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

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

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 a b**

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

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

b 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) *

<table>
<thead>
<tr>
<th>Model</th>
<th>SBP β-estimates (95%CI)</th>
<th>P</th>
<th>DBP β-estimates (95%CI)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>1.85(0.64-3.06)</td>
<td>0.003</td>
<td>0.60(0.26-1.23)</td>
<td>0.060</td>
</tr>
<tr>
<td>Model 2</td>
<td>0.58(-0.60-1.77)</td>
<td>0.335</td>
<td>0.41(-0.24-1.05)</td>
<td>0.214</td>
</tr>
<tr>
<td>Model 3</td>
<td>0.56(-0.59-1.71)</td>
<td>0.336</td>
<td>0.39(-0.23-1.01)</td>
<td>0.222</td>
</tr>
<tr>
<td>Model 4</td>
<td>1.21(-0.10-2.15)</td>
<td>0.605</td>
<td>0.51(-0.17-1.09)</td>
<td>0.083</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>2.65(1.75-3.56)</td>
<td>&lt;0.001</td>
<td>1.00(0.56-1.44)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Model 2</td>
<td>1.37(0.53-2.21)</td>
<td>0.001</td>
<td>0.73(0.29-1.17)</td>
<td>0.001</td>
</tr>
<tr>
<td>Model 3</td>
<td>1.48(0.65-2.31)</td>
<td>&lt;0.001</td>
<td>0.078(0.33-1.20)</td>
<td>0.001</td>
</tr>
<tr>
<td>Model 4</td>
<td>2.12(1.16-3.08)</td>
<td>&lt;0.001</td>
<td>1.17(0.67-1.68)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

*Model adjustments were consistent with **supplemental table 1**.