

**Conclusions** This is the first study to analyse putative associations between PBC and fluoride in drinking water across GB at small-area level. No statistically significant relationships were found.

**P1-97** **DEMOGRAPHIC ANALYSIS OF OSTEOSARCOMA AND EWING SARCOMA FAMILY OF TUMOURS IN 0–49 YEAR OLDS IN GREAT BRITAIN, 1980–2005: A SMALL-AREA APPROACH**

doi:10.1136/jech.2011.142976c.90

<sup>1</sup>K Blakey, <sup>2</sup>R Feltobower, <sup>2</sup>R Parslow, <sup>1</sup>P James, <sup>1</sup>B G Pozo, <sup>3</sup>C Stiller, <sup>3</sup>T Vincent, <sup>4</sup>P Norman, <sup>2</sup>P McKinney, <sup>3</sup>M Murphy, <sup>5</sup>A Craft, <sup>1</sup>R McNally. <sup>1</sup>*Institute of Health and Society, Newcastle University, Newcastle-upon-Tyne, UK;* <sup>2</sup>*Paediatric Epidemiology Group, University of Leeds, Leeds, UK;* <sup>3</sup>*Childhood Cancer Research Group, Department of Paediatrics, Oxford, UK;* <sup>4</sup>*School of Geography, University of Leeds, Leeds, UK;* <sup>5</sup>*Northern Institute of Cancer Research, Newcastle University, Newcastle-upon-Tyne, UK*

**Introduction** Primary bone cancers (PBC) occur most often in young people. Osteosarcoma and Ewing sarcoma family of bone tumours (ESFT) are the most common sub-groups but aetiology remains unclear. Some childhood cancer rates are known to vary with socio-economic status. Therefore, this study examined geographical patterning in osteosarcoma and ESFT incidence, diagnosed in 0–49 year olds in Great Britain (GB) during 1980–2005. The analysis focussed on putative associations with area characteristics including deprivation and population density (PD).

**Methods** Data were obtained from all regional cancer registries in GB. Negative binomial regression was used to examine the relationship between incidence rates with PD and Townsend deprivation score (TDS). These models were fitted to small-area census data aggregated by three age bands (0–14, 15–29 and 30–49 years) and gender with the logarithm of the ‘at-risk’ population as an offset.

**Results** There were 2566 osteosarcoma cases and 1650 ESFT cases. After adjustment for age and gender osteosarcoma incidence demonstrated a negative association with TDS (RR for one unit increase in deprivation level = 0.975; 95% CI 0.963 to 0.986). ESFT incidence showed a negative association with PD (RR for increase of one person/hectare = 0.981; 95% CI 0.972 to 0.989) and non-car ownership (RR for 1% increase of non-car ownership = 0.996; 95% CI 0.993 to 1.000).

**Conclusion** More deprived areas have lower osteosarcoma incidence. Higher ESFT incidence is associated with lower PD and higher car ownership levels. Both factors are rural area characteristics. Further study of environmental exposures or land use is recommended.

**P1-98** **INEQUALITIES IN MEDICINES EXPENDITURE AMONG ADULTS: A POPULATION-BASED STUDY IN SOUTH OF BRAZIL**

doi:10.1136/jech.2011.142976c.91

<sup>1</sup>A Boing, <sup>2</sup>K Peres, <sup>2</sup>A Bertoldi. <sup>1</sup>*Federal University of Santa Catarina, Florianópolis, Santa Catarina, Brazil;* <sup>2</sup>*Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil*

**Introduction** Brazilian families’ expenditure with health achieves high proportion of their incomes, especially to purchase medicines. The aim of this study was to investigate the associated factors with the proportion of income spent to purchase medicines in adults from 20 to 59 years of age.

**Methods** A cross sectional population-based study (n=1720) was carried out in Florianópolis, Brazil, 2009. Commitment of 10% or more of family income (C10) with medicines expenditure (yes/no) was considered the outcome. Gender, age, skin colour, schooling, per capita family income, self-reported chronic diseases, hospitalisation in the last year, family health program coverage, and self-rated health were the exploratory variables. Crude and adjusted prevalence ratios (PR) were obtained through Poisson regression analyses.

**Results** The prevalence of the C10 was 12.2% (95% CI 10.4 to 13.9) and it was higher among women (PR 1.59, 95% CI 1.16 to 2.18),

people over 49 years of age (PR 1.95, 95% CI 1.33 to 2.86), and those with a per capita family income lower than US\$242,90 (PR 2.38, 95% CI 1.42 to 4.02). Participants reporting chronic diseases (PR 2.17, 95% CI 1.58 to 2.97), and those who were hospitalised in the last year (PR 1.47, 95% CI 1.02 to 2.12) was more likely to present C10.

**Conclusions** The results suggest remarkable social inequalities in medical expenses in a Brazilian adult population. Social and economic policies to reduce such vulnerability are necessary.

**P1-99** **A POLICY EFFECTIVENESS-FEASIBILITY LOOP FOR EVIDENCE-BASED PUBLIC HEALTH POLICY**

doi:10.1136/jech.2011.142976c.92

<sup>1</sup>S Bowman, <sup>2</sup>N Unwin, <sup>3</sup>J Critchley, <sup>4</sup>A Hussein, <sup>5</sup>B Unal, <sup>6</sup>F Fouad, <sup>6</sup>W Maziak, <sup>7</sup>H B Romdhane, <sup>8</sup>S Capewell. <sup>1</sup>*Institute of Health and Society, University of Newcastle, Newcastle Upon Tyne, UK;* <sup>2</sup>*The Faculty of Medical Sciences, University of the West Indies, Bridgetown, Barbados;* <sup>3</sup>*St. George’s Hospital Medical School, University of London, London, UK;* <sup>4</sup>*Institute of Community and Public Health, Birzeit University, Birzeit, Occupied Palestinian Territory;* <sup>5</sup>*Department of Public Health, School of Medicine, Dokuz Eylul University, Izmir, Turkey;* <sup>6</sup>*Syrian Center for Tobacco Studies, Aleppo, Syria;* <sup>7</sup>*National Public Health Institute, CVD Epidemiology and Prevention Research Laboratory, Tunis, Tunisia;* <sup>8</sup>*School of Population Community and Behavioural Sciences, University of Liverpool, Liverpool, UK*

**Introduction** While public health policy could profoundly effect health status<sup>1</sup>, research informing policy-making and implementation is underutilised.<sup>1–5</sup> A range of evidence types are required to support policy-making, and involving policy makers in generating and evaluating evidence is important. This work aims to develop, implement and evaluate an interactive approach to informing policy for preventing and managing cardiovascular disease (CVD) and diabetes (focusing on four territories with a high disease burden: Palestine, Turkey, Tunisia and Syria).

**Methods and Results** Three main types of research activity are proposed:

1. Epidemiological modelling: three models estimate major risk factor trends including relative contribution to overall reduction in CHD deaths.
2. Situation analysis: three main elements are investigated using mixed methods. Analysis will suggest acceptable and feasible interventions and opportunities and barriers for implementation.
3. Economic modelling: potentially effective and feasible options will be evaluated, including country-specific cost and cost-effectiveness ratios.

A ‘policy effectiveness-feasibility loop’ model (based on an ‘equity effectiveness loop’<sup>7</sup>) is proposed to link evidence types and facilitate its systematic, operational use in policy-formulation. Illustrative findings from using this model in four focus countries will be described. Policy makers are involved throughout, informing the situation analysis and choosing and appraising options for implementation.

**Conclusion** Other non-linear models exist for how research influences policy-making<sup>6</sup>. This work proposes a pragmatic framework to: combine all evidence types (particularly cost effectiveness); involve policy makers; and use evidence to develop policy options (initially for CVD and diabetes prevention). Next steps for evaluation are suggested.

**REFERENCES: AVAILABLE ON REQUEST.**

**P1-100** **I2SARE (INDICATEURS DE SANTÉ DANS LES REGIONS D’EUROPE) EUROPEAN REGIONAL HEALTH PROFILES**

doi:10.1136/jech.2011.142976c.93

T Braun, <sup>\*</sup>G Bryant, C Bradford, J Wilkinson. *NEPHO (North East Public Health Observatory), Stockton, UK*

**Introduction** The I2SARE project has developed health profiles for 263 regions in 26 European member states. Information at regional