

Table S1 The food group classification standard

Cereals	Rice and its products (rice, rice flour, etc.); Wheat and its products (steamed bread, noodles, etc.); Miscellaneous grains and other cereals (corn, millet, buckwheat, etc.)
Potatoes	Sweet potato, potato, taro, yam, etc.
Fresh vegetables	Leaf vegetables, rhizomes, melons and eggplants, etc
Pickled and fermented vegetables	Such as pickled cucumber and fermented Chinese cabbage
Mushroom and algae	Mushrooms (<i>Lentinus edodes</i> , <i>Hericium erinaceus</i> , etc.); Agaric, tremella, etc; Kelp; Laver;
Soybeans and their products	Soybean, bean curd, bean curd, soybean milk, etc
Nuts and seeds	Walnuts, melon seeds, peanuts, etc
Fruits	Apple, orange, strawberry, papaya, banana, etc
Poultry meat	Pork, beef, mutton, donkey meat, etc
Livestock meat	Chicken, duck, goose, etc
Aquatic products	Fish, shrimp, shellfish, crab, etc
Eggs	Eggs, duck eggs, preserved eggs, etc
Dairy products	Pure milk, yoghurt, milk powder, other dairy products
Soups	Broth, bone soup, fish soup, etc
Snacks and beverages	Beverages, tea, coffee, etc; Cake (cake, biscuit, Chinese dessert, etc.); Candy candies; Chocolates; Puffed food; Other snacks

Table S2 Results of multiple regression model with daily nutrient intake as the dependent variable

(a) Energy(kcal)						
Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group	NVP	-299.271	-510.817	-87.725	7.688	0.006
	Non-NVP	Ref.				
Age (years)	< 30	6.041	-170.874	182.955	.004	0.947
	≥ 30	Ref.				
Education	Junior high school or below	-190.786	-431.161	49.589	2.420	0.120
	High school / technical secondary school	-36.673	-234.606	161.259	.132	0.716
	College degree or above	Ref.				
Family monthly per capita income	< 5000	-154.885	-386.666	76.897	1.715	0.190
	5000–9999	-194.578	-411.936	22.781	3.078	0.079
	≥ 10000	Ref.				
Cities	First-tier	-151.112	-392.010	89.786	1.512	0.219
	New first-tier	-308.594	-537.444	-79.743	6.985	0.008
	Second-tier	-40.524	-263.342	182.294	.127	0.721
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI	Underweight	186.418	-126.009	498.845	1.368	0.242
	Normal	5.285	-191.442	202.012	.003	0.958
	Overweight/obesity	Ref.				
Gravidity	1	-68.986	-283.932	145.960	.396	0.529
	≥ 2	Ref.				
Parity	0	-36.224	-270.357	197.908	.092	0.762
	≥ 1	Ref.				

(b) Protein(g)						
Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group	NVP	-18.57	-29.084	-8.056	11.985	0.001
	Non-NVP	Ref.				
Age (years)	< 30	3.903	-4.89	12.695	0.757	0.384
	≥ 30	Ref.				

Education						
	Junior high school or below	-15.428	-27.375	-3.482	6.407	0.011
	High school / technical secondary school	-2.991	-12.828	6.846	0.355	0.551
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	-5.351	-16.87	6.168	0.829	0.363
	5000–9999	-9.96	-20.762	0.843	3.266	0.071
	≥10000	Ref.				
Cities						
	First-tier	1.339	-10.634	13.311	0.048	0.827
	New first-tier	-4.079	-15.453	7.295	0.494	0.482
	Second-tier	2.77	-8.304	13.843	0.24	0.624
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	14.549	-0.978	30.076	3.373	0.066
	Normal	1.619	-8.158	11.396	0.105	0.745
	Overweight/obesity	Ref.				
Gravidity						
	1	1.012	-9.671	11.694	0.034	0.853
	≥2	Ref.				
Parity						
	0	-8.936	-20.572	2.7	2.266	0.132
	≥1	Ref.				

(c) Fat(g)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
	NVP	-16.419	-25.712	-7.127	11.994	0.001
	Non-NVP	Ref.				
Age (years)						
	< 30	2.617	-5.154	10.388	0.436	0.509
	≥30	Ref.				
Education						
	Junior high school or below	-10.524	-21.082	0.035	3.816	0.051
	High school / technical secondary school	-6.665	-15.360	2.029	2.258	0.133
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	-6.556	-16.737	3.625	1.593	0.207
	5000–9999	-5.370	-14.918	4.177	1.215	0.270
	≥10000	Ref.				
Cities						
	First-tier	-14.101	-24.683	-3.520	6.822	0.009

	New first-tier	-3.591	-13.644	6.461	0.490	0.484
	Second-tier	-8.332	-18.120	1.455	2.784	0.095
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	10.064	-3.660	23.787	2.066	0.151
	Normal	1.958	-6.683	10.599	0.197	0.657
	Overweight/obesity	Ref.				
Gravidity						
	1	-3.028	-12.470	6.413	0.395	0.530
	≥2	Ref.				
Parity						
	0	-3.703	-13.987	6.582	0.498	0.480
	≥1	Ref.				

(d) Carbohydrate(g)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
	NVP	-25.641	-57.720	6.438	2.454	0.117
	Non-NVP	Ref.				
Age (years)						
	< 30	-1.247	-28.075	25.580	0.008	0.927
	≥30	Ref.				
Education						
	Junior high school or below	-4.291	-40.742	32.159	0.053	0.818
	High school / technical secondary school	10.946	-19.069	40.960	0.511	0.475
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	-5.599	-40.747	29.549	0.097	0.755
	5000–9999	-20.172	-53.133	12.788	1.439	0.230
	≥10000	Ref.				
Cities						
	First-tier	0.337	-36.193	36.867	0.000	0.986
	New first-tier	-49.674	-84.377	-14.971	7.871	0.005
	Second-tier	15.830	-17.958	49.619	0.843	0.358
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	22.582	-24.794	69.959	0.873	0.350
	Normal	3.560	-26.272	33.392	0.055	0.815
	Overweight/obesity	Ref.				
Gravidity						
	1	4.391	-28.203	36.986	0.070	0.792
	≥2	Ref.				

Parity	0	-5.513	-41.017	29.992	0.093	0.761
	≥1	Ref.				

(e) Dietary fiber(g)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group	NVP	-2.561	-5.248	0.126	3.489	0.062
	Non-NVP	Ref.				
Age (years)	< 30	-1.999	-4.246	0.248	3.039	0.081
	≥30	Ref.				
Education	Junior high school or below	-2.253	-5.307	0.800	2.092	0.148
	High school / technical secondary school	0.297	-2.217	2.811	0.054	0.817
	College degree or above	Ref.				
Family monthly per capita income	< 5000	2.176	-0.768	5.120	2.098	0.147
	5000–9999	0.476	-2.285	3.237	0.114	0.735
	≥10000	Ref.				
Cities	First-tier	0.753	-2.307	3.813	0.232	0.630
	New first-tier	1.573	-1.334	4.480	1.124	0.289
	Second-tier	1.676	-1.154	4.507	1.347	0.246
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI	Underweight	4.303	0.334	8.271	4.516	0.034
	Normal	1.149	-1.350	3.648	0.812	0.368
	Overweight/obesity	Ref.				
Gravidity	1	0.466	-2.265	3.196	0.112	0.738
	≥2	Ref.				
Parity	0	-0.067	-3.041	2.907	0.002	0.965
	≥1	Ref.				

(f) Cholesterol(mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group	NVP	-87.567	-197.351	22.216	2.444	0.118
	Non-NVP	Ref.				

Age (years)						
	< 30	86.634	-5.177	178.446	3.420	0.064
	≥30	Ref.				
Education						
	Junior high school or below	-136.780	-261.525	-12.035	4.618	0.032
	High school / technical secondary school	-138.208	-240.927	-35.490	6.954	0.008
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	10.220	-110.066	130.505	0.028	0.868
	5000–9999	20.637	-92.163	133.437	0.129	0.720
	≥10000	Ref.				
Cities						
	First-tier	134.804	9.787	259.820	4.466	0.035
	New first-tier	77.616	-41.148	196.380	1.641	0.200
	Second-tier	54.981	-60.653	170.614	0.868	0.351
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	0.204	-161.933	162.341	0.000	0.998
	Normal	32.570	-69.524	134.663	0.391	0.532
	Overweight/obesity	Ref.				
Gravidity						
	1	121.407	9.859	232.955	4.550	0.033
	≥2	Ref.				
Parity						
	0	-181.074	-302.580	-59.569	8.531	0.003
	≥1	Ref.				

(g) Vitamin A(μgREA)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
	NVP	-95.335	-355.980	165.310	0.514	0.473
	Non-NVP	Ref.				
Age (years)						
	< 30	-127.423	-345.399	90.552	1.313	0.252
	≥30	Ref.				
Education						
	Junior high school or below	122.025	-174.140	418.189	0.652	0.419
	High school / technical secondary school	-27.907	-271.778	215.965	0.050	0.823
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	15.651	-269.926	301.229	0.012	0.914
	5000–9999	-133.581	-401.387	134.226	0.956	0.328

	≥10000	Ref.				
Cities						
	First-tier	42.130	-254.679	338.940	0.077	0.781
	New first-tier	-27.571	-309.536	254.394	0.037	0.848
	Second-tier	214.505	-60.028	489.038	2.345	0.126
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	-287.773	-672.712	97.167	2.147	0.143
	Normal	-261.506	-503.892	-19.120	4.471	0.034
	Overweight/obesity	Ref.				
Gravidity						
	1	93.244	-171.591	358.078	0.476	0.490
	≥2	Ref.				
Parity						
	0	-163.617	-452.091	124.856	1.236	0.266
	≥1	Ref.				

(h) Thiamin(mg)

Variables	β	95% CI		Wald value	P
		Lower Limit	Upper Limit		
NVP group					
	NVP	-0.210	-0.359	-0.060	7.577 0.006
	Non-NVP	Ref.			
Age (years)					
	< 30	0.051	-0.073	0.176	0.651 0.420
	≥30	Ref.			
Education					
	Junior high school or below	-0.234	-0.404	-0.064	7.291 0.007
	High school / technical secondary school	-0.073	-0.213	0.066	1.060 0.303
	College degree or above	Ref.			
Family monthly per capita income					
	< 5000	0.004	-0.160	0.168	0.002 0.962
	5000–9999	-0.067	-0.220	0.087	0.723 0.395
	≥10000	Ref.			
Cities					
	First-tier	0.080	-0.090	0.250	0.848 0.357
	New first-tier	0.025	-0.137	0.187	0.092 0.762
	Second-tier	0.085	-0.072	0.242	1.124 0.289
	Third- or fourth-tier	Ref.			
Pre-pregnancy BMI					
	Underweight	0.055	-0.165	0.276	0.241 0.623
	Normal	-0.027	-0.166	0.112	0.146 0.703
	Overweight/obesity	Ref.			

Gravidity	1	0.059	-0.093	0.211	0.581	0.446
	≥2	Ref.				
Parity	0	-0.177	-0.342	-0.011	4.383	0.036
	≥1	Ref.				

(i) Riboflavin(mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group	NVP	-0.346	-0.531	-0.160	13.355	< 0.001
	Non-NVP	Ref.				
Age (years)	< 30	0.050	-0.105	0.205	0.401	0.527
	≥30	Ref.				
Education	Junior high school or below	-0.155	-0.366	0.056	2.081	0.149
	High school / technical secondary school	-0.010	-0.184	0.163	0.014	0.906
	College degree or above	Ref.				
Family monthly per capita income	< 5000	0.014	-0.189	0.217	0.019	0.890
	5000–9999	-0.001	-0.192	0.189	0.000	0.990
	≥10000	Ref.				
Cities	First-tier	0.039	-0.172	0.250	0.130	0.718
	New first-tier	-0.013	-0.214	0.187	0.017	0.896
	Second-tier	0.103	-0.092	0.299	1.077	0.299
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI	Underweight	0.040	-0.234	0.313	0.080	0.777
	Normal	-0.019	-0.191	0.153	0.047	0.828
	Overweight/obesity	Ref.				
Gravidity	1	0.153	-0.036	0.341	2.518	0.113
	≥2	Ref.				
Parity	0	-0.223	-0.429	-0.018	4.556	0.033
	≥1	Ref.				

(j) Niacin(mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		

NVP group						
	NVP	-1.918	-4.518	0.682	2.090	0.148
	Non-NVP	Ref.				
Age (years)						
	< 30	0.255	-1.920	2.429	0.053	0.818
	≥30	Ref.				
Education						
	Junior high school or below	-3.582	-6.536	-0.628	5.648	0.017
	High school / technical secondary school	-1.771	-4.204	0.661	2.037	0.154
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	-2.880	-5.728	-0.031	3.926	0.048
	5000–9999	-3.070	-5.741	-0.399	5.073	0.024
	≥10000	Ref.				
Cities						
	First-tier	1.495	-1.466	4.456	0.979	0.322
	New first-tier	0.414	-2.399	3.227	0.083	0.773
	Second-tier	1.809	-0.929	4.548	1.677	0.195
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	2.152	-1.688	5.992	1.207	0.272
	Normal	0.508	-1.910	2.926	0.169	0.681
	Overweight/obesity	Ref.				
Gravidity						
	1	0.093	-2.549	2.735	0.005	0.945
	≥2	Ref.				
Parity						
	0	-3.226	-6.104	-0.348	4.828	0.028
	≥1	Ref.				

(k) Vitamin C(mg)

Variables	β	95% CI		Wald value	P
		Lower Limit	Upper Limit		
NVP group					
	NVP	4.603	-32.283	41.489	0.060 0.807
	Non-NVP	Ref.			
Age (years)					
	< 30	19.155	-11.692	50.003	1.481 0.224
	≥30	Ref.			
Education					
	Junior high school or below	-24.951	-66.863	16.962	1.361 0.243
	High school / technical secondary school	12.578	-21.934	47.090	0.510 0.475
	College degree or above	Ref.			

Family monthly per capita income					
	< 5000	8.539	-31.875	48.953	0.171 0.679
	5000–9999	18.418	-19.481	56.317	0.907 0.341
	≥10000	Ref.			
Cities					
	First-tier	11.292	-30.712	53.296	0.278 0.598
	New first-tier	5.626	-34.277	45.529	0.076 0.782
	Second-tier	-4.982	-43.833	33.870	0.063 0.802
	Third- or fourth-tier	Ref.			
Pre-pregnancy BMI					
	Underweight	6.583	-47.893	61.058	0.056 0.813
	Normal	0.143	-34.159	34.445	0.000 0.993
	Overweight/obesity	Ref.			
Gravidity					
	1	35.021	-2.458	72.499	3.354 0.067
	≥2	Ref.			
Parity					
	0	4.603	-32.283	41.489	0.060 0.807
	≥1	Ref.			

(I) Vitamin E(mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
	NVP	-7.211	-12.836	-1.586	6.312	0.012
	Non-NVP	Ref.				
Age (years)						
	< 30	-2.027	-6.731	2.677	0.713	0.398
	≥30	Ref.				
Education						
	Junior high school or below	-1.033	-7.425	5.358	0.100	0.751
	High school / technical secondary school	1.252	-4.011	6.515	0.217	0.641
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	2.779	-3.384	8.942	0.781	0.377
	5000–9999	1.990	-3.789	7.770	0.456	0.500
	≥10000	Ref.				
Cities						
	First-tier	-5.134	-11.539	1.272	2.468	0.116
	New first-tier	0.599	-5.486	6.685	0.037	0.847
	Second-tier	-1.321	-7.246	4.603	0.191	0.662
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						

Gravidity	Underweight	4.443	-3.865	12.750	1.099	0.295
	Normal	1.288	-3.943	6.519	0.233	0.629
	Overweight/obesity	Ref.				
	1	-2.526	-8.242	3.189	0.751	0.386
	≥2	Ref.				
Parity	0	1.801	-4.424	8.027	0.322	0.571
	≥1	Ref.				

(m) Folate(μgDFE)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group	NVP	-36.848	-89.045	15.348	1.914	0.166
	Non-NVP	Ref.				
Age (years)	< 30	-2.445	-46.260	41.371	0.012	0.913
	≥30	Ref.				
Education	Junior high school or below	-77.769	-136.997	-18.542	6.623	0.010
	High school / technical secondary school	-4.100	-53.565	45.364	0.026	0.871
	College degree or above	Ref.				
Family monthly per capita income	< 5000	47.612	-9.809	105.033	2.641	0.104
	5000–9999	17.261	-36.771	71.293	0.392	0.531
	≥10000	Ref.				
Cities	First-tier	37.382	-22.307	97.070	1.507	0.220
	New first-tier	15.162	-41.820	72.144	0.272	0.602
	Second-tier	5.577	-49.691	60.844	0.039	0.843
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI	Underweight	70.644	-6.501	147.789	3.221	0.073
	Normal	8.202	-40.540	56.943	0.109	0.742
	Overweight/obesity	Ref.				
Gravidity	1	30.457	-22.987	83.900	1.248	0.264
	≥2	Ref.				
Parity	0	-64.431	-122.606	-6.256	4.712	0.030
	≥1	Ref.				

(n) Calcium(mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
	NVP	-200.839	-327.178	-74.500	9.708	0.002
	Non-NVP	Ref.				
Age (years)						
	< 30	45.076	-60.581	150.732	0.699	0.403
	≥ 30	Ref.				
Education						
	Junior high school or below	-117.611	-261.167	25.945	2.578	0.108
	High school / technical secondary school	71.931	-46.278	190.140	1.422	0.233
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	-59.492	-197.917	78.932	0.710	0.400
	5000–9999	-77.307	-207.117	52.504	1.362	0.243
	≥ 10000	Ref.				
Cities						
	First-tier	-37.045	-180.913	106.824	0.255	0.614
	New first-tier	-101.006	-237.679	35.667	2.098	0.147
	Second-tier	-24.039	-157.109	109.032	0.125	0.723
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	196.669	10.082	383.255	4.268	0.039
	Normal	4.319	-113.170	121.808	0.005	0.943
	Overweight/obesity	Ref.				
Gravidity						
	1	48.721	-79.648	177.091	0.553	0.457
	≥ 2	Ref.				
Parity						
	0	-56.350	-196.178	83.478	0.624	0.430
	≥ 1	Ref.				

(o) Phosphorus(mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
	NVP	-256.799	-392.773	-120.825	13.702	< 0.001
	Non-NVP	Ref.				
Age (years)						
	< 30	31.766	-81.948	145.480	0.300	0.584
	≥ 30	Ref.				
Education						

Junior high school or below	-186.219	-340.723	-31.715	5.580	0.018
High school / technical secondary school	-36.801	-164.024	90.423	0.321	0.571
College degree or above	Ref.				
Family monthly per capita income					
< 5000	-62.539	-211.520	86.442	0.677	0.411
5000–9999	-100.610	-240.320	39.100	1.992	0.158
≥10000	Ref.				
Cities					
First-tier	22.299	-132.541	177.140	0.080	0.778
New first-tier	-90.727	-237.823	56.370	1.461	0.227
Second-tier	17.237	-125.982	160.457	0.056	0.814
Third- or fourth-tier	Ref.				
Pre-pregnancy BMI					
Underweight	190.025	-10.791	390.841	3.440	0.064
Normal	29.192	-97.257	155.641	0.205	0.651
Overweight/obesity	Ref.				
Gravidity					
1	60.434	-77.725	198.594	0.735	0.391
≥2	Ref.				
Parity					
0	-140.245	-290.737	10.247	3.336	0.068
≥1	Ref.				

(p) Potassium(mg)

Variables	β	95% CI		Wald value	P
		Lower Limit	Upper Limit		
NVP group					
NVP	-462.701	-843.736	-81.665	5.665	0.017
Non-NVP	Ref.				
Age (years)					
< 30	-28.026	-346.684	290.631	0.030	0.863
≥30	Ref.				
Education					
Junior high school or below	-537.354	-970.315	-104.392	5.917	0.015
High school / technical secondary school	-107.020	-463.535	249.495	0.346	0.556
College degree or above	Ref.				
Family monthly per capita income					
< 5000	-49.486	-466.970	367.998	0.054	0.816
5000–9999	-214.944	-606.449	176.561	1.158	0.282
≥10000	Ref.				
Cities					
First-tier	272.708	-161.197	706.613	1.517	0.218
New first-tier	56.263	-355.940	468.467	0.072	0.789

Pre-pregnancy BMI	Second-tier	133.621	-267.717	534.960	0.426	0.514
	Third- or fourth-tier	Ref.				
Gravidity	Underweight	533.043	-29.698	1095.784	3.447	0.063
	Normal	182.978	-171.365	537.322	1.024	0.311
	Overweight/obesity	Ref.				
Parity	1	151.633	-235.526	538.793	0.589	0.443
	≥2	Ref.				
	0	-365.748	-787.466	55.970	2.889	0.089
	≥1	Ref.				

(q) Sodium(mg)

Variables	β	95% CI		Wald value	P
		Lower Limit	Upper Limit		
NVP group					
NVP	-235.671	-803.668	332.325	0.661	0.416
Non-NVP	Ref.				
Age (years)					
< 30	19.178	-455.834	494.191	0.006	0.937
≥ 30	Ref.				
Education					
Junior high school or below	410.750	-234.652	1056.152	1.556	0.212
High school / technical secondary school	-405.684	-937.130	125.761	2.238	0.135
College degree or above	Ref.				
Family monthly per capita income					
< 5000	-245.863	-868.193	376.467	0.600	0.439
5000–9999	-95.971	-679.575	487.633	0.104	0.747
≥ 10000	Ref.				
Cities					
First-tier	-549.040	-1195.848	97.767	2.768	0.096
New first-tier	-379.287	-993.745	235.172	1.464	0.226
Second-tier	-75.688	-673.950	522.574	0.061	0.804
Third- or fourth-tier	Ref.				
Pre-pregnancy BMI					
Underweight	88.323	-750.537	927.183	0.043	0.837
Normal	260.792	-267.416	789.001	0.936	0.333
Overweight/obesity	Ref.				
Gravidity					
1	375.562	-201.565	952.688	1.627	0.202
≥ 2	Ref.				
Parity					

0	-212.796	-841.437	415.846	0.440	0.507
≥1	Ref.				

(r) Magnesium(mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
NVP		-40.536	-88.597	7.526	2.733	0.098
Non-NVP		Ref.				
Age (years)						
< 30		-20.816	-61.009	19.378	1.030	0.310
≥30		Ref.				
Education						
Junior high school or below		-61.144	-115.755	-6.533	4.816	0.028
High school / technical secondary school		-0.480	-45.449	44.488	0.000	0.983
College degree or above		Ref.				
Family monthly per capita income						
< 5000		-2.374	-55.033	50.284	0.008	0.930
5000–9999		-27.067	-76.448	22.315	1.154	0.283
≥10000		Ref.				
Cities						
First-tier		-10.384	-65.114	44.345	0.138	0.710
New first-tier		-37.976	-89.969	14.016	2.049	0.152
Second-tier		1.124	-49.498	51.746	0.002	0.965
Third- or fourth-tier		Ref.				
Pre-pregnancy BMI						
Underweight		55.590	-15.391	126.570	2.356	0.125
Normal		1.115	-43.579	45.810	0.002	0.961
Overweight/obesity		Ref.				
Gravidity						
1		6.232	-42.601	55.066	0.063	0.802
≥2		Ref.				
Parity						
0		-30.540	-83.732	22.653	1.266	0.260
≥1		Ref.				

(s) Iron(mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
NVP		-6.729	-11.502	-1.956	7.634	0.006
Non-NVP		Ref.				
Age (years)						

	< 30	-2.896	-6.888	1.096	2.022	0.155
	≥30	Ref.				
Education						
	Junior high school or below	-2.826	-8.250	2.598	1.043	0.307
	High school / technical secondary school	0.288	-4.178	4.754	0.016	0.899
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	-1.125	-6.355	4.104	0.178	0.673
	5000–9999	-3.649	-8.554	1.255	2.127	0.145
	≥10000	Ref.				
Cities						
	First-tier	-1.552	-6.987	3.883	0.313	0.576
	New first-tier	0.411	-4.753	5.574	0.024	0.876
	Second-tier	1.569	-3.458	6.597	0.374	0.541
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	4.112	-2.937	11.162	1.307	0.253
	Normal	0.656	-3.783	5.094	0.084	0.772
	Overweight/obesity	Ref.				
Gravidity						
	1	-1.017	-5.867	3.833	0.169	0.681
	≥2	Ref.				
Parity						
	0	0.804	-4.478	6.087	0.089	0.765
	≥1	Ref.				

(t) Zinc(mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
	NVP	-2.150	-3.465	-0.835	10.264	0.001
	Non-NVP	Ref.				
Age (years)						
	< 30	0.247	-0.853	1.347	0.193	0.660
	≥30	Ref.				
Education						
	Junior high school or below	-1.656	-3.150	-0.162	4.717	0.030
	High school / technical secondary school	-0.531	-1.762	0.699	0.716	0.397
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	-1.149	-2.590	0.292	2.442	0.118
	5000–9999	-1.026	-2.377	0.325	2.215	0.137
	≥10000	Ref.				

Cities						
	First-tier	-0.286	-1.783	1.212	0.140	0.708
	New first-tier	-0.735	-2.158	0.688	1.025	0.311
	Second-tier	0.621	-0.764	2.006	0.772	0.380
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	1.219	-0.723	3.161	1.513	0.219
	Normal	-0.500	-1.723	0.723	0.643	0.423
	Overweight/obesity	Ref.				
Gravidity						
	1	0.074	-1.263	1.410	0.012	0.914
	≥2	Ref.				
Parity						
	0	-0.908	-2.364	0.547	1.496	0.221
	≥1	Ref.				

(u) Selenium (mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
	NVP	-14.882	-28.265	-1.499	4.750	0.029
	Non-NVP	Ref.				
Age (years)						
	< 30	2.789	-8.403	13.981	0.239	0.625
	≥30	Ref.				
Education						
	Junior high school or below	-8.605	-23.812	6.601	1.230	0.267
	High school / technical secondary school	-3.039	-15.561	9.482	0.226	0.634
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	-10.125	-24.788	4.538	1.832	0.176
	5000–9999	-9.846	-23.596	3.905	1.970	0.160
	≥10000	Ref.				
Cities						
	First-tier	0.467	-14.773	15.706	0.004	0.952
	New first-tier	0.925	-13.552	15.403	0.016	0.900
	Second-tier	-4.175	-18.271	9.921	0.337	0.562
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	15.740	-4.024	35.505	2.436	0.119
	Normal	1.279	-11.167	13.724	0.041	0.840
	Overweight/obesity	Ref.				
Gravidity						

Parity	1	2.262	-11.336	15.860	0.106	0.744
	≥2	Ref.				
	0	-15.523	-30.334	-0.711	4.219	0.040
	≥1	Ref.				

(v) Copper (mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						
NVP		-0.295	-0.949	0.359	0.781	0.377
Non-NVP		Ref.				
Age (years)						
< 30		0.164	-0.383	0.711	0.346	0.556
≥30		Ref.				
Education						
Junior high school or below		-0.633	-1.377	0.110	2.789	0.095
High school / technical secondary school		0.221	-0.391	0.834	0.503	0.478
College degree or above		Ref.				
Family monthly per capita income						
< 5000		-0.072	-0.789	0.645	0.039	0.844
5000–9999		0.121	-0.551	0.793	0.125	0.724
≥10000		Ref.				
Cities						
First-tier		-0.292	-1.037	0.453	0.589	0.443
New first-tier		0.422	-0.286	1.129	1.363	0.243
Second-tier		0.110	-0.579	0.799	0.097	0.755
Third- or fourth-tier		Ref.				
Pre-pregnancy BMI						
Underweight		0.628	-0.338	1.594	1.622	0.203
Normal		0.298	-0.310	0.907	0.924	0.336
Overweight/obesity		Ref.				
Gravidity						
1		0.249	-0.415	0.914	0.540	0.462
≥2		Ref.				
Parity						
0		-0.837	-1.561	-0.113	5.139	0.023
≥1		Ref.				

(w) Manganese (mg)

Variables		β	95% CI		Wald value	P
			Lower Limit	Upper Limit		
NVP group						

	NVP	-0.560	-2.373	1.252	0.367	0.545
	Non-NVP	Ref.				
Age (years)						
	< 30	-1.185	-2.701	0.331	2.346	0.126
	≥30	Ref.				
Education						
	Junior high school or below	-0.397	-2.457	1.663	0.143	0.706
	High school / technical secondary school	0.154	-1.543	1.850	0.031	0.859
	College degree or above	Ref.				
Family monthly per capita income						
	< 5000	-0.636	-2.622	1.350	0.394	0.530
	5000–9999	-0.740	-2.603	1.122	0.607	0.436
	≥10000	Ref.				
Cities						
	First-tier	0.904	-1.160	2.968	0.737	0.391
	New first-tier	-0.138	-2.099	1.823	0.019	0.890
	Second-tier	0.662	-1.247	2.572	0.462	0.497
	Third- or fourth-tier	Ref.				
Pre-pregnancy BMI						
	Underweight	0.828	-1.849	3.505	0.367	0.544
	Normal	0.680	-1.006	2.366	0.625	0.429
	Overweight/obesity	Ref.				
Gravidity						
	1	-0.775	-2.617	1.067	0.680	0.410
	≥2	Ref.				
Parity						
	0	0.010	-1.996	2.016	0.000	0.992
	≥1	Ref.				

Table S3 Comparison of dietary nutrient intake of pregnant women with different severity of nausea and vomiting

	Non-NVP	Mild NVP		Moderate NVP		Severe NVP		Spearman's P
	Median(P25,P75)	Median(P25,P75)	P ^a	Median(P25,P75)	P ^a	Median(P25,P75)	P ^a	
Energy	1897.7(1449.5,2390.7)	1699.5(1354.7,2115.5)	0.069	1539.9(1201.3,1932.2)	0.006	1230.5(774.5,1897.1)	0.001	<0.001***
Protein	63.4(42,86)	51.6(37.7,70.7)	0.094	49.9(35.8,63.3)	0.040	42.4(22.7,66.9)	0.011	0.004**
Fat	77.9(58,102.5)	55.9(42.1,75.9)	<0.001	56.5(40.8,79.8)	0.004	49.9(29.9,70.7)	0.001	0.001**
Carbohydrate	220.6(167,279.9)	230(171.1,299)	0.875	185.1(132.8,269.8)	0.102	147.8(91.5,273.5)	0.013	0.004**
Dietary fiber	8.6(6.1,14.7)	9.1(5.8,13.1)	0.726	10.5(5.2,14.3)	0.881	6.5(3.9,10.3)	0.029	0.174
Cholesterol	428(112.4,768)	349.8(73.8,583.2)	0.167	301(94.4,452.3)	0.049	309.4(67.5,562.6)	0.164	0.054
Vitamin A	399.7(175.5,603.9)	291.9(132.8,472.7)	0.061	273.5(150.8,427)	0.067	222.4(74,350.2)	0.015	0.021*
Thiamin	0.8(0.6,1)	0.7(0.4,1)	0.034	0.6(0.4,0.9)	0.018	0.5(0.4,0.7)	<0.001	0.001**
Riboflavin	0.7(0.5,1.2)	0.6(0.5,0.8)	0.020	0.7(0.5,0.9)	0.103	0.4(0.3,0.7)	0.001	0.004**
Niacin	10.9(6.4,16.3)	10.1(7,14.6)	0.671	9.1(6.6,12.9)	0.273	8.7(6.7,10.9)	0.063	0.039*
Vitamin C	58(29.6,107.1)	56.9(27.5,98.5)	0.648	49.1(22.9,98.8)	0.568	36.6(16.1,96.7)	0.246	0.276
Vitamin E	31.1(20.9,47.8)	22.4(15.1,34.8)	0.002	24.1(17.1,37.7)	0.052	19.2(14.5,31.7)	0.001	0.019*
Folate	224.8(138.8,347.1)	216.7(150.1,308.4)	0.592	193.6(135.4,300.9)	0.347	173.1(126.2,279.7)	0.145	0.134
Calcium	375.7(218.6,796.7)	324.3(213.5,515.8)	0.137	292.6(184,599.4)	0.183	208.4(108.1,510.1)	0.018	0.022*
Phosphorus	816.2(667.3,1315.5)	744.2(569.3,1043.1)	0.047	747.7(541.8,999.1)	0.06	534.7(370.1,849.7)	0.001	0.001**
Potassium	1816.2(1314.5,2975.2)	1538.1(1125.3,2043.6)	0.048	1719.9(1096.2,2309.6)	0.396	1103.1(763.1,1737.8)	0.005	0.035*
Sodium	4132.5(3532.8,5237.1)	3995.3(3087.7,4965.6)	0.130	4045.8(3192.5,4769.1)	0.187	3700.3(2620.1,4834.2)	0.126	0.129
Magnesium	252.4(178.1,305.1)	227.1(174.9,309.1)	0.328	229.4(170.5,311.3)	0.586	182.1(121.4,284.9)	0.052	0.12
Iron	15.3(11.4,20.8)	13.6(9.7,18.8)	0.086	12.6(9.1,18.1)	0.05	9.7(5.5,17.3)	0.001	0.001**
Zinc	8(6,12.9)	7(5.1,10.2)	0.093	6.7(4.8,8.7)	0.021	5.2(3.5,8.6)	0.004	0.001**
Selenium	33.8(24.1,58.3)	32.1(20.8,44.1)	0.174	28.1(23,44.6)	0.078	19.6(10.4,45)	0.016	0.011*
Copper	1.4(1,2.3)	1.3(0.9,1.8)	0.235	1.3(0.9,2.1)	0.524	1(0.6,1.9)	0.153	0.275
Manganese	3.1(2.3,3.9)	2.7(2,4.1)	0.524	2.7(1.8,4.4)	0.396	2.3(1.6,3.4)	0.021	0.049*

^a Compared to the non-NVP group.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

NVP: Nausea and vomiting in pregnancy;

Table S4 Comparison of dietary nutrient intake of pregnant women with different severity of nausea and vomiting after adjusting for demographic characteristics

	Non-NVP	Mild NVP		Moderate NVP		Severe NVP	
		Adjusted β (95%CI) ^a	P	Adjusted β (95%CI) ^a	P	Adjusted β (95%CI) ^a	P
Energy(kcal)	Ref.	-216.3(-436.9,4.2)	0.055	-336.9(-585,-88.9)**	0.008	-585.8(-891.4,-280.3)***	<0.001
Protein(g)	Ref.	-15.9(-26.9,-4.8)**	0.005	-20.7(-33.1,-8.3)**	0.001	-25.9(-41.2,-10.6)**	0.001
Fat(g)	Ref.	-15(-24.7,-5.2)**	0.003	-15.6(-26.6,-4.6)**	0.005	-24.7(-38.2,-11.1)***	<0.001
Carbohydrate(g)	Ref.	-13.2(-46.7,20.3)	0.440	-34.4(-72.1,3.3)	0.073	-61.8(-108.2,-15.3)**	0.009
Dietary fiber(g)	Ref.	-2.5(-5.4,0.3)	0.079	-2(-5.2,1.2)	0.218	-3.9(-7.8,0.1)	0.054
Cholesterol(mg)	Ref.	-59.4(-174.9,56.2)	0.314	-131.7(-261.6,-1.7)*	0.047	-116.9(-277,43.2)	0.152
Vitamin A(μ gREA)	Ref.	-66.8(-342,208.4)	0.634	-146.1(-455.6,163.3)	0.355	-111.6(-492.8,269.6)	0.566
Thiamin(mg)	Ref.	-0.2(-0.3,0)*	0.027	-0.2(-0.4,0)*	0.013	-0.3(-0.5,-0.1)**	0.004
Riboflavin(mg)	Ref.	-0.3(-0.5,-0.1)**	0.001	-0.3(-0.5,-0.1)**	0.005	-0.5(-0.7,-0.2)**	0.001
Niacin(mg)	Ref.	-1.5(-4.2,1.2)	0.281	-1.5(-4.6,1.5)	0.323	-4.6(-8.4,-0.8)*	0.018
Vitamin C(mg)	Ref.	2.8(-36.1,41.6)	0.889	-2(-45.7,41.8)	0.93	27.1(-26.8,81)	0.324
Vitamin E(mg)	Ref.	-7(-12.9,-1.1)*	0.021	-5.3(-12,1.3)	0.116	-12.4(-20.6,-4.2)**	0.003
Folate(μ gDFE)	Ref.	-24.9(-79.8,30.1)	0.375	-53.8(-115.9,8.3)	0.089	-54.1(-130.2,22)	0.163
Calcium(mg)	Ref.	-213.7(-347.1,-80.3)**	0.002	-179.2(-329.2,-29.1)*	0.019	-190.8(-375.6,-6)*	0.043
Phosphorus(mg)	Ref.	-233(-375.8,-90.2)**	0.001	-241.7(-402.3,-81.1)**	0.003	-395.4(-593.2,-197.6)***	<0.001
Potassium(mg)	Ref.	-512(-912.6,-111.4)*	0.012	-264(-714.5,186.5)	0.251	-676.2(-1231.1,-121.2)*	0.017
Sodium(mg)	Ref.	-197.5(-797.1,402.1)	0.519	-209.2(-883.5,465.1)	0.543	-463(-1293.5,367.6)	0.275
Magnesium(mg)	Ref.	-46.5(-97.1,4.1)	0.072	-19.2(-76.1,37.7)	0.509	-60.4(-130.5,9.7)	0.091
Iron(mg)	Ref.	-6.2(-11.2,-1.1)*	0.016	-6.4(-12,-0.7)*	0.027	-9.9(-16.9,-3)**	0.005

Zinc(mg)	Ref.	-1.8(-3.2,-0.4)*	0.011	-2.4(-3.9,-0.8)**	0.003	-3.3(-5.2,-1.4)**	0.001
Selenium(mg)	Ref.	-12.5(-26.6,1.6)	0.083	-16.6(-32.5,-0.7)*	0.040	-21.8(-41.4,-2.3)*	0.028
Copper(mg)	Ref.	-0.2(-0.8,0.5)	0.660	-0.4(-1.2,0.4)	0.323	-0.7(-1.7,0.2)	0.145
Manganese(mg)	Ref.	-1.1(-3,0.8)	0.265	1(-1.1,3.1)	0.358	-1.7(-4.3,1)	0.213

^a Adjustment factors include age, education, income, city, pre-pregnancy BMI, gravidity and parity.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

NVP: Nausea and vomiting in pregnancy;

Table S5 Comparison of average daily food intake of pregnant women with different severities of nausea and vomiting.

	Non-NVP	Mild NVP		Moderate NVP		Severe NVP		Spearman's P
	Median(P25,P75)	Median(P25,P75)	P ^a	Median(P25,P75)	P ^a	Median(P25,P75)	P ^a	
Cereals	198.0(120.4,289)	238(122.5,349.7)	0.23	182.1(102.3,272.9)	0.416	176.7(111.3,295.1)	0.715	0.181
Potatoes	32.7(14.0,70.0)	23.3(7.9,52.5)	0.103	23.3(6.7,55.0)	0.145	14.0(0.0,89.3)	0.218	0.146
Fresh vegetables	160(58.3,300.0)	140(60,250)	0.408	150.0(54.2,232.5)	0.426	75.0(21.7,200.0)	0.030	0.053
Pickled and fermented vegetables	0.3(0.0,4.7)	0.1(0.0,4.7)	0.467	0.2(0.0,3.3)	0.348	0.1(0.0,2.3)	0.346	0.300
Mushroom and algae	11.7(4.1,20.1)	7.2(1.7,19.0)	0.072	5.7(0.9,13.7)	0.019	6.6(2.4,28.9)	0.355	0.110
Soybeans and their products	20.0(8.2,48.0)	18.9(6.7,46.2)	0.658	12.5(3.9,35.0)	0.12	20.6(11.3,35.7)	0.773	0.213
Nuts and seeds	22.7(7.9,40.0)	11.7(1.3,26.5)	0.005	9.3(1.1,21.9)	<0.001	14.5(1.6,25.0)	0.054	0.004**
Fruits	300.0(200.0,500.0)	250.0(152.5,400)	0.189	260(150.0,400.0)	0.188	300.0(180.0,500.0)	0.797	0.551
Poultry meat	38.5(14.2,97.5)	30.0(4.7,50.0)	0.049	11.7(0.0,37.5)	<0.001	6.4(0.0,52.5)	0.002	<0.001***
Livestock meat	11.0(3.3,43.8)	11.7(0.0,28.9)	0.314	5.3(0.0,23.3)	0.028	1.7(0.0,16.6)	0.004	0.002**
Aquatic products	14.6(3.8,68.8)	16.3(3.3,35.0)	0.434	10.8(1.0,23.3)	0.077	8.2(0.0,50.6)	0.242	0.039*
Eggs	60.0(46.4,60.0)	50.0(21.0,60.0)	0.013	45.3(18.4,60.0)	0.022	49.0(9.4,60.0)	0.037	0.026*
Dairy products	250.0(101.3,295.4)	200.0(61.7,291.7)	0.267	91.3(11.7,250.0)	0.006	46.7(0.0,225.0)	0.002	<0.001***
Soups	44.2(0.0,186.7)	43.3(0.0,116.7)	0.427	23.3(0.0,93.3)	0.124	93.3(5.2,140)	0.811	0.506
Snacks and beverages	5.0(0.0,46.8)	1.4(0.0,24.3)	0.217	1.2(0.0,16.7)	0.134	5.8(0.0,32.4)	0.880	0.586

^a Compared to the non-NVP group.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

NVP: Nausea and vomiting in pregnancy;

Table S6 Comparison of d average daily food intake of pregnant women with different severity of nausea and vomiting after adjusting for demographic characteristics

	Non-NVP	Mild NVP		Moderate NVP		Severe NVP	
		Adjusted β (95%CI) ^a	P	Adjusted β (95%CI) ^a	P	Adjusted β (95%CI) ^a	P
Cereals	Ref.	49.8(-12.5,112.1)	0.117	-21.2(-90.7,48.2)	0.549	-8.5(-93.9,76.9)	0.845
Potatoes	Ref.	-5.6(-22.2,10.9)	0.506	-4.9(-23.4,13.6)	0.605	3.6(-19.4,26.6)	0.76
Fresh vegetables	Ref.	-20.9(-98.3,56.6)	0.597	-38.9(-125.5,47.6)	0.378	-41.8(-148.4,64.7)	0.442
Pickled and fermented vegetables	Ref.	-2.4(-6.5,1.7)	0.254	-3.8(-8.4,0.8)	0.104	-4.4(-10,1.3)	0.131
Mushroom and algae	Ref.	-2.9(-10,4.2)	0.421	-4.3(-12.2,3.6)	0.284	0.3(-9.4,9.9)	0.955
Soybeans and their products	Ref.	-7.2(-21.2,6.7)	0.309	-19.1(-34.9,-3.4)*	0.017	-10.2(-29.5,9.1)	0.299
Nuts and seeds	Ref.	-8.9(-17.3,-0.4)*	0.039	-17.2(-26.7,-7.7)***	<0.001	-12.3(-23.9,-0.6)*	0.039
Fruits	Ref.	-26.5(-117.2,64.3)	0.568	-35.2(-137,66.6)	0.498	-39(-163.9,85.9)	0.54
Poultry meat	Ref.	-10.2(-31.5,11.1)	0.349	-28.3(-52.2,-4.4)*	0.020	-30.7(-60.1,-1.2)*	0.041
Livestock meat	Ref.	-3.7(-15.1,7.8)	0.529	-12.2(-25,0.6)	0.062	-18.4(-34.2,-2.6)*	0.022
Aquatic products	Ref.	-3.7(-18.1,10.7)	0.613	-18(-34.2,-1.9)*	0.029	-10.5(-30.4,9.4)	0.299
Eggs	Ref.	-8.6(-19.1,2)	0.112	-9.5(-21.4,2.4)	0.119	-11.1(-25.7,3.5)	0.137
Dairy products	Ref.	-18.8(-71.2,33.6)	0.482	-87.1(-145.6,-28.6)**	0.004	-85.7(-158.1,-13.4)*	0.020
Soups	Ref.	-34.1(-71.6,3.5)	0.076	-46.1(-88.1,-4)*	0.032	-13.8(-66.2,38.7)	0.607
Snacks and beverages	Ref.	10.4(-28.1,49)	0.596	3.3(-39.9,46.5)	0.881	-7.5(-60.3,45.4)	0.782

^a Adjustment factors include age, education, income, city, pre-pregnancy BMI, gravidity and parity.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

NVP: Nausea and vomiting in pregnancy;