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 I² 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 115,171 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.

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**P2-5**

**VARIABILITY IN THE CONTROL OF CHRONIC PATIENTS IN PRIMARY CARE ACCORDING TO THE ELECTRONIC CLINICAL RECORD**

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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), coefficient of variation (CV = 5) and systematic component of variation (SCV = 5).

**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 net increased intake of sucrose itself. Nutrient substitution patterns require further investigation.

**Conclusion**

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

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**P2-6**

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

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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 885 Hispanic and 683 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 USA 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 = 0.005). 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.