facts regarding the influenza vaccination and rationale for HCW uptake. HCW who attended the intervention were offered a questionnaire at the educational session assessing their attitude towards the vaccination.

Result 157 HCW attended and 143 completed the questionnaire. In 2016/17 Influenza season 43.4% (n=62) indicated they received the influenza vaccination. Following the intervention, the intention to receive the vaccination in 2017/18 increased to 76.2% (n=109). A further 15.3%(n=22) indicated vaccination consideration. 50.3% (n=72) stated the brief intervention had influenced their decision. Prior to the educational intervention 39.2% (n=56) agreed with mandatory Influenza vaccination for HCW. This increased to 49.7% (n=71) post intervention.

Discussion The brief educational intervention increased the numbers of HCW indicating they would get or would consider getting the annual Influenza vaccination. The intervention was noted as an influencing factor and could be a useful tool in increasing the vaccination rate amongst HCW in Ireland particularly if engagement with it was a mandatory requirement.

1425 HEALTH LITERACY IN JAPANESE WORKPLACE: ASSOCIATION WITH LIFESTYLE AND NCD'S

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Introduction Health literacy (HL), which is defined as 'the ability to access, understand, and use information for health' (Nutbeam, 1998), has gained attention as a strategy to reduce health disparities, but not enough research has been conducted in Japanese workplace. This report shows to examine how HL among company employees are associated with lifestyle and NCD's.

Methods A cross-sectional study was conducted by giving self-administered surveys to 2245 employees working at an architectural consultant company in 2014. Five questions from an communicative and critical HL scale for workers (Ishikawa, *et al.*, 2008) were used, and simultaneously we asked Morimoto's lifestyle index including dietary, exercise, sleep, smoking and drinking habits, mental status of stress, and productivity. We also investigated the association between prevalence of obesity, hypertension, diabetes, dyslipidemia and HL from health screening data.

Results On the CCHL scales, scores for 'gathering information' were highest, with 60% of employees answering at least 'agree.' This was higher than 'selecting information', 'judging information', 'sharing information', and 'personal decision-making'. We found positive relation between HL and several lifestyles, such as concerning about diet balance, eating speed, late dinner, physical activity, quality of sleep. Self-awareness of stress was significantly low and the productivity was high in the high HL group. Prevalence of obesity, hypertension, dyslipidemia, diabetes are 21%, 12%, 35%, 8%, respectively. Prevalence of hypertension and diabetes are significantly low in the high HL group.

Conclusion Similar to previous study, we found the positive relation between employees HL and lifestyle or NCD's. This may be related to the high educational background of employees and the 15 years history of workplace health promotion activities carried out in this company. We will need to further analyse multi-facility and longitudinal analysis and conduct workplace health promotion activities according to employee's health literacy level.

1434 REBUILDING A CONCEPT FOR THE PERIODICAL HEALTH EXAMINATION IN JAPAN

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Introduction The aims of the periodical health examination have been changed in accordance with social conditions and necessities in the ages. In past, the main aim was the prevention the occupational disease and work-related disease. In recent years, they are the prevention the metabolic syndrome and cardiac or cerebrovascular diseases. However, it is unclear the next step. Therefore, we investigated a concept of the periodical health examination for workers.

Methods We conducted reviews on the usability of the items of the periodical health examination and focus group discussions with the professional occupational health physicians. The first procedure was reviews of the items of the periodical health examination. The second procedure was the focus group discussion on the usability of the periodical health examination. Then we classified the issues into 5 groups. Each group made a concept of the health examination by focus group discussion.

Results Most of the items of the health examination were not effective to predict the onset the disease by the results of the literature reviews. However most of the occupational health physicians utilised each item in the health management activities. As the results of the focus group discussions, it was pointed out that the development the productivities and reduction the accidents at work should be adopted in the aims in the future, the fitness at work and the improvement the workers' health literacy should be used as the outcome, the prevention the cancers should be conducted as not the screening but the risk assessment.

Conclusion The health examination until now is the screening of the target diseases, but it should be developed into the evaluation the risk of the disease and working conditions, and the aims should be not only the workers' health but the development the productivities and the workers' health literacy.

983 THERMAL STRESS AND CONSTRAIN IN A TUNISIAN STEEL INDUSTRY

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Introduction The hardship at work in the steel industry is linked to the important thermal constraints related to production processes. This study aims to identify the heat strain at work in the steel industry in Tunisia through the assessed metabolism by cardiovascular heart rate recording and to evaluate the thermal stress based on the various of measurable parameters.

Methods A cross-sectional exhaustive study was conducted among the 80 workers in a steel company. The recommendation of the 'analysis' level of the international standard ISO 8996 ' Ergonomics of the thermal environment – Determination of metabolic rate was adopted for the evaluation of the thermal strain. The international standard ISO 7933 ' Ergonomics of the thermal environment – Analytical determination and interpretation of heat stress using calculation of the predicted heat strain' was adopted for the assessment of the thermal stress.

Thus, metabolism was evaluated based on the recording of heart rate during work withen steel workers. Moreover, physical parameters of thermal stress (air temperature, relative humidity, air velocity, globe temperature, clothing isolation, working metabolism) were assessed.

Results The equivalent metabolism was equal to 292.7 W ±59.8 W. Thus, workload was 'acceptable' for the majority of workers (84.8%). Concerning the thermal stress level, 68.18% of the subjects were at risk of a long-term constraint (discomfort and risk of dehydration after several hours of exposure) and 30,3% of them faced a short term constraint (risk for Health after 30 to 120 min of exposure).

Discussion The present study objectively quantified the physical workload in the steel sector. For most workers, the workload was light to moderate. The long-term and short-term thermal stress objectified in this study was the source of a workstation layout and a prevention strategy.

520 PROBE: HAZARDOUS CHEMICAL PRODUCTS REGISTER FOR OCCUPATIONAL USE IN BELGIUM

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Introduction During their job, workers are exposed to a wide variety of working conditions including chemical substances that are potentially detrimental to employees' health. Today, Belgian data on occupational exposure to dangerous chemicals are collected by Occupational Health Services (OHS) merely for the purpose of assuring the appropriate health screening. This makes these data of little use for epidemiological research and exposure surveillance on one hand and for policy development by competent authorities on the other hand.

Methods The **PROBE** (Hazardous chemical **P**roducts **R**egister for **O**ccupational use in **B**elgium) study is set up to investigate the exposure of Belgian workers to dangerous chemical products, including type, duration and frequency of exposure. PROBE consists of a systematic collection and analysis of occupational chemical exposure data. First, a pilot will be kicked off in a limited sample of occupational physicians, testing the feasibility of the program. A priority list of 14 chemicals was constructed for the pilot study: crystalline silica, diesel exhaust and PAHs, wood dust, formaldehyde, asbestos, isocyanates, benzene, organic solvents, lead, beryllium, powder coating, refractory ceramic fibres, welding fumes, cadmium. The data will be collected on a regular basis over a period of 5 months. Besides demographics, exposure measurements and health related data will be collected.

Results A group of 50 occupational physicians were recruited to participate in the pilot study. First results of the PROBE study will be presented at the conference.

Discussion After the pilot, a trained, motivated, and representative sample of occupational physicians from both internal and external OHS will be invited to collect data on a larger scale. The final goal of the project is to register in a comprehensive but easy way the exposure to dangerous chemicals in order to improve preventive measures, to ensure workers' health, and to develop a national surveillance policy.

1535 PROFILE OF PHYSICIANS OF THE WORK IN MINAS GERAIS GRADUATES OF THE MEDICAL RESIDENCY AND ACCREDITED COURSE OF SPECIALISATION AND THE EVALUATION OF THE COMPETENCES REQUIRED FOR THE EXERCISE OF THE MEDICINE OF THE WORK IN BRAZIL

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Introduction In order to establish a more accurate diagnosis and to show a different perspective from the one shown by the study of the Medical Demography published in 2015 by the Federal Medical Council on the profile of occupational physicians in Brazil, the present study addresses the question of the profile of occupational physicians Of Minas Gerais, who graduated from the medical residency and the specialisation course, accredited by the National Association of Occupational Medicine, comparing them with the work doctors in Brazil, evaluating in each group the knowledge and skills required to practice the specialty.

Methods The study is a cross-sectional analysis using the Google Forms tool. The questionnaire consists of two blocks of variables. The first contains personal information of professionals. And the second covers the views of professionals on competencies, organised in the six areas. For each of the tasks listed, the respondents indicated the difficulty of accomplishment, the importance and the frequency with which they performed it.

Result Based on the study, it was possible to analyse the profiles of occupational physicians and to obtain a diagnosis of professional competencies, ie to identify the gap between the competencies needed to achieve the strategic objectives and the internal competences available in the training courses.

Discussion The study shows in a practical and objective way the profile and the competences of working doctors in Brazil and feeds the discussion in the light of evidence, contributing to the decision making based on medical training, allowing a transparent discussion of the variants of the specialty, Roots of some problems and inequalities shown in the training of the occupational physician. So will be able to prioritise and encourage investments in professional training and valorization, directing teaching to improve performance aimed at providing more effective responses to the working class.