

Methods Twothousand-two hundred-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

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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

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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

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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

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Objective Comparison of active vs passive primary healthcare function in rural with urban setting at determine of delay to diagnosis and treatment of tuberculosis and its outcomes in West Azerbaijan province, Iran, at 2004–2009.

Material and Methods In this perspective study we used years TB new cases data that have been recorded by TB management center in West Azerbaijan province. Patient and health system delay were determined as number of days between onset of symptoms to diagnosis and diagnosis to start of treatment respectively.

Results At comparison of domicile, both of patient and health delay mean days were more in urban patients (respectively 241 vs 133, p value=0.02 and 11 vs 7, p value=0.006). In rural patients, females at comparison of males had more mean total time delays (163 vs 115, p value=0.01). Despite of higher mean of total delays in extra pulmonary to pulmonary at both of domicile (respectively urban 278 vs 232 and rural 197 vs 97), there was significantly difference in rural regions (p value=0.0001). Default rate in rural regions was less than urban settings (respectively 3.53% vs 6.08%) and whereas success rate was more than it (respectively 81% vs 79%).

Conclusion At regard to health system policy in Iran that primary healthcare for tuberculosis in rural regions is active whereas urban setting is passive, it seems there is urgent need to change of policy in case finding and case holding of patients in urban area to decrease time delays and increase positive outcomes.

P1-198 STUDY OF SPATIAL DISTRIBUTIONS AND EFFECT OF THE PATIENT DISTANCE FROM HEALTH CENTER ON DEFAULT AND INTERRUPTED THERAPEUTIC OUTCOMES IN TUBERCULOSIS DISEASE USING GIS AND GPS, IN URMIA, IRAN, DURING 2004–2009

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Objective To determine of the spatial distributions of tuberculosis (TB) and effect of patient distance from the health center on default or interrupted therapeutic outcomes in Urmia, Iran, during 2004–2009.

Material and Methods In this cross sectional study we used the data of 452 new TB cases, which have been recorded by TB management center in Urmia, capital of West Azerbaijan province, during a five-year period. In order to identifying the significant geographical clusters, we used the "Average Nearest Neighbour" method. Linear regression method was used to determine linear correlation between patients distance and number of default and interrupted therapeutic outcomes.

Results Five countryside areas had significantly spatial clusters of TB ($p<0.0001$). As the distance of patient from TB health center are increased, the number of the default and interrupted cases were also increased ($r^2=0.25$, $p=0.04$). In comparison with the number of default and interrupted cases and the mean distances of TB health center, wherever mean distance was more than 1 Km, number of default and interrupted cases were more than 3 ($p=0.02$).

Conclusion Spatial distributions of tuberculosis disease in Urmia are not randomly and suburban areas need more serious attentions by policy makers and health planners. According to the health system in Iran, health posts has not actively role in treatment of TB patients at urban settings. As a result, if the health posts are

contributed to in the TB treatment programs, the patient distance from the treating health centers will decrease and subsequently the positive therapeutic outcomes will grow.

P1-199 LIMITATIONS OF THE "HIGH-RISK STRATEGY" FOR LONG-TERM DISABILITY CARE PREVENTION: REVISITING GEOFFREY ROSE

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Introduction In 2006, the Japanese government introduced a new prevention policy to limit the growth of old age disability care. The policy is based on what Geoffrey Rose called the "high-risk strategy" of prevention, and seeks to identify individuals with multiple risk factors. We provide cohort data to examine the feasibility of the policy.

Methods Older people (≥ 65 years old, $n=11\,889$) who were independent in activities of daily living were followed up for 3 years as a part of AGES (Aichi Gerontological Evaluation Study) project. The endpoint is becoming functionally dependent. We used eligibility criteria for public long-term care insurance policy.

Results At baseline, 63% of subjects had no risk factors and 3% had three or more risk factors (high-risk group, HRG). After 3 years, 1149 individuals become dependent. Among the HRG, 32% lost independence compared to 6% of those with no risks. Although the HRG showed a higher rate of functional decline, they only comprised 9% of those who became dependent. If the targeted population is expanded to those with one or more risk factors, 57% of dependent people become eligible but the number requiring surveillance rises to more than ten million individuals in the country, with substantial costs of screening.

Conclusion The majority of cases of disability arises among individuals with fewer risk factors, illustrating Rose's principle of the prevention paradox. Pursuing the high-risk strategy results in lower coverage, as well as substantial costs of screening. This suggests that a population strategy is the only sustainable approach.

P1-200 PROPORTION WITH CHILDREN UNDER 2 YEARS IN BRAZIL WHO HAD AN AVOIDABLE HOSPITALISATION, 2006

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Introduction Prevention of hospitalisation is a public health challenge worldwide. Many of the reasons for hospitalisation in developing countries should be avoided by presence of effective health systems. The aim of the study was to identify the proportion of young children with history of avoidable hospitalisation in the previous 12 months in Brazil, in order to gain insight into distribution and causes of hospitalisation to inform policies to prevent children hospitalisation.

Methods Analysis of causes of avoidable hospitalisation among children under 2 years of age based on data from the Brazilian DHS 2006 conducted by the Ministry of Health. The data collection was carried out in households with children by means of interviews with their mothers or guardians.

Results Mothers or guardians of 1901 children were examined. 11.8% reported infants to have been hospitalised at least once in the previous 12 months. The proportion with at least one hospitalisation in the previous year were 2.0% from pneumonia, 3.2% from bronchitis, 2.6% from diarrhoea, 0.5% from accident and 3.6% from others causes.