

**P2-41 PREVALENCE OF SMOKING AND ITS ASSOCIATION WITH MORTALITY IN CHINA: FINDINGS OF THE KADOORIE BIOBANK STUDY OF 0.5 MILLION PEOPLE**

doi:10.1136/jech.2011.142976h.77

<sup>1</sup>Z Chen, \*<sup>2</sup>Y Guo, <sup>1</sup>M Smith, <sup>3</sup>J Chen, <sup>1</sup>R Collins, <sup>1</sup>R Peto, <sup>2</sup>L Li. <sup>1</sup>Clinical Trial Service Unit & Epidemiological Studies Unit, University of Oxford, Oxford, UK; <sup>2</sup>Chinese Academy of Medical Sciences, Beijing, China; <sup>3</sup>China Centre for Disease Control and Prevention, Beijing, China

**Background** Over the past few decades, there has been a rapid increase in cigarette consumption in China. Large prospective studies are needed to monitor the evolution over the next few decades of the resultant epidemic of tobacco-related deaths in China.

**Methods** During 2004–2008 the Kadoorie Biobank Study recruited 510 000 adults aged 30–79 from 10 geographically defined regions across China. By Oct 2010, 10 000 deaths had been recorded. Cox regression was used to relate smoking to cause-specific mortality.

**Results** At baseline, the prevalence of ever smoking regularly was much higher in men (74%) than in women (3%). Among men, the smoking prevalence varied little by area and age but among women, it was associated inversely with year of birth, reflecting mainly the progressive decline in the uptake rate of smoking among younger women over the past few decades. Among men, the overall mortality of ever regular smokers was significantly higher than that of never smokers (adjusted RR 1.32, 95% CI 1.21 to 1.43). There were significant excess mortalities from total cancer, CVD and respiratory disease in male smokers. In urban men, the RR of ever regular smoking was the highest (RR 2.2, 95% CI 2.01 to 2.44) for those who started smoking before age 20 years, suggesting that over 50% of such deaths were caused by smoking.

**Conclusion** Smoking is already a major cause of premature death in China. The findings among urban men indicate the proportion of male deaths that could eventually be caused by smoking in China as whole.

**P2-42 RISK AND SOCIAL DETERMINANTS OF ANGINA IN OLDER PEOPLE IN CHINA: ROSE ANGINA QUESTIONNAIRE AND DOCTOR-DIAGNOSIS APPROACHES**

doi:10.1136/jech.2011.142976h.78

<sup>1,2</sup>R Chen. \*<sup>1</sup>Anhui Medical University, Hefei, China; <sup>2</sup>University of Wolverhampton, Wolverhampton, UK

**Background** The risk of angina and its social determinants in the elderly in China are not well documented. We determined the prevalence and socio-economic predictors of angina in Chinese elderly using the Rose Angina questionnaire and doctor-diagnosed of angina.

**Methods** Using a standard interview method, we examined random samples of 4314 participants aged  $\geq 60$  years in Guangdong, Heilongjiang, Shanghai and Shanxi provinces during 2008–2009. An angina diagnosis was based on the Rose Angina questionnaire and a doctor-diagnosis. An age-sex adjusted logistic regression model was employed to determine the association between angina and socio-demographic variables.

**Results** The world age-standardised prevalence of angina using the Rose Angina questionnaire ( $n=246$ ) was 5.74% (95% CI 5.00% to 6.47%); in men 3.69% (2.75% to 4.63%), in women 7.22% (6.15% to 8.29%). Corresponding values for doctor-diagnosed angina ( $n=282$ ) were 6.54% (5.76% to 7.32%); in men 5.08% (4.00% to 6.17%), in women 7.67% (6.56% to 8.77%). There was a fair agreement between two diagnoses (overall  $\kappa=0.38$ , in men 0.35, in women 0.40; all  $p<0.001$ ). For both measures the likelihood of a diagnosis of angina was greater in women, heavier body weight, higher BMI, cigarette smoking and hypertension. Doctor diagnosed angina was associated with higher levels of educational attainment and higher occupation class, living in an urban area, taller height, larger waist

circumference and diabetes. A diagnosis of angina based on the Rose Angina questionnaire was associated with low income only.

**Conclusions** Older people in China may have a low prevalence of angina. The association between an angina diagnosis based on the Rose Angina questionnaire and low income, and between a doctor diagnosis of angina and high socioeconomic status and urban living suggests that significant health and care inequalities in cardiovascular medicine exist in China.

**P2-43 WITHDRAWN**

**P2-44 BURDEN OF STROKE AND ITS RELATED DISABILITIES IN A RURAL COMMUNITY OF BANGLADESH**

doi:10.1136/jech.2011.142976h.79

<sup>1</sup>S Choudhury, \*<sup>2</sup>J Ahmed, <sup>2</sup>M Zaman, <sup>1</sup>M Sobhan, <sup>3</sup>A Hussain. <sup>1</sup>National Heart Foundation Hospital & Research Institute, Dhaka, Bangladesh; <sup>2</sup>Ekhlaspur Center of Health, Motlob North, Bangladesh; <sup>3</sup>Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh

**Introduction** Demographic changes and increased exposure to stroke risk factors are expected to give rise to high stroke burden in countries like Bangladesh. However data on stroke prevalence and its related disabilities in rural community of Bangladesh are scarce.

**Methods** A survey was done in 2006 in a rural population to identify stroke cases living in the community. A validated questionnaire for detection of stroke was used to identify probable cases by visiting households by trained interviewers. Identified probable cases were seen by physicians for confirmation. Physicians also determined the levels of disability according to Modified Rankin Scale.

**Results** Interviewers identified 61 people as probable stroke cases among the 4080 people aged 30 years or above. Physicians confirmed 26 cases of stroke (men: 21, women: 5) giving a stroke prevalence 64 per 10000 (95% CI 42 to 93). Mean age of onset of stroke was 57 years (95% CI 50 to 64). Various types of residual disabilities such as hemiplegia, paraplegia, facial weakness were noted among the 85% of the patients. The median modified Rankin Scale score was five, which suggests that 50% of the cases had moderate disability such as unable to walk without assistance and unable to attend to own bodily needs without assistance.

**Conclusion** Number of stroke cases living in the community with disability was high. Appropriate care and rehabilitation programme along with measures for reduction of population risk factor levels are needed.

**P2-45 PERIODONTAL DISEASE CONTRIBUTES TO THE OCCURRENCE OF CARDIOVASCULAR EVENTS? A META-ANALYSIS OF CASE CONTROL STUDIES**

doi:10.1136/jech.2011.142976h.80

<sup>1</sup>J M F Coelho, \*<sup>1</sup>I S Gomes-Filho, <sup>3</sup>M L Barreto, <sup>3</sup>A Guimarães, <sup>5</sup>P Lotufo, <sup>3</sup>A F Coelho, <sup>1</sup>J S Passos, <sup>4</sup>P B Barbosa, <sup>2</sup>S S Cruz, <sup>1</sup>S C Trindade. <sup>1</sup>Universidade Estadual de Feira de Santana, Feira de Santana, Bahia, Brazil; <sup>2</sup>Universidade Federal do Vale do São Francisco, Petrolina, Pernambuco, Brazil; <sup>3</sup>Universidade Federal da Bahia, Salvador, Bahia, Brazil; <sup>4</sup>União Baiana para Desenvolvimento da Ciência, Salvador, Bahia, Brazil; <sup>5</sup>Universidade de São Paulo, São Paulo, São Paulo, Brazil

**Introduction** We carried out a meta-analysis to determine the association between exposure to PD and ischaemic CDH.

**Material and methods** Studies published case-control between 1999 and 2009 were obtained from the search site PUBMED/MEDLINE, Lilacs e Google. The articles included report results of observational studies, case-control on the association between PD and DCVI, where the DP should have been diagnosed by clinical parameters

that included probing depth (PD) and clinical attachment level (NIC) DCVI and was represented by one of the following outcomes: Coronary Artery Disease (CAD), Myocardial Infarction (AMI) with or without angina pectoris, or Acute Coronary Syndrome (ACS). The quality of the articles was assessed using criteria recommended in "The Strengthening the Reporting of Observational Studies in Epidemiology-STROBE". In addition, compliance with the guidelines of the guide to meta-analysis for observational studies-MOOSE.

**Results** Of the 23 studies, case-control eligible, 16 had their results combined using the methodology of meta-analysis. The overall OR was approximately 2.52 (95% CI 2109 to 3009,  $p < 0.001$ ), indicating that individuals with PD have an increased chance of developing ischaemic CDH as compared to those without PD.

**Conclusion** Observational case-control suggest that individuals with PD are more likely to develop ischaemic CDH, however, further studies are needed for more definitive conclusions.

#### P2-46 ASSESSING THE HEALTH RELATED QUALITY OF LIFE AND EFFECTIVE FACTORS: A POPULATION BASED STUDY

doi:10.1136/jech.2011.142976h.81

<sup>1,2</sup>Ö Ülger, <sup>2</sup>M Çöl.\* <sup>1</sup>Ministry of Health, Ankara, Turkey, Turkey; <sup>2</sup>Ankara University Medical Faculty, Ankara, Turkey, Turkey

**Introduction** This study has been planned to determine quality of life of people in one health center area, and the effect of sociodemographic factors, hypertension and other chronic diseases.

**Methods** This cross-sectional study is conducted among residence of age 40 and over, living at the Park Health Center Area in Ankara-Turkey. Three hundred participants from the eligible population ( $n=5962$ ) were chosen by simple random sampling of these 260 (86.6%) were reached. Twenty for questions for sociodemographic factors and chronic diseases and short form 36 (SF-36) health survey questionnaires had been administered to each participant. Data analysis was performed by using SPSS for Windows program, Mann-Whitney U, Kruskal-Wallis and multiple linear regression tests were used for statistical analysis.

**Results** The mean of general SF-36 score of the study group was  $61.8 \pm 21.9$  (95% CI 59.1 to 64.5). The scores for physical functioning, physical role, bodily pain, general health, vitality, social functioning, emotional role and general mental health scales were (70.5), (57.8), (64.5), (54.6), (52.8), (77.9), (56.7), and (59.8) respectively. In multiple linear regression analysis; age, sex, education, type of house, annual income per capita, hypertension and the other chronic diseases had significant effect on various scales of the SF-36.

**Conclusion** The SF-36 scores of the study population were found to be low. It was determined that older age, female sex; low education level, hypertension and other chronic diseases have a negative effect on quality of life. According to results multidisciplinary approach and efforts are necessary for promoting quality of life.

#### P2-47 INCREASING INCIDENCE OF BARRETT'S OESOPHAGUS: A POPULATION BASED STUDY IN NORTHERN IRELAND

doi:10.1136/jech.2011.142976h.82

<sup>1</sup>H Coleman,\* <sup>1</sup>S Bhat, <sup>1</sup>L Murray, <sup>2</sup>D McManus, <sup>1,3</sup>A Gavin, <sup>2</sup>B Johnston. <sup>1</sup>Queen's University Belfast, Northern Ireland, UK; <sup>2</sup>Belfast Health and Social Care Trust, Northern Ireland, UK; <sup>3</sup>Northern Ireland Cancer Registry, Northern Ireland, UK

**Introduction** Oesophageal adenocarcinoma (OAC) incidence rates have increased in recent decades, particularly among white males in Western societies. Rising Barrett's oesophagus (BO) incidence, the pre-cursor condition for OAC, may explain this phenomenon.

However, increasing BO incidence may also simply reflect changes in endoscopy practices together with improvement in disease recognition. The aim of our investigation was to assess BO incidence over a 13-year period using a population-based register in Northern Ireland.

**Methods** The Northern Ireland Barrett's oesophagus Register is a population-based register of all adults diagnosed with BO, defined as columnar epithelium of the oesophagus, in Northern Ireland between 1993 and 2005. Annual BO incidence rates were calculated per 100 000 of the population, per 100 upper gastro-intestinal endoscopies and per 100 oesophageal biopsies performed in Northern Ireland.

**Results** During the 13-year period, 197 635 patients underwent an endoscopy and 9329 of these were diagnosed with BO. Average annual BO incidence rates rose by 2.5-fold, increasing from 31.9/100 000 during 1993–1997 to 80.1/100 000 during 2002–2005. Over the same time, there were 1.3- and 1.6-fold increases in endoscopy and biopsy rates in the population, respectively. Even with increasing rates of endoscopy and biopsy, BO was still diagnosed more frequently per 100 endoscopies and per 100 biopsies.

**Conclusion** BO incidence rates in Northern Ireland have increased more rapidly than the rate of endoscopies or biopsies. This could indicate that a true rise in BO incidence has occurred, contributing to the increase in OAC seen in Western populations.

#### P2-48 SECULAR CHANGES OF OVERWEIGHT AMONG BRAZILIAN ADOLESCENTS: AN UPDATE

doi:10.1136/jech.2011.142976h.83

W Conde,\* C Monteiro. Public Health School, University of Sao Paulo, Sao Paulo, Brazil

**Introduction** Overweight in adolescents is worldwide and have been growing fast in the three last decades. In Brazil, data from three national surveys show that prevalence of overweight among male fivefold from 1974–1975 to 2002–2003 and flat among female from 1989 to 2002–2003.

**Objective** To update changing trends of overweight among Brazilian adolescents across last 4 decades.

**Methods** Data are age-ranged 10–19 years and come from four nationwide surveys: ENDEF-1974–1975, PNSN-1989, POF-2002–2003 and POF 2008–2009. Overweight was classified according to IOTF's purpose as the BMI values greater than the adult equivalent 25 kg/m<sup>2</sup> critical values. Change in risk of overweight across survey periods was estimated using ratio of prevalence (RR).

**Results** Among boys, prevalence of overweight was 2.4, 5.7 and 13.2 and 17.3% at 1974–1975, 1989, 2002–2003 and 2008–2009, respectively; among girl, prevalence of overweight was 6.0, 11.8, 12.5 and 16.3% at same survey, respectively. From 2002–2003 to 2008–2009 overweight increased across all age groups and income strata, both sexes. RR for changing trends from 1974–1975 to 1989, 1989 to 2002–2003 and 2002–2003 to 2008–2009 among the fifth poorest male are 2.6, 7.5, 10.1, respectively and among the fifth richest male are 2.1, 3.3 and 4.4, respectively. Among the poorest female RR are: 2.1, 2.4 and 3.7 and among richest fifth are 2.0 1.5 2.1, respectively.

**Conclusion** In general, overweight expanded stronger in the last decade. Female adolescents in Brazil has reversed flat trend and are going to increase body mass index at all age and income strata.

#### P2-49 SUBCLINICAL DIASTOLIC DYSFUNCTION IS ASSOCIATED WITH BIOMARKERS OF HEPATIC FUNCTION: RESULTS FROM THE STOP HF STUDY

doi:10.1136/jech.2011.142976h.84

<sup>1</sup>C Conlon,\* <sup>1</sup>C Kelleher, <sup>2</sup>H Ulmer, <sup>3</sup>I Dawkins, <sup>3</sup>A Patle, <sup>3</sup>C O'Loughlin, <sup>3</sup>M Ledwidge, <sup>3</sup>K McDonald. <sup>1</sup>School of Public Health, Physiotherapy & Population Science, University