

**P1-118 EXPECTED SOCIO-DEMOGRAPHIC ASSOCIATIONS WITH PROBLEM DRINKING IN RUSSIAN MEN ARE NOT DETECTED USING THE AUDIT QUESTIONNAIRE**

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**Introduction** Life expectancy in Russia among men is extremely low for an industrialised country (62 years in 2008), which is partly explained by hazardous alcohol consumption. We investigated the relationship between socio-demographic variables and dimensions of alcohol use.

**Methods** In 2008–2009 a population sample of 996 men aged 25–59 years living in Izhevsk, Russia took part in a survey that collected information on socio-demographic circumstances and a self-completed questionnaire that included the WHO Alcohol Use Disorders Identification Test (AUDIT). Latent dimensions of the total AUDIT score were determined using confirmatory factor analysis (CFA) and structural equation modelling was used to estimate the strength of association of these dimensions with socio-demographic variables.

**Results** Confirmatory factor analysis supported a two factor structure for the AUDIT: alcohol consumption and alcohol-related problems. Consumption was highest among men who were unemployed seeking work ( $p=0.001$ ) but was not related to education ( $p=0.91$ ) or marital status ( $p=0.76$ ). The dimension capturing alcohol-related problems was greatest among men who were unemployed seeking work ( $p<0.001$ ) and those who were less educated ( $p=0.02$ ) but was not associated with marital status ( $p=0.43$ ).

**Conclusions** The main socio-demographic variables available in this study were not associated with the two dimensions of the AUDIT in the same way. This together with the failure to show an association of either AUDIT dimension with marital status is surprising and warrants further investigation. It may indicate limitations in the sensitivity of AUDIT to important aspects of Russian drinking patterns.

**P1-119 LOW SOCIAL SUPPORT AS A RISK FACTOR FOR A MAJOR DEPRESSIVE EPISODE IN CANADIAN COMMUNITY-DWELLING SENIORS**

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**Background** Major depression represents a great cause of disease burden worldwide. Further, the proportion of Canadian citizens aged 65 years of age and older is rapidly growing. Despite this, there is a lack of longitudinal data on risk factors for a major depressive episode in seniors. While current literature has established social support as an important factor in the development and prevention of a major depressive episode, comprehensive measures of social support are rarely employed. A longitudinal approach to examining the relationship between depression and comprehensive social support tools has yet to be conducted in Canada.

**Methods** This study will use 12 year population-based longitudinal data from the National Population Health Survey, collected by Statistics Canada. The survey will be restricted to individuals aged 65 years of age and older. Demographic and socioeconomic characteristics of the sample will be presented. The 2-year and 10-year incidence proportions of major depression in seniors will be estimated. The cross-sectional and longitudinal association between social support and a major depressive episode will be examined using multivariate logistic regression.

**Results** This study will meet the thesis requirements for a Master's of Epidemiology. At the time of abstract writing, no results are

available for abstract inclusion. Results and conclusions will be available and will be presented at the World Congress of Epidemiology conference in August 2011.

**P1-120 WITHDRAWN**

**P1-121 WEIGHT CHANGE AND INCIDENCE OF DISABILITY IN ACTIVITIES OF DAILY LIVING IN ELDERLY WOMEN**

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**Introduction** Weight change in elderly is known as associated with risk of diseases and mortality.

**Objective** To examine the association between 2-year weight change and incidence of activities of daily living (ADL) disability in elderly women.

**Methods** Data comes from a longitudinal survey—SABE Study (Health, Well-being and Ageing), which began in 2000 with a multistage clustered sample of 2143 people aged  $\geq 60$  years-old living in Sao Paulo-Brazil. In 2006, during the second wave ( $n=1115$  re-interviewed), used here as baseline, a subsample of 688 persons aged  $\geq 75$  years was followed-up, in 2 rounds (2008–2009). Measures included: Weight change (baseline- 2008); Incidence of ADL disability (baseline-2009). Logistic regression with ADL status in 2009 as outcome, including health and socioeconomic covariates. Inferences were weighted to account for sample design.

**Results** In 2006, from 433 women, 227 had no limitation in ADL. In 2009, ADL were analysed in a sample of 162 women. The disability incidence was 171.4/1000 person-years in women who lost more than 5% of weight, 138.4/1000 person-years in women who gained more than 5%, and 87.4/1000 person-years for women who maintained weight during follow-up. Weight loss was associated to the risk of disability ( $OR=3.38$ ;  $p=0.012$ ), as well as weight gain ( $OR=2.71$ ;  $p=0.009$ ). After adjusting for MMSE score, age, education and frailty, weight gain remained as independent factor associated to disability ( $OR=2.31$ ;  $p=0.041$ ), but weight loss lost significance ( $OR=1.91$ ;  $p=0.288$ ).

**Conclusions** Weight gain is associated with the risk of developing ADL limitation in older women.

**P1-122 FRAILTY AND INCIDENCE OF DISABILITY IN ACTIVITIES OF DAILY LIVING IN ELDERLY**

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**Introduction** Frailty is known as a factor associated with risk of disability in elderly.

**Objectives** To examine the association between frailty status and incidence of activities of daily living (ADL) disability in elderly.

**Methods** Data comes from a longitudinal survey—SABE (Health, Well-being and Ageing), which began in 2000 with a multistage clustered sample of 2143 people aged  $\geq 60$  years-old in Sao Paulo-Brazil. Frailty components (Fried's model) were included in 2006, during the second wave ( $n=1115$  re-interviewed). In 2006, used here as baseline, a subsample of 688 persons aged  $\geq 75$  years was followed-up, in 2 rounds (2008–2009). Measures included: frailty status in baseline; incidence of ADL disability (baseline-2009). We tested two adjusted logistic multiple regression models. Inferences were weighted to account for sample design.

**Results** In 2006, 389 elderly had no ADL limitation. In 2009, after excluding those who scored  $<19$  in Mini-Mental State Exam, ADL

were analysed in a sample of 242 elderly. The disability incidence was 91.5/1000 person-years in robust, 118.6/1000 person-years in pre-frail, and 223.2/1000 person-years in frail elderly. Frailty is associated to the risk of developing disability (OR=3.32;  $p=0.015$ ). In model 1, adjusted for age, sex and education, frailty remains significantly associated (OR=2.54;  $p=0.045$ ). In model 2, after adding depression, falls, BMI, and mobility limitation, frailty lost significance, but still shows risk (OR=2.61;  $p=0.066$ ).

**Conclusions** Incidence rate of ADL limitation was greater in frail elderly, but other factors, as depression and falls, are also important and should be considered.

#### P1-123 EDUCATION, MUNICIPAL DEVELOPMENT AND RATE OF HOMICIDES IN MINAS GERAIS, BRAZIL

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**Introduction** Homicide rates are increasingly and have become a public health problem in developing countries, affecting mainly young males aged 15–29 years. We aimed to investigate the relationship between the development level of the cities and schooling, with the rate of homicides.

**Methods** An ecological study was performed with data from the State of Minas Gerais, Brazil (population >50 000) in 2006. We used the following variables: homicide mortality rate per 100 000 in 15–29 year olds, school attendance of young people aged 15–17 years and the Index for Social Responsibility (ISR). The ISR is a compound indicator that aggregates information from health outcomes, income, education, demography, public safety, management, housing and environment, culture and sport and leisure. The relationship between the variables was investigated by linear regression.

**Results** Of the 2320 deaths in Minas Gerais in 2006 due to external causes, 283 (12%) were due to homicides. The victims were mostly male (89%) and 43% belonged to age group 15–29 years. Regression modelling showed the homicide rate decreased with increasing ISR and increasing school attendance.

**Conclusion** These results suggests that mortality in young people is related to lower educational level. Thus, strategies for dealing with violence should consider investing in the education of citizens.

#### P1-124 KNOWLEDGE AND ATTITUDES TOWARDS THE HUMAN PAPILLOMAVIRUS VACCINE AMONG COLLEGE STUDENTS

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**Introduction** Human papillomavirus (HPV) is the most common sexually transmitted infection (STI) and is a leading cause of cervical cancer in the USA; most cases occur in individuals between the ages of 15 and 24, yet few studies have examined factors associated with HPV vaccine acceptance among this age group.

**Methods** Responses to a 15-question web-based survey were used to determine predictors and deterrents of HPV vaccine acceptance among college students.

**Results** Multinomial logistic regression was used to analyse data at a CI of 95%. Students who believed they were at risk for contracting HPV were over four times more likely to be willing to receive the vaccine than students who did not believe they were at risk [OR: 4.2; CI 2.113 to 8.359;  $p=0.000$ ]. Students who had previously been diagnosed with an STI were almost seven times more likely perceive

they were at risk for contracting HPV [OR: 6.86; CI 1.85 to 25.52;  $p=0.009$ ]. Male students were less willing to receive the preventative HPV immunisation than their female counterparts [OR: 0.355; CI 0.155 to 0.812;  $p=0.007$ ]. Students who were aware of the relationship between HPV and cervical cancer were nearly two times more likely to report willingness to receive the vaccine [OR: 1.93; CI 0.987 to 3.754;  $p=0.044$ ].

**Conclusion** HPV vaccination uptake may be increased if future programs emphasise students' susceptibility to HPV infection. Vaccination campaigns should also include more information regarding the relationship between HPV and cervical cancer, as well as vaccine safety and effectiveness.

#### P1-125 SOCIAL INEQUALITIES IN BIOMARKERS: FINDINGS FROM THE ENGLISH LONGITUDINAL STUDY OF AGEING (ELSA)

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**Introduction** Although social inequalities in health are widely recognised, the process by which the social environment becomes translated into physiological and psychological processes that influence health remains unclear. The aim of this longitudinal study was to compare changes over time and the relationship between socioeconomic position and different biomarkers in a nationally representative sample of older adults in England.

**Methods** The sample consisted of 6260 participants aged 50 and older who took part in the 2004 and 2008 waves of the English Longitudinal Study of Ageing (ELSA), a prospective national cohort study of people aged 50 years and over. The analyses included biomarkers associated with cardiovascular disease as well as those associated with improved health and well-being. The changes in these markers over time were modelled using two measures of socioeconomic status: total (non-pension) wealth and level of education. Analyses were adjusted for confounding variables.

**Results** The prevalence of overweight, general and abdominal obesity was inversely related to socioeconomic position as defined by wealth and education. Fewer participants who were better off and had more educational qualifications had levels of 'good' cholesterol (HDL), triglycerides, fibrinogen, CRP and glycated haemoglobin that would indicate increased risk. Total and LDL cholesterol showed an inverse socio-economic gradient.

**Conclusion** Overall, there was a very clear socio-economic gradient in biomarkers measured in ELSA and the pattern was similar for both men and women.

#### P1-126 NUTRITION NEEDS TO DEVELOP EFFECTIVE MEASUREMENT POLICIES

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Measurements of food and nutrition availability and intake inform national policy, standards and research. However, existing nutrition data are not complete and often subject to error. Accurate and comprehensive data are needed on the source of food and nutrients. Nutrient sources amenable to intervention and the cost of such interventions must be described to determine feasible approaches. Food sales data describes the formal sector, omitting the informal sector which accounts for a majority of energy intake in some countries. Food balance sheets used by the FAO to estimate dietary intake do not take into account household or retail waste, over-estimating dietary intake. NHANES, the US population intake survey is subject to underestimation of dietary intake due to reporting error, especially by overweight subjects. Standard portion