

P2-254 EXPOSURE TO TRAFFIC AND CANCER HOSPITALISATION IN São PAULO

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Introduction Previous studies in developed countries have documented associations between air pollution and risk of some neoplasms. We explored the association of traffic-related air pollution with hospitalisations for cancer groups.

Methods Our analysis included all individuals admitted to public or private hospitals in São Paulo from 2004 to 2006 with a main diagnosis of primary invasive cancer. Only the first individual admission was considered, from which age, sex, diagnosis and home address were extracted. We calculated total, gasoline and diesel vehicles traffic density, from traffic counts data, for 4964 geographical units with a population of 20 or more inhabitants, formed by a grid of 500 by 500 m. We used logistic regression models adjusted by the Human Development Index of the area for groups of cancer.

Results There was an increased risk of hospitalisation for respiratory neoplasms in adults and for haematologic neoplasms in children and adolescents associated with living in areas with higher total traffic density and traffic density for vehicles powered by gasoline and diesel, with a clear dose-response gradient. The Rate ratios of these neoplasms for the highest category of exposure to total density traffic were, respectively, 3.31 (95% CI 2.26 to 4.87) and 2.35 (95% CI 1.59 to 3.49).

Conclusion Our study suggests an association between traffic air pollution and hospital admissions for respiratory and haematologic cancers. The adjustment for potential confounding variables, the use of more sophisticated exposure assessment models and of incidence data are needed to more directly investigate the cause and effect relationship.

P2-255 TRENDS IN MORTALITY DUE TO POTENTIALLY HPV-RELATED HEAD AND NECK CANCERS IN BRAZIL, 1980–2007

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Introduction Alcohol and tobacco are the most important risk factors for head and neck cancers (HNC). However, in some countries, it has been observed an increase in incidence rates, particularly among young people and among non-drinkers and non-smokers. These trends have increased the debate about the role of human papillomavirus (HPV) and several studies suggest that this infection may play a causative role in oropharyngeal tumours. This study aims to assess the magnitude of cancers potentially related to HPV in Brazil.

Methods Time series study including deaths due to HNC registered in Brazil, from 1980 to 2007. Age-adjusted mortality rates are described for 100 000 people, according to tumour site (HPV-related or non-HPV related) and sex. Annual percentage change (APC) was calculated through Joinpoint modeling method, using the calendar year as regressor variable.

Results We observed a statistically significant increasing trends in mortality rates due to HPV-related HNC among males in the periods of 1980–1994 (APC=2.4, 95% CI 1.0 to 3.8) and 1997–2005 (APC=4.0, 95% CI 0.8 to 7.4), followed by a decrease in 2005–2007 (APC=–27.2, 95% CI –44.6 to –4.4), while for females a significant increase in rates was observed between 1980 and 1998 (APC=7.6, 95% CI 0.3 to 15.4), followed by a decreasing trend in the period 1998–2007 (APC=–2.7, 95% CI –4.2 to –1.3). Regarding non-HPV

related HNC, significant changes were only observed for females (1980–2007, APC=–2.1, 95% CI –2.8 to –1.4).

Conclusion Important decreases in HPV-related HNC mortality were recently observed in Brazil, particularly among females. These results can suggest that these trends reflects better prognosis related to HPV-positive HNC.

P2-256 DESCRIPTIVE DATA ON WORK-RELATED CANCER IN BRAZIL: AN ANALYSIS WITH COMPENSATION BENEFITS

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In Brazil, data on work-related diseases and injuries are commonly recorded by the Brazilian Social Security Institute, INSS, which covered 32% of the economically active population, approximately 32 million workers, in 2009. Industries known to be associated with potential exposure of workers to carcinogenic substances are spread throughout the country and account for a substantial proportion of the labour force. There are no published work-related cancer statistics. This study describes the national distribution of occupational cancer cases leading to compensation benefit in Brazil, from 2000 and 2007.

Methods The study population comprised of all insured workers eligible for work-related compensation benefits, recorded electronically in the INSS. Cases were workers who received a compensation benefit classified as work-related and ICD-10 (C30–C96). Descriptive variables were sex, age, income, state, industry trades and year of the benefit

Results The number of registered benefits for cancer cases increased from 33 488 to 43 464; from these 724 (0.4%) work-related cancer cases were found. Most were <35 years of age and from the first income quartile. Cases were more likely to come from the construction industry, and leukaemia and other haematopoietic cancers predominated. The number of reported work-related cases declined from 100 in 2000 to 34 in 2006, when they started to increase reaching 266 in 2007.

Conclusions In Brazil, the number of reported cases of work-related cancers was small and decreasing during the last decade. After the implementation of a distinct work-relatedness protocol in 2007 it changed, increasing over 100%, suggesting large under reporting. Epidemiological estimates with these data are presently undergoing.

P2-257 SOCIAL DETERMINANTS AND HIGH RISK BEHAVIOURS IN DRUG USERS UNDER METHADONE TREATMENT IN GOLESTAN PROVINCE, NORTH IRAN

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Introduction Drug users' health is a product of drug-effects and risk behaviours. Social determinants can shape some health behaviours. There has been little research on social determinants and risk behaviours related to drug use in Iran. We aimed to estimate this in patients undergoing methadone treatment in north Iran.