

**P1-462 TRAFFIC ACCIDENT MORTALITY: TRENDS, REGIONAL DIFFERENCES AND SPATIAL DISTRIBUTION IN A NORTH-EASTERN STATE IN BRAZIL**

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This study examined changes in traffic accident mortality, examining different types of victims according to each development region in the state of Pernambuco, and estimated expected years of life lost. A descriptive and ecological study was carried out, using secondary data describing traffic collision deaths from the Ministry of Health Mortality Information System, from 1998 through 2007. Spatial analysis techniques were used: Mortality Coefficient Estimates by the Local Empiric Bayesian Method and Moran Spreading Diagram, applied over the digital cartographic databases from Pernambuco. Percentage variation in the coefficient showed a 16.3% decline between the first and the last years in the series. Linear regression showed a negative trend and was statistically significant at the 5% level. The observed decline in traffic collisions resulted mainly from a 35.3% reduction in pedestrian mortality rates, although all the other types of accidents contributed to this decrease, except for motorcycle mortality, which saw an increase of 297%. From the 185 municipalities, 16 encompassing five clusters were identified with an average mortality rate ranging from 5.66 to 11.66 per 100 000 inhabitants, were considered critical areas. Three clusters were located in the area known as Sertão and two in the Agreste of the state. These results point to a greater risk of dying due to motorcycle accidents outside of the Metropolitan areas, and within the identified ones. This suggests that intervention measures that take into consideration the economic, social and cultural contexts are critical.

**P1-463 HPV VACCINATION: KNOWLEDGE, PRACTICE AND BEHAVIOURAL INTENTIONS ABOUT PREVENTION OF CERVICAL CANCER AND STDs IN FRENCH GIRLS**

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**Objectives** To examine knowledge about HPV vaccination and behaviour towards STD among 14–23-year-old (yo) girls and determine the correlation with HPV vaccination status.

**Methods** From 11/2008 to 04/2009, 316 girls were recruited by general practitioners in a cross-sectional study and filled a self-administered questionnaire. Twenty-eight were interviewed by a sociologist.

**Results** Of the 316 girls, HPV vaccination was reported by 135 (42.7%). Parents were involved in the decision of vaccination for 62.4% of the 14–20 yo. Majority of unvaccinated girls preferred to wait (34.2%), did not feel concerned (27.3%) or intended to get the vaccine soon (25.5%). During the interviews, the 10 vaccinated girls declared having the same opinion as their parents and uncertain girls thought they were not yet concerned. Knowledge of HPV and pap-smear, need of pap-smear despite HPV vaccination was higher in vaccinated girls (13.3% vs 5.5%; 60.6% vs 34.9% in 14–16 yo girls and 60% vs 25.6% in 21–23 yo girls respectively). Overall, 87.2% cited condom for STD prevention and 88% of sexually active girls

used it, irrespective of HPV vaccine status. Conditions for stopping condom use were more often reported by vaccinated 14–16 yo girls (24.2% vs 11.1%).

**Conclusion** Knowledge about CC prevention was poor but seemed higher among vaccinated girls. Knowledge and behaviours about STD prevention seemed appropriate, whatever the HPV vaccination status. HPV vaccination should be widely proposed to adolescents and their parents and information on it and on CC prevention should be reinforced.

**P1-464 INCIDENCE OF BREAST CANCER PATIENTS AT HIGH RISK OF BRCA GERMLINE MUTATION AT THE NATIONAL CANCER INSTITUTE OF BRAZIL**

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**Introduction** Hereditary breast cancer accounts for 5% to 10% of all cases and the most frequently found germline mutation occur in tumour suppressor gene BRCA.

**Methods** To estimate the incidence of individuals with a high probability of carrying a mutation in BRCA1 or BRCA2 genes, a questionnaire with 13 questions was developed to screen individuals at a high risk of hereditary cancer among breast cancer patients at the National Cancer Institute of Brazil. This instrument was based on the criteria used by the National Comprehensive Cancer Network for the referral of patients with breast cancer for genetic counselling. Patients who answered yes to any of the questions were interviewed about their family history. The probability of BRCA gene mutation was determined by the statistical model BRCAPRO.

**Results** Among 118 patients who were interviewed with the screening questionnaire, 52 (44.1%) answered yes to at least one question. Using a >10% BRCA gene mutation probability threshold, 4.4% of breast cancer patients had a high risk of being carriers of a germline mutation of BRCA1 or BRCA2 genes. The greater the number of affirmative answers, the more likely the patient had a mutation ( $r=0.621$ ;  $p<0.001$ ).

**Conclusion** A screening tool can easily identify which patients should be referred for genetic counselling. The use of probability models can assist in building and adapting these questionnaires.

**P1-465 EDUCATION AND CARDIOVASCULAR DISEASE INCIDENCE IN DANISH MEN AND WOMEN. A DISCORDANT TWIN PAIR DESIGN**

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**Introduction** Social inequality in cardiovascular disease (CVD) is well-established. However, the causal paths driving this association are unclear. To disentangle the effect of education from underlying background factors we investigated the association between education and the risk of CVD using twin data to adjust for familial confounding.

**Methods** The study was based on data from the Danish Twin Registry linked to official registers in Statistics Denmark, including the National Inpatient Registry and Causes of Death Registry. A total of 12 240 monozygotic (MZ) and 20 822 dizygotic same sexed (DZSS) twins were analysed. Unpaired and intrapair analyses were compared.