

for the referent group ( $p=0.015$  and  $0.003$ ). For CPITN and LA scores, the adjusted odds ratio for acid mist exposed group were 2.80 (95% CI: 1.00 to 7.88;  $p=0.05$ ) and 2.85 (95% CI: 1.54 to 5.28;  $p=0.001$ ). However, DMFT scores and dental erosion were not associated with the exposure to acid mist, even after control for age, duration of work, smoking habits, drinking habits and betel nut chewing habits.

**Discussion** The findings suggest that the workers exposed to acid mist from electroplating would increase the risk of periodontal disease. Further work environmental design or equipment reform are still needed to protect from acid mist exposure.

### 532 SHEDDING A LIGHT ON GREY LITERATURE SEARCHES FOR OCCUPATIONAL HEALTH TOPICS: A BELGIAN CASE STUDY ON CHEMICALS EXPOSURE

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**Introduction** For occupational health topics with hardly any published white literature available, grey literature can be a generous information source. This abstract describes the search and use of grey literature in preparation of the PROBE (Hazardous chemical Products Register for Occupational use in Belgium) study, aiming to map both occupational exposure to chemicals in Belgian workers and the need for knowledge about such exposure.

**Methods** A cascade of methods was applied. First, relevant associations, organisations, agencies and bodies were identified through interviews with field experts and general internet search engines. Then, specific domains within Google Advanced Search were applied to geographically limit the results to Europe and Belgium. As quality filters, the domain limits org, edu and gov were applied. A second approach consisted in specific grey literature gateways. Finally, references in retrieved documents were explored for additional information sources.

**Results** This multifaceted approach generated a comprehensive overview of evidence based data. The compiled information can be categorised as databases with exposure data and chemical risk assessments, data from similar research in other countries, methodological insights in chemicals selection and exposure surveillance techniques, interim reports of ongoing research, reports, white papers, and legislation.

The pathway of grey literature databases was abandoned, as its literature was outdated.

The retrieved information provided us with the necessary acumen in the selection of relevant chemicals and appropriate assessment strategies to strengthen the proposed study protocol.

**Discussion** A grey literature search is a challenging and lengthy process as the information is dispersed, hard to access and fragmented. The standard review methods for white literature do not apply to grey literature searches. The complex

architecture of grey literature requires an innovative, creative and iterative approach. Nevertheless we succeeded in tapping valuable information from this source. Further initiative is needed to improve grey information availability and retrieval.

### 568 AN ASSESSMENT OF PERCEPTIONS AND KNOWLEDGE OF CHEMICAL HAZARDS IN THE MOTOR SPRAY PAINTING INDUSTRY IN BULAWAYO

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**Introduction** The motor vehicle repair industry with particular focus on spray painting in Bulawayo has grown especially after dollarization in 2009, owing to the increasing number of vehicles in the city. The industry is made up of both the formal and informal repairers with the informal sector registering the largest growth compared to their formal counterparts due to the low prices they charge. This industry has not been spared either from the occupational safety and health scourge that continues to haunt the Zimbabwean economy.

**Methods** A descriptive and cross sectional study of companies in both the formal and informal sector was carried out. Twenty five factories were visited and twenty five spray painters were interviewed. The research combined the use of observations guided by a checklist and a questionnaire administered to employees in this sector to collect data.

**Result** 96% of the employees interviewed are in the 21–40 age groups, were predominantly male, with very few females found in the workshops. There is generally a high exposure to chemicals which the employees are fully aware of but PPE/C use was low during the spraying process. The spraying process in the informal sector is done in the open while in the formal sector, booths maybe available ventilation and chemical exposure design are a cause of concern. The majority of workers have general awareness on the manifestation of health effects stemming from their work but do not have an understanding of how these could affect their health.

**Conclusion** Lack of chemical safety education in these organisations is a major factor contributing to the continued exposure to chemicals in the workplace. Mandatory training for initial certification to operate and work a spray painting workshop and refresher training after a certain period of time for example every two years by the government is therefore recommended.

### 679 SEIRICH: A TOOL FOR THE ASSESSMENT OF CHEMICALS IN OCCUPATIONAL ENVIRONMENTS

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Uses of Chemicals placed on the European market within the framework of the REACH regulation require in the end a field assessment according to the provisions of the French Labour Code. Numerous methods exist for assessing chemical risks in the work environment in France, taking into account risks to health, fire, explosion and environment. These