16	13007.56±1113.73	13148.6±2478.6	0.863	0.046
	(29.1)	(30.1)	(26.9)			(29.9)	(30.4)	(30.6)		
MUFA (mg)	20770.1±1209.46	18533.51±1141.02	13677.85±2294.25	0.007	0.042	15781.49±1232.9	15592.15±1442.76	15675.46±2406.56	0.969	0.013
	(38)	(36.5)	(34.1)			(37.3)	(35.7)	(35.7)		
PUFA (mg)	17285.58±1085.02	16675.59±1548.92	15621.37±2931.9	0.597	0.313	13829.31±1358.5	13553.26±1076.44	13958.6±1876.03	0.957	0.040
	(32)	(32.6)	(37.1)			(31.9)	(32.6)	(32.8)		
Cholesterol (mg)	207.85±17.53	258.57±26.24	161.39±62.77	0.470	0.965	193.56±33.81	162.93±22.06	202.05±29.48	0.836	0.216
	(69.3)	(86.2)	(53.5)			(65.6)	(54.3)	(65.8)		
Dietary fiber (g)	21.53±0.87	19.26±1.36	12.08±2.28	<.001	0.009	16.49±1	13.43±1.07	13.09±2.01	0.196	0.554
	(99.1)	(88.7)	(55.6)			(80.8)	(63.9)	(59)		

<sup>a</sup> Data are age-adjusted Mean±SEM (% RDA). The RDAs are the current dietary reference intakes (DRIs, the 8th edition) established for Taiwanese people.

<sup>b</sup> The trend test was performed by using the general linear model to test whether the mean of variable has an ordered relationship across frailty level groups after adjusting for age (Model 1) or for age and energy

intake (Model 2).

**Table S4: Total energy and nutrients intakes for the older women by stages of cognitive ability in 2014-2017 NAHSIT <sup>a</sup>**

	65-74 year-old women				> 74 year-old women				
	Normal cognition (n=202)	Mild cognitive impairment (n=164)	Cognitive impairment (n=132)	<i>P</i> for trend <sup>b</sup>	Normal cognition (n=41)		Mild cognitive impairment (n=87)	Cognitive impairment (n=200)	<i>P</i> for trend <sup>b</sup>
					<i>Model 1</i>	<i>Model 2</i>			
Energy (Kcal)	1761.58±60.54 (112.2)	1530.65±72.96 (97.8)	1408.65±46.63 (90.5)	<.0001 0.971	1593.77±127.34 (108.6)	1383.28±72.93 (92.5)	1314.19±49.97 (86.9)	0.043 0.973	
Carbohydrate (g)	245.94±7.18 (189.4)	210.29±8.74 (161.7)	206.79±7.47 (158.6)	<.001 0.878	212.27±13.38 (168.4)	191.35±8.04 (147.8)	190.11±7.96 (144.7)	0.178 0.387	
Protein (g)	73.97±3.15 (147.8)	66.27±4.02 (132.6)	58.26±3.36 (116.8)	0.001 0.748	67.16±3.65 (136.5)	58.74±5.55 (117.7)	52.33±2.76 (104)	0.002 0.705	
Fat (g)	57.01±2.83 (108.8)	49.54±3.46 (95)	38.22±2.6 (74.2)	<.0001 0.157	50.4±5.17 (102.2)	44.28±4.98 (88.7)	38.92±2.45 (77.4)	0.041 0.933	
Vitamin A (µg RE)	1207.19±118.45 (241.3)	1170.65±136.69 (234.1)	888.15±105.98 (177.9)	0.027 0.572	1763.17±809.52 (373.6)	962.85±82.77 (195.1)	827.76±89.37 (159.1)	0.246 0.339	
Vitamin C (mg)	202.25±16.19 (202.3)	176.78±14.84 (176.8)	120.33±10.3 (120.2)	<.001 0.014	153.21±18.01 (154.7)	134.68±13.05 (134.9)	102.51±10.28 (102)	0.013 0.047	
Vitamin D (µg)	6.11±0.69 (60.8)	6.38±1.09 (63.8)	5.15±0.76 (52.1)	0.418 0.802	4.09±0.61 (45.2)	6.28±1.03 (63.3)	5.28±0.59 (51.5)	0.175 0.012	
Vitamin E (mg α-TE)	8.65±0.45 (72)	8.04±0.52 (67.1)	6.35±0.44 (53.2)	0.001 0.247	7.34±0.92 (63.4)	7.29±0.74 (61)	6.32±0.39 (52)	0.288 0.847	
Vitamin B1 (mg)	1.3±0.06 (144.4)	1.23±0.08 (136.8)	1.06±0.06 (117.5)	0.004 0.817	1.25±0.1 (138.4)	1.13±0.11 (125.8)	0.88±0.06 (98.1)	0.003 0.128	
Vitamin B2 (mg)	1.2±0.06 (119.7)	1.12±0.08 (112)	0.92±0.06 (92.4)	0.003 0.681	1.35±0.15 (136.4)	0.96±0.08 (96.6)	0.93±0.07 (92.2)	0.004 0.065	
Niacin (mg)	15.93±0.64 (113.8)	15.23±0.96 (108.8)	11.9±0.54 (85)	<.0001 0.225	15.18±1.33 (110)	13.29±1.2 (95.1)	11±0.61 (78.1)	0.005 0.315	

Vitamin B6 (mg)	2±0.09 (124.8)	1.82±0.13 (113.5)	1.47±0.07 (92.2)	<.0001	0.104	1.74±0.15 (111.4)	1.65±0.11 (103.5)	1.27±0.06 (78.4)	0.003	0.050
Vitamin B12 (μg)	4.03±0.3 (167)	3.58±0.62 (149.5)	3.34±0.65 (141.1)	0.342	0.851	3.71±0.73 (164.8)	3.6±0.63 (151.4)	3.62±0.76 (147.7)	0.933	0.705
Zinc (mg)	11.53±0.53 (95.9)	10.51±0.71 (87.6)	9.66±0.59 (80.8)	0.025	0.369	10.54±0.66 (89.4)	10.32±1.53 (86.2)	8±0.38 (66.2)	0.002	0.429
Iron (mg)	15.14±0.89 (151.2)	14.07±0.95 (140.7)	11.62±0.66 (116.7)	0.002	0.623	14.86±1.07 (150.3)	12.98±1.24 (130)	11.13±0.65 (110.8)	0.004	0.238
Sodium (mg)	2846.12±171.26 (118.1)	2616.02±240.68 (109.1)	2397.31±129.6 (101)	0.042	0.963	2154.03±192.34 (87.8)	2899.85±387.44 (120.6)	2379.94±169.71 (99.8)	0.382	0.048
Potassium (mg)	3024.83±138.78 (116.3)	2704.26±180.05 (104)	2098.48±107.19 (80.8)	<.0001	0.019	2522.13±169.4 (99.5)	2388.69±138.12 (92.2)	1851.31±112.56 (70.4)	0.001	0.107
Phosphorus (mg)	1124.19±48.41 (140.4)	1014.75±60.23 (126.9)	875.34±41.09 (109.6)	<.001	0.567	1042.2±54.9 (132.9)	875.67±49.97 (109.8)	824.21±44.64 (102.2)	0.002	0.552
Calcium (mg)	588.45±46.4 (58.8)	588.13±51.09 (58.8)	454.36±33.62 (45.5)	0.020	0.951	641.76±51.71 (66)	470.4±38.86 (47.3)	475.68±38.93 (47)	0.008	0.207
Magnesium (mg)	343.36±16.91 (111.9)	336.85±25.91 (109.9)	243.81±12.12 (79.8)	<.0001	0.161	287.53±17.78 (98.9)	255.94±11.13 (85.7)	228.98±12.16 (75.4)	0.009	0.464
SFA (mg)	17317.99±1159.55 (30.3)	13722.46±917.49 (27.9)	11226.01±810.64 (29.6)	<.0001	0.071	15603.79±1839.08 (31.5)	13347.26±1530.56 (29.3)	11536.41±863.58 (29.2)	0.040	0.573
MUFA (mg)	21407.53±1216.22 (37.3)	18939.03±1567.84 (37.4)	14631.32±1134.29 (37.1)	<.001	0.654	18700.9±1930.57 (37)	16845.2±2082.14 (36.5)	14027.84±911.88 (35.6)	0.029	0.902
PUFA (mg)	17825.48±1048.75 (31.5)	16436.67±1211.14 (33.6)	12011.48±955.1 (32.3)	<.001	0.203	15731.37±1861.71 (30.7)	13683.12±1512.18 (32.5)	12981.71±787.5 (34.1)	0.167	0.450
Cholesterol (mg)	240.03±18.67 (79.9)	193.54±21.85 (64.5)	180.69±21.68 (60.4)	0.036	0.598	271.54±52.22 (90)	174.35±30.89 (58.1)	157.72±15.97 (52.7)	0.035	0.098
Dietary fiber (g)	21.46±1.03 (98.9)	20.21±1.35 (93.2)	14.36±0.96 (66.5)	<.0001	0.033	18.42±1.32 (89.9)	15.78±0.78 (75.4)	12.8±0.84 (60.3)	0.001	0.040

<sup>a</sup> Data are age-adjusted Mean±SEM (% RDA). The RDAs are the current dietary reference intakes (DRIs, the 8th edition) established for Taiwanese people.

<sup>b</sup> The trend test was performed by using the general linear model to test whether the mean of variable has an ordered relationship across frailty level groups after adjusting for age (Model 1) or for age and energy intake (Model 2).

**Table S5: Total energy and nutrients intakes per kilogram of body weight for the older men by frailty levels in 2014-2017 NAHSIT <sup>a</sup>**

	65-74 year-old men					> 74 year-old men						
	Robust		Prefrail	Frail	P for trend <sup>b</sup>		Robust		Prefrail	Frail	P for trend <sup>b</sup>	
	(n=230)	(n=150)	(n=12)		Model 1	Model 2	(n=86)	(n=114)	(n=24)		Model 1	Model 2
Energy (Kcal/kg)	31.16±0.83 (95.4)	29.8±1.04 (91.7)	28.26±2.23 (87.9)	0.218	0.841		33.62±1.82 (103.4)	31.78±1.95 (96.9)	28.79±2.5 (85.3)	0.150	0.508	
Carbohydrate (g/kg)	4.15±0.13 (188.9)	4±0.14 (183.3)	4.15±0.27 (191.3)	0.990	0.310		4.4±0.19 (197.9)	4.27±0.23 (190.1)	3.79±0.33 (163.6)	0.145	0.271	
Protein (g/kg)	1.3±0.04 (136.1)	1.23±0.05 (129.9)	0.92±0.15 (98.3)	0.014	0.179		1.43±0.09 (138.3)	1.29±0.1 (125)	1.17±0.12 (111.9)	0.131	0.379	
Fat (g/kg)	1.03±0.04 (94.4)	0.97±0.06 (89.2)	0.92±0.17 (85.1)	0.537	0.968		1.1±0.12 (101.7)	1.04±0.1 (95.5)	1±0.12 (89.7)	0.540	0.395	
Vitamin A (µg/Kg RE)	18.09±1.58 (176.6)	15.62±1.94 (156.6)	18.34±4.62 (192.5)	0.960	0.719		16.13±2.03 (157.4)	16.41±1.92 (158.4)	19.93±4.33 (187.4)	0.455	0.385	
Vitamin C (mg/Kg)	2.8±0.15 (165)	2.63±0.27 (157.2)	0.99±0.38 (66.2)	<.0001	0.001		3.17±0.38 (182.1)	2.74±0.3 (159.1)	1.92±0.52 (117)	0.028	0.032	
Vitamin D (µg/Kg)	0.1067±0.0095 (62.7)	0.1105±0.0115 (66.1)	0.125±0.0851 (77.6)	0.831	0.759		0.1754±0.0265 (96.4)	0.1334±0.0237 (78.3)	0.132±0.0647 (94.8)	0.535	0.716	
Vitamin E (mg/Kg α-TE)	0.1531±0.0079 (75)	0.1197±0.0089 (60)	0.1151±0.038 (60.8)	0.333	0.579		0.1671±0.0148 (78.8)	0.1292±0.0114 (62.7)	0.1337±0.0195 (71.1)	0.193	0.274	
Vitamin B1 (mg/Kg)	0.0224±0.0009 (109.4)	0.0216±0.0012 (108.3)	0.0162±0.0033 (87)	0.073	0.315		0.0235±0.0014 (116.3)	0.0244±0.0024 (117.4)	0.0227±0.0028 (100.4)	0.800	0.398	
Vitamin B2 (mg/Kg)	0.0203±0.0009 (91.9)	0.0184±0.0012 (84.7)	0.0189±0.0031 (90.1)	0.675	0.948		0.0217±0.0017 (96.5)	0.0196±0.0018 (87.5)	0.02±0.0035 (90.7)	0.671	0.943	
Niacin (mg/Kg)	0.3072±0.015 (113.6)	0.2853±0.0171 (106.3)	0.2609±0.0463 (98.6)	0.335	0.738		0.3012±0.0221 (109.4)	0.3173±0.0297 (115)	0.2293±0.0273 (82.6)	0.060	0.107	

Vitamin B6 (mg/Kg)	0.0355±0.0014 (130.8)	0.031±0.002 (115.8)	0.0264±0.0081 (102.5)	0.267	0.520	0.039±0.0026 (139.7)	0.0317±0.0023 (115.1)	0.0263±0.0031 (100.9)	0.006	0.005
Vitamin B12 (µg/Kg)	0.0787±0.01 (194.4)	0.0794±0.0137 (196.5)	0.1042±0.0449 (260.2)	0.578	0.483	0.0743±0.0108 (181)	0.061±0.0087 (147.1)	0.0468±0.009 (108.3)	0.072	0.202
Zinc (mg/kg)	0.2±0.01 (79.1)	0.19±0.01 (75.8)	0.15±0.02 (61.2)	0.034	0.292	0.23±0.02 (90.1)	0.19±0.01 (74.5)	0.17±0.02 (63.2)	0.029	0.021
Iron (mg/kg)	0.25±0.01 (147.9)	0.21±0.01 (126.9)	0.2±0.02 (122.4)	0.068	0.322	0.27±0.02 (157.7)	0.23±0.01 (133)	0.24±0.04 (131.1)	0.485	0.853
Sodium (mg/kg)	48.59±1.85 (120.5)	49.88±3.66 (123.2)	34.48±5.08 (83.6)	0.007	0.096	57.44±5.84 (137.4)	52.23±3.97 (126.5)	41.66±9.01 (105.3)	0.162	0.271
Potassium (mg/kg)	48.91±2.08 (84.8)	40.93±2.1 (72.1)	34.61±6.61 (63.7)	0.040	0.206	52.53±3.82 (89)	43.06±2.83 (73.6)	41.27±7.43 (72.5)	0.226	0.303
Phosphorus (mg/kg)	19.31±0.64 (142.7)	17.77±0.74 (132.6)	13.66±1.72 (104.5)	0.002	0.090	21.84±2.08 (157.9)	18.91±1.38 (137.2)	17.54±2.13 (128.5)	0.192	0.430
Calcium (mg/kg)	9.99±0.63 (58.9)	7.96±0.66 (47.7)	6.04±0.79 (38.1)	<.001	0.009	10.61±1.05 (61.2)	9.55±0.97 (55.5)	10.28±2.6 (60.7)	0.913	0.755
Magnesium (mg/kg)	5.72±0.24 (94.8)	4.5±0.24 (75.4)	3.46±0.42 (60.4)	<.0001	0.007	6.5±0.7 (108.4)	4.94±0.3 (81.8)	5.22±0.86 (84.2)	0.266	0.390
SFA (mg/kg)	291.28±11.9 (28.6)	301.08±16.15 (31.7)	384.11±110.51 (38.8)	0.405	0.182	317.96±32.85 (29.3)	348.03±32.57 (33.7)	311.26±36.63 (32.1)	0.893	0.151
MUFA (mg/kg)	381.9±16.65 (37)	364.3±21 (37.3)	292.41±41.9 (33.4)	0.051	0.230	418.35±50.76 (37)	399.09±41.26 (37.4)	389.38±50.94 (38.5)	0.692	0.290
PUFA (mg/kg)	340.16±15.92 (33.2)	294.9±22.9 (30.2)	237.47±38.39 (27.2)	0.013	0.165	361.67±40.09 (33.1)	288.98±32.73 (28)	289.48±50.45 (28.5)	0.282	0.829
Cholesterol (mg/kg)	3.85±0.19 (76.4)	4.35±0.32 (86.1)	2.46±0.87 (47.7)	0.122	0.225	3.95±0.36 (75.9)	4.09±0.43 (79.1)	3.46±0.62 (68.4)	0.518	0.951
Dietary fiber (g/kg)	0.34±0.02 (74.6)	0.25±0.02 (54.8)	0.22±0.03 (51.2)	<.001	0.018	0.36±0.03 (76.8)	0.29±0.02 (61.6)	0.29±0.04 (62.2)	0.204	0.305

<sup>a</sup> Data are age-adjusted Mean±SEM (% RDA). The RDAs are the current dietary reference intakes (DRIs, the 8th edition) established for Taiwanese people.

<sup>b</sup> The trend test was performed by using the general linear model to test whether the mean of variable has an ordered relationship across frailty level groups after adjusting for age (Model 1) or for age and energy intake (Model 2).

**Table S6: Total energy and nutrients intakes per kilogram of body weight for the older men by stages of cognitive ability in 2014-2017 NAHSIT <sup>a</sup>**

	65-74 year-old men				> 74 year-old men					
	Normal cognition (n=266)	Mild cognitive impairment (n=156)	Cognitive impairment (n=51)	P for trend <sup>b</sup>		Normal cognition (n=100)	Mild cognitive impairment (n=96)	Cognitive impairment (n=86)	P for trend <sup>b</sup>	
				Model 1	Model 2				Model 1	Model 2
Energy (Kcal/kg)	31±0.8 (100.2)	28.34±1.14 (92.9)	28.82±2.68 (80.8)	0.472	0.767	33.7±2.07 (93.5)	32.15±1.79 (79.5)	27.48±1.44 (75.6)	0.020	0.072
Carbohydrate (g/kg)	4.16±0.13 (169.5)	3.8±0.18 (156.7)	3.92±0.26 (143.3)	0.434	0.907	4.49±0.22 (157.7)	4.39±0.2 (128.6)	3.7±0.16 (117.9)	0.005	0.012
Protein (g/kg)	1.28±0.04 (133.2)	1.16±0.05 (124.1)	1.19±0.16 (97.8)	0.579	0.983	1.44±0.11 (115.2)	1.29±0.07 (96.1)	1.09±0.08 (89.1)	0.018	0.052
Fat (g/kg)	1.01±0.04 (95.8)	0.93±0.05 (86.2)	0.9±0.15 (70.6)	0.487	0.790	1.09±0.11 (80)	1.01±0.11 (76.3)	0.92±0.08 (78.3)	0.239	0.489
Vitamin A (µg/Kg RE)	17.4±1.44 (210.9)	16.27±2.02 (231.1)	12.29±3.33 (303)	0.180	0.172	17.19±1.77 (361.7)	17.73±1.65 (151.7)	14.52±1.79 (156.3)	0.271	0.406
Vitamin C (mg/Kg)	2.63±0.14 (186.8)	2.39±0.2 (151.5)	2.41±0.43 (87.7)	0.619	0.898	3.36±0.3 (143.4)	2.65±0.28 (107.4)	2.31±0.29 (115.2)	0.012	0.024
Vitamin D (µg/Kg)	0.1115±0.01 (55.5)	0.1107±0.012 (61.8)	0.0945±0.031 (39.6)	0.616	0.764	0.1797±0.0304 (47.9)	0.1315±0.0217 (45.1)	0.1181±0.0226 (38.6)	0.116	0.237
Vitamin E (mg/Kg α-TE)	0.1474±0.0065 (65.7)	0.1196±0.0065 (60.8)	0.1113±0.0162 (64.9)	0.056	0.016	0.1493±0.0108 (54)	0.1425±0.0123 (51.3)	0.1282±0.0109 (44.3)	0.150	0.495
Vitamin B1 (mg/Kg)	0.0226±0.001 (132.8)	0.0193±0.0011 (123.4)	0.0199±0.0025 (112.6)	0.384	0.537	0.0259±0.0023 (112.6)	0.0226±0.0011 (99)	0.0211±0.0016 (91.7)	0.093	0.362
Vitamin B2 (mg/Kg)	0.0204±0.0011 (106.9)	0.0174±0.0009 (106.4)	0.0156±0.0023 (109.4)	0.067	0.013	0.0199±0.001 (112)	0.0209±0.0014 (79)	0.0189±0.0023 (80.3)	0.690	0.728
Niacin (mg/Kg)	0.3058±0.014	0.2653±0.0174	0.267±0.0334	0.282	0.511	0.3393±0.0292	0.2776±0.0243	0.238±0.0213	0.007	0.013

	(104.5)	(97)	(62.5)		(97.1)	(74.4)	(74.4)		
Vitamin B6 (mg/Kg)	0.0348±0.0014 (110.7)	0.0307±0.0019 (106.6)	0.0292±0.004 (76.8)	0.197 0.320	0.0378±0.0031 (100.9)	0.0326±0.0016 (79.9)	0.0287±0.0021 (73.5)	0.025	0.042
Vitamin B12 (µg/Kg)	0.0829±0.013 (138.2)	0.0626±0.0059 (145.6)	0.0568±0.014 (71.9)	0.184 0.323	0.0744±0.0107 (181.9)	0.059±0.0069 (134.3)	0.0529±0.0091 (76.6)	0.113	0.308
Zinc (mg/kg)	0.2±0.01 (86.4)	0.18±0.01 (79.3)	0.19±0.02 (59.2)	0.671 0.449	0.21±0.01 (82.5)	0.21±0.01 (62.6)	0.17±0.01 (55.3)	0.019	0.125
Iron (mg/kg)	0.24±0.01 (136.3)	0.21±0.01 (131.5)	0.21±0.03 (105.3)	0.366 0.540	0.26±0.01 (130.7)	0.25±0.02 (103.2)	0.21±0.02 (90.4)	0.035	0.229
Sodium (mg/kg)	47.12±1.89 (103.7)	52.2±3.29 (104.7)	39.2±5.34 (80.9)	0.140 0.126	53.86±4.99 (86.4)	49.07±4.73 (98.1)	46.11±4.37 (75.7)	0.199	0.742
Potassium (mg/kg)	47.24±1.83 (103.7)	40.28±2.02 (95.8)	36.86±5.49 (64.3)	0.098 0.028	51.26±2.81 (94.2)	45.51±2.66 (70.8)	39.29±3.65 (62)	0.014	0.041
Phosphorus (mg/kg)	19.06±0.67 (127.6)	16.65±0.67 (117.5)	16.87±1.97 (91.5)	0.323 0.355	20.27±1.34 (110.9)	21.75±1.56 (93.5)	16.33±1.16 (81.9)	0.036	0.362
Calcium (mg/kg)	9.49±0.6 (55.6)	7.83±0.54 (54.9)	8.07±1.57 (45.3)	0.409 0.526	9.88±0.88 (57)	10.91±0.82 (42)	9.35±1.18 (34.7)	0.727	0.622
Magnesium (mg/kg)	5.56±0.23 (104.8)	4.4±0.21 (90.8)	4.06±0.55 (64.1)	0.023 0.001	5.81±0.28 (89)	6.05±0.58 (73.9)	4.49±0.39 (58.6)	0.006	0.173
SFA (mg/kg)	301.54±11.94 (29.1)	283.14±16.95 (30.2)	273.53±42.69 (26.9)	0.559 0.989	339.18±32.5 (29.7)	298.63±33.9 (30.4)	290.05±27.98 (30.5)	0.278	0.593
MUFA (mg/kg)	381.37±14.96 (38)	346.5±19.09 (36.6)	342.66±61.77 (34.1)	0.575 0.983	414.19±46.48 (37.3)	390.62±50.02 (35.8)	341.58±33.91 (35.9)	0.237	0.624
PUFA (mg/kg)	320.44±13.88 (32)	289.01±23.23 (32.4)	276±47.07 (37.1)	0.398 0.612	333.27±36.71 (32.1)	313.34±38.68 (32.6)	280.4±28.88 (32.8)	0.286	0.518
Cholesterol (mg/kg)	3.87±0.22 (64.8)	4.25±0.32 (77.2)	3.63±0.49 (47.1)	0.621 0.990	3.96±0.4 (59.8)	3.75±0.34 (47.1)	3.32±0.36 (56.9)	0.255	0.767
Dietary fiber (g/kg)	0.32±0.02 (92.6)	0.25±0.01 (81.1)	0.24±0.04 (49.6)	0.040 0.006	0.37±0.02 (75.6)	0.33±0.03 (61.7)	0.22±0.02 (57.2)	<.0001	<.0001

<sup>a</sup> Data are age-adjusted Mean±SEM (% RDA). The RDAs are the current dietary reference intakes (DRIs, the 8th edition) established for Taiwanese people.

<sup>b</sup> The trend test was performed by using the general linear model to test whether the mean of variable has an ordered relationship across frailty level groups after adjusting for age (Model 1) or for age and energy intake (Model 2).

**Table S7: Total energy and nutrients intakes per kilogram of body weight for the older women by frailty levels in 2014-2017 NAHSIT <sup>a</sup>**

	65-74 year-old women					> 74 year-old women				
	<b>Robust</b> (n=224)	<b>Prefrail</b> (n=123)	<b>Frail</b> (n=10)	<b>P for trend <sup>b</sup></b>		<b>Robust</b> (n=59)	<b>Prefrail</b> (n=103)	<b>Frail</b> (n=24)	<b>P for trend <sup>b</sup></b>	
				<i>Model 1</i>	<i>Model 2</i>				<i>Model 1</i>	<i>Model 2</i>
Energy (Kcal/Kg)	30.62±1.05 (95.1)	28.4±1.18 (87)	24.72±2.12 (88.6)	0.014	0.109	27.75±1.53 (103.3)	23.82±1.3 (97.9)	23.39±3.44 (83.6)	0.248	0.825
Carbohydrate (g/Kg)	4.27±0.12 (189.8)	3.98±0.16 (173.4)	3.74±0.26 (179.3)	0.067	0.992	4.03±0.23 (201.6)	3.34±0.18 (195.2)	3.24±0.47 (164.6)	0.132	0.263
Protein (g/Kg)	1.29±0.05 (135.2)	1.21±0.08 (121.2)	0.96±0.14 (124.1)	0.025	0.135	1.14±0.07 (139.4)	0.96±0.06 (124.4)	0.93±0.12 (105.5)	0.119	0.661
Fat (g/Kg)	0.98±0.05 (93.5)	0.88±0.07 (85.2)	0.7±0.11 (82.5)	0.022	0.186	0.8±0.07 (100.3)	0.76±0.06 (92.4)	0.78±0.17 (84.1)	0.892	0.154
Vitamin A (μg/Kg RE)	20.48±1.76 (169.4)	22.51±3.91 (163.5)	29.24±19.58 (127)	0.657	0.545	33.85±13.98 (167)	14.93±2.41 (170.9)	21.19±4.82 (139.8)	0.325	0.478
Vitamin C (mg/Kg)	3.61±0.26 (154.7)	2.97±0.28 (143.3)	1.85±0.24 (146)	<.0001	<.001	2.83±0.34 (195.4)	2.14±0.23 (153.2)	2.4±0.78 (133.9)	0.632	0.701
Vitamin D (μg/Kg)	0.1083±0.0113 (65.4)	0.1195±0.0154 (66.3)	0.0729±0.0187 (57.6)	0.152	0.446	0.0909±0.0179 (102.1)	0.0897±0.0133 (77.5)	0.0887±0.0262 (69.9)	0.943	0.575
Vitamin E (mg/Kg α-TE)	0.1535±0.0093 (72.3)	0.1412±0.0105 (59.8)	0.1485±0.0288 (56.7)	0.873	0.492	0.1265±0.0155 (71.7)	0.1228±0.0112 (69.1)	0.1137±0.0214 (62.3)	0.639	0.583
Vitamin B1 (mg/Kg)	0.0232±0.0012 (110.6)	0.0217±0.0015 (96.7)	0.0205±0.0028 (101.1)	0.371	0.855	0.0203±0.0018 (126.2)	0.0178±0.0013 (108.5)	0.0164±0.0038 (101.2)	0.357	0.739
Vitamin B2 (mg/Kg)	0.0208±0.0011 (92.2)	0.0207±0.0017 (80.4)	0.0214±0.0041 (73.4)	0.890	0.370	0.0222±0.0024 (88.6)	0.0158±0.0011 (93)	0.0166±0.0026 (84.2)	0.112	0.321
Niacin (mg/Kg)	0.2844±0.0112	0.2641±0.0149	0.1718±0.0179	<.0001	<.001	0.2731±0.0281	0.2085±0.0173	0.2055±0.0271	0.154	0.561

	(113.3)	(98.6)	(99.2)			(123.3)	(100.4)	(86.1)		
Vitamin B6 (mg/Kg)	0.0344±0.0017	0.0332±0.0024	0.0242±0.0026	0.001	0.170	0.0318±0.003	0.0255±0.0016	0.0247±0.0042	0.157	0.375
	(128.8)	(114.3)	(109.5)			(137.1)	(118)	(104.1)		
Vitamin B12 (µg/Kg)	0.0649±0.0055	0.0675±0.0074	0.0296±0.0073	0.001	0.009	0.0866±0.0192	0.0644±0.0148	0.0384±0.008	0.015	0.021
	(204.3)	(155.5)	(142.6)			(180.6)	(142)	(127.2)		
Zinc (mg/Kg)	0.2±0.01	0.19±0.01	0.14±0.02	0.015	0.085	0.19±0.02	0.15±0.01	0.14±0.02	0.049	0.102
	(78)	(70.6)	(74.5)			(83.3)	(81.1)	(65.7)		
Iron (mg/Kg)	0.27±0.01	0.26±0.03	0.2±0.03	0.069	0.552	0.25±0.02	0.21±0.01	0.2±0.03	0.200	0.431
	(142.9)	(124.2)	(126.5)			(153)	(145.4)	(120.3)		
Sodium (mg/Kg)	48.25±2.78	49.02±3.01	38.93±4.64	0.098	0.622	41.23±2.94	47.08±5.93	36.94±6.93	0.586	0.817
	(117.5)	(128.3)	(94.6)			(129.9)	(118.7)	(111.6)		
Potassium (mg/Kg)	52.39±2.43	48.5±3.81	32.6±5.82	0.002	0.062	48.17±2.97	36.76±2.31	34.21±6.51	0.056	0.084
	(81.9)	(70.8)	(65.6)			(87.6)	(77.6)	(66.9)		
Phosphorus (mg/Kg)	19.83±0.83	18.3±1.13	14.39±1.33	0.001	0.038	17.56±1.04	14.94±0.87	13.54±1.99	0.071	0.190
	(141.1)	(123.9)	(126)			(147.6)	(157.4)	(118)		
Calcium (mg/Kg)	10.8±0.84	10.7±1.42	8.86±2.14	0.403	0.963	11.13±0.88	8.38±0.84	7.57±1.74	0.070	0.167
	(55.9)	(46.9)	(48.9)			(57.3)	(63.3)	(54.2)		
Magnesium (mg/Kg)	6.25±0.31	5.44±0.42	3.94±0.52	<.001	0.021	5.22±0.31	4.42±0.32	3.8±0.65	0.057	0.101
	(92)	(73.8)	(68.9)			(97.1)	(99.7)	(73.9)		
SFA (mg/Kg)	279.44±16.29	258.51±18.4	188.48±29.76	0.009	0.121	238.85±21.31	229.82±18.43	227.13±58.06	0.850	0.345
	(29.9)	(30.6)	(30.5)			(31.4)	(30.1)	(32.2)		
MUFA (mg/Kg)	375.69±21	322.09±22.25	236.24±40.4	0.003	0.005	295.94±23.63	281.21±25.87	285.49±65.49	0.881	0.173
	(37.1)	(37.5)	(37.7)			(37.2)	(37.7)	(36.9)		
PUFA (mg/Kg)	312.63±19.43	289.19±30.41	266.15±48.38	0.381	0.554	261.77±25.22	243.99±21.23	258.63±52.14	0.958	0.160
	(31.9)	(31)	(30.9)			(30.7)	(31.4)	(30)		
Cholesterol (mg/Kg)	3.78±0.31	4.5±0.5	2.76±1.12	0.380	0.807	3.54±0.59	2.82±0.36	3.54±0.72	0.996	0.349
	(77)	(83.8)	(70.9)			(76.2)	(72.6)	(64.3)		
Dietary fiber (g/Kg)	0.39±0.02	0.34±0.03	0.21±0.04	<.001	0.006	0.31±0.02	0.26±0.02	0.27±0.04	0.445	0.915
	(70.6)	(55.4)	(53.1)			(79.2)	(70.6)	(47)		

<sup>a</sup> Data are age-adjusted Mean±SEM (% RDA). The RDAs are the current dietary reference intakes (DRIs, the 8th edition) established for Taiwanese people.

<sup>b</sup> The trend test was performed by using the general linear model to test whether the mean of variable has an ordered relationship across frailty level groups after adjusting for age (Model 1) or for age and energy intake (Model 2).

**Table S8: Total energy and nutrients intakes per kilogram of body weight for the older women by stages of cognitive ability in 2014-2017 NAHSIT <sup>a</sup>**

	65-74 year-old women				> 74 year-old women					
	Normal cognition (n=189)	Mild cognitive impairment (n=152)	Cognitive impairment (n=105)	P for trend <sup>b</sup>		Normal cognition (n=36)	Mild cognitive impairment (n=78)	Cognitive impairment (n=151)	P for trend <sup>b</sup>	
		Model 1	Model 2	Model 1	Model 2		Model 1	Model 2	Model 1	Model 2
Energy (Kcal/Kg)	31.19±1.04 (102.1)	27.51±1.66 (90.1)	25.22±1.12 (82.8)	<.001	0.788	29.33±1.91 (99.2)	26.75±1.45 (89.5)	22.52±1.22 (74.4)	0.007	0.196
Carbohydrate (g/Kg)	4.34±0.12 (172.1)	3.78±0.21 (149.5)	3.75±0.17 (146.9)	0.006	0.593	3.99±0.25 (157.1)	3.68±0.2 (142.2)	3.26±0.21 (123.7)	0.047	0.513
Protein (g/Kg)	1.32±0.06 (136)	1.2±0.08 (123.3)	1.02±0.07 (104.8)	0.001	0.519	1.25±0.07 (127.5)	1.12±0.1 (112.4)	0.91±0.04 (89.8)	<.001	0.374
Fat (g/Kg)	1±0.05 (98.4)	0.89±0.07 (87.4)	0.67±0.06 (66.9)	<.0001	0.231	0.91±0.08 (91.3)	0.87±0.08 (87.1)	0.66±0.05 (66.4)	0.018	0.972
Vitamin A (μg/Kg RE)	21.64±2.16 (222.5)	21.07±2.62 (216.7)	17.03±2.77 (174.4)	0.167	0.908	33.76±16.06 (361)	18.23±1.51 (187.4)	15.9±1.95 (148.1)	0.264	0.365
Vitamin C (mg/Kg)	3.63±0.25 (187.4)	3.21±0.31 (165.3)	2.21±0.28 (111.2)	<.001	0.028	2.72±0.33 (137.9)	2.59±0.29 (129.8)	1.96±0.2 (97.2)	0.051	0.122
Vitamin D (μg/Kg)	0.1114±0.0119 (57)	0.1075±0.0164 (55.3)	0.0963±0.0196 (49.8)	0.560	0.725	0.0801±0.0138 (43.7)	0.1225±0.0236 (62)	0.0812±0.0094 (38.9)	0.947	0.131
Vitamin E (mg/Kg α-TE)	0.1569±0.0089 (66.9)	0.14±0.0104 (60)	0.1123±0.0113 (48.4)	0.004	0.279	0.1308±0.0148 (56.7)	0.1363±0.013 (57.2)	0.1139±0.0081 (46.4)	0.324	0.483
Vitamin B1 (mg/Kg)	0.0235±0.0012 (134.8)	0.0221±0.0016 (125.9)	0.0189±0.0012 (106.6)	0.005	0.953	0.0225±0.0017 (125.1)	0.0215±0.0018 (119.4)	0.0158±0.0012 (88)	0.004	0.235
Vitamin B2 (mg/Kg)	0.0215±0.0013 (110.4)	0.0204±0.0017 (104.7)	0.0161±0.0014 (83)	0.006	0.594	0.0237±0.0025 (120.1)	0.018±0.0014 (90.5)	0.016±0.001 (79.2)	0.003	0.078

Niacin (mg/Kg)	0.2862±0.0123 (105.2)	0.2733±0.0196 (100.3)	0.2061±0.0106 (75.2)	<.0001	0.089	0.2934±0.0304 (106)	0.2535±0.0223 (90.8)	0.1981±0.0109 (70.2)	0.004	0.209
Vitamin B6 (mg/Kg)	0.0359±0.0017 (115.6)	0.0321±0.0025 (103.2)	0.0258±0.0016 (82.3)	<.0001	0.053	0.0314±0.0022 (100.3)	0.0322±0.0022 (101.1)	0.0231±0.0015 (71)	0.004	0.247
Vitamin B12 (µg/Kg)	0.0719±0.0052 (153.1)	0.0614±0.0113 (131.1)	0.0564±0.0144 (122.3)	0.324	0.994	0.0674±0.0145 (145.8)	0.0668±0.0138 (140.3)	0.056±0.012 (114.1)	0.555	0.972
Zinc (mg/Kg)	0.2±0.01 (87.3)	0.19±0.01 (80.3)	0.17±0.01 (72.1)	0.017	0.608	0.2±0.01 (84.7)	0.19±0.02 (80.4)	0.14±0.01 (58)	0.001	0.128
Iron (mg/Kg)	0.27±0.02 (137.9)	0.25±0.02 (129)	0.21±0.02 (109)	0.025	0.915	0.29±0.03 (149.2)	0.22±0.01 (110.8)	0.2±0.01 (95.4)	0.004	0.161
Sodium (mg/Kg)	48.73±2.37 (104.3)	45.48±3.95 (97.3)	41.76±2.55 (89.3)	0.037	0.802	35.84±2.77 (78.3)	46.01±4.89 (96.7)	42.51±3.88 (86.8)	0.168	0.003
Potassium (mg/Kg)	53.66±2.66 (106.2)	48.74±3.66 (96.4)	37.16±2.65 (73)	<.0001	0.039	46.31±3.79 (91.9)	45.47±2.49 (88)	33.41±1.97 (62.9)	0.004	0.141
Phosphorus (mg/Kg)	20.03±0.9 (128.8)	18.28±1.2 (117.4)	15.46±0.95 (98.8)	0.001	0.500	19.42±1.12 (123.4)	16.72±0.99 (105)	14.32±0.79 (88.6)	0.001	0.238
Calcium (mg/Kg)	10.74±0.88 (55.2)	10.77±1.02 (55.4)	7.87±0.75 (40.2)	0.014	0.635	12.04±1.19 (62.6)	8.51±0.63 (43.1)	8.65±0.77 (42.1)	0.016	0.246
Magnesium (mg/Kg)	6.14±0.31 (103)	5.96±0.49 (99.8)	4.42±0.33 (73.6)	<.001	0.339	5.61±0.45 (96.3)	4.83±0.26 (81.2)	4.11±0.27 (67.2)	0.007	0.235
SFA (mg/Kg)	296.13±16.85 (30.1)	247.07±19.25 (28.1)	194.51±16.57 (29.7)	<.0001	0.075	270.29±24.37 (30)	265.71±24.87 (30.3)	193.99±15.65 (29.6)	0.014	0.700
MUFA (mg/Kg)	380.35±21.39 (37.5)	343.23±32.32 (37.7)	250.27±22.77 (36.4)	<.0001	0.383	341.43±32.59 (37.4)	326.54±32.51 (36.8)	238.35±18.1 (35.4)	0.009	0.597
PUFA (mg/Kg)	319.39±19.77 (31.5)	290.93±26.82 (33)	222.09±24.79 (32.9)	0.002	0.576	294.88±35.15 (31.7)	271.96±30.2 (31.8)	225.58±18.35 (33.8)	0.101	0.572
Cholesterol (mg/Kg)	4.37±0.37 (75)	3.53±0.39 (60.4)	2.9±0.35 (49.6)	0.003	0.144	4.73±0.9 (77.3)	3.17±0.48 (52.5)	2.75±0.26 (46.5)	0.033	0.200
Dietary fiber (g/Kg)	0.38±0.02	0.36±0.03	0.28±0.02	0.001	0.305	0.34±0.03	0.3±0.02	0.24±0.02	0.012	0.182

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(89.6)

(86.1)

(65)

(84.3)

(71)

(55.9)

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<sup>a</sup> Data are age-adjusted Mean±SEM (% RDA). The RDAs are the current dietary reference intakes (DRIs, the 8th edition) established for Taiwanese people.

<sup>b</sup> The trend test was performed by using the general linear model to test whether the mean of variable has an ordered relationship across frailty level groups after adjusting for age (Model 1) or for age and energy intake (Model 2).