

BMI cut-off for 95<sup>o</sup> and 99<sup>o</sup> centile were used for defining obesity and severe obesity, respectively.

**Results:** Consent was obtained for 97% of sampled children, whose mean age was 8 years and 10 months. According to WHO standards, 5.4% (95% CI 5.1, 5.7) of children were classified as severely obese and they represented 25% of all obese children. Children with severe obesity had a mean BMI of 26.8 (95% CI 26.7, 26.9) and median BMI of 26.4. Among the related factors considered in the study, a multivariate analysis showed that male sex (OR 3.2; 95% CI 2.8, 3.7), ≤8 years of maternal education

(OR 2.8; 95% CI 2.2, 3.6) and living in the southern regions of the country (OR 2.7; 95% CI 2.2, 3.2) were independent risk factors for severe obesity. Among mothers of children severely obese only 25% showed a right awareness of such a high-grade weight excess. New data from *OKkio alla Salute* 2010 will be published on 12th of October and will be included in the final communication.

**Conclusions:** It is time for Action!! Funding Research relating to this abstract was funded by the Italian Ministry of Health/Centre for Disease Prevention and Control, Chapter 4393/2005 – CCM.

doi:10.1017/S1368980012001772

### 03 – Prediction of lean body: comparison between two anthropometric indicators

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The rate of physical growth development is an important criterion for the complex assessment of health of children and adolescents. Heredity, environment, work and study conditions, nutrition and physical activity influence upon the growth development of schoolchildren.

**Method:** In all, 1386 schoolchildren aged between 6 and 16 years were examined: 714 boys and 672 girls. The harmonic physical growth development was determined amongst 1386 (68.3%) of examined children. Disharmonic development with the acceleration of biological development was determined amongst 336 (16.5%) schoolchildren whereas the deceleration of biological development was found amongst 132 (6.5%) children. Sharply disharmonic physical growth development was detected in 176 (8.7%) cases where sixty-four (3.2%) children have manifested deceleration of the biological development and 112 (5.5%) have accelerated development.

**Results:** The harmonic growth development was observed for 66% or more examined children only for the age 9–15 years. Only 32% of 7-year-old children and 22% of 8-year-old children have harmonic growth development. There were 47% and 53% of harmonically developed individuals in the groups of 6- and 16-year-old children correspondingly. The highest rate of disharmonic physical growth development was characteristic for 6-year-old children – 41.2% (due to excessive fat deposits – 29.4%, due to the deficiency of weight – 11.8%). Children aged 7 years have disharmonic growth development in 35.7% cases, where the excessive body weight is detected for 28.6%, and deficient weight – for 7.1%. Thus the main reason for disharmonic growth development was the excessive fat deposits and only the group of 9-year-old children had more cases of the deficient weight.

**Conclusions:** Described anomalies of the physical growth development could be related to the unfavourable impact of the environmental factors.

doi:10.1017/S1368980012001784

### 04 – Prevalence of overweight and obesity in elementary-school children from the Belgian province of Liege

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