Supplementary Table S1: Food groups, examples of food items and percentage of consumers per food group.

<table>
<thead>
<tr>
<th>Food group</th>
<th>Examples</th>
<th>% consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tortilla</td>
<td>Maize tortilla</td>
<td>90.2</td>
</tr>
<tr>
<td>2. Cereals (except corn)</td>
<td>Potatoes, bread, wheat tortilla, salty cookie</td>
<td>63.6</td>
</tr>
<tr>
<td>3. Breakfast cereals</td>
<td>Breakfast cereals with low and high fiber content</td>
<td>30.1</td>
</tr>
<tr>
<td>4. Maize based food</td>
<td>Tamales, pozole, taco, tlacoyo, sope, atole (maize-drink)</td>
<td>49.1</td>
</tr>
<tr>
<td>5. Fast food</td>
<td>Hotdog, pizza, hamburger</td>
<td>13.1</td>
</tr>
<tr>
<td>6. Alcoholic drinks</td>
<td>Beer, wine, spirits</td>
<td>4.2</td>
</tr>
<tr>
<td>7. Legumes</td>
<td>Beans, lentils, chick peas, soy</td>
<td>90.0</td>
</tr>
<tr>
<td>8. Fruit</td>
<td>Apple, banana, grapes, grapefruit, kiwi, lemon, melon, papaya, pear, pineapple, strawberry, watermelon, others.</td>
<td>93.3</td>
</tr>
<tr>
<td>9. Vegetables</td>
<td>Bell pepper, carrots, chili pepper, col, corn, cucumber, dark green vegetables, jicama, lettuce, tomato, zucchini, others.</td>
<td>97.6</td>
</tr>
<tr>
<td>10. Poultry and red meat</td>
<td>Chicken, beef, pork, lamb, entrails</td>
<td>86.4</td>
</tr>
<tr>
<td>11. Fish and sea food</td>
<td>Tuna, sardines, dry fish, fresh fish, sea food</td>
<td>34.4</td>
</tr>
<tr>
<td>12. Processed meat</td>
<td>Ham, sausages, bacon, chorizo</td>
<td>45.5</td>
</tr>
<tr>
<td>13. Milk</td>
<td>Fat free and low fat milk, whole milk</td>
<td>68.5</td>
</tr>
<tr>
<td>14. Eggs</td>
<td></td>
<td>75.8</td>
</tr>
<tr>
<td>15. Saturated fat</td>
<td>Oil, butter, margarine, mayonnaise, cream</td>
<td>34.2</td>
</tr>
<tr>
<td>16. Sugar and sweets</td>
<td>Sugar, candies, chocolate, jelly</td>
<td>74.3</td>
</tr>
<tr>
<td>17. Cookies</td>
<td>Sweet cookies, granola bars</td>
<td>32.6</td>
</tr>
<tr>
<td>18. Salty snacks</td>
<td>Corn snacks and chips</td>
<td>51.0</td>
</tr>
<tr>
<td>19. Industrialized sweet-drinks</td>
<td>All types of soda and industrialized juice</td>
<td>84.9</td>
</tr>
<tr>
<td>20. Non-industrialized sweet-drinks</td>
<td>Natural juice, water with sugar, coffee or tea with sugar</td>
<td>83.3</td>
</tr>
<tr>
<td>21. Milk with added sugar</td>
<td>Milk with sugar, honey or chocolate, Yakult</td>
<td>5.9</td>
</tr>
<tr>
<td>22. Drinks without energy</td>
<td>Coffee or tea without sugar, water, diet sodas</td>
<td>8.8</td>
</tr>
<tr>
<td>23. Dairy products</td>
<td>Yogurt, cheese</td>
<td>70.5</td>
</tr>
<tr>
<td>24. Sandwich</td>
<td>Sandwich and torta (baguette type)</td>
<td>36.5</td>
</tr>
<tr>
<td>25. Fried dishes (plant based)</td>
<td>Breaded or capped vegetables, fried banana, fried potatoes, potato-tortita</td>
<td>28.5</td>
</tr>
<tr>
<td>26. Sweet-bakery</td>
<td>Cakes, sweet bread, doughnut, churros, muffin</td>
<td>60.5</td>
</tr>
<tr>
<td>27. Supplements</td>
<td>NUTRISANO and NUTRIVIDA (dietary supplements administrated by the health ministry)</td>
<td>0.3</td>
</tr>
<tr>
<td>28. Soups</td>
<td>Vegetable soup, vegetables cream, fideo soup</td>
<td>77.3</td>
</tr>
<tr>
<td>29. Dry soups</td>
<td>Rice, pasta</td>
<td>68.6</td>
</tr>
<tr>
<td>30. Avocado and nuts</td>
<td>Avocado and oily seeds (nuts, almond, soy)</td>
<td>39.0</td>
</tr>
</tbody>
</table>
Supplementary Table S2: Prevalence ratios of overweight-obesity and stunting, and dietary patterns among Mexican adolescents. Not adjusted for EI:BMR ratio

<table>
<thead>
<tr>
<th>Dietary pattern</th>
<th>Total *</th>
<th>12-15 years †</th>
<th>16-19 years †</th>
<th>Boys ‡</th>
<th>Girls ‡</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=4,451)</td>
<td>(n=2,929)</td>
<td>(n=3,610)</td>
<td>(n=3,770)</td>
<td></td>
</tr>
<tr>
<td><strong>Overweight and obesity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-traditional &amp; breakfast/lunch-type</td>
<td>1.05 (0.99-1.11)</td>
<td>1.12 (1.03-1.21)</td>
<td>0.93 (0.84-1.02)</td>
<td>1.02 (0.94-1.11)</td>
<td>1.07 (0.99-1.16)</td>
</tr>
<tr>
<td>Western</td>
<td>1.05 (0.99-1.10)</td>
<td>1.09 (1.01-1.17)</td>
<td>0.96 (0.88-1.06)</td>
<td>1.13 (1.04-1.24)</td>
<td>0.98 (0.90-1.06)</td>
</tr>
<tr>
<td>Plant-based</td>
<td>0.95 (0.90-1.00)</td>
<td>0.96 (0.89-1.04)</td>
<td>0.93 (0.85-1.02)</td>
<td>0.96 (0.88-1.04)</td>
<td>0.95 (0.88-1.02)</td>
</tr>
<tr>
<td>Protein-rich</td>
<td>0.94 (0.89-0.99)</td>
<td>0.92 (0.86-0.98)</td>
<td>0.98 (0.88-1.08)</td>
<td>0.99 (0.90-1.09)</td>
<td>0.90 (0.83-0.97)</td>
</tr>
<tr>
<td><strong>Stunting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-traditional &amp; breakfast/lunch-type</td>
<td>0.86 (0.79-0.94)</td>
<td>0.87 (0.78-0.98)</td>
<td>0.85 (0.76-0.94)</td>
<td>0.87 (0.80-0.95)</td>
<td>0.86 (0.75-0.97)</td>
</tr>
<tr>
<td>Western</td>
<td>0.91 (0.84-0.98)</td>
<td>0.94 (0.85-1.04)</td>
<td>0.89 (0.79-0.99)</td>
<td>0.90 (0.81-1.01)</td>
<td>1.01 (0.91-1.11)</td>
</tr>
<tr>
<td>Plant-based</td>
<td>0.95 (0.90-1.00)</td>
<td>0.96 (0.89-1.04)</td>
<td>0.93 (0.85-1.02)</td>
<td>0.96 (0.88-1.04)</td>
<td>0.90 (0.83-0.98)</td>
</tr>
<tr>
<td>Protein-rich</td>
<td>1.01 (0.95-1.07)</td>
<td>0.98 (0.90-1.08)</td>
<td>1.03 (0.95-1.12)</td>
<td>1.05 (0.95-1.16)</td>
<td>1.05 (0.95-1.17)</td>
</tr>
</tbody>
</table>

* Model adjusted for sex, living area, socioeconomic status, region, age
† Model adjusted for sex, living area, socioeconomic status, region and
‡ Model adjusted for living area, socioeconomic status, region, age. None of the Prevalence Ratios were adjusted for EI:BMR ratio, for adjusted prevalence ratios see Table 4 and 6.
### Supplementary Table S3: Total energy and nutrient intake across quartiles (Q) of the four dietary patterns.

<table>
<thead>
<tr>
<th>Non-traditional &amp; breakfast/lunch-type</th>
<th>Q1 (0.42)</th>
<th>Q2 (0.37)</th>
<th>Q3 (0.37)</th>
<th>Q4 (0.40)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELBMR ratio (SD)</td>
<td>1.08</td>
<td>0.85</td>
<td>0.88</td>
<td>1.01</td>
<td>0.0001</td>
</tr>
<tr>
<td>Energy kcal (SD)</td>
<td>2035.1</td>
<td>1602.8</td>
<td>1627.6</td>
<td>1935.3</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Protein % (SD)</td>
<td>10.4</td>
<td>10.7</td>
<td>11.6</td>
<td>12.6</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Fat % (SD)</td>
<td>22.3</td>
<td>24.9</td>
<td>27.7</td>
<td>29.6</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Carbohydrates % (SD)</td>
<td>67.2</td>
<td>64.1</td>
<td>60.6</td>
<td>57.7</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Fiber g (SD)</td>
<td>27.3</td>
<td>19.4</td>
<td>17.4</td>
<td>18.4</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Sugar g (SD)</td>
<td>13.7</td>
<td>13.5</td>
<td>16.5</td>
<td>21.2</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Ca mg (SD)</td>
<td>855.2</td>
<td>677.9</td>
<td>731.3</td>
<td>1075.3</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Fe mg (SD)</td>
<td>13.7</td>
<td>9.9</td>
<td>9.9</td>
<td>12.6</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Zn mg (SD)</td>
<td>7.3</td>
<td>6.0</td>
<td>6.5</td>
<td>8.6</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Vit C mg (SD)</td>
<td>54.7</td>
<td>60.7</td>
<td>70.2</td>
<td>97.0</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Vit A</td>
<td>2106.0</td>
<td>2642.2</td>
<td>3162.8</td>
<td>4928.1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Folate</td>
<td>236.1</td>
<td>192.7</td>
<td>197.9</td>
<td>248.6</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Vit B12</td>
<td>1.3</td>
<td>1.5</td>
<td>2.0</td>
<td>3.2</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Western</th>
<th>Q1 (0.37)</th>
<th>Q2 (0.35)</th>
<th>Q3 (0.34)</th>
<th>Q4 (0.37)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELBMR ratio (SD)</td>
<td>0.85</td>
<td>0.95</td>
<td>1.198</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Energy kcal (SD)</td>
<td>1585.8</td>
<td>1576.2</td>
<td>1976.4</td>
<td>2301.3</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Protein % (SD)</td>
<td>11.2</td>
<td>11.3</td>
<td>11.3</td>
<td>11.1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Fat % (SD)</td>
<td>21.3</td>
<td>21.2</td>
<td>28.1</td>
<td>31.1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Carbohydrates % (SD)</td>
<td>67.2</td>
<td>63.6</td>
<td>60.5</td>
<td>57.6</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Fiber g (SD)</td>
<td>21.7</td>
<td>19.4</td>
<td>19.7</td>
<td>20.6</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Sugar g (SD)</td>
<td>8.2</td>
<td>13.7</td>
<td>19.2</td>
<td>29.3</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Ca mg (SD)</td>
<td>837.2</td>
<td>762.1</td>
<td>808.4</td>
<td>896.8</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Fe mg (SD)</td>
<td>10.2</td>
<td>9.9</td>
<td>11.4</td>
<td>14.3</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Zn mg (SD)</td>
<td>6.2</td>
<td>6.2</td>
<td>7.2</td>
<td>9.2</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Vit C mg (SD)</td>
<td>77.8</td>
<td>61.8</td>
<td>66.3</td>
<td>77.5</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Vit A</td>
<td>3600.3</td>
<td>2961.0</td>
<td>2922.1</td>
<td>3351.3</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Folate</td>
<td>201.9</td>
<td>197.0</td>
<td>218.6</td>
<td>257.0</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Vit B12</td>
<td>1.3</td>
<td>1.6</td>
<td>2.0</td>
<td>3.0</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plant-based</th>
<th>Q1 (0.30)</th>
<th>Q2 (0.30)</th>
<th>Q3 (0.31)</th>
<th>Q4 (0.30)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELBMR ratio (SD)</td>
<td>0.75</td>
<td>0.99</td>
<td>1.31</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Energy kcal (SD)</td>
<td>1432.2</td>
<td>1846.3</td>
<td>2448.2</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Protein % (SD)</td>
<td>11.6</td>
<td>11.1</td>
<td>10.9</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Fat % (SD)</td>
<td>27.4</td>
<td>26.2</td>
<td>26.5</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Carbohydrates % (SD)</td>
<td>60.9</td>
<td>62.1</td>
<td>62.5</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Fiber g (SD)</td>
<td>15.9</td>
<td>21.0</td>
<td>28.1</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Sugar g (SD)</td>
<td>9.2</td>
<td>17.2</td>
<td>24.6</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Ca mg (SD)</td>
<td>643.5</td>
<td>852.8</td>
<td>1123.3</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Fe mg (SD)</td>
<td>9.5</td>
<td>11.6</td>
<td>15.2</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Zn mg (SD)</td>
<td>5.9</td>
<td>7.2</td>
<td>9.6</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Vit C mg (SD)</td>
<td>35.9</td>
<td>79.8</td>
<td>147.3</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Vit A</td>
<td>1719.7</td>
<td>3676.1</td>
<td>6370.9</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Folate</td>
<td>1783.3</td>
<td>2183.3</td>
<td>296.3</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Vit B12</td>
<td>1.6</td>
<td>2.0</td>
<td>1.9</td>
<td>0.0001</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protein-rich</th>
<th>Q1 (0.36)</th>
<th>Q2 (0.37)</th>
<th>Q3 (0.39)</th>
<th>Q4 (0.39)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELBMR ratio (SD)</td>
<td>0.83</td>
<td>0.89</td>
<td>0.97</td>
<td>1.17</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Energy kcal (SD)</td>
<td>1434.2</td>
<td>1637.2</td>
<td>1805.0</td>
<td>2226.1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Protein % (SD)</td>
<td>10.3</td>
<td>11.5</td>
<td>11.5</td>
<td>12.0</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Fat % (SD)</td>
<td>25.3</td>
<td>27.0</td>
<td>28.1</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Carbohydrates % (SD)</td>
<td>64.1</td>
<td>61.4</td>
<td>59.8</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Fiber g (SD)</td>
<td>15.9</td>
<td>21.2</td>
<td>27.0</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Sugar g (SD)</td>
<td>18.1</td>
<td>15.5</td>
<td>17.2</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Ca mg (SD)</td>
<td>726.1</td>
<td>834.1</td>
<td>973.5</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Fe mg (SD)</td>
<td>9.3</td>
<td>11.9</td>
<td>14.8</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Zn mg (SD)</td>
<td>5.7</td>
<td>7.4</td>
<td>9.5</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Vit C mg (SD)</td>
<td>56.1</td>
<td>76.7</td>
<td>85.6</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Vit A</td>
<td>2257.0</td>
<td>3522.7</td>
<td>4444.3</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Folate</td>
<td>1573.5</td>
<td>2296.6</td>
<td>3085.3</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>Vit B12</td>
<td>1.5</td>
<td>2.0</td>
<td>2.6</td>
<td>0.0001</td>
<td></td>
</tr>
</tbody>
</table>

Q-quartile; median, SD- standard deviation; 1,2,3,4 indicate statistically significant results between quartiles (p-value <0.05)