Development and validation of a Meal Index of dietary Quality (Meal IQ) to assess the dietary quality of school lunches

Objective School lunch programmes are one strategy to promote healthier dietary habits in children, but better evaluation tools for assessing the dietary quality of such programmes are needed. The aim of the present study was to develop and validate a simple index to assess the dietary quality of school lunches for children aged 7–13 years. Design A Meal Index of dietary Quality (Meal IQ) was developed to consist of seven components (nutrients and food groups) based on dietary issues for children aged 7–13 years, which were identified in a national dietary survey. The Meal IQ was validated against calculated nutrient contents of school lunches both provided by the school and brought from home. Setting At eight public schools from all over Denmark, data were collected on 191 individual lunches brought from home (which is most common in Denmark) and thirty-one lunches provided as part of a school food programme. In addition thirty-two lunches provided at eighteen other public schools were included. Subjects A total of 254 school lunches. Results A higher Meal IQ score was associated with a higher overall dietary quality, including lower contents of fat, saturated fat and added sugars, higher contents of fibre, various vitamins and minerals, and more fruits, vegetables and fish. Conclusions The Meal IQ is a valid and useful evaluation tool for assessing the dietary quality of lunches provided by schools or brought to school from home.

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