

**Background:** The prevalence of obesity among children is increasing in the Netherlands. Intensive treatment for severe obesity in children is required, but evidence-based cost-effective options are not yet available.

**Aim:** To compare the cost-effectiveness of two intensive one-year inpatient interventions and outpatient treatment in severely obese children and adolescents. The two inpatient interventions are different with respect to the length of the hospitalization period.

**Design:** A randomized clinical trial with three study arms.

**Setting and subjects:** Eighty children aged 8–12 years and adolescents aged 12–18 years admitted to the KBCZ in Hilversum, the Netherlands, with therapy resistant severe obesity (SDS-BMI > 3.0 or SDS-BMI > 2.3 with obesity-related comorbidity).

**Interventions:** Group A receives inpatient treatment for 6 months during weekdays. Group B receives inpatient

treatment for 2 months, followed by biweekly hospital admissions for 2 d during 4 months. In the second half year there are six sessions of 2 d aimed at reinforcement of learned behaviour in both groups. Both intervention programs are intensive lifestyle programs with emphasis on nutrition, exercise and cognitive behavioural therapy. In both programs active participation of the parents is required. Group C receives usual care for a year after which they are randomized to treatment A or B.

**Preliminary results:** Mean baseline SDS-BMI for adolescents was 3.4 and 3.3 for children. High triglycerides were observed in 6.7% and 5% of adolescents and children, respectively. Low HDL-cholesterol was observed in 56.7% and 60% of adolescents and children. Hypertension was more prevalent in adolescents (53.6% *v.* 10.5%,  $P < 0.01$ ). Intensive treatment is warranted.

doi:10.1017/S1368980012002418

## 67 – ‘<http://HANCPTool.org>’ as the first step to school menu reformulations

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**Introduction:** Diet-related diseases are becoming growing epidemics and are major contributors to the leading causes of childhood unhealthiness in Europe.

**Rationale:** Obesity and weight-problem prevention by stimulating food reformulation to modify school diets by reducing the contents of saturated fatty acids (SFA), sodium (salt) and free sugars (extrinsic sugars).

**Method:** Development of a new tool based on the classic HACCP (Hazard Analysis and Critical Control Points) to translate scientific knowledge into operational terms:

- ‘FNO’: Food Nutritional Objective: the maximum concentration of a nutritional risk.

- ‘NPC’: Nutritional Performance Criteria: the desired concentration reduction of a nutritional risk.
- ‘WONRAC’: Workplace Nutritional Risk Assessment and Control: points where something is added or a process made that can alter the contents monitored by Google analytics to bring about an awareness of the Health Impact Assessment (HIA).

**Results:** The newly developed tool, HANCPTool (Hazard Analysis Nutritional Control Points) is presented in the web2.0 area of <http://www.foodprofit.org>

**Conclusions:** This approach facilitates the measurement of nutrients in order to understand the leading problem, improve them via reformulation and predict the HIA consequences of school menus.

doi:10.1017/S136898001200242X

## 68 – EMPOWER – empowering parents to prevent obesity at weaning – exploratory research

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