P1-432 VIOLENCE AND HEALTH: AN EPIDEMIOLOGICAL ANALYSIS OF HOMICIDES IN MÉXICO, 1979–2008

doi:10.1136/jech.2011.142976g.22

G J Gonzalez-Perez,* M G Vega-lopez, C E Cabrera-pivaral, A Vega-lopez. *University of Guadalajara, Guadalajara, Mexico*

Introduction This study seeks to analyse the trend of homicide rate in México in last 30 years by age, gender and mechanism of death and identify the socioeconomic variables that better explain the spatial variations of homicide rate in Mexico in 2000 and 2008.
Methods Homicide rates adjusted by age were calculated; through the use of multiple regression analysis (stepwise method), variables that better explained the interstate variations in the homicide rates were identified.
Results The results show that although homicide rates in Mexico have been relatively high, the rate markedly decreased between early nineties and 2005, but has increased around 35% in last 3 years; furthermore, years of potential life lost by homicide has increased in recent years because the victims are younger; currently, male homicide rate is nine times higher than female rate; throughout the period more than half of homicides were committed by firearms, and in recent years figures exceed 60%. Moreover, social exclusion, drug trafficking, impunity and firearms possession are key elements to understand the spatial variations of the homicide mortality in Mexico in analysed years.
Conclusions In recent years it is observed a rise of the homicide rate and consequently, an increment of the social insecurity at a national level; to reduce the number of homicide victims and spatial variations in the rate, the Mexican government needs to combat the cartels of drug trafficking, but also to implement structural reforms to improve the life conditions of Mexican population and diminish the socioeconomic disparities among states.

P1-433 CAESAREAN SECTION IN PRIMIPAROUS, ADOLESCENTS MOTHERS OF GUADALAJARA, MEXICO: LEVEL AND ASSOCIATED FACTORS

doi:10.1136/jech.2011.142976g.23

G J Gonzalez-Perez,* M G Vega-lopez, C E Cabrera-pivaral. *University of Guadalajara, Guadalajara, Mexico*

Introduction Mexico has in recent years one of the highest rates of caesarean sections in the world and in turn, high rates of adolescent fertility. This study seeks to know the caesarean rate and to identify factors socioeconomic and related to medical practice associated to caesarean section in primiparous mothers under 20 years old in Metropolitan Area of Guadalajara, Mexico.
Methods The study was conducted at various public hospitals randomly selected of different health institutions of the MAG. A cross-sectional study was carried out, collecting data of all <20 years old primiparous mothers that had their delivery at the hospitals included in study during the second half of 2008 (sample size: caesarean section 306, vaginal delivery 462). A logistic regression model was used to estimate ORs with 95% CIs.
Results Almost 40% of total deliveries were by caesarean section. In the multivariate analysis five factors were statistically associated with the caesarean section: labour induction (OR =5.2, CI 2.8 to 9.5), body mass index ≥26 (OR =4.0, CI 1.7 to 9.4), low socioeconomic level (OR =2.9, CI 1.5 to 5.7), birth weight >3.500 g (OR =2.0, CI 1.0 to 4.2) and maternal age 18–19 (OR =3.4, CI 1.6 to 7.1).
Conclusions The cesarean section rate among adolescents is extremely high. Identified factors suggest the necessity of an adequate prenatal care to control those aspects that could lead to a caesarean section, but also the importance of quality care during childbirth to try to reduce the observed rates in the MAG.

P1-434 BIRTH OUTCOMES AND EARLY-LIFE SOCIAL CHARACTERISTICS PREDICT UNEQUAL EDUCATIONAL OUTCOMES ACROSS THE LIFECOURSE AND ACROSS GENERATIONS. DATA FROM A SWEDISH COHORT BORN 1915–1929 AND THEIR GRANDCHILDREN BORN 1973–1980

doi:10.1136/jech.2011.142976g.24

[1,2]A Goodman,* [2]M Gisselmann, [2]I Koupil. [1]*London School of Hygiene and Tropical Medicine, London, UK;* [2]*Centre for Health Equity Studies, Stockholm University, Karolinska Institute, Stockholm, Sweden*

Educational inequalities are a major contributor to health and social inequalities. We investigated the effects of adverse birth characteristics and social disadvantage upon educational outcomes over the lifecourse and across generations. Our subjects were 12 674 Swedish infants born 1915–1929 and 9706 of their grandchildren born 1973–1980. Within both cohorts, better school achievement (schoolmarks in elementary school) was predicted by: heavier birthweight, lower birth order, older mother, married mother and higher family social class. These effects persisted after mutual-adjustment, and birth characteristics and family composition played little role in explaining social class effects. There were no independent effects of preterm or twin status, but weak evidence that postterm infants were disadvantaged. The predictors of education continuation (secondary school attendance and entrance to tertiary education) were very similar, with family composition and social class effects persisting even after adjusting for school achievement. Across generations, better grandchild educational outcomes were predicted by heavier birthweight, lower birth order and higher social class in the grandparents. These associations became non-significant and/or substantially attenuated after adjusting for grandchild socioeconomic position in childhood, suggesting this was the major mechanism for this effect. We conclude that multiple early-life characteristics predict educational outcomes across the lifecourse and across generations, including birth outcome and family composition effects which typically receive little attention. Most effects were remarkably stable, suggesting their relevance for understanding educational inequalities in other populations. Such understanding would, in turn, clarify a major mechanism whereby health inequalities emerge across the lifecourse and are recreated across generations.

P1-435 WHY DO BRITISH INDIAN CHILDREN HAVE AN APPARENT MENTAL HEALTH ADVANTAGE

doi:10.1136/jech.2011.142976g.25

A Goodman,* V Patel, D Leon. *London School of Hygiene and Tropical Medicine, London, UK*

Background Previous studies document a mental health advantage in British Indian children, the causes of which are unknown.
Methods Our subjects were 13 836 White children and 361 Indian children aged 5–16 years in the British Child and Adolescent Mental Health Surveys. Mental health was assessed using the parent, teacher and child Strengths and Difficulties Questionnaires (SDQs), and multi-informant clinician-rated diagnoses. Multiple child, family, school and area factors were examined as possible mediators or confounders of ethnic differences.
Results Indian children had a large advantage for externalising problems/disorders, and no difference for internalising problems/disorders. This was observed across all outcomes, and psychometric analyses provided no suggestion of information bias. The Indian advantage for externalising problems was partly mediated by Indian children being more likely to live in two-parent families and less likely to have academic difficulties. Yet after adjusting for these and

J Epidemiol Community Health: first published as 10.1136/jech.2011.142976g.25 on 5 August 2011. Downloaded from http://jech.bmj.com/ on April 19, 2024 by guest. Protected by copyright.

all other covariates, the unexplained Indian advantage only reduced by a quarter (from 1.08 to 0.71 parent SDQ points) and remained highly significant. This Indian advantage was largely confined to families of low socio-economic position.

Conclusion The Indian mental health advantage is real and is specific to externalising problems. Family type and academic abilities mediate part of the advantage, but most is not explained by major risk factors. Likewise unexplained is the absence in Indian children of a socio-economic gradient in mental health. Further investigation of the Indian advantage may yield insights into novel ways to promote child mental health and mental health equity in all ethnic groups.

P1-436 RELATIONSHIP BETWEEN ADHD SYMPTOMS AND OFFENDING BEHAVIOUR AND BREACHES OF PRISON DISCIPLINE AMONG INCARCERATED YOUTHS IN SCOTALND

doi:10.1136/jech.2011.142976g.26

V Gordon,* D Williams, P Donnelly. *University of St Andrews, St Andrews, Fife, UK*

Introduction Prisoner mental health is an increasingly important health concern. An often neglected condition among youth prisoners is ADHD, which not only has implications for general health and well-being, but is also associated with an increased risk of anti-social and unlawful behaviour (including violent offences). The paper reports a study that investigates the relationship between ADHD symptoms and violent conduct in male youth prisoners in Scottish prisons.

Method The study included 57 male youth offenders incarcerated in three Scottish prisons and 58 male (student) non-offenders, aged 18–21 years. Self-reported ADHD symptoms were measured using the Conners' Adult ADHD Rating Scale and information on the nature and number of prison breaches of discipline was provided by the Scottish Prison Service.

Results The youth offender group showed significantly greater total ADHD symptom scores than the non-offenders. More specifically, scores on the DSM-IV hyperactivity-impulsive subscale were significantly greater in offenders than non-offenders. Moreover, a variety of subscales showed a greater correlation with violent compared to non-violent breaches of prison discipline.

Conclusion The study found that Scottish male youths currently incarcerated in Scottish prisons show greater levels of ADHD symptoms than a group of male (student) non-offenders. Moreover, there was some evidence suggesting that self-reported hyperactivity and impulsivity differentiated violent and non-violent breaches of prison discipline. In conclusion, given the association of ADHD with violent conduct, it is imperative that ADHD symptoms are acknowledged as risk factors for anti-social and violent behaviour and are subsequently addressed in rehabilitation efforts.

P1-437 RELATIVE VALIDITY OF A SHORT FOOD FREQUENCY QUESTIONNAIRE FOR ASSESSING NUTRIENT INTAKE VS 3-DAY WEIGHED DIET RECORDS IN YOUNG JAPANESE WOMEN

doi:10.1136/jech.2011.142976g.27

[1]C Goto,* [2]Y Tokudome, [3]N Imaeda, [4]K Kuriki, [5]S Tokudome. [1]*Nagoya Bunri University, Inazawa, Aichi, Japan;* [2]*Nagoya University of Arts and Sciences, Nisshin, Aichi, Japan;* [3]*Nagoya Women's University, Nagoya, Aichi, Japan;* [4]*University of Shizuoka, Shizuoka, Shizuoka, Japan;* [5]*National Institute of Health and Nutrition, Tokyo, Japan*

Introduction We have executed a validity test on our short food frequency questionnaire (FFQ) in "middle-aged" Japanese, but not "young women" yet, and here examined.

Methods One hundred and twenty five young women in Aichi Prefecture, Japan, completed the FFQ and 3 day-weighed diet records (3d-WDRs) in 2009. We compared intakes of energy and 26 nutrients computed with the FFQ against those with 3d-WDRs as reference.

Results Participant's means (SD) of age and BMI were 20.3 (0.5) years and 23.3 (2.3) kg/m^2, respectively. No significant difference was found between energy intakes of 1579 (221) and 1576 (258) kcal/day according to the FFQ and 3d-WDRs. Pearson's correlation coefficients between each nutrient intake derived from the FFQ and 3d-WDRs were 0.29 (energy), 0.18 (protein), 0.26 (fat), 0.28 (carbohydrate), 0.53 (calcium), 0.20 (iron), 0.21 (sodium), 0.33 (potassium), 0.31 (carotene), 0.30 (Vitamin A), 0.36 (Vitamin D), 0.36 (soluble dietary fibre), 0.32 (insoluble dietary fibre), 0.31 (total dietary fibre) and 0.23 (n-3 polyunsaturated fatty acids), respectively. Median percentages for exact agreement and disagreement according to quartile classification of each nutrient intake measured with both methods were 25.6 and 6.4, respectively.

Conclusions Similarly to our previous study, we showed considerably high relative validity values for consumption of macro- and micro-nutrients estimated with the FFQ vs those assessed with 3d-WDRs. The FFQ therefore appears applicable for categorising individuals according to consumption of energy and the selected nutrients in dietary studies of young Japanese women.

P1-438 THE UROTHELIAL CARCINOMA RISKS OF RADIATION, SMOKING AND OCCUPATIONAL EXPOSURES: A CASE-COHORT STUDY WITH STRATIFIED SAMPLING AMONG A-BOMB SURVIVORS

doi:10.1136/jech.2011.142976g.28

[1]E J Grant,* [2]T Kubo, [1]R Sakata, [1]J B Cologne, [1]A Suyama, [1]K Ozasa. [1]*Radiation Effects Research Foundation, Hiroshima, Japan;* [2]*University of Occupational and Environmental Health, Fukuoka, Japan*

Introduction Primary risk factors for urothelial carcinomas (UC) include smoking, occupational exposures to aromatic amines (AA) and polycyclic aromatic hydrocarbons (PAH). Radiation risk estimates of the A-bomb survivors indicate the bladder is highly radiosensitive. However, concerns persist as to whether high smoking rates or occupational exposures may have influenced these estimates. The purpose of this study is to re-estimate radiation risk estimates of UC while adjusting for smoking and occupational exposures to AAs and PAHs.

Methods A case-cohort study with stratified sampling of A-bomb survivors who completed a lifestyle survey. The sub-cohort consisted of 3195 persons sampled from an overall cohort of approximately 70 000 with an average age at entry of 52.7 years. There were 356 incident UCs between 1967 and 2001. Occupational exposures were assigned using a job exposure matrix from the US National Occupational Exposure Survey. An industrial hygienist assigned US Standard Industrial Classification codes (2-digit) based on questionnaires. Preliminary risk estimates were derived from Cox proportional hazards with robust estimates of variance.

Results The HR for 1 grey of radiation dose was 1.58 (95% CI 2.54 to 5.21). After adjusting for smoking and occupational exposures, the radiation HR was 1.49 (95% CI 1.01 to 2.18). The smoking HR was highly significant (2.86; 95% CI 2.00 to 4.09). No association was observed with occupational exposures.

Conclusions Results are preliminary. Improvements in variance estimation and the addition of occupational codes are still outstanding. However, these results indicate that previously reported risk estimates of UC are not largely biased by smoking or occupational exposures.

J Epidemiol Community Health: first published as 10.1136/jech.2011.142976g.25 on 5 August 2011. Downloaded from http://jech.bmj.com/ on April 19, 2024 by guest. Protected by copyright.