

nervous trouble (OR 4.7 (4.1 to 5.4), OR 4.1 (3.4 to 4.8), respectively); odds of neglect were increased for those in institutional care (OR 3.8 (2.7 to 5.4)) or with a family member in prison (OR 3.8 (3.0 to 4.8)).

**Conclusion** Forms of maltreatment co-occurred in the cohort, such that cumulative exposure to neglect increased odds of abuse. Maltreated children had elevated exposure to household dysfunction.

### P19 SOCIOECONOMIC DISPARITIES IN TRAJECTORIES OF ADIPOSITY ACROSS CHILDHOOD

doi:10.1136/jech.2010.120477.19

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**Objective** Socioeconomic inequalities in obesity are consistently observed in high-income countries, with lower socioeconomic groups tending to be more adipose amongst both adults and children. The development of such inequalities across childhood, however, has not been studied using longitudinal data.

**Design** Using longitudinal data from a prospective birth cohort study, we modelled individual trajectories of adiposity from birth to 10 years using random effects linear spline models, and estimated differences in trajectories by socioeconomic position (measured by maternal education). Trajectories were modelled separately for boys and girls.

**Setting** Avon Longitudinal Study of Parents and Children, South West England.

**Participants** Participants were born in 1991/1992.

**Main Outcome Measure** Ponderal index (PI, kg/m<sup>3</sup>, N=12 246) from birth to 2 years and body mass index (BMI, kg/m<sup>2</sup>, N=11 380) from 2 to 10 years. Height and weight measures were from research clinics, health records, and parent-completed questionnaires; trajectory models included an indicator of measurement source to account for reduced accuracy of parent-reported measurements.

**Results** There was little socioeconomic patterning of PI from birth to 2 years. Socioeconomic differences in BMI began to emerge by 4 years old, and widened with increasing age. Amongst girls there was a clear gradient across all categories of maternal education by age 8, with daughters of more educated women being less adipose. Amongst boys, sons of degree educated women had lower BMI, but there was little difference between the three lower maternal education categories. By 10 years old the mean BMI difference between the highest and lowest education category was 0.38 kg/m<sup>2</sup> for boys and 0.89 kg/m<sup>2</sup> for girls. The results imply that interventions to prevent inequalities in childhood obesity should begin in pre-school years.

### P20 DESCRIPTION OF DIETARY INTAKES OF ACRYLAMIDE IN THE BORN IN BRADFORD BIRTH COHORT STUDY

doi:10.1136/jech.2010.120477.20

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**Background** Compounds created during the cooking and processing of food may be associated with to future child health if consumed

during pregnancy. One such compound is acrylamide, which has been suggested as a potential dietary carcinogen, and is formed during the cooking of starchy foods. Little information is available on intake during pregnancy.

**Objective** To estimate intakes of the dietary compound acrylamide during pregnancy and describe the association of intakes with maternal age in years (<20, 20–39, 40+), ethnicity and quintile of deprivation when classified using the index of multiple deprivation (IMD07).

**Design** Data were collected using a Food Frequency Questionnaire (FFQ) within the Born in Bradford multi-ethnic birth cohort study carried out in the city of Bradford, UK. The FFQ was given to all women recruited into Born in Bradford between September 2007 and July 2009 and completed at between 28–32 weeks of pregnancy. Participants were asked to self-complete information on the frequency of intakes for selected food items. Values for acrylamide intake were derived using estimated European exposure values taken from the literature within different food groupings. Values of acrylamide consumption were grouped into quintiles. Multivariate logistic regression was then used to investigate maternal characteristics associated with the highest quintile of acrylamide consumption.

**Results** 5294 women were recruited between September 2007 and July 2009 and 4212 (79.5%) completed the FFQ. Overall estimated mean intake of acrylamide was 35.5 µg/day (SD: 27.2). French fries (31.1%), toast (18.3%) and crisps (12.2%) made the largest contributions to overall intake levels. Maternal characteristics associated with the highest quintile of acrylamide intake (>52.4 µg/day) was an age less than 20 years old (OR: 2.0, 95% CI 1.6 to 2.5), those aged 40 and over were less likely to be in this quintile (OR: 0.3, 95% CI 0.1 to 0.7) when compared to pregnant women aged 20–39 years. There was a significant interaction between ethnicity and deprivation levels (p=0.01) with pregnant women of white ethnicity showing an increasing trend of being in the highest quintile of intake with increasing deprivation score whereas for women of south Asian ethnicity there was no significant relationship between deprivation and acrylamide intake.

**Conclusion** Intakes of the dietary contaminant acrylamide during pregnancy were found to vary according to maternal age, ethnicity and deprivation levels. This may have implications for the targeting of public health messages if there are future findings which lead to recommendations for reductions in intake.

### P21 INFLUENCE OF LIFE-COURSE SOCIO-ECONOMIC POSITION ON PAIN INTERFERENCE IN A PROSPECTIVE COHORT STUDY OF OLDER ADULTS

doi:10.1136/jech.2010.120477.21

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**Objective** Pain that interferes with daily activities is the dominant cause of locomotor disability in older people. The objective of this study was to determine the influence of different trajectories of life-course socio-economic position (SEP) on pain interference in a population of older adults.

**Design** Prospective cohort study.

**Setting** General population in North Staffordshire, UK.

**Participants** All patients aged 50+ registered with three different general practices were sent a baseline postal questionnaire. Responders consenting to further contact were followed up twice. Ethical approval was granted for all stages of the study.

**Main Outcome** Pain interference measured using an SF-36 item, asking how much pain interfered with normal work and housework during the last 4 weeks. Response categories dichotomised into