

citation analysis, authorship analysis, and collaboration indicators. The publication trends and characteristics of the included articles/journals will be assessed, including, where possible, funding bodies' characteristics. Any association between these characteristics and the level of research productivity/output will be evaluated.

**Result/Conclusions** This study will identify time-periods where, UK-based, OE publications volume had been high/low, and provide insights into OE research contribution to cancer epidemiology, and its strengths and weaknesses compared with PHE. The identified time-periods will be the focus of a subsequent phase, documentary review, where OE challenges/facilitators will be examined compared to those in PHE.

## 22 A NETWORK OF OCCUPATIONAL RISK EXPERTS FOR EVALUATION OF UNUSUAL WORKPLACE HEALTH EVENTS

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**Background** The French Institute for Public Health Surveillance (InVS) monitors the health status of the population according to all health determinants, including occupational risks.

Since several years, we noted an increased number of unusual workplace health events notified to InVS but also to other stakeholders (occupational medicine consultations, Labour Ministry, etc.).

A network of occupational risk experts at local level was implemented by InVS with the aim to organise the evaluation and the investigation of unusual workplace health events with a prompt and consensual response.

**Methods** The network is composed of a Labour medical inspector, an occupational physician of the hospital consultation, and two trained epidemiologists of InVS.

The regional office of InVS coordinates the network and informs the experts when an unusual occupational health event is notified to the local health emergency platform.

A prompt telephone meeting based on first information about the event allows the experts to assess the signal, and to come to a consensual decision about its validation, and further investigations.

**Results** The first network was implemented in 2008 in the region of Aquitaine (South West France). Since, eight other French regions are involved.

Several signals have been analysed, mostly cancers clusters and sick building syndromes. The networks allowed to validate unusual events and to highlight relation with occupational environment. In some cases, the networks proposed some recommendations on prevention and control measures.

With several examples, the authors show how this network works, its added value and the limitations of epidemiological workplace investigations.

**Conclusion** The result of the experimentation of this network was positive. Demonstrated added value of this network was a rational response leading to better reactivity, accuracy and efficiency when treating the signal, and potential detection of emergent problems.

## 23 THE BURDEN OF DISEASE FROM OCCUPATIONAL EXPOSURES

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**Objectives** To present the main results from the GBD2010 study in terms of the burden of disease arising from occupational risk factors.

**Methods** As part of the GBD 2010 project, the burden of disease from occupational risk factors was estimated. These risk factors and conditions were a range of carcinogens; asthmagens; vapours, gases, dusts and fumes (causing COPD); asbestosis, silicosis and coal workers' pneumoconiosis; ergonomic exposures leading to low back pain; injuries and occupational noise (leading to hearing loss). The primary methodology used involved estimating the population attributable fraction by estimating exposure prevalence and identifying appropriate relative risks. Some other estimation approaches were also used.

**Results** The key results of the work will be presented and discussed.

**Conclusions** Work-related exposures result in a substantial burden of ill health in workers. The results identify exposures and exposure settings that should be looked at when prioritising interventions.

## 24 PRACTICE AND QUALITY OF WORK CAPACITY EVALUATIONS: A SURVEY AMONG SWISS PSYCHIATRISTS

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**Objective** Psychiatric expertises for determining a person's work capacity are being criticised in Switzerland. Issues of concern are lack of transparency and variation in the judgment on work capacity. The aims of this study were (1) to learn about current practice among Swiss psychiatric experts in evaluating and reporting on work capacity, (2) to compare the practice to professional guidance, and (3) to identify sources for the variation and lack of transparency that may be amenable to improvement.

**Methods** National online survey among psychiatrists experienced in evaluation of work capacity. We identified issues of concern through the literature and discussion with opinion leaders in psychiatric expertises. We inquired current practice of disability evaluation, aspects of quality, and suggestions for improvement.

**Results** 129 psychiatrists participated (response rate 31%). The job description, reference for determining work capacity in the current job, was perceived as mandatory information by 90%, but was usually missing or deficient in files (74%). The psychiatrists expressed work capacity as free text plus percentage of work capacity (49%), percentage only (23%), or free text only (14%). 13% used instruments to report on work capacity. Psychiatrists reported diverse interpretations for 'percentage of work capacity'; three interpretations were reported as applicable in equal frequency around 80%. Psychiatrists usually used report forms of the insurers (77%), peer consulting (65%), and process guidelines (51%), but rarely evidence-based information. Current guidelines attach low importance to job descriptions and instruments, and recommend percentage of work capacity' without reflecting the pros and cons.

**Conclusions** Our findings point to some possible causes of the variation and lack of transparency in disability evaluation. More formal and explicit approaches to a professional consensus informed by up-to-date research findings would increase the trust in the final judgments. Measures to reduce the unwanted variation need to be tested in further research.

## 25 THE OCCUPATIONAL HEALTH INVESTIGATION OF GRADUATE PROGRAMS IN COLOMBIA: TOPICS AND CHALLENGES

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**Objective** Human talent is a major component of the coordinated action that is needed to conduct preventive efforts in Occupational Health. While a large number of graduate programs in Occupational Health have been recently created in Colombia; little is known about the knowledge that is being developed out of those programs. This study aimed to assess the contribution that recent thesis works have made to the Occupational Health field in Colombia.

**Methods** We attempted to identify and systematically describe by major topic, assessed risk factors, occupational health disease of interest and features of the study design all the thesis works produced during the last 8 years in accredited programs in the country.

**Results** We identified 466 works from 6 academic institutions. However, we could find information for only 355 of those works. Most of the studies were found to have medium quality. Most studies tried to evaluate working conditions (84.5%) and were observational field studies (70.1%); however, the employed evaluation criteria were typically missing in the reports. Also, there were a large number of reviews (18.7%). The most commonly investigated area was ergonomics (55.3%); and within that area, the most commonly analysed topic was the psychosocial risk factors and the risks associated with physical demands. Accordingly, the most attention was given to musculoskeletal disorders. The general topic with the least number of contributions was Occupational Medicine (6.7%).

**Conclusions** This distribution of thesis works generally corresponds with the needs of the country based on the official country's prevalence of occupational disease. Nevertheless, we recommend that more efforts are dedicated to study vulnerable populations in the informal sector that makes up most of the working population in the country and are not subjected to official recording. Also, efforts should be made so that academic programs define minimum thesis' scope and quality requirements.

## Session: D. Exposure assessment II

## 26 NATIONWIDE MACHINE SAFETY INITIATIVE FOR SMALL METAL FABRICATION BUSINESSES

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Machine-related injuries are a persistent risk for workers in fabricated metal products manufacturing. Smaller establishments

are of particular concern because these firms typically have limited access to safety and health resources. A research partnership with worker's compensation insurers was created to develop, implement, and evaluate a program to help small (< 150 employees) metal fabrication businesses prevent machine-related injuries. The National Machine Guarding Program is a widely applicable, sustainable machine safety intervention being delivered on-site to firms throughout the US.

A fundamental objective of this intervention is to assist metal-working firms with interpretation and implementation of applicable Occupational Safety and Health Administration (OSHA) and American National Standards Institute (ANSI) standards. Beyond this, the partnership has developed methods and materials to help small businesses establish their own programs and policies within four topic areas: safety leadership, lockout/tagout, job hazard analysis, and machine safeguarding.

Each participating business will receive four on-site visits: a baseline safety evaluation, intervention delivery visits at 3-months and 6-months, and a follow-up safety evaluation at 12 months. Insurance safety consultants serve as field staff for this program and receive extensive training to perform machine safety audits and deliver the intervention.

Technical checklists are used to evaluate 26 different types of metal fabrication machinery. Checklist data are entered into software developed for this project. The software compiles category scores from all checklist responses into a concise report that is provided to each business.

The presentation will provide attendees with an understanding of the design, implementation, and evaluation of a computerised safety management system for metal fabrication industries. Preliminary results will be presented as a summary of baseline machine safety data collected at participating businesses during 2012–2013.

## 27 SICK BUILDING SYNDROME IN PUBLIC SERVICES OF EURE-ET-LOIR'S DISTRICT, FRANCE

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In September 2010, a sick building syndrome occurred after the relocation of three public services of Eure-et-Loir's district, France, in a renovated building in which foul odours have been perceived.

The establishment of a coordination unit allowed an interdisciplinary approach including clinical, epidemiological, psychosocial and environmental investigations. Concerning the epidemiological field, a transversal study has been realised by administering a questionnaire to volunteered officers (n = 48 out of 54). The study period was from september 2010 to september 2011. Univariate and multivariate analysis allowed studying risk factors for symptoms apparition.

During the study period, 84% of the officers reported symptoms. Those were mainly distributed into three types: irritatives (63%), general (51%) and ears nose and throat symptoms (27%). Multivariate analysis showed that: agents affected by irritative symptoms were originally in good health (OR = 20,32; [2.5–162.0]); the risk for all symptoms increased with the rise of the number of hours at work (OR = [1.1–1.4] and for workers in offices with old floor lining (OR = 22,0[1.8–265.5]. The building had an inappropriate ventilation system for a tertiary