

needed to safeguard the health of Syrian refugee child workers.

P-93

HOW CAN WE GET COMPARABLE EXPOSURE DATA ACROSS COUNTRIES? A WORKERS' SURVEY ON EXPOSURE TO CANCER RISK FACTORS IN EUROPE – AN INNOVATIVE APPROACH

¹Nadia Vilahur, Marine Cavet. ¹EU-OSHA, Spain

10.1136/OEM-2021-EPI.196

Introduction With cancer accounting for an estimated 53% of all work-related deaths in the European Union, data on exposure to known cancer risk factors at work are essential to improve the safety and health of workers, support the evaluation of existing policies and foster a productive and sustainable economy.

Objective Recognising the lack of harmonised figures at European level, and having carried out a feasibility study, the European Agency for Safety and Health at Work (EU-OSHA) has started a workers' survey on exposure to cancer risk factors following the Australian Workplace Exposure Studies (AWES) model. The objective of this initiative, which plans to publish first findings in 2023, is to identify the most prevalent cancer risk factors across occupations and sectors in Europe.

Methods EU-OSHA will initially carry out the survey in six European countries, interviewing a representative sample of workers about their current job. Based on the respondent information on specific tasks performed at work, exposure data to one or more cancer risk factors will be derived for each worker, using the occupational exposure assessment tool for epidemiological studies (OccIDEAS), an algorithm using epidemiological data, workplace measurements and expert assessment, which EU-OSHA is adapting to the European context.

Results The survey looks into the number and characteristics of the workers exposed to a range of cancer risk factors, including asbestos, benzene, chromium, diesel exhaust, nickel, silica dust, UV radiation, wood dust, among others. Information on workers' multiple exposures and the use of control and protective measures at work will be available. Results can be analysed by activity sector, occupation, country, gender, etc.

Conclusion To provide an overview of the methodology and adaptations of the Australian model to Europe, and to discuss the limitations of the survey and the challenges in adapting it to national contexts.

P-98

RELATIONSHIP BETWEEN PRESENTEEISM AND QUALITY OF LIFE: THE ROLE OF SOCIAL SUPPORT

¹Sónia Isabel Costa Magalhães, Joselina Maria Pinto Barbosa, Elisabete Maria Neves Borges. ¹ICBAS, Portugal

10.1136/OEM-2021-EPI.197

Presenteeism is defined as the practice of being present at work, but unable to fully perform tasks due to physical and/or mental health problems. Research on presenteeism highlights its consequences for people's health and quality of life, as well as the loss of productivity of organizations. Social support at work by supervisors and colleagues, can contribute to

the minimisation of the wear and health risks of these professionals.

Thus, the purpose of this research is to i) explore the prevalence of presenteeism in higher education professionals, ii) identify the main health problems behind it, and iii) identify personal, professional and social support factors associated with the phenomenon. Additionally, it is intended to evaluate the role of social support at work in relation to presenteeism and quality of life.

The target population will be made up of higher education technicians and it will be developed at the University of Porto, a Portuguese public university located in Porto. The study will be conducted in the form of a survey, with data being gathered via email. We will apply the validated versions for the Portuguese population, the Presenteeism Scale (SPS-6), the subscales, 'social support from supervisors' and 'social support from colleagues' of the Copenhagen Psychosocial Questionnaire, COPSOQ (to measure social support at work) and the Quality of Life Index (EUROSHIS-QOL-8). A sociodemographic questionnaire (with personal and work-related variables) will also be collected.

We expect with this study to contribute to the identification of reduced activity professional patterns associated with presenteeism and that affect professionals quality of life, as well as alerting institutions to the relevance of promoting social support at work.

P-99

RESPIRATORY, AUDITORY AND VISUAL IMPAIRMENT AMONG SPONGE IRON PLANT WORKERS IN GOA, INDIA: A COMPARISON STUDY

¹Vishwaraj Mhalshekar, Jagdish Cacodcar, Annet Oliveira, Sweta Mhalshekar. ¹Goa Shipyard Limited, India

10.1136/OEM-2021-EPI.198

Sponge iron plant workers are exposed to excessive dust at raw material handling section, fumes emitted during the burning process, and to the noise generated throughout till the formation of final product poured in moulds to form sponge iron.

Objective The study was done to compare the respiratory, auditory and visual impairment among the workers exposed to the dust, fumes and noise with those less likely to be exposed to these hazards in the same work place.

Methods The present study was carried out among all the 578 workers in a sponge iron plant in Goa. The spirometry, audiometry and the near and far vision findings were obtained from the routine annual medical examination records for the year 2019. Data was analyzed to compare the morbidity among the exposed group (n=359) i.e., the workers directly exposed to dust, fumes and noise with those less likely to be exposed (n=219) i.e., the executives and the office staff working in closed air-conditioned offices segregated from the site of hazards.

Results Respiratory impairment among those exposed to dust and fumes was 1.6 times higher than the unexposed. The hearing impairment among those exposed to noise was 1.8 times higher than the unexposed. The impairment in near vision in the exposed was 1.3 times higher than the non-exposed whereas the impairment in far vision was 1.3 times higher among the non-exposed as compared to the exposed.

Conclusions The impairment in respiration and hearing which is higher among the workers exposed to dust, fumes and noise at the workplace shows a need for future research to study if all safety measures are strictly adhered to. The impairment in near vision which was higher among the exposed workers needs detailed investigations into the cause and association with the working environment, if any.

P-100

MEDICAL ACCESSIBILITY AND UNDER-REPORTING OF OCCUPATIONAL DISEASES: EFFECT OF TRAVEL DISTANCE AND TRAVEL TIME

¹Ping Hui Chen, Pau Chung Chen. ¹National Taiwan University Hospital Hsinchu Branch, Taiwan

10.1136/OEM-2021-EPI.199

Introduction In Taiwan, outpatients' average travel distance (TD) is 17.68 km, and workers' TD and travel time (TT) for outpatient services are only 8.2 km and 27.6 mins. Poor medical accessibility of occupational outpatient service can also lead to under-reporting of occupational diseases (ODs).

Methods In Taiwan, Network of Occupational Diseases and Injuries Service (NODIS), composed of 9 major reporting hospitals, is an important surveillance system of ODs. Using NODIS's reporting data and manpower survey from 2008 to 2018, we calculate each town's incidence rate of occupation diseases (IROD) and expected IROD according to workers' occupations and job titles, and each town's shortest TD and TT to 9 major reporting hospitals is estimated by Google Maps' Distance Matrix API. Quasi-Poisson regression model is employed to investigate effect of TD and TT on IROD.

Results There are 8017 cases of suspected ODs in NODIS from 2008 to 2018, and 3306 cases are confirmed as definite ODs. Adjusted by workers' occupations and job titles, as TD/TT increases by 10 km/10 mins, IROD significantly decreases by 10.90%/10.74%, and less-disabled workers who have never stopped working or lost their jobs are more impeded by long TD and TT. Compared with towns with TD 45 km and offshore towns decreases by 38.93%, 39.58%, 50.03%, 55.01%, 65.71%, and 84.10%, and IRODs of towns with TT 10–15, 15–25, 25–35, 35–45, >45 mins and offshore towns decreases by 30.94%, 43.57%, 47.41%, 47.70%, 67.81%, and 85.29%. Around 40% ODs are under-reported due to poor medical accessibility.

Conclusion Our study shows how poor medical accessibility leads to serious under-reporting, and up to 40% ODs could be under-reported. Using this method, we can identify areas with poor medical accessibility and evaluate cost-effectiveness of adding reporting hospital.

P-101

OCCUPATIONAL DUST EXPOSURES AND CT FINDINGS OF INTERSTITIAL LUNG DISEASE AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE

¹Inge Brosbøl Iversen, Kennet Sønderstgaard Thorup, Jesper Thygesen, Finn Rasmussen, Michael Brun Andersen, Elisabeth Bendstrup, Zara Ann Stokholm, Else Toft Würtz, Vivi Schlünssen, Jens Peder Ellekilde Bonde, Jakob Hjort Bønnekke, Hans Kromhout, Henrik Al. ¹Aarhus University Hospital, Denmark

10.1136/OEM-2021-EPI.200

Introduction Occupational dust exposure is associated with interstitial lung disease and chronic obstructive pulmonary disease, but little is known about the association with more discrete lung changes detected by lung scans.

Objectives To 1) analyze the relation between occupational dust levels and HRCT (high-resolution computed tomography) detected signs of pulmonary disease, and 2) map the prevalence of these signs in the Danish workforce.

Methods We are carrying out a cross-sectional study of 25,000 adults who underwent HRCT scans of the lungs 2011–2019 in Denmark. We will analyze the extent of emphysema and signs of pulmonary fibrosis such as, but not limited to, reticulation with Imbio Lung Texture Analysis™ of the HRCT scans. The DOC*X cohort provides annual information on occupation (ISCO-88) and industry for the total Danish workforce since 1976. Individual exposure levels are estimated using quantitative job exposure matrices for asbestos, crystalline silica, wood dust, and endotoxins. We will conduct adjusted analyses of exposure-response relations and tabulate distributions of emphysema and signs of pulmonary fibrosis for all occupations and industries.

Conclusion The study will provide new knowledge on pulmonary effects of current and past occupational dust levels. We will use a new software for objective identification and quantification of signs of pulmonary disease independent of diagnostic traditions. This sensitive and graduated measure of outcome will also enable more sensitive exposure-response analyses that include discrete signs of pulmonary disease. We expect this study to serve as a basis for targeted interventions of importance to the many that still have dusty work.

P-108

POPULATION-LEVEL ESTIMATES OF OCCUPATIONAL EXPOSURE TO CHLOROTHALONIL, 2,4-D, AND GLYPHOSATE IN CANADA'S AGRICULTURAL INDUSTRY (CAREX CANADA)

¹Ela Rydz, Cheryl Peters, Kristian Larsen. ¹Simon Fraser University, Canada

10.1136/OEM-2021-EPI.201

Introduction Certain pesticides may lead to adverse health outcomes including cancer; however, little is known about occupational pesticide exposure in Canada.

Objective The purpose of this study was to estimate the prevalence and likelihood of occupational exposure to chlorothalonil, 2,4-D, and glyphosate in Canada's agricultural industry.

Methods Lower and upper estimates were calculated using the Canadian Census of Population (CoP) and Census of Agriculture (CoA). We estimated the number of workers and proportion of farms applying 'herbicides' or 'fungicides' by farm type using CoA survey data. These values were multiplied to yield the number of workers at risk of exposure. Likelihood of exposure (exposed, probably exposed, possibly exposed) was qualitatively assigned using information on crop type, primary expected tasks, crop production practices, and residue transfer data. Agricultural workers who are at risk of exposure but were not captured by the CoA were identified using the CoP.

Results An estimated 37,700 to 55,800 workers (11–13% of agricultural workers) were exposed to glyphosate in in Canada while 30,800 to 43,600 workers (9–11%) and 9,000 to 14,100 (3%) were exposed to 2,4-D and chlorothalonil,