Conclusions Indicators for risk of violence need to be sensitive to context. While there is a considerable amount of data available for the development of leading and lagging indicators, challenges exist in coordinating data across multiple data stewards and little data is collected in some domains relevant to effective violence prevention. Future research will focus on validating indicators based on currently available data.

Poster Presentation

Exposure Assessment

0451 PERCEIVED HEAT EXPOSURE WHILE AT WORK. A QUESTIONNAIRE STUDY IN WEST JAVA, INDONESIA

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Background Heat stress is a well-known occupational health concern. Heavy work under extreme heat exposure has been linked to several illnesses and premature death. In Indonesia, chronic kidney disease (CKD) is the ninth deadliest disease and the treatment for CKD tops the list of the health care spending’s.

Objectives o Evaluate the heat exposure for industry workers in West Java, Indonesia
   o Demonstrate the workers’ perceptions of the heat situation

Methods A pilot study was conducted on two industries in February 2017, winter season in West Java. Heat measures were taken using wet bulb globe temperature (WBGT). Interviews were conducted using HOTHAPS questionnaire with 54 male workers. Medical records from the occupational health unit were also available.

Result The pilot study showed that workers were exposed to heat above threshold limit value (28°) in 48% of the WBGT measurements. 54% of the workers interviewed were uncomfortable with the ambient temperature. 8% of the workers had abnormal creatinine levels (≥1.2 mg/dl) indicating a severe problem with heat exposure. An extended data collection is planned for July to investigate the heat impacts of the summer season, and to include female workers.

Conclusion Heat exposure at work leads to negative health outcomes for the industry workers. Further investigations on the workers’ perceptions of heat is necessary for refining, creating and implementing heat prevention strategies.

Oral Presentation

Shift Work

0453 SHIFT WORK AND OVERALL AND CAUSE-SPECIFIC MORTALITY IN THE DANISH NURSE COHORT

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CAREX was designed to promote prevention through raising awareness and targeting high risk populations. CAREX was designed as a system that could be applied to other countries and its use internationally has been broadened to include national burden of occupational cancer projects in specific countries, as well as in the Global Burden of Disease project. CAREX Canada is based on a combination of occupation and industry and, when possible, estimates level of exposure as well as prevalence. This has allowed it application as a job exposure matrix for use in other applications. The Occupational Cancer Research Centre, in collaboration with its partners, has used it successfully with both its Occupational Disease Surveillance System and Burden of Occupational Cancer projects. In applying CAREX to other applications, it is important to recognise that it is based on the concept of hazard rather than risk, which is appropriate for primary prevention. Thus, in burden of disease projects it is important to choose relative risks that are appropriate for exposure based on broadly defined groups. In applications to disease surveillance, prevalence rates less than 100% can lead to non-differential misclassification and low levels of exposure can mute associations, especially when added to the existing limitations of data typically used for surveillance. Addressing these limitations can facilitate the successful application of CAREX in wider applications.
Oral Presentation

Disease Surveillance

**0456 INITIAL RESULTS FROM A NEW CANADIAN OCCUPATIONAL DISEASE SURVEILLANCE SYSTEM**

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Large scale occupational disease surveillance has been challenging in many countries, with a few notable exceptions, such as the Nordic countries with their substantial record linkage abilities. We present initial results for lung cancer from a new Canadian Occupational Disease Surveillance System.

The surveillance cohort was created using data from Ontario, Canada time-loss workers’ compensation claims 1983–2016 (96% for injuries) linked to cancer registry records. Follow-up was from first claim date until diagnosis, death, loss-to-follow-up or 2016. Hazard ratios (HRs) were calculated for each industry/occupation using Cox Proportional Hazard models, adjusted for year of birth and stratified on gender.

The study population was 7,400,000 women and 1,430,000 men. Significant excess risks were observed in many of the a priori suspected occupations and industries, particularly in construction, mining, and transportation occupations. In addition, other relevant associations were observed among both women and men, such as for janitors and cleaners (men: HR=1.22, 95% CI=1.16–1.29, women: HR=1.22, 95% CI=1.13–1.32) and primary metals industry (men: HR=1.18, 95% CI=1.11–1.25, women: HR=1.20, 95% CI=0.89–1.60). Many sex-specific associations were also observed, particularly in women (such as printing and publishing industries: HR=1.42, 95% CI=1.24–1.65 and chemical, rubber and plastic processing occupations HR=1.31, 95% CI=1.15–1.51), which will need further investigation.

The excess risks observed in many a priori suspected groups provides a good confirmation that this study can produce valid results and identify new associations. Triage methods are being developed to target new associations in need of further investigation. Future analyses will use hospital discharge data and outpatient visits.