

Introduction: Depending on dwelling place and socio-economic factors, children experience different prerequisites for health. In the present study, we gathered information about the national Swedish prevalence of overweight and obesity among 7–9-year-old children. Further, the impact of level of urbanisation, and level of education in the children's living areas, on prevalence of overweight and obesity was investigated.

Method: In spring 2008, 4538 children in ninety-four proportionally randomly selected primary schools in Sweden underwent anthropometric examinations by trained staff. Overweight, pre-obesity and obesity were defined using the International Obesity Task Force reference. School areas were classified based on level of urbanisation and area-level education.

Results: Overweight was found in 17% of the children, including 14% pre-obese and 3% obese. For overweight,

OR with 95% CI was 1.33 (0.92, 1.88) and 1.61 (1.25, 2.07) in semi-urban and rural areas, respectively, relative to urban areas. After adjusting for area-level education, differences by degree of urbanisation were greatly attenuated and non-significant. For obesity the urban–rural gradient was observed in boys only and remained after adjustment for area-level education. For area-level education, risk estimates were significantly elevated, OR = 1.75 and 2.21 for overweight and OR = 2.62 and 3.69 for obesity, in medium and low education areas, respectively, when compared with high education areas.

Conclusions: The present study confirms an urban–rural gradient, for overweight in both boys and girls, but for obesity only in boys. The socio-economic gradient based on area-level education was more robust, unaffected by gender and could partly explain the observed urban–rural differences.

doi:10.1017/S1368980012001814

07 – Sociodemographic and lifestyle factors associated with overweight in a representative sample of 11–15-year-olds in France

M Dupuy¹, N Ahluwalia^{1,2}, E Goddeau¹ and C Vignes¹

¹INSERM U558, Toulouse, France: ²Faculty of Medicine, University of Paris 13, CRNH IdF, France

Introduction: Lifestyle factors can interact to influence overweight. Comprehensive studies linking overweight, concomitantly with several demographic and potentially modifiable lifestyle factors and health-risk behaviours, have been limited in adolescents – an age-group characterized by changes in lifestyle behaviours, which shows high overweight prevalence.

Method: Self-declared data were obtained from a nationally representative sample of 11–15-year-olds (*n* 7154) concerning their age, height, weight and lifestyle factors. Overweight was defined using International Obesity Task Force reference. The multivariate association of overweight with several sociodemographic and lifestyle factors was examined with logistic regression.

Results: The adjusted OR (AOR) for the association with overweight in boys were: 1.53 (95% CI 1.05, 2.22) for low family affluence; 0.65 (0.51, 0.83) for eating breakfast

daily; 0.71 (0.56, 0.91) for moderate-to-vigorous physical activity (MVPA); and 0.70 (0.55, 0.90) for vigorous physical activity (VPA). For boys, MVPA compensated the effect on overweight of TV watching during the week. For girls, the AOR were: 0.59 (0.42, 0.82) for age (15 *v.* 11 years); 2.28 (1.58, 3.29) for low family affluence; 0.62 (0.42, 0.90) for MVPA; 0.75 (0.56, 0.99) for VPA; and 1.92 (1.42, 2.59) for TV viewing. Fruit and vegetable intake, computer and videogames use, smoking and alcohol consumption were not associated with overweight.

Conclusions: Family affluence and moderate/vigorous physical activity were negatively associated with overweight in this nationally representative sample of youth. Breakfast skipping and watching TV were the strongest lifestyle correlates of overweight in boys and girls, respectively. These findings could serve to prioritize areas for developing actions and targeted messages for overweight prevention in youth.

doi:10.1017/S1368980012001826

08 – Influence of socio-economic factors on obesity prevalence among children and teens in Hainaut

C Massot, V Wathieu and L Berghmans

Observatoire de la Sante du Hainaut

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

A Connell¹, PJ Smyth² and C MacDonncha²

¹Department of Physiotherapy, University of Limerick, Ireland: ²Department of Physical Education and Sports Science, University of Limerick, Ireland

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

L Fezeu^{1,2}, C Sobgui³, G Mbeh², G Ngufor², S Sobngwi⁴, F Assah², A-P Kengne⁵, C Czernichow⁶ and J-C Mbanya²

¹INSERM U557, INRA U1125, CNAM, Université Paris 13, Centre de Recherche en Nutrition Humaine d'Île-de-France; Unité de Recherche en Épidémiologie Nutritionnelle (UREN), Bobigny, France: ²Health of Population in Transition Research Group, Faculty of Medicine and Biomedical Sciences, University of Yaounde I, Cameroon: ³Centre for Food and Nutrition Research, IMPM, Yaounde, Cameroon: ⁴Institute of Health and Society, Newcastle University, Newcastle upon Tyne, UK: ⁵The George Institute for International Health, The University of Sydney, Australia: ⁶Université Paris 13 & Département de Santé Publique, Hôpital Avicenne (AP-HP), Bobigny, France