OP40  SELENIUM SUPPLEMENTATION FOR THE PRIMARY PREVENTION OF CARDIOVASCULAR DISEASE (CVD) – A COCHRANE SYSTEMATIC REVIEW

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Background  Selenium is a key component of a number of selenoproteins which protect against oxidative stress and have the potential to prevent chronic diseases including CVD. However, observational studies have shown inconsistent associations between selenium intake and CVD risk; in addition there is concern around an increased risk of type 2 diabetes with high selenium exposure.

Objective  To determine the effectiveness of selenium only supplementation for the primary prevention of CVD and examine potential adverse effects on type 2 diabetes.

Methods  The following electronic databases were searched with no language restrictions from their inception to July 2011: MEDLINE, EMBASE, CINAHL, Web of Science, the Cochrane Library and trial registers. Studies were included if they fulfilled the following criteria: study design - RCTs, participants - free of CVD (includes those at high risk), intervention - selenium only supplementation, comparator - no intervention or placebo, outcomes - diagnosis of CVD or change in the risk factor profile for CVD (blood pressure, lipids) or adverse effects (type 2 diabetes). Two reviewers independently screened titles and abstracts, assessed shortlisted studies for formal inclusion/exclusion, abstracted data and assessed methodological quality. Data were analysed using RevMan 5.1 software.

Results  Database searching resulted in 1310 hits of which 43 went forward for formal inclusion/exclusion; 9 RCTs met the inclusion criteria. Included trials were heterogeneous in the participants recruited, dose of selenium, intervention and follow-up periods, outcomes reported, country of recruitment and baseline selenium status. Meta-analysis was possible for 2 trials reporting clinical events, outcomes reported, country of recruitment and baseline selenium status. Meta-analysis was possible for 2 trials reporting clinical events, outcomes reported, country of recruitment and baseline selenium status. Meta-analysis was possible for 2 trials reporting clinical events, outcomes reported, country of recruitment and baseline selenium status. Meta-analysis was possible for 2 trials reporting clinical events, outcomes reported, country of recruitment and baseline selenium status.

Conclusion  BCG protection against tuberculosis varies between settings to an extent which cannot be attributed to chance alone. More efficacious results were seen in studies of individuals screened using stringent criteria (to exclude those already sensitized to mycobacteria), and those at a greater latitude from the equator.
cognitive tests: verbal memory (recall of 10 words), verbal fluency (naming animals) and letter search speed. Fully adjusted models included health and lifestyle covariates (medical history, depression, alcohol, physical activity).

**Results** Broadly similar patterns of associations were observed across countries. Indicators of SEP across the lifecourse made independent contributions to cognition, with stronger contributions from education and current asset ownership (an indicator of contemporary material circumstances), than from childhood socioeconomic conditions. Socioeconomic association was advanced with higher levels of cognitive functioning. For example, in fully adjusted models, university education was associated with 5.9 (SE 0.7) word recall advantage in memory performance in Czech men and 2.2 (SE 0.5) and 2.7 (SE 0.3) word advantage in Russian and Polish men; in women these figures were 3.7 (SE 0.4), 3.0 (SE 0.5) and 3.2 (SE 0.3), respectively. The effect of childhood socioeconomic conditions on cognition was largely attenuated after adjustment for education and current material circumstances, suggesting mediation by later SEP measures.

**Conclusion** Socioeconomic position across the lifecourse is an important predictor of cognition in mid and later life in these Eastern European populations. The attenuation of the effects of childhood SEP after adjustment for own education and current material circumstances supports the model where this association is, at least partly, mediated through later life measures of SEP. Future research should focus on lifecourse influences on cognitive aging trajectories as long-term follow-up of this cohort and other studies in Eastern European populations become available.

**OP43 ARE WE OVERESTIMATING THE BENEFICIAL EFFECTS OF ALCOHOL IN LATER LIFE? THE CASE OF YOUNG NON-DRINKERS**

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**Background** Non-drinkers have been repeatedly shown to have worse health than moderate drinkers in later life particularly as regards conditions such as coronary heart disease, leading some researchers to suggest that moderate alcohol consumption has beneficial effects on health. However the causal direction between non-drinking and worse health has been contested. Whether poor health is associated with non-drinking among young adults in relation to social and health factors will be investigated. Such a finding would imply that poor health may precede non-drinking even at early stages of the life course.

**Methods** We performed logistic regression analysis of cross-sectional national survey data on 18 to 34 year olds, collected from The Health Survey for England 2006 and 2008. Data was collected through face to face interviews and is self-reported. Logistic regression analysis of longitudinal data collected from the National Child Development Study 1958 were also conducted. This is a follow up study to assess whether poor health at age 16 is associated with non-drinking at age 25, and whether these people are more likely to abstain at subsequent age sweeps.

**Results** HSE 06 & 08: Having a limiting longstanding illness during early adulthood increased the odds of being a non-drinker 1.74 times for men (p<0.01), and 1.45 times for women (p>0.01). In both men and women belonging to the lowest income quintile or having no qualifications was associated with increased odds of being a non-drinker (p<0.01) indicating that the social gradient in non-drinking begins at an early age. Men and women aged 18 to 34 years with the lowest activity levels were also more likely to be non-drinkers (p<0.01).

NCDS: Preliminary analysis reveals that non-drinkers at age 25 have higher rates of medical conditions at age 16 as assessed by a medical officer such as having a mental condition (p<0.001) a physical condition and heart and haematological condition (p<0.01).

**Conclusion** Young adults who have a limiting longstanding illness are more likely not to drink alcohol even after adjusting for a range of social and demographic measures. Studies on the putative health benefits of moderate alcohol consumption later in life need to take account of early life history. Further analysis using longitudinal data will explore whether poor health precedes non-drinking right at the start of drinking history and whether people with poor health continue to abstain from alcohol at older ages.

**OP44 RACE, BULLYING AND SELF-ESTEEM AT THE TRANSITION BETWEEN PRIMARY AND SECONDARY SCHOOL**

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**Background** Studies from the US have suggested that children who experience racial discrimination have higher rates of depression, anxiety, behavioural disorders, and lower self-esteem. Children are generally more vulnerable to such problems at the transition from one school to another. Our aim was to investigate the associations between race, bullying, mood, behavioural difficulties and self-esteem during the transition to secondary school in a population-based cohort of English children.

**Methods** Children from the Avon Longitudinal Study of Parents and Children (ALSPAC) were asked to define themselves by skin colour when aged 12 years (n=7017). Analyses were performed using logistic regression, adjusting for gender and maternal education. The primary outcome measures were bullying and racial discrimination at 12–12.5 years. Secondary outcomes were bullying at 8 years, depressive symptoms at 11.6 years, behavioural difficulties at 11.6 years, friendships at 12 years, mood and self-esteem at 13.8 years.

**Results** 94.2% of children defined themselves as white (n=6607), 3.6% as mixed race (n=255) and 2.2% (n=155) identified with a specific ethnic minority group. At primary school (8–11 yrs), there were no differences between these groups in reported bullying, types of friends or prevalence of behavioural problems or depression. At secondary school (12.5 years), the reported prevalence of racially motivated violence was 10–13%, and for name-calling was 31–33%. Compared to white children, ethnic minority but not mixed race children were more likely to experience overt bullying (OR 2.98; 95% confidence interval 1.38 to 6.42). Mixed race children were more likely to retain friends of different races after the transition to secondary school (OR 1.89, 1.32 to 2.71). Ethnic minority children were more likely to feel different from others at 13.8 years (OR 1.63; 1.01 to 2.56).

**Conclusion** Although children of different colour had similar experiences at primary school, ethnic minority children were more likely than white children to experience bullying and discrimination at the transition to secondary school. Racial discrimination affected up to one third of ethnic minority and mixed race children at 12 years of age, and these children felt more socially isolated and were less happy than their white peers at 13 years. Strategies for prevention of bullying should be targeted at this vulnerable group of children, particularly during this high-risk period of transition.

**OP45 CAESAREAN SECTION AND SUBSEQUENT FETAL DEATH: SYSTEMATIC REVIEW AND META-ANALYSIS**

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**Abstracts**

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