The Nutritional Quality of Lunch Meals Eaten at Danish Worksites

Monitoring the nutritional environment is important to help inform future initiatives to improve access to healthy foods. The objective was to examine the nutritional quality of lunch meals eaten at 15 worksite canteens and then to compare with results from a study conducted 10 years before. The duplicate-portion-technique with subsequent chemical analysis was used to quantify 240 customers’ lunch intake. Estimated mean energy intake was 2.1 MJ/meal (95% confidence interval (CI): 1.9 to 2.4 g/meal) and estimated energy density 599 kJ/100 g (95% CI 550 to 653 kJ/100 g). Energy density of the male participants’ meals were significantly higher compared with the female participants' meals (+55 kJ/100 g, 95% CI: +12 to +98 kJ/100 g, p = 0.012), whereas no gender differences were found in macronutrient distribution or fruit and vegetable intake. Compared to the study conducted 10 years before several significant changes were observed, including an increase in mean estimated intake of fruit and vegetables (+38 g/meal, 95% CI: 19 to 57 g/meal, p <0.001) and a decrease in energy density (-76 kJ/100 g, 95% CI: -115, -37 kJ/100 g, p <0.001). In conclusion, this study suggests an equalization of gender differences in fruit and vegetable intake and a possible improvement in the nutritional quality of canteen lunch meals over a 10-year period.