Introduction: The collection of municipal waste by workers who work from behind garbage trucks has been found to be associated with several adverse health and safety outcomes. A comprehensive review of the occupational hazards experienced by waste collectors in Grenada has never been done; neither has their health status been reviewed to determine the prevalence of various diseases and disorders.

Material and Methods: A survey was conducted on all municipal solid waste collectors in Grenada, as well as the managers who manage them, to determine the main occupational hazards they are exposed to and their health status.

Results and Conclusions: Waste collectors are exposed to occupational hazards that are far more numerous and inimical to health compared to the managers. Further there is non-congruence between the perception of managers and waste collectors on what are the hazards and risks associated with handling municipal waste. The most reported health problems by waste collectors were musculoskeletal problems (50.6%), accidents and injuries (29.9%), and skin problems (20.8%). Only 57.9% of waste collectors reported having access to appropriate personal protective equipment when needed and most do not know whether their company has a written health and safety policy. These findings indicate that there are a range of occupational hazards waste collectors in Grenada are exposed to which are most likely related to the high prevalence of musculoskeletal and other organ system disfunction observed. There are multiple intervention points that can be pursued to improve the working conditions for waste collectors in Grenada.

111

Occupational factors and breast cancer incidence and stage at diagnosis among French-speaking Swiss women (1990-2014)

<u>Nicolas Bovio</u>¹, French-speaking Swiss cancer registries CFSSCR² Irina Guseva Canu¹

¹ Center for Primary Care and Public Health (unisanté), Department of Occupational and Environmental Health, Epalinges-Lausanne, Switzerland, ² Consortium of French-speaking Swiss cancer registries, CFSSCR, Romandie, Switzerland

Introduction Although health system utilization and screening intensity may influence breast cancer (BC) incidence, its burden is high and the impact of occupational factors on this disease is of increasing concern. We aimed to assess the effect of some occupational factors on BC incidence and stage at diagnosis in Frenchspeaking Switzerland.

Material and Methods Swiss female residents from the Swiss National Cohort with available occupation were matched with data from four Swiss cancer registries over the period 1990-2014. We calculated BC Standardized Incidence Ratios (SIRs) by occupation and analyzed the association between occupational factors and BC incidence using negative binomial regression, and on the stage at diagnosis using multinomial logistic regression.

Results The cohort comprised 381,873 women and 8,818 incident BC cases. We observed the highest SIRs in Physicists, chemists and related professionals (2.10, 95%-IC: 1.22-3.36), Legal professionals (1.87, 95%-IC: 1.42-2.48), and College, university, and higher education teaching professionals (1.61, 95%-IC: 1.07-2.33). When adjusted for age, calendar period, canton, civil status and nationality, we identified occupation, skill level, and socio-professional category as significantly associated with BC incidence. In addition, women with the lowest skill level were more likely to

be diagnosed at the late stage (3-4) than those with the highest level, while we identified the opposite for women diagnosed at stage 1.

Conclusions These findings call for further research on occupations with a high incidence and on the differences in stage at diagnosis by skill level.

112

Systematic scoping review of occupation health injuries and illnesses among Indigenous workers in Australia, New Zealand, United States of America and Canada

Brett Shannon¹, Warren Jennings², Lee Friedman³

 ¹ Phoenix Occupational Medicine, Brisbane Clinic, Brisbane, Australia,
² University of Queensland, School of Medicine, Brisbane, Australia,
³ University of Illinois - Chicago, School of Public Health, Chicago, United States Of America

Introduction: Despite the knowledge of injury effecting Indigenous populations worldwide, and the greatest disparity occurring in working age populations, little is known regarding the disparity between Indigenous and non-Indigenous workplace injuries.

Methods: A Systematic scoping review was undertaken using the methodological framework initially proposed by Arksey and O'Malley. Country, Indigenous participants, study type, exposure, adverse health outcome, occupation and industry were identified for each paper. Study quality was assessed using the relevant Joanna Briggs Institute or Newcastle Ottawa Scale checklist depending on study design, which enabled assessment of included studies in relation to risk of bias, rigor, and transparency.

Results: 1272 research papers were identified: 51 citations were included in this scoping review. The United States of America produced the most literature (n=32, 62.7%) and approximately half (n=25, 49%) were published after 2010. Physical trauma was the most common occupational exposure (n=23, 45.1%) followed by all occupational exposures (n=11, 21.6%) and uranium and other mining exposures (n=10, 19.6%). Generally, the quality of the full texts reviewed was poor and the rigor of epidemiological methods varied substantially.

Conclusions: Given the paucity of research an immediate requirement is ensuring Indigenous status is reported on occupational health surveillance and workers compensation records with encouragement of reporting by health professionals and separate analysis in surveillance reporting to develop adequate baseline data for targeted future interventions.

113

Investigating exposure of Belgian employees to hazardous chemicals through sentinel surveillance

<u>Sara Pauwels</u>¹, Celien Swinnen¹, Anne-Marie Temmerman², Steven Ronsmans¹, Dorina Rusu³, Antoon De Schryver⁴, Lutgart Braeckman², Lode Godderis¹

 ¹ KU Leuven, Environment and Health, Leuven, Belgium, ² Gent University, Public Health and Primary Care, Gent, Belgium,
³ Université de Liège, Sciences de la Santé publique, Luik, Belgium,
⁴ Universiteit Antwerpen, Epidemiology and Social Medicine, Anwterpen, Belgium