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Evaluation of the diet in Danish adults using a diet quality index

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AIM

The aim of the present study was to describe the habitual diet in Danish adults, and to evaluate the overall quality of the diet using a diet quality index based on the National Food-Based Dietary Guidelines (FBDG), which include seven guidelines regarding diet and one regarding physical activity.

METHODS

Data from the Danish National Survey of Diet and Physical Activity 2003-08, including 3,354 individuals aged 18-75 years were used. The diet quality index was constructed based on six foods and nutrients (see below); a score for each of the six components was calculated as the ratio between actual intake and the recommended intake, e.g. If an individual eats 500 g fruit and vegetables per day, the score is 500/600=0.83. The scores were in the range from 0 to 1 with zero assigned to an intake most far from the guideline, and 1 complying with the recommended intake, e.g. 1 complying with the National Food-Based Dietary Guidelines (FBDG), which include seven dietary and one regarding physical activity.

The scores for each food/nutrient were summed. Individuals were assigned to an intake most far from the guideline, and 1 complying with the recommended intake, e.g. If an individual eats 500 g fruit and vegetables per day, the score is 500/600=0.83. The scores were in the range from 0 to 1 with zero assigned to an intake most far from the guideline, and 1 complying with the guidelines. The scores for each food/nutrient were summed. Individuals were divided into groups according to quartiles of the diet quality index, and food and nutrient intakes were evaluated in each of the four groups.

RESULTS

Macronutrients distribution did not meet recommendations, as energy from total fat and especially saturated fat was too high in all groups.

<table>
<thead>
<tr>
<th>Food-based dietary guidelines included in the diet quality index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eat less fat – particularly fats from meat and dairy products</td>
</tr>
<tr>
<td>Eat potatoes, rice or pasta and wholemeal bread – every day</td>
</tr>
<tr>
<td>Eat fruit and vegetables every day – 6 portions/pieces per day</td>
</tr>
<tr>
<td>Fish and fish products several times a week</td>
</tr>
<tr>
<td>Limit intake of sugar – particularly from soft drinks, confectionary and cakes</td>
</tr>
</tbody>
</table>

CONCLUSION

The diet quality index is a useful tool in assessing food and nutrient intake in individuals with high vs. low degree of compliance towards the dietary guidelines, and provides a valuable tool in future studies investigating variations in dietary intakes in relation to lifestyle, demographic and regional differences in Denmark.