

Supplementary Table S1. CHEI scoring system

Component	Maximum points	Standard for maximum point	Standard for zero point
Adequacy			
Total grains	5	$\geq 2.5\text{SP}/1000 \text{ kcal}$	No intake
Whole Grains and mixed beans	5	$\geq 0.6\text{SP}/1000 \text{ kcal}$	No intake
Tubers	5	$\geq 0.3\text{SP}/1000 \text{ kcal}$	No intake
Total vegetables	5	$\geq 1.9\text{SP}/1000 \text{ kcal}$	No intake
Dark vegetables	5	$\geq 0.9\text{SP}/1000 \text{ kcal}$	No intake
Fruits	10	$\geq 1.1\text{SP}/1000 \text{ kcal}$	No intake
Dairy	5	$\geq 0.5\text{SP}/1000 \text{ kcal}$	No intake
Soybeans	5	$\geq 0.4\text{SP}/1000 \text{ kcal}$	No intake
Fish and Seafood	5	$\geq 0.6\text{SP}/1000 \text{ kcal}$	No intake
Poultry	5	$\geq 0.3\text{SP}/1000 \text{ kcal}$	No intake
Eggs	5	$\geq 0.5\text{SP}/1000 \text{ kcal}$	No intake
Seeds and Nuts	5	$\geq 0.4\text{SP}/1000 \text{ kcal}$	No intake
Moderation			
Added sugars	5	$\leq 10\% \text{ of energy}$	$\geq 20\% \text{ of energy}$
Sodium	10	$\leq 1000 \text{ mg}/1000 \text{ kcal}$	$\geq 3608 \text{ mg}/1000 \text{ kcal}$
Cooking oils	10	$\leq 15.6 \text{ g}/1000 \text{ kcal}$	$\geq 32.6 \text{ g}/1000 \text{ kcal}$
Red meat	5	$\leq 0.4 \text{ SP}/1000 \text{ kcal}$	$\geq 3.5 \text{ SP}/1000 \text{ kcal}$
Alcohol	5	$\leq 15 \text{ g}$	$\geq 40\text{g}$

Supplementary Table S2. Baseline energy / nutrient intake

Dietary parameter	Mean (SD)/ Median (Range)	Prevalence (%)			CDG recommendation (RNI/EER, AMDR)
		Insufficient	Adequate	Excessive	
Energy (kcal)	2028.9 (541.0)	43.8	26.5	29.7	1800/2100/2400*
Carbohydrate (%E)	52.1 (26.9-76.5)	41.0	53.1	5.9	50~65
Protein (g)	65.1 (23.4)	26.7	17.5.	55.8	55
Fat (%E)	35.6 (18.3-61.3)	0.7	20.6	78.7	20-30
Calcium (mg)	373.6 (177.7)	96.9	0.7	2.4	800
Iron (mg)	20.4 (7.9)	43.9	23.9	32.3	20
Zinc (mg)	12.4 (4.1)	7.0	5.2	87.8	7.5
Vitamin A (µg RAE)	508.3 (465.0)	73.8	9.4	16.8	700
Vitamin E (mg)	24.4 (7.5)	1.4	3.9	94.7	14
Thiamine (mg)	0.7 (0.3)	90.9	4.9	4.2	1.2
Riboflavin (mg)	0.8 (0.3)	85.7	8.4	5.9	1.2
Vitamin C (mg)	84.5 (60.1)	63.3	11.9	24.8	100
Niacin (mg NE)	19.7(7.5)	7.7	10.1	82.2	12
Folate (µg DFE)	137.4(88.3)	98.0	0	2.0	400

CDG, Chinese Dietary Guideline-2016; RNI, recommend nutrients intake; EER, estimated energy requirement; AMDR, acceptable macronutrient distribution ranges.

* estimated energy requirement according to different categories of physical activity

Supplementary Table S3. Change of energy/nutrients intake in the intervention and control group

Energy/nutrient	Intervention		Control		<i>p</i> (intervention vs control at follow-up visit)
	Baseline	Follow-up	Baseline	Follow-up	
Energy (kcal)	2041.5(578.2)	2017.2(506.0)	2017.2(506.0)	2037.9(574.6)	0.093
Carbohydrate (g)	258.7 (77.9)	223.5(59.8)	263.7 (89.9)	239.6(70.8)	0.038
Protein (g)	67.6 (24.6)	64.1 (22.5)	62.9 (21.9)	65.0 (25.2)	0.752
Fat (g)	84.7 (32.6)	59.1 (21.3)	80.2(27.6)	60.8(23.0)	0.496
Calcium (mg)	369.3 (174.9)	402.7 (203.9)	377.4 (180.6)	384.8(203.2)	0.456
Iron (mg)	20.9 (7.7)	21.6 (10.9)	19.9 (8.2)	21.9 (9.2)	0.790
Zinc (mg)	12.6 (4.32)	11.9 (3.7)	12.1 (3.76)	12.6 (3.9)	0.126
Vitamin A (µg RAE)	526.3 (540.4)	670.6(1537.9)	491.7 (384.0)	537.0(436.1)	0.310
Vitamin E (mg)	24.9(7.9)	23.3(6.9)	23.9(7.1)	22.6 (6.9)	0.440
Thiamine (mg)	0.7 (0.3)	0.7 (0.3)	0.7 (0.2)	0.7 (0.3)	0.495
Riboflavin (mg)	0.7 (0.3)	0.8 (0.7)	0.7 (0.3)	0.8 (0.3)	0.630
Vitamin C (mg)	88.6 (67.7)	92.7 (77.7)	84.5 (52.3)	91.1 (91.3)	0.870
Niacin (mg NE)	20.263 (7.9)	18.9 (7.3)	19.11(7.0)	20.1 (6.6)	0.147
Folate (µg DFE)	143.179 (103.2)	169.3 (125.2)	131.207 (69.2)	162.3(118.3)	0.627

Supplementary Table S4. The proportion of the women who consumed adequate energy/nutrient at baseline and follow-up visit

Proportion	Intervention		Control		<i>p</i> (intervention vs control at follow-up visit)
	Baseline	Follow-up	Baseline	Follow-up	
Energy	23.5	31.4*	29.3	28.6	0.259
Carbohydrate (%E)	50.4	35.7*	55.7	36.9*	0.835
Protein	17.6	29.0	17.4	22.8	0.451
Fat (%E)	17.5	68.5*	23.4	68.8*	0.423
Calcium	0.7	2.2	0.7	4.7	0.465
Iron	21.3	23.9	26.2	24.2*	0.366
Zinc	3.6	3.6	6.7	5.4	0.715
Vitamin A	9.5	10.1	9.4	9.4	0.959
Vitamin E	3.7	2.2	4.0	6.7	0.182
Thiamine	5.8	7.2	4.0	9.4	0.656
Riboflavin	9.5	10.1	7.4	14.1	0.585
Vitamin C	15.3	8.0	8.7	14.8	0.122
Niacin	8.8	8.0	11.4	6.7	0.871
Folate	0	1.4	0	1.3	0.578

* $p < 0.05$ between baseline and follow-up within intervention or control group