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Dietary adequacy of lunch meals served and consumed at Danish daycare centers

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Background and aims: The official Danish dietary recommendations for daycare food are under revision due to updated Nordic Nutrient Recommendations 2012, making a comparison of the food consumption in daycare centers with the suggested recommendations required.

The aims of the study were: 1) to compare children’s lunch meal intake at Danish daycare centers with the suggested dietary recommendations and 2) to examine the relation between the nutritional content of the served and consumed lunch.

Methods: Data were collected from 8 daycare centers in rural areas of Denmark, serving in house prepared lunch. The food served for lunch and the food waste were weighed at group level for five successive days (n=40 lunch meals). The nutritional composition of served and consumed meals was calculated as a mean per child, using GIES (General Intake Estimation System). Ratios between food consumed and served were calculated.

Results: The children’s mean (SD) age were 4.8 years (0.9) and the mean group size was 26 (11). The children consumed on average 1346 kJ (365), which was close to the recommended average of 1350 kJ. However, the energy content varied considerably from 784 – 2192 kJ. The percent energy from fat (E%) was on average 32 (8) and therefore within the recommended range of 32-34 E%, but the energy from saturated fat was above the recommended <10 E% (11 E%(6)). The macronutrient distribution of the consumed food was well predicted by the served food; the mean ratios were 0.92-1.04, but the ratio of the energy consumed was 0.73.

Conclusion: The children’s mean intake of energy and macronutrients generally complied well with the recommendations, but the variation in energy content and the energy from saturated fat exceeded the recommendations. Moreover the results indicated that the energy distribution of the served food could be an indicator of consumption, but precaution had to be taken when looking at the energy content.

Disclosure of Interest: None to declare