

Obesity is a major health risk and is increasing worldwide. So, it is important to have data. Since 1997, the *Observatoire de la Santé du Hainaut* has a partnership with school medical services (Services PSE or Centres PMS) to make survey on a sample of young people (9–17 years). Surveys are completed every other year. Around twenty schools are randomly drawn for each level using a quota method. One class is selected in each school. Children are surveyed during their medical school examination at 5th or 6th grade in primary school and 2nd and 4th grade in secondary school. Children answer a self-questionnaire and weight, height, waist circumference and blood pressure are measured. Children were classified as normal, overweight or obese using International Obesity Task Force cut-off points. In 2004, 16.3% of children were

overweight and 5.6% were obese. In total, more than one out of five children exceeds recommended limits of BMI. Multivariate analysis shows that obesity is significantly influenced by socio-economic factors: profession of the father (adjusted OR: 1.83 unqualified manual workers *v.* highly skilled job) and the scholar orientation (adjusted OR: 1.60 qualifying *v.* transitional teaching). Overweight follows the same pattern. Poster will also present the 2009 update of these data. Data show that overweight and obesity are influenced by socio-economic factors. This relationship is particularly important in the province of Hainaut where socio-economic situation is unfavourable and unemployment is high. This dimension should be included in any health education and health promotion programme.

doi:10.1017/S1368980012001838

## 09 – BMI-for-age and developmental status of a community sample of 6–8-year-old children in rural Ireland

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**Introduction:** Childhood obesity has negative pervasive effects on health and social functioning. The present study examines the prevalence of clinically obese children in a community sample of children in the early years of school and their development profile at the start and end of the school year.

**Method:** A community sample of 217 children aged 6–8 years enrolled in mainstream schools in rural Ireland were measured for BMI, motor skill development level, behaviour and psychological well-being at the start and end of the school year.

**Results:** Fifty-two (24%) children were identified as clinically obese with a BMI-for-age and gender on the

85th centile or above. Four children had impaired motor skill development. None of the groups were identified by either teachers or parents as having behavioural problems. Class teachers rated 22 (42%) and parents rated 26 (50%) of the children as being at risk for psychological problems. None of the children had been referred to or were attending any health or support services.

**Conclusions:** Motor skill development is not adversely affected by obesity for children starting school. However, the psychological well-being of this group of children in the early years of education is of concern. Further investigation of the impact of poor psychological status on motivation and participation in school and physical activity is needed.

doi:10.1017/S136898001200184X

## 10 – Time trend in height, weight and obesity prevalence in Cameroonian children aged 5–16 years: 1998–2007

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**Introduction:** The aim of the present study was to evaluate the changes in height, weight and in the prevalence of overweight and obesity between 1998 and 2007 in Cameroonian children.

**Method:** Two community-based cross-sectional studies were conducted in Cameroon in 1998 (rural,  $n$  825; urban,  $n$  675) and 2007 (rural,  $n$  1427; urban,  $n$  625) in children aged 5–16 years. Body weight (kg) and height (m) were measured, and BMI was calculated ( $\text{kg}/\text{m}^2$ ). The prevalence of overweight and obesity was determined according to the gender- and age-specific cut-offs of the new international reference (International Obesity Task Force).

**Results:** There was a slight but significant difference in the age of participants between the two study periods. The age-

adjusted height, weight and BMI increased significantly from 1998 to 2003 in rural and urban areas. This increase was higher in the rural area for height and weight. In rural area, the prevalence of overweight + obesity increased from 4.6% to 10.9% ( $P < 0.001$ ) in girls and from 3.3% to 7.3% ( $P < 0.02$ ) in boys. In urban area, the prevalence of overweight + obesity increased from 7.3% to 11.4% in girls and from 3.0% to 9.3% in boys. However, in urban area, the increase reached the significance level only in boys ( $P < 0.001$ ).

**Conclusions:** Over a 10-year period, there was an increase in height and BMI in Cameroonian boys and girls. These results show that the increase in the prevalence of adiposity in Cameroon is accompanied by a global trend of accelerated growth, particularly marked in rural area.

doi:10.1017/S1368980012001851

## 11 – The factors affecting obesity

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**Introduction:** Obesity in primary educational level is generally accepted as one of the most serious problems, due to its effects on the long-term complications of physical and mental health. The purpose of the present study was to examine the factors that affect obesity of the students aged 9–12 years of two primary schools in Nicosia, in order to bring the problem under control by shifting their diet towards healthy solutions and exercise.

**Materials/method:** A total of 100 pupils of two primary schools of Nicosia (urban and rural area) were randomly selected to participate by answering a questionnaire of personal characteristics, socio-economic status and eating habits. Anthropometric data were obtained (height and weight) in order to calculate BMI and categorized children to (i) normal

BMI, (ii) overweight children and (iii) obese children. SPSS package was used for the data analysis and proceeding.

**Results:** Children with more hours of television viewing were found to have higher levels of BMI. Unhealthy nutrition habits had a positive correlation with BMI; however, physical exercise had a negative correlation. No statistically significant difference was found between sex, age, place of residence, socio-economic status and children's BMI.

**Conclusions:** The results of this research are similar with other published reports showing that the most important factors affecting obesity of children aged 9–11 years in two elementary schools in Nicosia, are exercising, eating habits and television viewing. Contributions should be done, based on these results, for further investigations.

doi:10.1017/S1368980012001863

## 12 – Secular trends of overweight and obesity in Polish schoolchildren from rural area

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**Aim:** The prevalence of overweight in children has markedly increased over the past few decades worldwide. The study aim was to monitor 10 years' trend for childhood overweight/obesity prevalence in schoolchildren from rural area in South-East Poland. BMI mean values were significantly

higher in girls' group studied in 1998 compared with 2008 group. For individual age groups mean BMI values of girls studied in 1998 were significantly higher than those of girls studied in 2008 aged 10–14 years. Prevalence of overweight in boys in the 2008 study was significantly higher in