at entry. Risk estimates (RR, HR, OR) from models with the highest degree of multivariate adjustment in each study were transformed to a standardised top-vs-bottom fifth estimate according to the population's baseline distribution of each nutrient's values. We used the I^2 statistic to measure heterogeneity between studies and calculated pooled risk estimates for incident diabetes with random-effects meta-analysis.

Results Ten prospective cohort studies with data on 420 840 participants and 11 517 incident diabetes events were included. Highest to lowest fifth of intake of sucrose was associated with a 15% lower risk of diabetes (RR: 0.85, 95% CI 0.75 to 0.97). Other carbohydrate subtypes were not significantly associated with diabetes risk.

Conclusion All studies reported risk estimates adjusted for total energy intake and thus model an iso-energetic diet. Lower risk of diabetes associated with higher intake of sucrose is most likely to reflect the effect of substitution of sucrose for other nutrients rather than net increased intake of sucrose itself. Nutrient substitution patterns require further investigation.

P2-5 VARIABILITY IN THE CONTROL OF CHRONIC PATIENTS IN PRIMARY CARE ACCORDING TO THE ELECTRONIC CLINICAL RECORD

doi:10.1136/jech.2011.142976h.42

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Introduction This study aims to describe the variability in Primary Care to comply with the good practice requirements (GPR) for the management of the following chronic conditions: Hypertension, hypercholesterolaemia, diabetes, alcohol abuse, COPD, depression, dementia, anxiety, asthma and obesity.

Methods The electronic clinical records of all general practitioners (1685; 2 147 754 professionals) of Osakidetza/Basque Health Service were examined. The rate of compliance of each of the GPR considered by the Health Plan of Basque Autonomous Community of Spain, standardised by age and sex, was calculated, as well as the variability statistics: extremal quotient (EQ_{5-95}), coefficient of variation (CV_{5-95}) and systematic component of variation (SCV_{5-95}).

Results The electronic records show that more than half of the patients are correctly controlled in nine out of the 44 GPR studied. On the contrary, in 16 GPR the compliance rate is lower than 25% of the diagnosed patients. The smallest variability inter-centres is observed in the management of hypertension, hypercholesterolaemia, obesity and diabetes, all with $SCV_{5-95} < 0.10$. Disparity is moderate in COPD and alcohol abuse ($0.10 < SCV_{5-95} < 0.20$), high in depression, anxiety, dementia and asthma in adults ($0.20 < SCV_{5-95} < 0.50$) and very high in asthma in children ($SCV_{5-95} \geq 0.50$).

Conclusion Control of patients diagnosed with chronic processes, especially those with a shorter tradition in Primary Care is insufficient.

P2-6 INFLUENCE OF THE NEIGHBOURHOOD ENVIRONMENT ON WAIST SIZE OVER TIME AMONG IMMIGRANTS TO THE USA: THE MULTI-ETHNIC STUDY OF ATHEROSCLEROSIS

doi:10.1136/jech.2011.142976h.43

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Introduction Greater time in the USA has been associated with a higher risk of obesity among immigrants. Few studies have examined this pattern longitudinally or considered measures of the neighbourhood environment in evaluating weight-related change among immigrants the longer they live in the USA.

Methods Using prospective data from 883 Hispanic and 688 Chinese foreign-born subjects aged 45–84 in the Multi-ethnic Study of Atherosclerosis, we used linear mixed models to examine whether neighbourhood environments characterised by greater healthy food availability and greater walkability are associated with baseline waist circumference (WC) and with change in WC over a median follow-up of 5 years.

Results Neighbourhoods were characterised using survey items; higher scores represented better environments. Adjusting for age, sex, education, income, years lived in the US at baseline, and neighbourhood poverty, among Hispanics, only greater healthy food availability was associated with lower mean baseline WC (mean difference per SD higher neighbourhood score=−0.98 cm, p=0.028). There was no association between neighbourhood context and WC change over time. Among Chinese, greater walkability was associated with lower mean baseline WC (β=−1.06 cm, p=0.007) and with smaller increases in WC over time (mean difference in annual change per SD higher walkability=−0.12 cm, p=0.003). Associations with walkability also differed for long-term vs more recent immigrants among Chinese. (p heterogeneity=0.001) (effect modification by baseline length of US residence)

Conclusion Where immigrants reside may have implications for the health patterns that emerge with greater time in the USA.

P2-7 MORTALITY AND CARDIOVASCULAR EVENTS IN PATIENTS UNDER TREATMENT WITH CLOPIDOGREL AND OMEPRAZOLE

doi:10.1136/jech.2011.142976h.44

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Introduction In 2009, it was announced that clopidogrel should not be taken with proton pump inhibitors. Omeprazole possibly reduces antiplatelet effect of clopidogrel. We compared mortality and cardiovascular rates between patients that had been treated with clopidogrel alone and those with both clopidogrel and omeprazole.

Methods A retrospective dynamic cohort study using secondary data of a health information system from a Health Maintenance Organization in Buenos Aires was analysed. Patients older than 17 years with purchase record of clopidogrel were followed for all-cause mortality and cardiovascular events (CE) from 1 January 2004 to 31 December 2008. Rates and 95% CIs are expressed per 1000 persons-year. Cox regression was used to obtain adjusted HRs for the risk of all-cause mortality and CE in groups exposed and unexposed concomitant to omeprazole at baseline.

Results Mean follow-up 13 months, 2518 patients received clopidogrel from whom 17.31% also received omeprazole. Exposed and unexposed to omeprazole were similar in sex (male 60%), age (mean 68) and comorbidities. The CE rate was 32.4 (95% CI 27.3 to 38.4) and 26.1 (95% CI 24.1 to 28.4) for each group respectively (RR 1.23 (p=0.026) and adjusted RR 1.15 (p=0.137)). The all-cause mortality rate was 2.5 (95% CI 1.4 to 4.5) and 1.23 (95% CI 0.8 to 1.7) for each group respectively (RR 2.06 (p=0.034) and adjusted RR 1.76 (p=0.109)).

Conclusion Patients treated with clopidogrel and omeprazole had not increase risk for all-cause mortality and for CE after adjusting for comorbidities.

P2-8 LATE NIGHT ENERGY INTAKE: ASSOCIATION WITH LONG-TERM RISK OF HYPERTENSION IN THE BRITISH BIRTH COHORT 1946

doi:10.1136/jech.2011.142976h.45

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Background The role of circadian rhythm of energy and macronutrient intake in influencing cardiometabolic risk factors is increasingly recognised. However, little is known of the association between time of energy intake and long-term risk of hypertension.
Objectives To examine the association between time of day of energy intake and risk of hypertension.
Methods The analysis included 517 men and 635 women who were members of the MRC National Survey of Health and Development (1946 British birth cohort). Diet was assessed using 5d estimated diaries at ages 43 years (1989) and 53 years (1999). Diet diaries were divided into seven time slots: breakfast, mid-morning, lunch, mid-afternoon, evening, night and extra. The association between time of day of energy intake in 1989 or 1999 and blood pressure in 1999 was assessed using logistic regression after adjustment for sex, social class, smoking status, region and body mass index. Hypertension was defined by systolic blood pressure ≥140 mm Hg or diastolic blood pressure ≥90 mm Hg.
Results Compared to the lowest quintile, cohort members from the highest quintile of energy intake at night in 1989 were more likely to have high systolic (OR=1.69; 95% CI 1.08 to 2.7; p=0.024) but not high diastolic blood pressure in 1999 (OR=1.64; 95% CI 1.02 to 2.66; p=0.055). Energy intake at night in 1999 was not related to high systolic or diastolic blood pressure in 1999. No associations between energy intake at other time slots and hypertension were observed.
Conclusions Increased energy intake at night is predictive of higher risk of systolic hypertension 10 years later.

P2-9 AMINO ACIDS AND INCIDENCE OF HYPERTENSION IN A DUTCH OLDER POPULATION: THE ROTTERDAM STUDY

doi:10.1136/jech.2011.142976h.46

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Background Epidemiological studies have shown an association between dietary protein and hypertension, which may be attributed to specific amino acids (AAs). We examined the relation of dietary arginine, cysteine, lysine, proline and tyrosine with incident hypertension in 1958 men and women from the Rotterdam Study, aged ≥55 years, who were not treated with antihypertensive medication and were normotensive at baseline.
Methods HRs (95% CI) were calculated in tertiles of AA intake (expressed as percentage of total protein intake), using a Cox proportional model with adjustment for age, gender, BMI, smoking, alcohol intake, education, and intake of energy and several nutrients.
Results Mean systolic and diastolic blood pressure levels were 122±12 mm Hg and 69±9 mm Hg and dietary protein intake was 82±20 g/day (~17 en%). Arginine (with nuts being the main source) contributed 5.3±0.4% of total protein intake, cysteine contributed 1.4±0.1% (main source: grain), lysine 6.8±0.4% (main source: meat), proline 7.4±0.6% (main source: dairy and grain), and tyrosine 3.7±0.1% (main source: dairy). Intake of these AAs was not significantly associated with incident hypertension (HRs ranging from 0.84 to 1.15; p_{trend} ≥0.15). We observed, however, a tendency towards an increased risk for lysine (HR upper tertile vs lower tertile 1.15; p_{trend}=0.21) and towards a decreased risk for tyrosine (HR 0.86; p_{trend}=0.15).
Conclusion We found no significant associations between AAs, and incidence of hypertension in this older population. There was, however, a tendency towards an adverse effect of lysine and a beneficial effect of tyrosine, which warrants further investigation in larger prospective studies.

P2-10 QUALITY OF LIFE OF PATIENTS IN RENAL REPLACEMENT THERAPY IN BRAZIL: COMPARISON AMONG TREATMENT MODALITIES

doi:10.1136/jech.2011.142976h.47

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Purpose This study aimed to evaluate the quality of life of Renal Replacement Therapy patients in Brazil and its relationship with socioeconomic and demographic conditions, aspects related with the disease and health services.
Methods The participants were representative of the national population. Results were based on interviews through structured questionnaires that were applied to 3036 patients in haemodialysis, peritoneal dialysis and renal transplant. Information about socio-economic and demographic situation as well as quality of life was obtained. The co-morbidities referred by the patient were gathered into a co-morbidity index. It was built by means of analysis of Item Response Theory.
Results There are significant differences between renal transplantation and both dialysis in all dimensions of SF-36. Comparison between haemodialysis and peritoneal dialysis showed differences in functional capacity, physical and social aspects. Renal transplant patients had the best mean score in the physical component. There is no significant difference regarding mental component. Physical and mental components are influenced by co-morbidities and age. However, older patients had better mental quality of life but worse physical component. Better off and not hospitalised patients presented better quality of life (physical component). The treatment unit influences quality of life of haemodialysis patients.
Conclusions Renal transplant patients have the best of quality of life. It's necessary to implement actions that that enable more patients access to renal transplantation.

P2-11 GENDER-SPECIFIC SOCIOECONOMIC PATTERNING OF NINE ESTABLISHED CARDIOVASCULAR RISK FACTORS

doi:10.1136/jech.2011.142976h.48

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Introduction We aimed to compare the associations between education, occupation and marital status with nine cardiovascular risk factors (RF) which explain 90% of incident myocardial infarction.
Methods We surveyed a representative sample of 1704 dwellers of Porto aged ≥40 years using structured questionnaires in 1999–2003. A fasting blood sample was collected. Education (completed years), occupation (upper white collar, lower white collar, blue collar) and