Introduction
Hyperhomocysteinemia has been associated with ischaemic heart disease and stroke. Dietary intake of folate and other vitamins is a major determinant of blood homocysteine concentration. The objective of this study is to analyse the plasma homocysteine concentrations in young adults who have been followed since birth. In addition, homocysteine concentrations are presented in accordance with the main dietary patterns previously identified in this cohort.

Methods
The 1982 Pelotas birth cohort included 5914 children who were born in three municipalities in a city of Southern Brazil (Pelotas). In 2004–2005, members of this cohort were interviewed and blood was collected in 5827 subjects. Food frequency questionnaire was applied in the interview and three main dietary patterns were defined by principal component analysis: common Brazilian (CB), processed food (FF) and vegetable/fruit (VF). Serum levels of homocysteine were determined using immunoassay analyser.

Results
The mean of homocysteine was 8.45±3.27 μmol/l, and it was higher in men (9.50±3.71 μmol/l) than in women (7.39±2.32 μmol/l). Higher means of homocysteine were observed among subjects from the third tertile of intake for CB and FF dietary patterns. However, an inverse association was observed between levels of homocysteine and the tertiles of VF dietary pattern. The means of homocysteine were 8.73±3.56, 8.44±3.38, and 8.19±3.09 μmol/l, respectively in the tertiles of VF dietary pattern (p<0.001).

Conclusion
These findings suggest that homocysteine concentrations were lower among subjects who adhered to the healthy dietary pattern.

P2-99
TIME TRENDS IN FIRST AND SUBSEQUENT HOSPITALISATION FOR COPD IN SCOTLAND, 1991–2009

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Introduction
Chronic obstructive pulmonary disease (COPD) is a major cause of morbidity and mortality. Long-term trends describing the hospital burden of COPD are sparse.

Methods
A retrospective cohort study using the Scottish Morbidity Record Scheme. First and subsequent hospitalisations for COPD in Scotland (1991–2009) were identified. Age standardised hospitalisation rates were calculated. Age and sex-specific trends in first and subsequent hospitalisation were modelled (Joinpoint regression).

Results
There were 65 996 first hospitalisations for COPD (1991–2009). Over time the rate of first hospitalisation fell in men and remained stable in women >55 years old, but rose in both men and women 55–54 years old. In total 64 942 individuals contributed to 185 200 readmissions. Readmission rates increased in men aged 55–54 years and >75 years old. A trend towards falling readmission rates in men aged 55–74 years, in whom the burden of COPD is greatest, was observed. In women, rates of readmission increased in all age groups. However the rate of increase slowed in those aged 55–84 years in the latter period of the study.

Conclusions
The hospital burden of COPD is high and driven by readmissions. Our data suggest that the COPD epidemic may be approaching a peak. However, incident hospitalisation for COPD in men and women 55–54 years old are increasing and as survival following an incident COPD hospitalisation improves and the population ages, the absolute number of hospital admission for COPD will increase. Alternates (cost-effective) models to hospital care are urgently required to meet this demand.

P2-100
THE RELATIONSHIP BETWEEN POST TRAUMATIC STRESS DISORDER AND HYPERTENSION AMONG 105 180 ASYLUM SEEKERS IN THE NETHERLANDS

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Objective
To determine the relationship between post-traumatic stress disorder (PTSD) and hypertension among asylum seekers in the Netherlands.

Methods
Data were obtained from the Dutch national electronic database of the Community Health Services for Asylum Seekers (MOA) from 2000 to 2008. Asylum seekers aged ≥15 years at arrival in the reception facilities were included in this study (N=105 180). The diagnosis of hypertension was coded according to the Dutch list of the International Classification of Primary Care, while PTSD was higher in patients with a previous psychiatric hospitalisation compared to those without (men 6.5% vs 4.5%; women 5.4% vs 3.6%), in all age groups and all SED quintiles. Following adjustment (year of NCCP hospitalisation and SED), the hazard of all-cause and CVD-specific mortality at 1 year was higher in men and women with a previous psychiatric hospitalisation, and inversely related to age.

Conclusions
Previous psychiatric hospitalisation should be considered in the risk stratification of patients discharged from hospital with a diagnosis of NCCP. Cardiovascular prevention strategies should target this hard to reach group.
diagnosed using the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) criteria.

**Results** People with PTSD were more likely than those without PTSD to have hypertension even after adjusting for age, sex, world region of origin, length of stay in the Netherlands, and obesity (OR=1.72, 95% CI 1.50 to 1.96). There was an interaction between PTSD and co-morbid depression (p=0.006), indicating that the effect of PTSD and depression on hypertension were independent. When the analyses were stratified by depression status, among non-depressed group, individuals with PTSD had higher odds of hypertension than those without PTSD (OR=1.36, 95% CI 1.17 to 1.59). However, among the depressed individuals, there was no association between PTSD and hypertension even after adjustment for other factors: 1.09 (95% CI 0.77 to 1.53).

**Conclusions** Our findings suggest that there is a positive relationship between PTSD and hypertension among asylum seekers in the Netherlands; and this relationship is independent of comorbid depression. Clinicians and policy makers need to take history of PTSD into account when screening and treating asylum seekers for hypertension.

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**P2-102 DEVELOPMENTAL TRAJECTORIES OF BODY MASS INDEX IN CHILDHOOD: IS MATERNAL SMOKING DURING PREGNANCY A CRITICAL EXPOSURE?**

**Introduction** Intrauterine life has been identified as a critical period for the development of obesity. Research has consistently shown that prenatal exposure to maternal cigarette smoke (PEMCS) is associated with a number of adverse fetal, obstetrical and developmental outcomes. While PEMCS has emerged as an important risk factor for overweight in offspring, no consensus exists on the pattern or duration of impact. This study seeks to further examine the role of PEMCS on developmental body mass index (BMI) trajectories in children up to 10 years of age.

**Methods** Data on mother-child pairs (n=1291) was obtained from the Quebec Longitudinal Study of Child Development, which includes a range of social and biological information on child development. Developmental BMI trajectories were established empirically, with a group based modelling strategy, using repeated measurements of height of weight up to age 10. This approach (Traj) complements both hierarchical and latent growth curve modelling for analysing developmental trajectories.

**Results** Four distinct BMI trajectories were identified: early onset overweight (4.4%), increasing to overweight (2.7%), stable overweight (26.1%) and never overweight (66.8%). PEMCS was associated with increased risk of overweight at age 10 (OR: 5.3, 95% CI 1.96 to 5.57) and with trajectory membership (p<0.003).

**Conclusions** The elevated risk of excess weight among the offspring of smoking mothers supports the paradigm of in utero and early life obesity prevention. Our approach to longitudinal childhood weight analysis, which allows for heterogeneous population trajectories, may help to improve our understanding of the different pathways leading to obesity in adulthood.