threshold probability of 20% to predict cardiovascular diseases in a population based cohort of 6224 Iranians aged 30—74 years with 10-year follow-up.

Results dividing NB by incidence resulted 17% and PAF shows 43% decrease in incidence, but NBF shows just 8% advantage for treatment according to the model.

Conclusion NBF seems to be a challengeable issue in policy making using risk functions.

A Khanolkar,* D Vågerö, I Koupil. *Centre for Health Equity Studies, Karolinska Institutet/Stockholm University, Stockholm, Sweden*

Background Social status is associated with cardiovascular disease (CVD) prevalence and incidence. We aimed to study relationships between i) socioeconomic position (SEP) and common CVD biomarkers; cholesterol, LDL/HDL, ApoB/ApoA1 and adiponectin ii) SEP and CVD mortality in a Swedish-population-based sample, and to assess if these associations changed with age.

Design A longitudinal cohort study of men born 1920-24 with clinical measurements, blood samples, questionnaire data and register-based information on SEP and cause of death.

Methods Of 2322 men that participated in an investigation at age 50, 1221 attended a reinvestigation at age 70. SEP was measured as occupational class and educational level. Linear regression (adjusted for age, body mass index and physical activity) was used to study associations between SEP and CVD biomarkers. CVD mortality over 36 year's follow-up was analysed by Cox regression.

Results At age 50: We found significant inverse associations of education and occupational group with mean cholesterol levels, whereas LDL/HDL ratio was associated with education only. These were statistically significant after adjustment for covariates. No significant associations were found between either measure of SEP and ApoB/ApoA1 ratio. At age 70: No significant associations were found between either measurement of SEP and any biomarker studied. Men classified as highest educated and non-manual had decreased risk for CVD mortality during follow-up.

Conclusions Associations of SEP with cholesterol levels and LDL/HDL ratio that exist at age 50, are no longer found in the same group of men at age 70. We found no significant association between SEP and adiponectin levels at age 70.

[1,2]D Kim.* *[1]RAND Corporation, Santa Monica, California, USA; [2]Harvard School of Public Health, Boston, Massachusetts, USA*

Introduction Government spending on public goods (eg, education) and social assistance (eg, cash transfers) provides plausible investments in the social determinants of health. Among rich nations, countries with higher social spending and lower income inequality show longer life expectancies. However, studies of both factors have been limited by bias from residual confounding and reverse causation.

Methods This study examined data from the National Longitudinal Mortality Study on 431 637 adults aged 30—74 in 48 USA states followed for 11 years. State per capita social spending (total, welfare, education, health) and income inequality (Gini coefficient) were explored as predictors of individual mortality (all-cause, cardiovascular, cancer) using linear probability models. To reduce bias, models

incorporated state and time fixed effects and instrumental variables, and controlled for state- and individual-level covariates.

Results Total public spending and spending on welfare and education, but not healthcare, predicted lower probabilities of death from coronary heart disease (CHD) (per $250 per capita spent on welfare: $\beta = -0.016$, p=0.03) and all causes combined (per $250 per capita spent on welfare: $\beta = -0.031$, p=0.03). There were weaker associations for colon cancer and no associations for stroke. A higher Gini coefficient predicted a higher probability of CHD mortality but not all-cause mortality. Stratified models suggested stronger effects among those aged 45—59 and with incomes <$25 000/year.

Conclusion Higher state social spending *outside the healthcare sector* may reduce one's chances of dying from heart disease and all causes combined, particularly for low-income, middle-aged adults. Policies promoting economic equality may further lessen CHD disparities.

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[1]Y M Kim,* [2]H Hong, [2]J H Lim, [3]K Cheong, [3]T H Yoon. *[1]Department of Preventive Medicine, Dong-A University College of Medicine, Busan, Republic of Korea; [2]School of Public Health, Seoul National University, Seoul, Republic of Korea; [3]Department of Preventive Medicine, Pusan National University, Busan, Republic of Korea*

Introduction As the incidence and death rate of injury are relatively high in Korea, the public health concerns are now increasing. The aim of this study are (1) to describe the regional distribution and pattern of the injury prevalence, (2) to evaluate the relationship between the Korea poverty index and the regional variation of the injury.

Methods <2009 Korea Community Health Survey> was the national interview survey in Korea. The type of injury was categorised by ICECI and the age adjusted injury prevalence was calculated. The regional variation was evaluated by the index; EQ (Extremal Quotient), CV (Coefficient of Variation), CVA (CV from ANOVA). For explaining the effect of Korea poverty index to regional variation, general linear model was applied.

Results The 1-year experience of all kinds of injury was more prevalent to men than to women. Falls (30%) was most frequent type of injury. The significant regional variation was found according to the category of injury. In the urban area, the 1-year experience rate of all kinds of injury was 5.47 (4.39—6.54) in poorest region by Korea poverty index, and 4.61 (4.28—4.94) in richest region. The statistically significant linear trend was found across the quartile of poverty index (p for trend =0.04).

Discussion There were significant regional variations according the rurality, administrative regions, and the Korea poverty index. For the tackling the high prevalence and regional discrepancy of the injury, community specialised and area based intervention were needed.

U Kirchmayer,* V Belleudi, N Agabiti, M D Martino, L Bauleo, L Pinnarelli, D Fusco, M Arcà, M Davoli. *Department of Epidemiology of the Regional Health Service, Lazio Region, Italy*

Introduction Clinical guidelines recommend treatment with evidence-based (EB) drug therapy (antiplatelets, β-blockers, agents acting on the renin-angiotensin system, statins) for patients with acute myocardial infarction (AMI). Results on long term outcomes from observational population studies are scarce.

Objectives Analysing the association between EB drug therapy and 2 years mortality in AMI patients.

Methods Twothousand-twohundred-and-four AMI patients, discharged in 2006 and resident in Rome were selected from the Hospital Information System, excluding deaths during the first month after discharge. Exposure information was collected from the drug claims data considering EB drug prescriptions at discharge and during the first month; exposure was defined as at least one prescription, comparing different composite treatments (1, 2, 3 or 4 EB drug groups). The association between exposure to EB drug therapy and all-cause mortality during a 24 months follow-up was analysed through logistic regression, adjusting for gender, age and co-morbidities.

Results Most patients were treated with EB drug combinations (0: 9.5%, 1: 4.6%, 2: 14.7%, 3: 30.1%, 4: 41.1%); 7.4% of the patients died during follow-up. Mortality risk decreased with increasing number of prescribed EB drugs; combinations of 3 or 4 EB drugs were associated with a significant protective effect vs no EB drugs (4 vs 0 EB drugs: $OR_{adj}=0.46$; 95% CI 0.27 to 0.78; 3 vs 0 EB drugs: $OR_{adj}=0.50$; 95% CI 0.29 to 0.86; 2 vs 0 EB drugs: $OR_{adj}=0.69$; 95% CI 0.39 to 1.23; 1 vs 0 EB drugs: $OR_{adj}=0.49$; 95% CI 0.21 to 1.13).

Conclusions In Rome, most patients are treated with EB drugs after AMI; first-month poly-drug therapy is associated with reduction in 2 years mortality.

P1-194 | **HEALTH IMPLICATIONS OF AGEING MOTHERHOOD**

R Klemetti,* M Gissler, E Hemminki. *National Institute for Health and Welfare, Helsinki, Finland*

Introduction In developed countries, postponing of childbearing has become common, but health impacts are poorly known.

Methods All first births in Finland in 2008 (n=23 511) from nationwide medical birth register were included. Older mothers (35—39 and 40 years and over) were compared to younger mothers aged 20—34 years. Perinatal outcomes were adjusted for mother's background characteristics (marital status, socioeconomic position, smoking, previous pregnancies, and urbanity of the residence) by logistic regression. Births in years 2005—2009 were pooled to identify threshold age(s) for increased problems.

Results Older mothers used more antenatal care, had more chronic and pregnancy-related diseases, higher BMI, and more interventions. The adjusted ORs (95% CI) for 35—39 years old were: birth weight <1500 g 1.76 (1.23—2.53), birth weight <2500 g 1.67 (1.41—1.97), respiratory treatment 1.50 (1.07—2.11), and special care 1.21 (1.07—1.37). Among mothers aged 40 years or more preterm birth (<37 gw) 1.45 (1.04—2.02), birth weight <2500 g 1.59 (1.14—2.23), special care (1.64, 1.31—2.07), and perinatal mortality (2.69, 1.07—6.78) were more common. No clear threshold ages were found. Some problems increased steadily since age 20 years (cesarean section), slightly since age 30—34 years (many antenatal visits, hospitalisation, induction of labour, long postpartum stay, preterm birth, low birth weight, infant care in special unit), or rapidly since age 31—34 years (gestational diabetes and hypertension).

Conclusion Older mothers have more pregnancy and delivery problems, and higher risk for poorer infant outcomes. Most problems increased since early 30s. More detailed analysis of threshold ages for problems will be made.

P1-195 | **THE IMPACT OF TOBACCO CONTROL LEGISLATION ON ADULT SMOKING PREVALENCE IN LITHUANIA**

J Klumbiene,* A Veryga, V Kriaucioniene, J Petkeviciene. *Lithuanian University of Health Sciences, Kaunas, Lithuania*

Introduction Since regaining of independence Lithuania has instituted comprehensive tobacco control legislation (the law on

Tobacco control in 1995, total ban on tobacco advertising in 2000, smoking ban in the bars and restaurants in 2007). This was followed by excise tax increase in 2009. The aim of the study was to demonstrate the impact of the tobacco control legislation on adult smoking prevalence.

Methods National health behaviour monitoring system was set up in Lithuania in 1994 within the Finbalt Health Monitor project. The data for the study was derived from nine cross-sectional surveys conducted during 1994—2010. An independent national random sample of 3000 inhabitants aged 20—64 was taken from National Population Register for every survey. The data were collected through postal surveys. The response rate varied from 53.8% to 74.4%.

Results The prevalence of smoking among men was increasing up to the year 2000 (from 43.8% to 51.5%) afterwards it started to decline reaching 34.2% in 2010. The proportion of smoking women increased from 6.8% in 1994 to 15.8% in 2000 remaining stable over the last decade. Smoking was more common among younger and less educated people in both genders. The age and educational inequalities among men remained similar over the period of observation. Since 1994 the proportion of smoking women has increased among less educated, but it did not change among highly educated.

Conclusion Tobacco control legislation can be associated with positive changes in adult smoking prevalence in Lithuania; however, further strengthening of tobacco control activities is needed.

P1-196 | **THE CHARACTERISTICS OF REACTIVE OXYGEN METABOLITES DETECTED IN THE SERUM OF EARLY JAPANESE TEENAGERS**

T Kogawa,* S Kurauchi, M Nishimura, I Kashiwakura. *Hirosaki University, Graduate School of Health Sciences, Hirosaki, Japan*

Introduction The level of reactive oxygen metabolites in the serum of healthy early Japanese teenagers was analysed to determine the current state of oxidative stress during puberty in early teenagers.

Methods This study enrolled 595 healthy junior high school students from Nanbu town located in Northern Japan. Oxidative stress was evaluated by measuring the serum level of reactive oxygen metabolites (ROM), and antioxidant capacity was evaluated by measuring the serum level of biological antioxidant potential (BAP).

Results Although the ROM level in female students (308.6±63.1 CARR U) was slightly higher than that in the males (299.6±55.2 CARR U), there was no statistically significant difference. The BAP level in males was significantly higher than in females. The level of ROM and BAP detected in males in the first grade were higher than the other grades. Only the first grade's BAP was higher than other grades in females.

Discussion The mean value of ROM in females was higher than the normal (250—300 CARR U). The level of ROM is unrelated to gender and age, and very low in a neonate. The current study found that the level of ROM in males was negatively correlated with their grades. These results suggest that there are some factor(s) that increase the oxidant stress in Japanese junior high school students.

P1-197 | **ROLE OF HEALTH SYSTEM IN DETERMINE OF DELAY TO DIAGNOSIS, TREATMENT AND OUTCOMES OF TUBERCULOSIS IN WEST AZERBAIJAN PROVINCE, IRAN: ACTIVE VS PASSIVE PRIMARY HEALTHCARE IN RURAL TO URBAN SETTING**

[1]G Kolifarhood,* [2,3]S Salarilak, [4]S Dastgiri, [1]N Khosravi, [3]B Neamati, [3]P Mikaili, [3]D Khorasani, [3]A N nejad, [3]Y Mohammadpour, [3]R Gareaghaji. *[1]Zanjan University of*