### Supplemental Table 1 Baseline characteristics by gender among 2241 rural participants

| Characteristics                      | Men   | Women  | P*    |
|--------------------------------------|-------|--------|-------|
| No. of subjects                      | 774   | 1467   |       |
| Age, y                               | 49.5  | 47.3   | <0.001|
| Schooling year >9 years, %           | 17.3  | 8.7    | <0.001|
| Fortune index in rich, %             | 37.0  | 38.4   | 0.781 |
| Current drinker, %                   | 68.1  | 17.5   | <0.001|
| Current smoker, %                    | 66.3  | 0.9    | <0.001|
| Physical activity in high intensity, %| 61.3  | 66.5   | 0.051 |
| BMI, kg/m²                           | 22.5  | 22.5   | 0.938 |
| WC, cm                               | 80.5  | 76.9   | <0.001|
| Food intake, g/d§                    |       |        |       |
| Grain                                | 605.8 | 465    | <0.001|
| Red meat                             | 33.3  | 21.4   | <0.001|
| Vegetables                           | 305.7 | 246.7  | <0.001|
| Fruits                               | 11.7  | 17.6   | 0.005 |
| Nutrient intake§                     |       |        |       |
| Energy, kcal/d                       | 2054.2| 1605.8 | <0.001|
| Fat, g/d                             | 73.6  | 66.7   | <0.001|
| Protein, g/d                         | 50.6  | 38.2   | <0.001|
| Cholesterol, mg/d                    | 167.7 | 133.4  | <0.001|
| Sodium, mg/d                         | 4982.2| 4899.1 | <0.001|
| Fiber, g/d                           | 6.6   | 5.2    | <0.001|

Values were mean or %

* P value was assessed by t-test or Mann-Whitney U test for continuous variables and by chi-square test for categorical variables.

§ Adjusted for total calorie intake, except energy daily intake.
**Supplemental Table 2. Estimated blood pressure changes (mmHg) with one SD increment of energy percentage from carbohydrate based on different multiple linear regression models** *†§*

| Model   | Male          |               | Female        |               |
|---------|---------------|---------------|---------------|---------------|
|         | β-estimates (95%CI) | P         | β-estimates (95%CI) | P         |
| Male    |               |               |               |               |
| Model 1 | 1.28(-0.02-2.57) | 0.053      | 0.50(-0.19-1.19) | 0.153      |
| Model 2 | 0.61(-0.67-1.89) | 0.353      | 0.39(-0.34-1.11) | 0.298      |
| Model 3 | 0.62(-0.63-1.88) | 0.329      | 0.34(-0.37-1.06) | 0.344      |
| Model 4 | 0.96(-0.50-2.43) | 0.196      | 0.43(-0.41-1.26) | 0.316      |
| Female  |               |               |               |               |
| Model 1 | 2.17(1.19-3.14)  | <0.001      | 0.98(0.47-1.48)  | <0.001      |
| Model 2 | 1.87(0.90-2.83)  | <0.001      | 1.13(0.59-1.66)  | <0.001      |
| Model 3 | 1.86(0.92-2.81)  | <0.001      | 1.10(0.58-1.62)  | <0.001      |
| Model 4 | 2.18(1.05-3.32)  | <0.001      | 1.31(0.69-1.94)  | <0.001      |

* one SD of energy percentage from carbohydrate (% E) was 12.1% in male and 11.5% in female.

† Model adjustments: Model 1: adjusted for energy. Model 2: model 1 and further adjusted for age, education, fortune index and family history of hypertension. Model 3: model 2 and further adjusted for BMI, physical activity level, alcohol intake and smoke. Model 4: model 3 and further adjusted two nutrient principal components, protein and sodium intake.
**Supplemental Table 3. Estimated blood pressure changes (mmHg) with additional 50g/d increment of carbohydrate intake based on different multiple linear regression models (N=2893) **

| Model   | SBP β-estimates (95%CI) | P  | DBP β-estimates (95%CI) | P  |
|---------|-------------------------|----|------------------------|----|
| Male    |                         |    |                        |    |
| Model 1 | 1.85(0.64-3.06)         | 0.003 | 0.60(-0.26-1.23)         | 0.060 |
| Model 2 | 0.58(-0.60-1.77)         | 0.335 | 0.41(-0.24-1.05)         | 0.214 |
| Model 3 | 0.56(-0.59-1.71)         | 0.336 | 0.39(-0.23-1.01)         | 0.222 |
| Model 4 | 1.21(-0.10-2.15)         | 0.605 | 0.51(-0.17-1.09)         | 0.083 |
| Female  |                         |    |                        |    |
| Model 1 | 2.65(1.75-3.56)         | <0.001 | 1.00(0.56-1.44)         | <0.001 |
| Model 2 | 1.37(0.53-2.21)         | 0.01 | 0.73(0.29-1.17)         | 0.001 |
| Model 3 | 1.48(0.65-2.31)         | <0.001 | 0.30(0.03-1.20)         | 0.001 |
| Model 4 | 2.12(1.16-3.08)         | <0.001 | 1.17(0.67-1.68)         | <0.001 |

*Model adjustments were consistent with [supplemental table 1](#).