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Introduction Attributable Fraction is the commonest method of describing the proportion of a health outcome attributable to an exposure in an exposed group. It applies to binary variables. Many variables are continuous; changing them to binary variables results in loss of information. Using traditional analyses we compared the importance of cardiovascular disease (CVD) risk factors in a continuous form.

Methods A population based cohort study including 1802 men and 2301 women aged ≥ 40 years in Tehran. We considered modifiable continuous exposures at baseline and CVD events during 8.5 years of follow-up. Using factor analysis we extracted some uncorrelated and standardised factors, each related to a cluster of continuous variables with the same general feature (eg, systolic and diastolic blood pressure as blood pressure factors or body mass index and waist circumference as anthropometric factor); then, a Cox regression including these factors as scores was conducted to estimate the RR of the last quintile to the first for each factor. Finally we compared these similar RRs in the model using the Wald test.

Results Anthropometric, blood glucose, blood pressure and cholesterol factors were extracted. The total variance explained by factors was 88.6% in men and 87.3% in women. In men all factors had the nearly the same RRs ranging from 1.7 to 2.2 but in women the RR of cholesterol was significantly higher than the others (3.4 vs 1.7–2.5).

Conclusion To prevent CVD, all clusters of risk factors should be considered in control programs. Hypercholesterolaemia maybe more important in women.

SP1-82 COLORECTAL CANCER MORTALITY AND ITS POSSIBLE RELATIONSHIP WITH EXPOSURE TO INDUSTRIAL POLLUTION IN SPAIN

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The European Pollutant Release and Transfer Register (PRTR) constitute a valuable resource for monitoring health effects of industrial pollution. Our objective is to ascertain whether there might be excess colorectal cancer (CRC) mortality among populations residing in the vicinity of Spanish industrial installations governed by the PRTR.

Methods An ecological study of CRC mortality at a municipal level (8098 towns), over the period 1997–2006. We conducted an exploratory “near vs far” analysis to estimate the RRs of towns at a distance of <2 km from installations. The analysis include 24 industrial groups. RRs and their 95% credible/CI were estimated using Poisson regression models, using two approaches: (A) a conditional autoregressive Bayesian model, with explanatory variables; and (B) a mixed regression model. Integrated nested Laplace approximations were used as a Bayesian inference tool.

Results Statistically significant RR were detected in the vicinity of metal production and processing (RR 1.07; 95% CI 1.01 to 1.12), mining (RR 1.26; 95% CI 1.08 to 1.46), paper, pulp and board manufacture (RR 1.07; 95% CI 1.01 to 1.14), ceramic factories (RR 1.05; 95% CI 1.00 to 1.10) and food and beverage production (RR 1.07; 95% CI 1.03 to 1.11).

Conclusions Residing in the vicinity of PRTR-registered industries may constitute a risk factor for CRC, since a higher mortality was detected in both men and women residing in towns with such industries nearby. Some of the differences between men and women suggest that there may be a strong, little-studied component of occupational exposure.

SP1-83 ALCOHOL CONSUMPTION AND URBANISATION IN NORTH INDIA: A COMMUNITY SURVEY

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Introduction Indian is in a state of epidemiological transition with changes in urbanisation and risk factor profiles. In this context, our objective was to study the epidemiology of alcohol use among urban and rural populations.

Methods The study was conducted in Ballabgarh block, India, during January–October 2006 using the WHO-STEPS approach. Participants were selected using multi-stage sampling for rural and urban stratum (sub-divided across town and slum). We targeted enrolling 250 male and female participants each in 10 year age-groups across 25–65 years and enrolled 5005 participants. In a 20% sub-sample, information was collected about the exposure to health communication messages regarding alcohol.

Results One rural female reported current alcohol use. The prevalence of current consumption of alcohol, defined as consumption within preceding 12 months, was highest among urban males (26.2%; 95% CI 20.8 to 32.1) followed by urban slums (25.6%; 95% CI 19.2 to 32.4) and rural (23.2%; 95% CI 18.2 to 28.9). Among alcohol consumers 15.3% urban, 7.3% slum and 15.3% rural males reported reduction in alcohol use in preceding 1 year. 7.2% urban, 10.9% slum and 7.2% rural respondents who were current alcohol users reported intermittent cessation of alcohol consumption in preceding 1 year. 59.2% (n=603) urban, 27.2% (n=185) urban-slum and 39.5% (n=646) rural respondents reported receiving information (IEC) on health effects of alcohol with Mass media as the most common source of information.

Conclusion Alcohol is a public health problem among males in Ballabgarh area. Interventions should focus on alcohol cessation services and improved IEC. Urbanisation does not appear to be associated with alcohol use in this community.

SP1-84 DIFFERENT METHODS TO CALCULATE POPULATION ATTRIBUTABLE FRACTION OF RISK FACTORS FOR CARDIOVASCULAR DISEASES: TEHRAN LIPID AND GLUCOSE STUDY (TLGS)

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Background The population attributable fraction (PAF) that estimates potentially community-level effect of risk factors can be useful in planning public health interventions. This study compared different methods for calculating adjusted PAFs for cardiovascular diseases (CVD) in a cohort study with 10 years of follow-up.

Methods Baseline data were employed from 6630 participants (3746 women) above 30 years old and 558 CVD events (238 women) detected during follow-up. Unadjusted approach using Levin's formula, Miettinen formula approach using adjusted OR and HR estimated from logistic and Cox regression and direct estimation of average PAF from logistic regression using Ruckinger method, were applied.

Result Estimated PAFs, using HR comparing OR, in both Levin's and Miettinen's formula, with tiny decrease, gave very similar results. However, according to the average PAF method, frankly, we reach to lower fractions; highest modifiable cardiovascular risk factor PAFs, in sequence, was hypertension (16.2%), smoking (14.8%), diabetes (10.1%), hypercholesterolaemia (8.5%) for men, and hypertension (25.6%), diabetes (18%), hypercholesterolaemia (10.7%), for women. Also PAF of Age ≥ 60 years and premature family history of CVD, as most important non-modifiable CVD risk