SP6-8

## SOCIOECONOMIC AND DEMOGRAPHIC CHARACTERISTICS AS DETERMINANTS OF HEALTH STATUS AND HEALTHCARE UTILISATION IN ELDERLY MEN IN BRAZIL

doi:10.1136/jech.2011.142976p.79

L M Santiago,\* I E Mattos, L L Luz. Oswaldo Cruz Foundation, National School of Public Health, Rio de Janeiro, Brazil

**Introduction** In Latin-America, social inequalities play an important role as determinants of health conditions. This study aimed to analyse associations among social inequalities, health status and healthcare utilisation in Brazilian elderly men.

Methods The study was based on 2859 old men living in a medium size city in Southeast Brazil. Two-stage cluster analysis was performed using socioeconomic and demographic characteristics. To verify possible associations between cluster characteristics and health variables prevalence ratios (PR) and their 95% CI were estimated.

Results Three clusters were identified. Individuals in Cluster 1 (socioeconomically favourable) were married, owned their homes and no longer worked. In Cluster 2 (socioeconomically intermediate) were the younger and still economically active men and in Cluster 3 (socioeconomically unfavourable) were mostly widowers with few years of schooling. In comparison to **Cluster 1**, men in Cluster 3 had high probability of referring use of public health services (PR 1.17 95% CI 1.10 to 1.24), report chronic conditions (PR 1.12 95% CI 1.02 to 1.23) and have no regular physician (PR 1.30 95% CI 1.17 to 1.44); men in Cluster 2 had low probability of referring poor health (PR 0.62 95% CI 0.52 to 0.63), reporting chronic conditions (PR 0.70 95% CI 0.63 to 0.79) and relating regular use of medication (PR 0.77 95% CI 0.71 to 0.83).

Conclusion Socioeconomic differences are associated with health status and use of health services in this population. Social inequalities leading to poor living conditions and other environmental exposures further enhance their vulnerability. Measures to identify these high risk individuals, reduce inequalities and facilitate the access to health services are necessary in order to reverse current standards.

SP6-9

## **HEALTH SURVEY IN CAMPINAS (ISACAMP): COMPARISON** OF ESTIMATES ACCORDING TO OWNERSHIP OF A **RESIDENTIAL TELEPHONE LINE**

doi:10.1136/jech.2011.142976p.80

<sup>1</sup>P Francisco, \* <sup>1</sup>M Barros, <sup>2</sup>N Segri, <sup>3</sup>C Alves, <sup>2</sup>C Cesar. <sup>1</sup>University of Campinas, Campinas, São Paulo, Brazil; <sup>2</sup>University of São Paulo, São Paulo, São Paulo, Brazil; <sup>3</sup>Institute of Health, São Paulo, São Paulo, Brazil

The aim of this study was to evaluate differences in the sociodemographic and health characteristics among adults (18 years or older) with and without a residential telephone line, using data from the Campinas Health Survey (ISACamp), Brazil, a population-based cross-sectional study carried out in 2008 and 2009. Descriptive statistics and  $\chi^2$  tests were calculated for these variables. It also estimated the bias associated with non-coverage of the population without telephones before and after the use of post-stratification adjustments. The bias impact on the CIs of these estimates was assessed in terms of accuracy achieved. Approximately 76% of respondents owned a residential telephone line in Campinas. It was possible to identify differences in socio-demographic data for the population according to the ownership of telephone line, except for marital status. The analysed data also showed that people with telephone had higher prevalence of self-reported osteoporosis, drug use in the 3 days prior to the interview, dental visits in the last 12 months, mammography in women 40 years or more and affiliation to medical plan of health, compared to respondents without a telephone. After the post-stratification adjustment, there were reductions in the bias of estimates for those variables associated with the ownership of telephone line. In this study, except for osteoporosis, post-stratification adjustment was insufficient to correct the bias of non-coverage. Studies with samples where not all units in the target population are likely to be selected as the telephone interview, should consider the potential biases embedded in each variable.

## SP6-10 PROCALCITONIN AND WBC, ESR, CRP ALTERATIONS IN CHILDREN WITH SYSTEMIC INFLAMMATORY RESPONSE SYNDROME BEFORE AND AFTER TREATMENT

doi:10.1136/jech.2011.142976p.81

N Esmailnasab,\* A Afkhamzadh, M Abedini. Kurdistan University of medical sciences, Sanandaj/Kurdistan, Iran

Introduction Systemic inflammatory response syndrome (SIRS) due to infection is an important cause of morbidity and mortality in children. The present prospective observational study aimed to determine correlation between Procalcitonin (PCT) and WBC, ESR and C-reactive protein in toddlers before and after treatment.

Methods Overall, 50 patients aged 1-36 months who were hospitalised at the Paediatrics Ward in Besat Hospital in Sanansaj city western Iran through a census sampling method were recruited. CBC was measured via cell counter; ESR by Westergren method, CRP via semi quantitative method and PCT via semi quantitative immunochromatography method. Pearson correlation coefficient was used to estimate correlation between WBC, ESR, CRP and PCT before and after treatment of SIRS.

Results Correlation coefficients between PCT and CRP were determined as "Good" and between PCT and ESR was determined as "Mean" in the first day of trial before treatment was started. However, there was no significant correlation between PCT and WBC. In third day of treatment, no significant correlation was found between PCT and WBC count, ESR, CRP.

Conclusions In the onset of treatment and for confirming the diagnosis of SIRS, Procalcitonin and CRP are more favourable values. PCT would be more useful marker to be considered for fallow up procedures.

## SP6-11 VALIDITY AND RELIABILITY OF THE WORK ABILITY INDEX QUESTIONNAIRE IN NURSE'S WORK

doi:10.1136/jech.2011.142976p.82

<sup>1</sup>S H A da Silva Junior,\* <sup>1</sup>A G G Vasconcelos, <sup>2</sup>R H Griep, <sup>2</sup>L Rotenberg. <sup>1</sup>ENSP/ FIOCRUZ, Rio de Janeiro, Brazil; <sup>2</sup>IOC/FIOCRUZ, Rio de Janeiro, Brazil

Introduction The Work Ability Index questionnaire (WAI) assesses the perception of the worker in relation "how well a worker is or will be in the present or near future and how capable this worker is of performing work given the demands of the job and the health status and mental and physical capabilities of the worker." Aims: to investigate the validity and reliability of the WAI in 1436 nurses' work of tree public hospital of the Rio de Janeiro.

**Methods** We evaluated the validity dimensional through exploratory factor analysis using polychoric correlation matrix and parallel analysis for retention of factors and correlational validity correlating the WAI with theoretically relevant constructs using Spearman correlation. The reliability was assessed by the Cronbach's  $\boldsymbol{\alpha}$  and McDonald's  $\omega$  coefficients. The factorability of data was tested by the Meyer-Olkin index (KMO) and Bartlett's Test of Sphericity. The R software was used for analysis.

## **Publication only**

Results The factorial analyses indicated a two-dimensional structure (perception of work ability/mental resources and diseases and health restrictions). The value of Cronbach's  $\alpha$  and McDonald  $\omega$ was, respectively, 0.80 and 0.87. The theoretical hypothesis of the construct validity were confirmed with direct correlation and significant of the WAI with the scores of reward, control and selfevaluate of the health status; inverse correlation and significant with the scale of need for recovery, psychological distress, effort, overcommitment and demand.

Conclusion We found good evidence for a high reliability and construct validity of WAI questionnaire, supporting its use in future analyses in similar populations.

## SP6-12 THE HEALTH AND WELL-BEING OF LAID-OFF AUTOMOBILE INDUSTRY WORKERS IN DURHAM, CANADA

doi:10.1136/jech.2011.142976p.83

E Bartfay,\* W Bartfay, T Wu. University of Ontario Institute of Technology, Oshawa, Ontario, Canada

Introduction The City of Oshawa in Durham, Canada is a major manufacturing hub for automotive production. In 2008-2009, we witnessed an unprecedented economic crisis not seen since the great depression. A record number of auto-workers lost their jobs as a result. Little is known about how these lay-offs affected the health and well-being of the workers. This exploratory study examined the impact of being laid-off on the emotional, physical, social and financial health of auto-workers.

Methods A purposive sampling technique was employed to recruit participants from two locations: The CAW Community Action Centre and a Service Fair organised by the Durham Region Local Training Board. All participants were asked to complete an in-depth demographic and health questionnaire.

Results A total of 36 laid-off workers were interviewed between 28 October and 30 November 2009. Approximately two-third of our participants were male and the mean age was 45 (SD=6, range=30-61). The average length of time since laid-off was 13 months (SD=8, range=1-36). Half of our participants reported a feeling of burden to others and a loss of social status, and 75% reported a loss of identity and pride. With regard to the self-rated health and well-being status on a scale of 1 (very poor) to 5 (excellent) since being laid-off, our participants reported mid-level physical health (score=3.12), but relatively poor emotional health (score=2.59), social health (score=2.5) and financial health (score=1.97).

Conclusion Job loss can have a wide range of effect on one's wellbeing, including physical, emotional, social and financial health.

# SP6-13

## SLEEP DURATION AND OVERWEIGHT IN EUROPEAN CHILDREN: IS THE ASSOCIATION MODIFIED BY **GEOGRAPHIC REGION?**

doi:10.1136/iech.2011.142976p.84

<sup>1</sup>S Hense,\* <sup>2</sup>S De Henauw, <sup>3</sup>G Eiben, <sup>4</sup>D Molnar, <sup>5</sup>L A Moreno, <sup>6</sup>G Barba, <sup>7</sup>C Hadjigeorgiou, <sup>8</sup>T Veidebaum, <sup>1</sup>H Pohlabeln, <sup>1</sup>W Ahrens. <sup>1</sup>Division of Epidemiological Methods and Etiologic Research, Bremen Institute for Prevention Research and Social Medicine (BIPS), Bremen, Germany; <sup>2</sup>Department of Public Health/Department of Movement and Sport Sciences, Faculty of 3Medicine and Health Sciences, Ghent University, Ghent, Belgium; <sup>3</sup>Department of Paediatrics, Queen Silvia Children's Hospital, Goteborg University, Goteborg, Sweden; <sup>4</sup>Department of Paediatrics, Medical Faculty, University of Pécs, Pécs, Hungary; <sup>5</sup>Growth, Exercise, Nutrition and Development (GENUD) Research Group, E.U. Ciencias de la Salud, University of Zaragoza, Zaragoza, Spain; 6Unit of Epidemiology & Population Genetics, Institute of Food Sciences, National Research Council, Avellino, Italy; <sup>7</sup>Research and Education Institute of Child Health, Strovolos, Cyprus; 8 National Institute for Health Development, Tallin,

Introduction An association between sleep duration and overweight has been reported from several countries. Comparability of those results is limited by reasons of methodological differences. In a multi-center study we analysed this association in children from northern and southern Europe.

**Objectives** To investigate differences and a possible effect modification by geographical region in the association between sleep duration and overweight.

**Methods** In the IDEFICS-Study we examined 16.223 children (2-9 years) from eight European countries. Sleep was assessed by means of a parental 24h-Recall. Logistic regression models were applied to analyse the association between overweight and sleep duration and to test for effect modification by region.

Results A dose dependent association between sleep duration and overweight was seen. This persisted after adjustment, but remained significant only for sleeping <9h if stratified by region (north:OR 2.0; 99% CI 1.3 to 3.2 vs south:OR 2.5; 99% CI 1.4 to 4.3). No effect modification by region was found. The association was stronger in older children.

Conclusion Geographic region and related aspects do not modify the association between sleep and overweight, but should be taken in consideration as a confounding factor on this association.

## SP6-14 | SLEEP DURATION AND HEALTH STATUS ASSESSMENT IN **BRAZILIAN ELDERLY. A POPULATION BASED STUDY** (ISACAMP 2008/09)

doi:10.1136/jech.2011.142976p.85

M G Lima, M B A Barros.\* State University of Campinas, UNICAMP, Campinas, São Paulo, Brazil

Objective The aim of this study was to assess the association of sleep duration with health status or health related quality of life (HRQL), according to gender, in non-institutionalised elderly population living in Campinas (Brazil).

Methods It is a population-based cross-sectional study developed using data from the Campinas Health Survey carried out in 2008/ 2009. The SF-36 v2 health survey was used to assess the HRQL of 1520 elderly individuals. The eight scales of SF-36 and the physical and mental component summary measures were the dependent variables and the principal independent was sleep duration. Simple and multiple linear regression models were used to verify the association among the variables.

**Results** The sleep duration of 5 or fewer hours was associated with poor health status only in the female population, in the mental component of HRQL. Sleeping 10 h or more was associated with the eight SF-36 scales and two components, in the elderly male population. In the female, only the physical function, role physical, mental health dimensions were associated with this sleep duration. **Conclusion** HRQL was associated only with the long sleep in the elderly men. In women, both the short and long sleep was associated negatively with the health status, in different dimensions. Considering that health self-assessment has a significant relationship with clinical status and mortality, research on health related quality of life and sleep duration become important, and this study is among the first to present this relationship.

## SP6-15 | **FETAL AUTOPSY AND INFORMATION QUALITY OF DEATH** CERTIFICATES

doi:10.1136/jech.2011.142976p.86

<sup>1</sup>M F de Almeida, \* <sup>1</sup>G P de Alencar, <sup>1</sup>D Schoeps, <sup>1</sup>E Minucci, <sup>1</sup>Z P da Silva, <sup>1</sup>L P Ortiz, <sup>1</sup>H M D Novaes, <sup>1</sup>D Schout, <sup>1</sup>A P de Alencar, <sup>1</sup>P Raspantini, <sup>1</sup>P Santos. <sup>1</sup>University of