Poster Presentation

Respiratory

**0457** CONSEQUENCES OF ASTHMA ON OCCUPATIONAL AND SOCIO-ECONOMIC CHARACTERISTICS IN THE SIP STUDY

1Dorothée Provost*, 1Jean-François Chastang, 1Marie-Christine Delmas, 2Chantal Raherison, 3Yuriko Iwatsubo. 1Sanité publique France, Saint Maurice, France; 2INSERM U219, Bordeaux, France; 3INSERM UMR 1136, Paris, France

Objective To study the employment and financial characteristics among asthmatics.

Methods This study was based on the data from the prospective French national representative SIP (Santé et Itinéraire Professionnel) survey. In 2006, 13,648 individuals aged between 20 to 74 years living in metropolitan France were interviewed. In 2010, 11,221 of those who had participated in 2006 accepted to be re-interviewed. The 2006 questionnaire collected occupational and medical histories. Asthma cases were identified by the statement of the individuals who had completed occupational history. Asthmatic subjects identified in 2006 were compared to the subjects without asthma for employment and financial outcomes between 2006 and 2010.

Results A total of 426 asthmatic subjects were identified in 2006. Due to lost to follow-up, analyses were conducted with 362 asthmatics (138 men and 224 women) and 10,858 non asthmatics. Between 2006 and 2010, the female asthmatics experienced more frequently a period of unemployment and that of sickness absences between 2006 and 2010 and the annual income in 2010. The analyses considered the individuals who had completed occupational history. Asthmatic subjects identified in 2006 were compared to the subjects without asthma for employment and financial outcomes between 2006 and 2010.

Conclusion These results suggest that asthmatic women experience rather negative work life events and lower income than non asthmatics. In contrast, no such results were observed in men. These results must be confirmed in future prospective cohort studies.

Poster Presentation

Methodology

**0458** SHOULD OCCUPATIONAL EPIDEMIOLOGISTS CONSIDER A NEW PARADIGM? THE OCCUPATIONAL CANCER CASE

1Charles-Olivier Betansoudt*, 1Paris-Saclay/Paris-Sud University, Kremlin Bicêtre, France; 2INSERM CESP U1018, Kremlin Bicêtre, France

The past decades have been the theatre of intellectual movements in epidemiology. The early 1990s in particular were marked by lively debates about the nature of the discipline and the role it should play in society. In addition to the importance of theory, two major points of controversy concerned on one hand the role denied, assumed or criticised of politics or more generally of ideology in research, on the other hand the nature of the causal determinism for a disease. Did these controversies have any impact in the occupational health domain?

We review these debates in the light of the current state of research in occupational cancer epidemiology. We aim to illustrate, the questioning, the practices of occupational epidemiologists when inscribed in different in views of the discipline.

We found that research conducted tend to primarily use “reductionist” paradigms and prioritise a deontological ethic (as opposed consequentialist). Occupational health is an issue of power: social, economic and political, crossed by many social dimensions such as social class or gender. Therefore, can occupational epidemiologists afford to neglect work as a social construction? Would it be beneficial for occupational epidemiologists, as suggested in other domains, to move towards a new paradigm or a new ethic?

Oral Presentation

Methodology

**0459** PRODUCTIVITY ESTIMATION IN ECONOMIC EVALUATIONS OF OCCUPATIONAL HEALTH AND SAFETY INTERVENTIONS: A SYSTEMATIC REVIEW

1Jonas Steel*, 2Lode Godderis, 1,3Jeroen Luyten. 1Leuven Institute for Healthcare Policy, KULeuven, Leuven, Belgium; 2Environment and Health, KULeuven, Leuven, Belgium; 3Department of Social Policy, London School of Economics and Political Science, Leuven, Belgium

Background OHS interventions increasingly have to demonstrate that they offer good value-for-money. The intervention’s effect on productivity gains is thereby essential. However, productivity is not easily measured or valued, possibly causing employers to underestimate the benefits of OHS programs.

Objectives A systematic review of the measurement and valuation of productivity in economic evaluations of occupational health and safety was conducted, to assess the methodological quality of productivity estimation and the consistency of perspectives used.

Methods Searches were conducted in EMBASE, PUBMED and Cochrane’s CENTRAL, between 2007 and December 2016. Two researchers independently reviewed the studies for inclusion. Articles had to be economic evaluations or cost analyses, OHS interventions, aimed at an employed (or return-to-work) population >16 years old and written in English, French, or Dutch. From the included studies, information regarding the general characteristics, inclusion of productivity costs and effects, and methodology of productivity estimation was extracted and analysed.

Results Ninety-two studies were retained. Ninety percent of the studies contrasted intervention costs with absenteeism effects, a third included presenteeism. About half of the studies valued these effects using the human capital approach, twenty-five percent used the friction cost approach. The methodological characteristics were of poor quality in many studies, resulting in a considerable risk of bias. The diversity of studies was also apparent, with studies differing in ten different characteristics concerning the measurement and valuation of productivity. Finally, a new method came into view - direct productivity estimation - that holds a promising alternative to the current standard methods.
Poster Presentation

Cancer

0460  SMOKING ADJUSTED OCCUPATIONAL RISK OF BLADDER CANCER USING PROXY SMOKING FROM LUNG CANCER IN NORDIC MALES

1Kishor Hadkhale*, 2Jan Ivar Martinsen, 2,5Elisabete Weiderpass, 4Kristina Kjaerheim, 6Pär Sparen, 2,3Laufey Tryggvadottir, 1Eero Pukkala. 1University of Tampere, Faculty of Social Sciences, Tampere, Finland; 2Cancer Registry of Norway, Institute of Population-Based Cancer Research, Oslo, Norway; 3Folkhälsan Research Centre, Genetic epidemiology group, Helsinki, Finland; 5Karolinska Institutet, Department of Medical Epidemiology and Biostatistics, Stockholm, Sweden; 6University of Copenhagen, Institute of Public Health, Copenhagen, Denmark; 7Icelandic Cancer Registry, Reykjavik, Iceland; 8University of Iceland, Faculty of Medicine, Reykjavik, Iceland; 9Finnish Cancer Registry, Institute for Statistical and Epidemiological Cancer Research, Helsinki, Finland

Withdrawn at the author’s request

Oral Presentation

Intervention Studies

0461  CAN A WATER.REST.SHADE INTERVENTION REDUCE THE RISK OF CHRONIC KIDNEY DISEASE AMONG SUGARCANE WORKERS?

1David Wegman*, 2Jenny Apelqvist, 3Theo Bodin, 4Matteo Bottai, 5Ulf Ekström, Ramón García-Trabanino, 6Jason Glaser, 7Chris Hogstedt, 8Kristina Jakobsson, 9Emmanuel Jarquin, 10Rebekah Lucas, 11Sandra Peraza, 12Catharina Wesseling. 1University of Massachusetts Lowell, Lowell, Massachusetts, USA; 2Department of Laboratory Medicine, Division of Clinical Chemistry and Pharmacology, Lund University, Lund, Sweden; 3Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden; 4Centro de Hemodialisis, San Salvador, El Salvador; 5La Isla Network, Ada, Michigan, USA; 6Section of Occupational and Environmental Medicine, University of Gothenburg, Gothenburg, Sweden; 7Agencia para el Desarrollo y la Salud Agropecuaria (AGDASA), San Salvador, El Salvador; 8School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham, Birmingham, UK; 9Faculty of Chemistry and Pharmacy, University of El Salvador, Ciudad Universitaria, San Salvador, El Salvador; 10Division of Occupational and Environmental Medicine, Institute of Laboratory Medicine, Lund University, Lund, Sweden

10.1136/oemed-2017-104636.381

Background The Central American kidney disease epidemic persists despite efforts to identify cause(s) and introduce clear, evidence-based interventions to protect workers. Evidence suggests that chronic dehydration during heavy work in hot environments contributes to morbidity. An intervention was introduced to determine if risk could be reduced in sugarcane workers.

Objective To assess efforts to implement a Water.Rest.SHADE intervention in one setting where sugarcane cutting was believed to increase CKDu in the workforce.

Methods The intervention was introduced mid-way through the harvest in one of two work groups. The intervention group received water throughout the day with scheduled rest breaks in shaded settings. Health data (anthropometric and questionnaires), blood and urine were collected four times over a six-month harvest. Daily wet bulb globe temperatures (WBGT) were recorded.

Results There were significant changes in biomarkers across-shift and across-harvest that reduced the markers of dehydration (changes of urine osmolality and serum albumin) and reduced rate of loss in estimated glomerular filtration rate (eGFR). Cross-shift change in eGFR was reduced in the group receiving the intervention. Significant decreased eGFR over the harvest appeared to stop after the intervention in those receiving the Water.Rest.SHADE program.

Conclusion Preliminary evidence indicates a Water.Rest.SHADE intervention program reduces the impact of heat stress on acute and over-harvest biomarkers of kidney function. Potential long-term benefits of such an intervention need to be confirmed in long-term follow-up and in other settings. Further research is needed to determine whether biomarker changes predict reduced risk of CKDu in this type of work.