

places, the drive and determination of key persons within the national and regional public health administration, and the sustained advocacy from scientific societies, professional bodies, trade unions, and citizens' associations. After a year of review and debate at different levels, the Spanish Parliament changed the partial ban to a total ban, converting Spain to a true smoke-free country from January 2nd, 2011. This change clearly shows that the pressure from the tobacco industry (and some allies in the hospitality sector) can be overcome through combined and continuing actions driven by the different actors involved in tobacco control.

## CHRONIC DISEASE

### 5.2 SOCIAL FACTORS AND CHRONIC DISEASES

#### 05-2.1 IS IT WHERE YOU LIVE OR WHO YOU ARE THAT IS IMPORTANT? AN ANALYSIS OF NEIGHBOURHOOD ENVIRONMENTS, SELF-REPORTED PHYSICAL ACTIVITY AND OVERWEIGHT / OBESITY IN CANADA'S CAPITAL

doi:10.1136/jech.2011.142976b.43

<sup>1,2</sup>S A Prince Ware, \*<sup>3</sup>E A Kristjansson, <sup>4</sup>K Russell, <sup>5</sup>J M Billette, <sup>4</sup>A Ali, <sup>6</sup>M Sawada, <sup>2</sup>M S Tremblay, <sup>7</sup>D Prud'homme. <sup>1</sup>University of Ottawa, Population Health Program, Ottawa, Ontario, Canada; <sup>2</sup>Health Active Living and Obesity Research Group, Children's Hospital of Eastern Ontario, Ottawa, Ontario, Canada; <sup>3</sup>University of Ottawa, Faculty of Social Sciences, School of Psychology, Ottawa, Ontario, Canada; <sup>4</sup>Ottawa Public Health, Ottawa, Ontario, Canada; <sup>5</sup>Health Statistics Division, Statistics Canada, Ottawa, Ontario, Canada; <sup>6</sup>University of Ottawa, Laboratory for Applied Geomatics and GIS Science (LAGGISS), Department of Geography, Ottawa, Ontario, Canada; <sup>7</sup>University of Ottawa, Faculty of Health Sciences, School of Human Kinetics, Ottawa, Ontario, Canada

**Background** In Canada, there is limited research examining the effects of objectively measured neighbourhood environments on physical activity (PA) and obesity.

**Purpose** To determine the relationships between variables from built and social environments and PA and overweight / obesity across 86 Ottawa neighbourhoods.

**Methods** Individual-level data including self-reported leisure-time PA, height and weight were examined using a sample of 4727 adults from four combined cycles (years 2001/2003/2005/2007) of the Canadian Community Health Survey. Data on neighbourhood characteristics were obtained from the Ottawa Neighbourhood Study; a large study of neighbourhoods and health in Ottawa. Binomial multivariate multilevel models were used to examine the relationships of environmental and individual variables with PA and overweight / obesity using population weights.

**Results** Approximately 75% of adults were inactive (<12.5 kJ/kg/day) while half were overweight / obese. Results of the multilevel models suggest that higher numbers of convenience stores and fast food outlets in a neighbourhood were associated with increased odds of being overweight / obese, while a larger number of restaurants was associated with lower odds. Season of data collection was significantly associated with PA in men and women with the odds of PA in winter being half that of summer. Intraclass coefficients were low, and identified that the models explained a small proportion of the neighbourhood-level variance in PA and overweight / obesity.

**Conclusions** Findings from this sample identified that recreation and social environments did not exert significant influences on PA or overweight / obesity, however, food outlets did show a significant

influence on female overweight / obesity. The impact of individual-level characteristics to the model was modest.

#### 05-2.2 THE CHANGING CONTRIBUTION OF SMOKING TO EDUCATIONAL DIFFERENCES IN MORTALITY: ESTIMATES FOR FINNISH MEN AND WOMEN FROM 1971 TO 2005

doi:10.1136/jech.2011.142976b.44

<sup>1</sup>P Martikainen, \*<sup>2</sup>J Ho, <sup>2</sup>S Preston, <sup>2</sup>I Elo. <sup>1</sup>University of Helsinki, Helsinki, Finland; <sup>2</sup>University of Pennsylvania, Philadelphia, Pennsylvania, USA

**Introduction** Major socioeconomic differences in mortality are observed in high income countries. While smoking remains one of the major single causes of mortality, its contribution to levels and trends in socioeconomic differences in mortality remain unclear. We present estimates of the contribution of smoking to educational differences in mortality between 1971 and 2005.

**Methods** Census records linked with death records for all Finns aged 50+ were studied. Smoking attributable mortality is estimated with an indirect method developed by Preston *et al* that uses lung cancer mortality as a proxy for the impact of smoking on mortality from all other causes.

**Results** In the early 1970s smoking attributable deaths constituted about 27% of all male deaths above age 50 and 17% in the 2000s; 1% and 4% among women respectively. At age 50 life-expectancy differentials between men with basic vs high education increased from 3.4 to 4.4 years. In the absence of smoking these differences would have been 1.5 and 3.1 years, 60% and 25% less than those observed. Half of the increase in life-expectancy among men with basic education was attributable to smoking. Among women the contribution of smoking to educational differentials in mortality was negligible in the 1970s but increased to about 10% in the early 2000s.

**Conclusion** Smoking continues to have a major influence on educational differences in mortality among men and its contribution is increasing among women. Anti-smoking efforts can achieve gains in longevity among men and reverse the trend of increasing smoking attributable mortality among women.

#### 05-2.3 A NEW MULTIPLE SCLEROSIS PREVALENCE STUDY IN ABERDEEN CITY, ORKNEY AND SHETLAND

doi:10.1136/jech.2011.142976b.45

<sup>1</sup>E Visser, \*<sup>2</sup>K Wilde, <sup>3</sup>K K Yong, <sup>4</sup>J F Wilson, <sup>1</sup>C Counsell. <sup>1</sup>Population Health, College of Life Sciences & Medicine, Division of Applied Health Sciences, University of Aberdeen, Foresterhill, Aberdeen, UK; <sup>2</sup>Directorate of Information Technology, University of Aberdeen, Foresterhill, Aberdeen, UK; <sup>3</sup>Aberdeen Royal Infirmary, NHS Grampian, Foresterhill, Aberdeen, UK; <sup>4</sup>Centre for Population Health Sciences, University of Edinburgh, Edinburgh, UK

**Background** Multiple sclerosis (MS) is an inflammatory and degenerative disease of the central nervous system of unknown aetiology. It is the commonest cause of chronic neurological disability in young people. The disease is more common in those of Northern European origin and the highest prevalence rates in the world have